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Report No: PAD00136

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT
ON
A PROPOSED GRANT IN THE AMOUNT OF SDR 38.1 MILLION (US$50 MILLION EQUIVALENT)
TO THE COMMON MARKET FOR EASTERN AND SOUTHERN AFRICA

A PROPOSED CREDIT IN THE AMOUNT OF US$200 MILLION
AND A SHORTER MATURITY LOAN IN THE AMOUNT OF US$100 MILLION
TO THE REPUBLIC OF RWANDA

A PROPOSED GRANT IN THE AMOUNT OF SDR 28.9 MILLION (US$38 MILLION EQUIVALENT)
TO THE DEMOCRATIC REPUBLIC OF SAO TOME AND PRINCIPE

A PROPOSED GRANT IN THE AMOUNT OF SDR 76.1 MILLION (US$100 MILLION EQUIVALENT)
TO THE FEDERAL REPUBLIC OF SOMALIA

A PROPOSED CREDIT IN THE AMOUNT OF US$300 MILLION
TO THE UNITED REPUBLIC OF TANZANIA

A PROPOSED CREDIT IN THE AMOUNT OF US$25 MILLION AND
A PROPOSED CREDIT FROM THE SCALE UP WINDOW IN THE AMOUNT OF US$250 MILLION
TO THE TRADE AND DEVELOPMENT BANK

FOR AN
ACCELERATING SUSTAINABLE & CLEAN ENERGY ACCESS TRANSFORMATION PROGRAM
USING THE MULTI-PHASE PROGRAMMATIC APPROACH
WITH AN OVERALL FINANCING ENVELOPE OF US$5 BILLION

November 8, 2023

Energy & Extractives
Eastern And Southern Africa

CURRENCY EQUIVALENTS

(Exchange Rate Effective Oct 31, 2023)

Currency Unit =	US$
US$ 1 =	SDR 0.76

FISCAL YEAR
January 1–December 31

Regional Vice President:	Victoria Kwakwa
Regional Director:	Wendy E. Hughes
Country Director:	Boutheina Guermazi
Practice Manager:	Erik Magnus Fernstrom
Task Team Leaders:	Dana Rysankova, Monali Ranade, Zubair K.M. Sadeque

ABBREVIATIONS AND ACRONYMS

AfDB	African Development Bank
AFE	Eastern and Southern Africa
AIIB	Asian Infrastructure Investment Bank
AM	Accountability Mechanism
APA	Alternative Procurement Arrangements
ASCENT	Accelerating Sustainable and Clean Energy Access Transformation
BAU	Business-as-Usual
BC	Black Carbon
BGAP	Beyond the Grid Access Program
BRD	Development Bank of Rwanda
C&I	Commercial and Industrial
CAPEX	Capital Expenditure
CCPT	Clean Cooking Planning Tool
CERC	Contingent Emergency Response Component
CO_2e	Carbon Dioxide Equivalent
COMESA	Common Market for Eastern and Southern Africa
COSS	Cost of Service Study
COVID-19	Coronavirus Disease 2019
CPF	Country Partnership Framework
DARES	Distributed Access through Renewable Energy Scale-Up
DFI	Development Finance Institution
DLI	Disbursement Linked Indicators
D-MRV	Digital Monitoring, Reporting, and Verification
DPO	Development Policy Operations
DRC	Democratic Republic of Congo
DRE	Distributed Renewable Energy
E&S	Environmental and Social (risks)
EAFS	External Assistance Fiduciary Section
EAPP	Eastern Africa Power Pool
EAQIP	Energy Access and Quality Improvement Project
EDCL	Energy Development Corporation Limited
EIRR	Economic Internal Rate of Return
ENEE	Somalia National Electric Corporation
ER	Emission Reduction
ESF	Environmental and Social Framework
ESI	Electricity Supply Industry
ESMAP	Energy Sector Management Assistance Program
ESMS	Environmental and Social Management System
ESP	Energy Service Provider
ESRS	Environmental and Social Review Summary
EUCL	Energy Utility Corporation Limited
EWURA	Energy and Water Utilities Regulatory Authority
FCV	Fragility, Conflict, and Violence
FGS	Federal Government of Somalia
FHH	Female-Headed Household
FI	Financial Intermediary
FIRR	Financial Internal Rate of Return
FM	Financial Management
FY	Fiscal Year

GBV	Gender-Based Violence
GCF	Green Climate Fund
GDI	Gender Development Index
GDP	Gross Domestic Product
GEAPP	Global Energy Alliance for People and Planet
GHG	Greenhouse Gas
GNI	Gross National Income
GRS	Grievance Redress Service
GWh	Gigawatt Hour
HEIS	Hands-on Expanded Implementation Support
HV	High Voltage
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IFC	International Finance Corporation
IPF	Investment Project Financing
IPP	Independent Power Producer
KfW	German State-owned Development Bank
kW	Kilowatt
kWh	Kilowatt hour
LCPDP	Least Cost Power Development Plan
LPG	Liquefied Petroleum Gas
LV	Low Voltage
M&E	Monitoring and Evaluation
MFI	Microfinance Institution
MIGA	Multilateral Investment Guarantee Agency
MPA	Multiphase Programmatic Approach
MSME	Micro, Small, and Medium Enterprise
MTF	Multi-Tier Framework
MV	Medium Voltage
MW	Megawatt
NBR	National Bank of Rwanda
NDC	Nationally Determined Contribution
NGAP	National Grid Alleviation Program
NPV	Net Present Value
NST	National Strategy for Transformation
ODA	Official Development Assistance
OGS	Off-Grid Solar
OHS	Occupational Health and Safety
PAD	Project Appraisal Document
PAYG	Pay-As-You-Go
PCU	Project Coordination Unit
PDO	Project Development Objective
PFI	Participating Financial Institutions
PforR	Program for Results
PHRD	Policy and Human Resources Development (fund)
PIU	Project Implementation Unit
PPA	Power Purchase Agreement
PrDO	Program Development Objective
PUE	Productive Use of Energy
PV	Photovoltaic
RBF	Results-Based Financing

REAFF	Regional Energy Access Financing Facility
REF	Renewable Energy Fund
REG	Rwanda Energy Group
REIF	Renewable Energy Investment Facility
REMP	Rural Energy Master Plan
RGAP	Rural Grid Access Program
RIFF	Regional Infrastructure Finance Facility
RISE	Regulatory Indicators for Sustainable Energy
SAPP	Southern Africa Power Pool
SDG	Sustainable Development Goal
SDR	Special Drawing Rights
SEforAll	Sustainable Energy for All
SHS	Solar Home System
SME	Small and Medium Enterprise
SOP	Series of Projects
SRMI	Sustainable Renewables Risk Mitigation Initiative
STP	Sao Tome and Principe
TDB	Trade and Development Bank
TDF	Trade and Development Fund
TREEP	Tanzania Rural Electrification Expansion Program
USD	United States Dollar
VAT	Value-Added Tax
WB	World Bank
WBG	World Bank Group

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DATASHEET

BASIC INFORMATION

Project Beneficiary(ies)	Operation Name		
EASTERN AND SOUTHERN AFRICA	Accelerating Sustainable & Clean Energy Access Transformation Program Using the Multiphase Programmatic Approach		
Operation ID	Financing Instrument	Environmental and Social Risk Classification	
P180547	Investment Project Financing (IPF)	Substantial	

Financing & Implementation Modalities

[✓] Multiphase Programmatic Approach (MPA)	[ ] Contingent Emergency Response Component (CERC)
[ ] Series of Projects (SOP)	[✓] Fragile State(s)
[ ] Performance-Based Conditions (PBCs)	[✓] 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
[ ] Alternative Procurement Arrangements (APA)	[ ] Hands-on Expanded Implementation Support (HEIS)

Expected Approval Date	Expected Closing Date	Expected Program Closing Date
04-Dec-2023	31-Dec-2030	31-Dec-2030
Bank/IFC Collaboration	Joint Level	
Yes	Complementary or Interdependent project requiring active coordination	

MPA Program Development Objective

To increase access to sustainable and clean energy in Eastern and Southern Africa

MPA FINANCING DATA (US$, Millions)

MPA Program Financing Envelope	5,415.00

Components

Component Name	Cost (US$)
Digital Monitoring, Reporting and Verification for Energy Access & Climate Finance	5,000,000.00
Project Preparation Facility	20,000,000.00
Advisory support Facility	15,000,000.00
Knowledge, Skills and Consumer Engagement	5,000,000.00
Project management and capacity building support to COMESA Secretariat	5,000,000.00

Organizations

Borrower:	Common Market for Eastern and Southern Africa (COMESA)
Implementing Agency:	Common Market for Eastern and Southern Africa (COMESA) Secretariat

MPA FINANCING DETAILS (US$, Millions)

MPA Financing Envelope:	5,415.00
of which Bank Financing (IBRD):	0.00
of which Bank Financing (IDA):	5,000.00
of which Other Financing sources:	415.00

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	**50.00**

Total Financing	**50.00**
of which IBRD/IDA	**50.00**
Financing Gap	**0.00**

DETAILS

World Bank Group Financing

International Development Association (IDA)	50.00
IDA Grant	50.00

IDA Resources (US$, Millions)

	Credit Amount	Grant Amount	SML Amount	Guarantee Amount	Total Amount
Regional	0.00	50.00	0.00	0.00	50.00
Total	**0.00**	**50.00**	**0.00**	**0.00**	**50.00**

Expected Disbursements (US$, Millions)

WB Fiscal Year	2024	2025	2026	2027	2028	2029	2030	2031
Annual	2.00	12.00	18.00	8.00	5.00	2.00	2.00	1.00
Cumulative	2.00	14.00	32.00	40.00	45.00	47.00	49.00	50.00

PRACTICE AREA(S)

Practice Area (Lead)

Energy & Extractives

Contributing Practice Areas

Climate Change; Finance, Competitiveness and Innovation

CLIMATE

Climate Change and Disaster Screening

Yes, it has been screened and the results are discussed in the Operation Document

SYSTEMATIC OPERATIONS RISK- RATING TOOL (SORT)

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

POLICY 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

ENVIRONMENTAL AND SOCIAL

Environmental and Social Standards Relevance Given its Context at the Time of Appraisal

E & S Standards	Relevance

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

NOTE: For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

LEGAL

Legal Covenants

Sections and Description
Section I.A.2(b) of Schedule 2. The Recipient shall not later than one hundred eighty (180) days after the Effective Date of this Agreement, or (i) one hundred eighty 180 (180) days after the Effective Date of STP Financing Agreement, or (ii) one hundred eighty (180) days after the Effective Date of Tanzania Financing Agreement (in each case, whichever shall be the later date), establish a memorandum of understanding with STP, and Tanzania, respectively, outlining the collaboration and coordination arrangements, satisfactory to the Association, that will enable either STP, or Tanzania (as the case may be) to participate in the regional energy access acceleration platform on the same terms as the Recipient's member states. To this end, it is understood that execution of such memorandum of understanding, in each case, is subject to: (i) the intention of either Tanzania, or STP to enter into said memorandum of understanding with the Recipient; and (ii) fulfilment by: (A) Tanzania of similar obligation under the Tanzania Financing Agreement, or (B) STP of similar obligation under the STP Financing Agreement.

Conditions

Type	Citation	Description	Financing Source
Effectiveness	Section V. 5.01(a)	The Recipient has prepared and adopted the Project Operations Manual, in form	IBRD/IDA

		and substance satisfactory to the Association.	
Effectiveness	Section V. 5.01(b)	The Recipient has hired to the Project Implementation Unit, an environmental expert, a social expert, and a stakeholder engagement/communication expert, all with experience, qualifications and terms of reference, satisfactory to the Association.	IBRD/IDA
Effectiveness	Section V. 5.01(c)	The Recipient has, consistent with the requirements of ESS 10, prepared, disclosed, consulted upon, and adopted the Stakeholder Engagement Plan and Labor Management Procedures, in form and substance satisfactory to the Association.	IBRD/IDA
Effectiveness	Section V. 5.01(d)	The Recipient has established the grievance mechanism for the Project, in form and substance satisfactory to the Association.	IBRD/IDA
Disbursement	Section III.B.1 of Schedule 2	No withdrawal shall be made under Category (2) unless and until the Recipient has: (i) hired a PPF consultant with environmental health and safety expertise and other qualifications, experience, and terms of reference, satisfactory to the Association; (ii) designed the Project Preparation Facility consistent with the	IBRD/IDA

		requirements of ESS1, and (B) issued procedures, acceptable to the Association to embed environmental and social health safety requirements (ESHS) in advisory services provided, all in form and substance satisfactory to the Association; and (ii) included in its planning of the technical assistance under the Project, adequate assessment of environmental and social implications, and has provided in such planning the advice for addressing such implication under the technical assistance consistent with the requirements of the ESF.	

I. STRATEGIC CONTEXT

1. **Achieving the vision of ending extreme poverty and boosting shared prosperity on a livable planet by fostering sustainable, resilient, and inclusive development is predicated on ensuring access to sustainable and clean energy.** Electricity is at the foundation of the modern economy and societies. Access to electricity is essential to create and maintain human capital development, reduce income and gender inequality, promote inclusion, and create new economic opportunities and jobs. Electricity is key to saving lives and building resilience in communities to pandemics, adverse weather events, and multitude of economic crises the world is witnessing. Access to clean energy, including cooking, drastically reduces indoor air pollution, saving lives and productivity, especially of women. The digital divide can be bridged only if electricity is available. Electricity allows children to access online education; families and businesses to access information and diversify sources of livelihoods; and countries to provide services to all their citizens. The global clean-energy transition cannot be accomplished if large populations are left reliant on traditional, polluting lighting and cooking methods, which are harmful to their health, the local environment, and climate.

2. **The Accelerating Sustainable and Clean Energy Access Transformation (ASCENT) Program is an ambitious leap toward universal energy access and the clean energy transition in the Eastern and Southern Africa (AFE) region, home to 656 million people.** ASCENT presents a programmatic framework for the World Bank to support acceleration of access to electricity in AFE, which utilizes the Multiphase Programmatic Approach (MPA) with a proposed IDA financing envelope of US$5 billion. The first wave of the MPA phases, presented in this Project Appraisal Document (PAD), with a total IDA financing of US$1,063 million, includes five Investment Project Financing (IPF) operations, covering Phase 1 (ASCENT COMESA Regional Acceleration Platform, P180547), Phase 2 (ASCENT Rwanda, P180575), Phase 3 (ASCENT Sao Tome and Principe, P177099), Phase 4 (ASCENT Somalia, P181341), and Phase 6 (ASCENT Regional Energy Access Financing Platform implemented by the Trade and Development Bank) and one Program-for-Results (PforR) operation under Phase 5 (ASCENT Tanzania, P179631). Annex 1 provides an overview of the current and future phases; Annexes 2-7 summarize the six operations under the first wave; Annex 8 summarizes ASCENT's private-sector engagement approach; and Annex 9 provides an overview of the research agenda supporting the program implementation.

3. **Over the next seven years, the ASCENT Program will provide life-transforming opportunities for 100 million people across up to 20 countries.** It will bring together global and local knowledge, with a menu-based approach for empowering countries to pursue their national energy-access visions, while leveraging regional integration opportunities and global knowledge. The Program intends to align the comparative advantage of all parts of the World Bank (IDA, IFC, and MIGA) and build on the IDA financing envelope of US$5 billion to leverage US$10 billion from public and private financing through partnerships. The ASCENT MPA embodies the vision of the World Bank *Evolution* and will be an essential part of the proposed Global Challenge Program (GCP) on Energy Transition and Access (ETA). This Program Appraisal Document (PAD) describes the overall Program, including the countries and regional platforms that are joining its first wave.

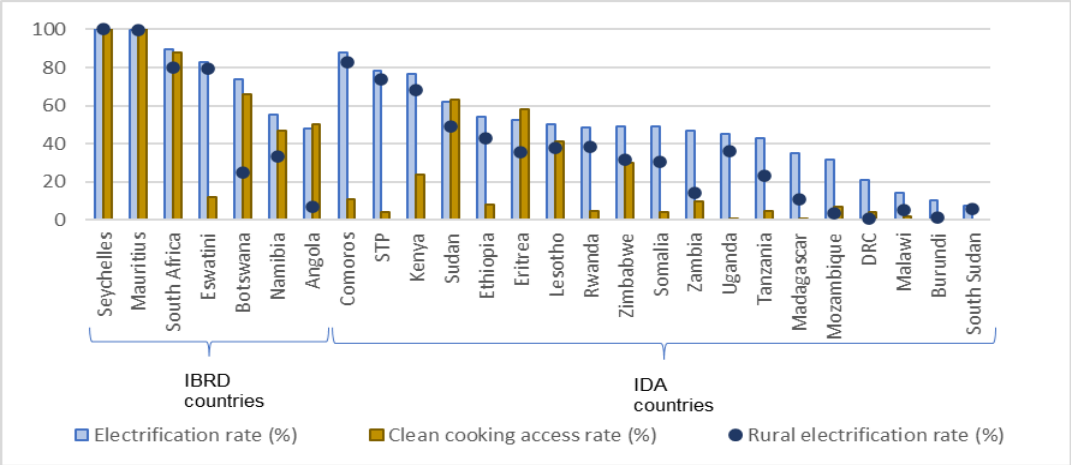
A. Regional and sector context

4. **The AFE region's steady progress of past decades in ending extreme poverty and boosting shared prosperity on a livable planet has been upended by a series of global shocks**. The region's recovery from the COVID-19 pandemic has been disrupted by food shortages, soaring energy prices, and global and regional macroeconomic turbulence. Impacts have been exacerbated by adverse climate events hammering the region, including the worst drought in the last four decades and the longest-lasting tropical cyclone ever recorded in the Southern Hemisphere.

5. **Lack of energy access hinders the AFE region's economic recovery, resilience, and faster progress toward poverty reduction**. Only 48 percent of the overall AFE population—and just 26 percent in rural areas—has access to electricity. More than one-third of all food production is lost to spoilage on the way to market owing, in large part, to lack of refrigeration. Less than half of all hospitals in the region have reliable electricity access, and nearly a third of all

healthcare facilities are without any electricity access. It is rare for schools in rural areas to have electricity service. Moreover, four-fifths of all people in the AFE region lack access to clean cooking technologies and fuels; the Energy Sector Management Assistance Program (ESMAP) estimates the cost of inaction in terms of the health, gender, and climate impacts at US$169 billion per year. The ambitious regional integration agenda is also undermined by lack of electricity access, which limits the volume of electricity trade across countries, as well as broader integration opportunities. The AFE region's progress on energy access is uneven across countries (Figure 1), between urban and rural areas, across income quintiles, and by gender. A Technical Note with detailed analysis and references on energy access situation in the region is available on request.

Figure 1: Electricity and Clean Cooking Access in AFE



Source: IEA, IRENA, WHO, World Bank. Tracking SDG 7: The Energy Progress Report (2023).

6. **Lack of access is constraining inclusion, social resilience and perpetuating gender inequalities.** With electricity access deficit concentrated in the two bottom income quintiles, lack of energy access is threatening to exacerbate inequalities and undermine resilience for the most vulnerable populations, including women. Women in the energy sector play a significant role as users, entrepreneurs, employers, employees, and decision makers; however, they face discrimination and other barriers that limit their potential contributions to the energy sector. At the household level, women in the AFE Africa region are the primary users and producers of energy, but the sources of energy for most rural households are more likely to be unclean biomass and fossil fuels. Traditionally, women in Africa are more likely to be assigned the role of searching for cooking fuels and water, resulting in working longer hours to complete household chores and caregiver roles, which, in turn, inhibits women from pursuing economic empowerment activities. Furthermore, women are underrepresented in the energy sector as entrepreneurs and energy service providers, as well as in employment, especially those requiring science, technology, engineering, and mathematics (STEM) backgrounds.

7. **Half of the AFE population without electricity access resides in countries affected by fragility, conflict, and violence (FCV), where the lack of energy access is both the consequence and the cause of fragility and conflict**. Energy access progress in FCV countries is falling behind non-FCV countries, affected by lack of security, as well as institutional weaknesses and capacity constraints typically associated with FCV contexts. In addition, an increasing number of forcibly displaced persons and their host communities are in urgent need of improved energy access to reduce their vulnerabilities. Women and girls would benefit from energy access in order to lower their exposure to gender-based violence, for example, by increasing overall safety with street lighting and reducing the need to spend long hours collecting wood fuels in unsafe environments.

8. **With 365 million people without electricity and 558 million without clean cooking, the AFE region accounts for over half of the world's unelectrified population and nearly a quarter of its people without clean cooking access.** Accelerating progress on energy access is thus essential to unlocking the region's potential to deliver on its development goals and help the world achieve Sustainable Development Goal (SDG) 7 and related SDGs, addressing such global challenges such as climate change, resilience, and fragility. However, based on the AFE countries' current pace of electrification, which is only marginally exceeding population growth, one can expect that more than 300 million people in the region will remain without electricity in 2030.

9. **The emerging innovations, as well as the rising political commitment and home-grown know-how for energy access, offer unprecedented opportunities to overcome past challenges**:

a) The rise of distributed renewable energy (DRE) technologies and business models provide acceleration and inclusion opportunities that were not available to countries that electrified in the last decade. Technology developments resulting in falling costs of solar energy and battery storage, increased energy efficiency, and smart digital applications have made modular DRE an increasingly attractive complement to centralized grid systems, giving rise to innovative, private sector–driven business models. This has revolutionized energy access in the vast continent of Sub-Saharan Africa, where traditional grid expansion would not be economically viable in many sparsely populated, low-income areas, and in FCV contexts. With cost-competitive, consumer-centered models and consumer financing options, the (mostly) start-up DRE companies have brought much needed innovation to the energy access space, otherwise dominated by state-owned utilities. DREs, which ESMAP estimates to serve 100 million people in Sub-Saharan Africa today, are projected to be the least-cost technology for half of all unelectrified households in the AFE region. They also provide significant opportunities for generating jobs across their value chains, especially in rural areas and for women and youth; for example, the share of women employed in DRE is twice as high as that in the overall energy sector and about 40 percent of their workforce is formed by young people.

b) Digital platforms and tools are transforming energy access delivery and financing. Digital tools, satellite imagery, smart/predictive algorithms, and applications of artificial intelligence have already transformed the electrification planning landscape and are promising a similar transformation in energy-access delivery and finance mobilization. Digital monitoring, reporting and verification (D-MRV) platforms can connect users all the way to their funders, promising efficiencies and transparency in public-sector financing flows (e.g., result-based payments and targeted pro-poor subsidies), while, at the same time, creating unprecedented opportunities to mobilize carbon revenues and other impact-based financing via aggregation, credible verification protocols, and reduction of transaction costs.

c) Clean cooking is gaining momentum, driven by fast-paced innovation, increasing political commitment, and synergies with the electricity sector. Innovations, including electric cooking with energy-efficient stoves and appliances (e-Cooking), pay-as-you-go (PAYG) business models, and the opportunity to leverage carbon and impact-financing to pay for public goods, are making clean cooking solutions affordable to increasingly wider segments of the African population.

d) Regional integration approaches can amplify the above opportunities. Regional integration can align electricity access and electricity trade agendas. Rising consumption from newly electrified users will boost regional trade, while also achieving more equitable distribution of regional trade benefits across urban and rural areas and income quintiles. Regionwide scale-up of energy-access investments will create incentives for localized manufacturing and assembly of key products and components, increasing value added for the region and further opportunities for regional trade. Building larger regional markets for DRE is essential for unlocking economies of scale and reducing cost in DRE provision, a prerequisite to mobilizing private capital at scale. Cross-border electrification can reduce costs and advance access in border areas.

10. **Most countries in the AFE region have elevated universal energy access to a top priority.** The region hosts the world's fastest electrifying countries (e.g., Kenya and Rwanda) and is the global leader in off-grid electrification, with such home-grown innovations as PAYG business models, which have revolutionized the provision of energy access around the world. It is a repository of successful approaches (e.g., fast-paced grid densification in Ethiopia and Tanzania) and ongoing innovations (e.g., pro-poor subsidy design in Rwanda and mini-grid deployment for remote communities in Madagascar). Most countries also have integrated targets for clean cooking in their Nationally Determined Contributions (NDCs). However, the region often lacks consistency in applying its own best practices, as well as financing and institutional capacity for their replication and scale-up.

11. Achieving universal electricity access in the AFE region in a least-cost, sustainable manner may require as much as US$100 billion. More will be needed for continued investments to power economic growth and the clean energy transition. Given the limits on available public funding, a significant increase in private-sector financing will be necessary. Private investment in the region's on-grid generation, however, has been constrained by the utilities' creditworthiness, which poses a significant off-taker risk. An estimated 40 percent of utilities are not recovering their operating costs, which is affecting their ability to mobilize private capital for generation investments, as well as expand electricity access. DRE and clean cooking companies have started to attract private capital, but the lack of scale, slow progress, and mismatch between the return and risks of most DRE transactions have so far deterred mainstream investors from entering this market. That said, the DRE and clean cooking sectors have promising investment opportunities, which, according to market scoping carried out for the ASCENT Program, include a near-term pipeline of over US$4 billion and the overall potential of about US$40 billion under the universal electricity access scenario. Realizing these investment opportunities, however, requires addressing the underlying issues of an enabling environment, affordability of end users, implementation capacities, and transaction sizes and structures, including a more effective allocation of risks and incentives across public and private actors and availability of "fit-for-purpose" financing and de-risking instruments.

World Bank engagement in the energy sector

12. **The World Bank's engagement in the energy sector of the AFE region supports governments to deliver affordable, reliable, and sustainable energy services for all,** recognizing that financing is not only needed to connect new users, but also to supply affordable, reliable, and quality electricity to both existing and new users in order to power economic growth. Private sector–led renewable energy investments also need to scale up in line with global climate goals. This all requires strong and financially viable utilities and power sectors with robust governance, capable institutions, an enabling environment, and trustworthy financing mechanisms. The World Bank is therefore applying a triangular approach to help governments (i) scale up access to energy services, (ii) promote regional power trade and integration, and (iii) create sustainable power sectors by bringing forward comprehensive solutions through a suite of instruments offered by the World Bank, the IFC, and MIGA.

a) Scaling up access to energy services. The World Bank has been at the forefront of energy access scale-up in the AFE region, having supported the region's successful electrification programs and availing more than US$3.5 billion in financing over the last four-year period. ASCENT takes this support to the next level through a more comprehensive, strategic, and resolute approach. It expands on the country-driven electrification model, integrating insightful lessons from past efforts, while leveraging regional integration opportunities, global knowledge, and internal and external partnerships. Its design and implementation are informed and strengthened by (i) the World Bank energy team's expanded capacity to generate data, analytics, knowledge, and technical assistance through Electrifying Africa (a large trust-funded advisory package implemented jointly by AFE and Western and Central Africa [AFW] energy teams) and (ii) innovation and upstream collaboration of the World Bank, the IFC, and MIGA under the Distributed Access with Renewable Energy Scale-up (DARES) Platform, described below. ASCENT's focus is on delivering the downstream part of energy access: grid and DRE connections

and access to clean cooking technologies and fuels for households, micro- and small businesses, farmers, and public institutions (e.g., schools and health clinics).

b) Promoting regional power trade and integration. Regional power trade is key to assisting countries in enhancing power-supply reliability and energy security in a cost-efficient manner while contributing to increased access and addressing climate mitigation and adaptation challenges. The Bank is building on its long-standing support to the Southern Africa and Eastern Africa Power Pools (SAPP and EAPP), financing and facilitating regional transmission interconnections, transformative regional clean-energy generation projects, and regional power-market strengthening efforts. In addition to several ongoing and planned regional integration projects, the Bank is proposing a transformative scale-up via the planned US$1 billion Regional Electricity Transmission, Trade and Decarbonization (RETRADE) Project (P175190), a regional MPA. RETRADE aims to establish a robust and scalable platform that assists countries in the AFE region to increase cross-border electricity trade for enhancing energy security, resilience, and a transition toward a low-carbon energy sector and universal access. These efforts are complementary and synergetic to ASCENT. Leveraging the region's abundant clean energy resources in an integrated manner will ensure that the connections realized under ASCENT are supplied with increasingly more affordable, reliable, and clean energy.

c) Creating a sustainable power sector. The World Bank is ensuring the sustainability of energy access efforts through supporting sector reform and upstream investments in generation, transmission, and distribution. This includes developing reform roadmaps aligning the medium- and long-term sustainability of the power sector with the universal electricity access objective by addressing shortcomings in power system planning, private-sector mobilization, and financial and operational performance of the sector. In addition, institutional, policy, financing, and technical barriers for scaling up access are being addressed to enable ambitious electricity connection rollouts. Jointly with the IFC and MIGA, the Bank has to date developed detailed reform roadmaps for Angola, Eswatini, Lesotho, Malawi, Tanzania, and Sao Tome and Principe. Reform roadmaps for other AFE countries will be rolled out over the coming months. These roadmaps form the basis of the Bank's country-level energy engagements and dialogues, feeding into the wider country partnership strategies. They are implemented through a series of reforms and complementary investments delivered over a medium-term period; the roadmaps leverage multiple instruments, including vertical MPAs and, as appropriate, stand-alone or programmatic DPOs with appropriate sequencing, acknowledging that successful outcomes require sustained efforts over a medium-term horizon.

Well-functioning utilities are critical for enabling accelerated grid expansion—in terms of their capacity to carry out the needed investments in an accelerated time frame, as well as their ability to properly maintain their assets and enable investments in generation segments. Sector reforms can also open internal revenue streams for access expansion by reorienting inefficient subsidies and creating sustainable funding mechanisms for rural electrification efforts. Therefore, they are quite closely coordinated with ASCENT's planned investments and technical assistance. All participating countries are expected to have reform roadmaps in place before joining ASCENT. Given their highly contextualized character, the reforms will be subsequently implemented outside of ASCENT; however, ASCENT will continue playing a critical role as their enabler and accelerator.

13. **ASCENT is conceived as a comprehensive accelerator of energy access efforts in the AFE region,** aiming at the delivery of new electricity connections for 100 million people through both grid- and DRE-based solutions, while putting in motion wider efforts, processes, platforms, and partnerships that will set AFE countries on the path toward universal energy access. ASCENT will leverage the proposed IDA envelope of US$5 billion to signal the World Bank's commitment to achieving SDG7 in the AFE region and mobilize an additional US$10 billion from development partners, governments, national utilities, private-sector and commercial funders, carbon markets, climate and other impact-oriented financiers, and philanthropic and other partners. While the program focus of ASCENT is primarily on helping AFE countries achieve universal electricity access, it will also place foundations for a similar ambition in the clean cooking space, considering its

sizable health, gender, and climate benefits and acknowledging the potential for synergies in the delivery of electricity and clean cooking services. Alignment with adjacent and beneficiary sectors (including digital, agriculture, health, and education) will be sought to drive synergies in financing and impacts. To achieve its ambitious connection and financing mobilization targets, ASCENT will apply the following transformative design features, leveraging the structure and flexibility of the MPA and the new delivery model under the World Bank's *Evolution*:

a) Designing interventions for scale and replicability**.** ASCENT builds on the strengths of the country-driven model while leveraging opportunities for increased scale, efficiencies, and cost reduction of regional efforts and semi-standardized approaches via the MPA's menu framework. For example, a coordinated country-level and regional approach to scaling up mini grids can result in up to a 40 percent reduction in the levelized costs of energy through economies of scale, which can be enabled by building larger portfolios. The countries and regional facilities are being phased into the MPA as and when ready to implement the scaled-up approaches, while benefiting from comprehensive technical assistance and knowledge support to apply best practices and lessons from the MPA's learning agenda.

b) Enhanced partnerships across a broader spectrum of public and private stakeholders**.** Through the platform-based approach, ASCENT will strengthen partnerships with existing partners, improving efficiency and mutual accountability, while increasing efforts to develop new partnerships to leverage complementarities and synergies in available instruments, delivery models, and capabilities. This includes identifying and attracting new companies and investors to the energy access space, including those in adjacent sectors (e.g., agriculture, telecommunications, and mining). This will enable a larger volume of carbon revenues and other types of climate and sustainability funding and build stronger engagement with private and commercial funders, including the region's development and commercial banks and philanthropies, while engaging civil society to seek grassroots support, particularly for ASCENT's social inclusion and resilience agendas.

c) Scaling up digital solutions for efficiency, impact, finance mobilization, and faster learning. ASCENT will launch comprehensive efforts to promote digitization and help participating governments and regional organizations to adopt digital platforms. Digitization will enable faster, more efficient and transparent planning, implementation, monitoring, reporting and verification (MRV) of energy access efforts. Such efforts, particularly the digital MRVs, will contribute to finance mobilization; increased efficiency and transparency will build trust among private-sector service providers and their investors, and enable the aggregation and monetization of climate and other impacts. In addition, the digital platforms will enable real-time tracking and data for faster feedback loops, decision-making, and learning.

d) Creating space for innovation to unlock the full potential of the *One World Bank* approach**.** ASCENT MPA's strong and comprehensive learning agenda will allow it to develop and test new innovations and scale them through subsequent phases. This approach is essential, especially in the dynamic DRE and clean cooking sectors; ASCENT will apply innovations developed under DARES, including testing and fine-tuning approaches for joint work across World Bank institutions to grow the DRE and clean cooking sectors to scale. Examples of transformative innovations with learning potential include (i) a regional RBF piloted in the first wave of the MPA focusing on unserved and underserved areas, including in the FCV context; (ii) a comprehensive de-risking facility anticipated for upcoming phases, also paving the way for increased financing flows to FCV-affected countries; (iii) a private-sector service model for electrifying schools and healthcare facilities, currently being conceptualized under DARES, working closely with health and education practices; (iv) rolling out the Scaling Mini Grid (IFC innovation) approach at a faster pace and scale; and (v) leveraging multisectoral approaches, particularly with agriculture, for delivering productive uses of energy (PUE) and supporting the food security objective, engaging with multiple global practices (e.g., finance, competitiveness and innovation [FCI], agriculture, climate change, and social protection).

14. Building skills and entrepreneurship opportunities, especially for women and youth**.** Sustainable scale-up of clean energy and access in the AFE region will require upskilling in all segments of the sector. In partnership with the Education Global Practice, ASCENT will launch a comprehensive energy-access skills assessment and skills development program to be delivered under COMESA's leadership, working closely with the region's education institutions; a particular focus will be closing gender gaps in energy employment, supporting female entrepreneurs, and creating and facilitating new job opportunities for young people, especially in the DRE supply chains, through a set of interventions (e.g., training programs, incubators, and internships).

B. Relevance to Higher Level Objectives

15. **The ASCENT Program design reflects the evolution of the World Bank to deliver solutions and impacts at scale.** ASCENT integrates key elements of the new vision expressed in the World Bank's *Evolution*: (i) adopting an augmented country engagement approach that yields development outcomes at community, national, regional, and global levels; (ii) exploiting synergies from the mobilization of domestic revenues, private capital, and climate financing, while combining traditional and innovative instruments; and (iii) fully leveraging the potential of World Bank institutions, while also harnessing partnerships, recognizing that no single institution can meet the financing needs of ASCENT and that strategic concessional financing must be deployed to maximize impact. ASCENT's MPA will form an important part of the proposed Energy Transition and Access (ETA) Global Challenge Program (GCP), which is under development as a response to eight global challenges identified as priorities in the World Bank *Evolution*. The ETA GCP will aim at increasing access to affordable, reliable, sustainable, and modern energy by scaling up clean energy, phasing down fossil-fuel use, and supporting a just transition. The ETA GCP will cover areas contributing to SDG 7, including expanding and improving energy access, scaling up energy efficiency, and increasing renewable energy integration, as well as interventions to phase down fossil fuels and decarbonize hard-to-abate sectors. The ETA GCP will be implemented through a set of coordinated country-specific, regional, and global interventions. ASCENT will provide a key mechanism for implementing The ETA GCP in the AFE region, with energy access being the pathway to its energy transition.

16. **Achieving universal electricity access by 2030 is the World Bank's priority for enabling sustainable development in the AFE region,** including an intermediate target of doubling the pace of electricity access expansion through a scale-up of successful country-based access programs and by leveraging DRE between now and 2026. ASCENT will contribute substantially to achieving the SDG7. Furthermore, it will contribute to the WBG's Climate Change Action Plan 2021–25, the Next Generation Africa Climate Business Plan, and the World Bank's Fragility, Conflict, and Violence (FCV) Strategy 2020–25. Moreover, it will contribute to human development and gender outcomes, including the Global Strategy for Health, Nutrition, and Population, and to the narrowing of gender gaps in alignment with the upcoming WBG Gender Strategy (FY24–30). It is also a key element of clean-energy-transition efforts globally. The overall ASCENT MPA design and all country interventions are aligned with the respective partnership frameworks of participating countries. The MPA also aligns with individual countries' Nationally Determined Contributions (NDCs) and their National Adaptation Plans.

17. **The WBG's Africa Regional Integration and Cooperation Assistance Strategy (FY21–23) also emphasizes that achieving universal energy access is a priority for the region**, highlighting the importance of harmonizing policy and regulations to create a regional market for DRE, increasing levels of cross-border power trade, and lowering the cost of energy services while improving affordability. ASCENT will contribute to regional integration outcomes and leverage regional integration approaches through (i) boosting regional electricity trade; (ii) contributing to electrification in border areas through cross-border electrification solutions; and (iii) creating a regional market for DRE, while mobilizing and enabling private capital.

Enabling the *One World Bank* approach

18. **ASCENT will serve as an accelerator of private-sector investments both within and outside ASCENT's MPA framework, leveraging the strengths of the *One World Bank* approach, as well as other strategic partnerships, following**

the principles of maximizing financing for development. In the grid segment, the potential to mobilize private/commercial capital is largely related to expanding renewable-energy generation and storage. Opportunities for private-sector participation are on a case-by-case basis in transmission and regional trade and through various modalities in distribution. These opportunities will be identified via the above-referenced reform roadmaps; the IFC and MIGA may participate in their realization, as appropriate, through deploying a mix of their financing and risk-mitigation instruments. The investments in generation, transmission, and regional trade go beyond ASCENT's MPA framework and will be realized through parallel, aligned country or regional operations, which will not count as a part of ASCENT's financing mobilization target.

19. Targeted private-sector investments in distribution that result in increased connections are aligned with ASCENT's MPA framework and can be implemented within ASCENT. Such opportunities are expected to be strongest in countries where the grid footprint is still limited, and where national utilities face financial and capacity challenges to expand services to new users. Innovations, such as grid-connected concessions, distribution sub-franchising models, and grid-connected mini grids will be explored in such cases with active participation of the IFC and MIGA.

20. **The World Bank, the IFC, and MIGA already collaborate closely on scaling up DRE-based electrification under the DARES Platform**. The DRE sector offers promising opportunities for private-sector mobilization, given that it is already driven by private-sector service providers through innovative and impactful business models. Realizing the potential of the DRE sector, the World Bank, the IFC, and MIGA launched DARES in November 2022 at COP27 as their collaborative effort. DARES is implemented through five programmatic windows: (i) mini grids, (ii) off-grid solar (OGS) markets, (iii) electrifying schools and health facilities, (iv) powering farmers, and (v) commercial and Industrial (C&I)/grid-edge innovations. It provides upstream analytics and space for collaboration, innovation, and co-creation of approaches and instruments (including through leveraging cross-sector approaches across Global Practices, which are then implemented through coordinated and/or joint efforts of the World Bank, the IFC, MIGA, and partners.)

21. **ASCENT will be the key deployment mechanism for approaches and innovations developed under DARES**. Specifically, with support and guidance from DARES, ASCENT will launch comprehensive efforts to close the gaps constraining DRE's trajectory to scale through a set of phased regional and country interventions aimed at (i) building a larger regional ecosystem of policies, regulations, knowledge, and skills; (ii) delivering public-sector support for closing affordability gaps with efficiency, transparency, predictability, and needed scale; (iii) filling gaps in the current landscape of commercial financing (including debt, equity, and de-risking), tailored to the needs of a range of electrification-focused DRE and clean cooking companies; and (iv) innovating to increase further opportunities for private-capital mobilization (e.g., enabling the entry of new [larger] companies to the market and opening up new market segments, such as electrification of schools and health clinics, to the private sector). See Annex 9 for more details.

22. **A coordination mechanism for ASCENT has been established,** leveraging (i) collaboration on sector diagnostics and medium-term reform and investment roadmaps and (ii) the DARES Platform, which is co-managed by a team from AFE, AFW, IFC and MIGA. ASCENT also features team members from the IFC and MIGA and regular coordination meetings at both technical and management levels. A coordination mechanism to facilitate co-financing and alignment of approaches across key funders and guarantee providers, including IFC and MIGA, is also set up as a part of ASCENT's acceleration and financing platforms. The ASCENT Regional Energy Access Financing Facilities will be implemented in complement and coordination with IFC. Larger private sector DRE projects will be co-financed by IFC, TDB, and other commercial funders, on a best-efforts basis, based on eligibility criteria to be mutually agreed upon. The coordination mechanism for the ASCENT financing facilities will establish detailed implementation modalities.

Aligning with other transformative regional initiatives

23. **In line with the Knowledge Compact under the World Bank *Evolution*, ASCENT will benefit from the global knowledge produced under the ETA GCP, as well as exchanges on best practices with other regional MPAs and**

transformative engagements, especially in AFW and the Middle East and Northern Africa (MNA). Energy access is a global priority, supported by projects in multiple regions, with a growing concentration on Sub-Saharan Africa, where 84 percent of the global population without electricity access reside. Accordingly, the World Bank has been increasing its energy access focus on Africa. Corporate scorecard data shows that Bank-supported operations in FY18-23 have directly provided new electricity access for 38 million people, 32 million of which were in Sub-Saharan Africa.

24. **ASCENT is leveraging lessons learned from both AFE and AFW operations.** The AFE and AFW regions collaborate to leverage and learn from each other. They jointly manage the Electrifying Africa advisory/technical assistance program, which promotes a joint generation and exchange of knowledge, learning, and cross-fertilization of ideas and approaches across the two regions. They are also jointly participating in the DARES Platform. The AFW region continues supporting energy access through a combination of impactful regional- and country-level interventions, including vertical MPAs. For example, the US$750 million IDA-funded Nigeria DARES project for scaling up access with DRE solutions is expected to leverage about US$1 billion in private and commercial capital. Both regions are applying new corporate scorecard indicators, which will allow aggregation of their results and contributions to the ETA GCP.

25. **ASCENT's regional platform and broader support from the AFE region's energy market will develop synergies with transformative regional integration initiatives in both AFW and MENA**. Recognizing that development of a regional power market is instrumental to the energy transition, reliable supply, and the electrification agenda—and building on the Bank's decade-long engagement with the West Africa Power Pool (WAPP), AFW is expanding its regional integration and trade efforts to support both energy transition and access goals. Collaboration with the MENA region entails linkages between the emerging Pan-Arab electricity market and the EAPP and SAPP. As demand grows in AFE through grid expansion and last-mile access initiatives, new opportunities are expected to emerge for power trade between MENA and Africa Regions. These interlinked systems, including increased trade capacity beyond Africa with Europe and the Middle East through the new Bank-financed Tunisia-Italy interconnection project (approved in June 2023) (P179240) and other cross-Mediterranean interconnection projects under consideration between MENA and Europe, can accelerate a low-carbon transition with larger-scale renewable-energy generation across the region, ensuring reliability and affordability of supply.

C. Multiphase Programmatic Approach (MPA)

(i) Rationale

26. **Achieving the SDG 7 goal of universal energy access by 2030 in the AFE region requires a collective, coordinated, and flexible approach to mobilize finance, leverage implementation capacities of participating stakeholders (regional and local; public and private) and create a peer-to-peer mechanism.** The MPA launches a systematic effort to deliver universal energy access in the region. The approach allows each country to accelerate energy access within its unique context, while creating regional synergies, leveraging regional integration approaches, and recognizing the transversal benefits of energy access that reaches across borders and sectors. The MPA demonstrates *One World Bank* commitment to the energy access agenda, matching AFE governments' commitments, and inspiring other partners to join the efforts.

27. **The Program will support implementation of the Independent Evaluation Group (IEG's) recommendations on the WBG's energy access efforts**; these are to (i) reposition itself as a global solutions provider in the sector going well beyond its own direct support for access; (ii) move from a predominantly project-by-project approach to a far greater use of a sector-wide framework and process; and (iii) engage decisively and intensively on low-access countries (mostly in Sub-Saharan Africa). The Program will signal IDA commitment through the approval of a financing envelope (US$5 billion across two IDA cycles). While commitment of the actual financing amounts is contingent on available financing and country allocations, the program financing envelope will help with targeted fundraising through IDA cycles, as well as enable country-level donor financing to be actively pursued and aligned with country-specific projects under the Program. A

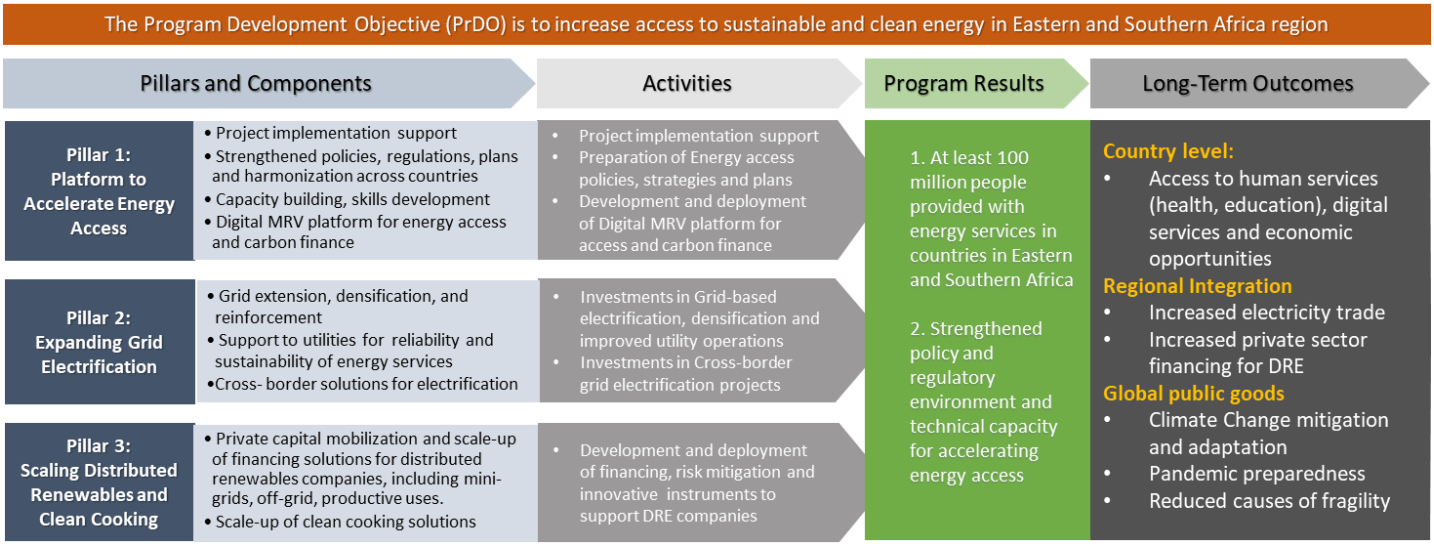
cohesive and harmonized set of actions that supports the acceleration of electrification efforts in participating countries would also provide the necessary signal to unlock private capital flows.

28. **Key elements of the MPA embodied in ASCENT include** (i) a regional mechanism for coordination and harmonization; (ii) aggregation for mobilization of capital and achieving economies of scale; and (iii) agile implementation, with reduced transaction costs in both design and implementation of AFE interventions, with benefits for all participating countries. A major benefit of the instrument is its replicable approach to achieve scale at the regional level.

(ii) Program Results Chain

29. **The MPA results chain recognizes that access to energy contributes to outcomes at multiple levels.** At the community and national level, it creates economic opportunities, enhances access to human development services and health and education outcomes, enables the digital economy, and improves quality of life and resilience. At the regional level, it increases demand for grid supply or private-sector companies' demand for supply of DRE solutions, delivering economies of scale and attracting private capital. At the global level, it contributes to climate change mitigation, as well as adaptation through improving pandemic and disaster preparedness and reducing causes of fragility (Figure 2). One should note that the program aims to expand both electricity and clean cooking access, with electricity access being the primary target. The PAD, therefore, uses the term "energy access" when referring to both electricity and clean cooking and "electricity access" when referring only to electricity services.

Figure 2: ASCENT Program Theory of Change



(iii) Program Development Objective with Key Indicators

30. **The Program Development Objective (PrDO), to which participating countries and regional institutions will contribute, is to increase access to sustainable and clean energy in Eastern and Southern African countries**. Access to energy includes on-grid and off-grid (DRE) electricity solutions and clean cooking. Sustainability primarily refers to the importance of enhanced regional electricity trade to enable sufficiency of electricity supply and financially viable, private-sector delivery models. Clean energy refers to the increased use of DRE and the associated climate-change mitigation benefits. The PrDO will be monitored by measuring progress on three outcomes (Table 1). Each phase under the program will contribute to one or more PrDO, as appropriate, and will also add relevant intermediate indicators, including renewable energy capacity installed or enabled, and private capital enabled or mobilized towards achieving the outcomes of providing people with electricity and reducing greenhouse gas emissions.

Table 1: PrDO-level Outcome Indicators of the ASCENT MPA

Indicator	Unit of measure	End target
PrDO1: People provided with electricity	Number	100,000,000
PrDO2: Regional electricity trade due to grid-based electrification	Percentage	5
PrDO3: Green House Gas Emission Reductions (CO2e)	Metric tons	80,000,000

(iv) Program Framework

31. **The ASCENT MPA will support to more than 20 countries over a seven-year implementation period, with an estimated closing in 2030.** This support will be complemented by technical assistance and financing platforms, implemented by regional entities. Program phases will be prepared as countries and regional platforms achieve readiness to implement new operations, in accordance with the program pillars within FY24–27. Readiness is assessed based on the expression of a clear commitment to energy access goals, key policy and reform actions to build an enabling environment, and demonstration of absorption capacity for the scaled-up energy access financing. Financing allocation among Program pillars will be determined as participating countries and organizations design components in their respective phases. Table 2 approximates the expected IDA and non-IDA funding for the program overall, and by current and future phases.

Table 2: Estimated IDA Allocation and Financing Mobilization under the Program

Pillars	Proposed IDA Allocation (US$, millions)			Estimated Financing Mobilization from all non-IDA sources. (US$, millions)		
	MPA Total All Phases	Current Phases	Future Phases	MPA Target All Phases	Current Phases	Future Phases
1. Platforms to Accelerate Energy Access	500.00	88.90	411.10	500.00	28.00	485.00
2. Expanding Grid Electrification	2,500.00	555.00	1,945.00	3,500.00	400.00	3,100.00
3. Scaling Distributed Renewables and Clean Cooking	2,000.00	419.10	1,580.90	6,000.00	575.00	5,700.00
TOTAL	**5,000.00**	**1063.00**	**3,937.00**	**10,000.00**	**1,003.00**	**8,997.00**

32. **Country phasing and amounts are included in Annex 1.** The first wave of projects consists of the following phases: (i) COMESA Regional Energy Access Acceleration Platform IPF (under ASCENT MPA P180547); (ii) ASCENT Rwanda IPF (P180575); (iii) ASCENT Sao Tome and Principe, IPF (P177099); (iv) ASCENT Somalia IPF (P181341); (v) ASCENT Tanzania PforR (P179631); and (vi) TDB Regional Energy Access Financing Platform IPF (P181328). Table 3 and Annex 1 provide an overview of the first wave of projects, as well as anticipated future phases.

(v) Learning Agenda

The ASCENT MPA's learning agenda is structured according to three broad learning areas:

33. **The first area evaluates the extent of the effectiveness of the programmatic platform approach to achieve the PrDO and whether it is delivering on its intended outcomes**: (i) achieving scale while promoting inclusion, (ii) attracting the private sector and mobilizing finance, and (iii) building effective partnerships. The evaluation's findings will be used to inform program implementation and seek mid-course adjustments. Initial countries were selected to exemplify varied stages and conditions of energy access across AFE and provide lessons for the design and implementation of country operations in subsequent phases. ASCENT will establish a regional knowledge-exchange platform to facilitate a rapid exchange of experiences and lessons across participating countries. Particular attention will be paid to documenting learning from the FCV context, with a view to developing replicable and scalable approaches.

34. **The second area assesses the impacts of energy access.** Growing evidence confirms the positive impacts of energy access for households, enterprises, schools, and health clinics; however, data often lacks granularity and, depending on circumstances, may even deliver contradictory findings. The ASCENT Program will assess the impacts of energy-access interventions at both the household level (e.g., welfare, health, income-generation, and gender) and community/society level (e.g., job creation, human capital development, resilience, and economic growth). One area of interest is the analysis of impacts on the quality of healthcare and education services. Research questions will also focus on systemic levels related to governance and institutional aspects in relation to energy-access provision, such as incentives at the central and local government levels. Of special significance to the program will be its linkage with regional integration and trade. Specifically, ASCENT will track and analyze the impacts of electrification on both the electricity trade and the wider trade agenda (e.g., increase in cross-border trade in electrified cross-border areas).

35. **The third area identifies "how to" aspects—**that is, understanding the pathways through which intended outcomes and impacts are achieved and what leads to these results in some cases and not in others—to better inform the design of future energy-access efforts. These efforts will be supported by the Development Research Group, Office of the Chief Economist, and DIME (see Annex 8 for the Knowledge Compact).

Table 3: MPA Program Framework

Phase	Operation ID	Sequential or simultaneous	Phase's DO: *To increase access to sustainable and clean energy in Eastern and Southern African countries*	IPF or PforR	Estimated IBRD amount (US$, millions)	Estimated IDA amount (US$, millions)	Estimated other amount (US$, millions)	Estimated approval date	Estimated E&S risk rating
1	P180547	Simultaneous	Common Market for Eastern and Souther Africa (COMESA)	IPF	0.00	50.00	15.00	November 30, 2023	M
2	P180575	Simultaneous	Rwanda	IPF	0.00	300.00	100.00		S
3	P177099	Simultaneous	Sao Tome and Principe	IPF	0.00	38.00	0.00		S
4	P181341	Simultaneous	Somalia	IPF	0.00	100.00	0.00		S
5	P179631	Simultaneous	Tanzania	PforR	0.00	300.00	0.00		M
6	P181328	Simultaneous	Trade and Development Bank (TDB)	IPF	0.00	275.00	300.00		S
Total					**0.00**	**1,063.00**	**415.00**		
Future Phases	NA	Simultaneous	See Annex 1	To Be Determined		**3,937.00**	TBD	TBD	TBD
Financing Envelope					**$ 5,000.00**				
Board-approved Financing Envelope					**$** 0.00				

III. PROJECT DESCRIPTION

A. Program Components

36. **The ASCENT Program will take a systematic approach to accelerating AFE countries' natural progression in energy-access efforts, reflecting the region's diversity of electrification stages and conditions.** A strategic sequencing of operations is key to maximizing impact. Countries that have already achieved high electrification rates will be helped to make the final leap to universal access, while fast-electrifying ones will be supported to stay on an accelerated pathway. Slower-electrifying countries will be helped to get on an accelerated electrification pathway; specific attention will be given to FCV-affected countries, which will be supported with contextualized innovations, particularly in the DRE space. Finally, small states with capacity constraints will be supported with comprehensive energy-access packaging. All countries will receive advisory support to strengthen climate resilience of the energy access investments.

37. **The first wave of operations establishes a foundation for ASCENT's acceleration ambition**. Four countries have been selected as electrification champions, representative of the energy access stages and contexts found in the AFE region, thereby providing both inspiration and lessons for countries facing similar conditions. ***Rwanda*** has been one of the world's fastest electrifying countries and is now a leader in last-mile electrification, with innovative pro-poor financing mechanisms for both grid and off-grid electrification; its ambition is to achieve universal electricity access before 2030 and significantly scale up access to clean coking. ***Tanzania***, whose electrification rate is still below the regional average, has been mounting successful acceleration efforts; its focus is on fast-paced grid densification with an added ambition of accelerating DRE investments, which can serve as an example for countries that need to accelerate their efforts. ***Somalia*** exemplifies a complex context of an FCV-affected countries, where private sector–based DRE electrification is the only way to rapidly expand electricity access and the challenging investment environment calls for innovative approaches. Finally, ***Sao Tome and Principe*** reflects the challenges of expanding access in small isolated systems with limited capacity, where electricity expansion needs to go hand-in-hand with upstream investments in ensuring reliability, affordability, and capacity/skills building. Regional and national platforms will provide overall ecosystem support and benefit participating countries in all Program phases

38. **The ASENT Program's components are organized into three pillars, under which the participating countries and regional facilities will drawn from its menu of options** (Figure 3).

Figure 3: Summary of the ASCENT Program's Pillars

	Pillar 1 *Regional and National Platforms to Accelerate Energy Access*	Pillar 2 *Expanding Grid Electrification*	Pillar 3: *Scaling Distributed Renewables and Clean Cooking Solutions*
Thematic Focus Areas	▪ Regional implementation support for enabling economies of scale and cost reduction strategies ▪ Align regional and national planning processes and regulatory environment ▪ Support government role in priority setting, integrated energy access strategies, least cost resource and geospatial electrification plans ▪ Mobilize financing, at regional scale, by aligning national, donor and private sector interests ▪ Aggregate climate benefits at regional level to mobilize climate/impact financing.	▪ Planning and Implementation of Grid densification and extension ▪ Designing and Implementation of Cross-border grid electrification in remote, border areas ▪ Grid reinforcement and upgrading for Variable Renewable Energy integration for increased energy access and reliability ▪ Utility strengthening and reform for financially viable and sustainable expansion of electrification ▪ Support for enhancing affordability and inclusion for low-income, vulnerable, incl. displaced populations	• Explore and develop innovative region-level financial solutions to mobilize patient, private capital • Facilitate viability gap funding, results-based financing and small/catalytic grants for companies • Develop de-risking instruments for private companies operating at national and multi-country levels • Enable financing via regional and local financial institutions • Support enabling environment and bolster financial sector capacity to lend to private companies active in distributed renewable energy or interested in entering the market.

39. **Pillar 1: *Regional and National Platforms to Accelerate Energy Access*** will finance technical assistance, tools, and capacity building for (i) digitization, including adoption of digital platforms and geospatial planning tools; (ii) energy-access strategies and planning, enabling policies, and regulations; (iii) financing of mobilization and coordination, including carbon/climate finance mobilization; (iv) data collection, market intelligence, and impact evaluations and knowledge exchange; (v) development and deployment of aggregation structures; (vi) analysis and approaches for streamlining value chains and identification of opportunities for local manufacturing and assembly; (vii) identification, facilitation, and support for cross-border electrification; (viii) cross-sector collaboration; (ix) advisory support for strengthening resilience and adaptation benefits for beneficiaries through improved design and implementation of grid- and off-grid electrification projects, including improved planning using geospatial tools and enhanced technical specifications; (x) skills development (including science, technology, engineering, and mathematics [STEM]), especially for women and youth with a view to increasing employment opportunities; (xi) productive use development, inclusion, consumer outreach, and awareness raising; and (xii) other technical assistance and capacity building for government agencies, national utilities, and DRE and clean cooking companies. Pillar 1 will also allow for coverage of project management costs and operating expenses.

40. The ASCENT Regional Acceleration Platform, managed by COMESA, will drive implementation of Pillar 1 from the regional level. The Acceleration Platform will support the initial set of participating countries in implementing their respective projects, as well as help prepare countries for joining the Program. The Project Preparation Facility will provide support to DRE and clean cooking companies active in the region to accelerate their efforts and mobilize capital, while the Advisory Support Facility will provide technical assistance to government agencies. The Platform will (i) establish a D-MRV system at the regional level, allowing for data aggregation from countries and the private sector and enabling the generation of carbon revenues; (ii) identify and facilitate cross-border electrification opportunities; and (iii) facilitate knowledge exchange and skills development (including through strategic partnerships with academia), with an emphasis on enhancing opportunities for women and youth; this includes increasing employment of women with STEM backgrounds in energy utilities and DRE/clean cooking companies through targeted skills development programs, incubators, and internships, and supporting young and female entrepreneurs

41. **Pillar 2: *Expanding Grid Electrification*** will finance investments and associated technical assistance for (i) grid densification and expansion, including cross-border electrification; (ii) grid reinforcement, upgrading, and variable renewable energy (VRE) integration investments, including battery storage, where required, to support electricity access expansion; (iii) grid connections, including ready boards, internal wiring, access to appliances, and productive uses; and (iv) utility strengthening, including management and monitoring systems, digitization, revenue protection programs, and other improvements needed to deliver fast-paced electrification. Technical assistance will include support for improving the climate resilience of assets and systems during design and implementation stages, as appropriate.

42. **Pillar 3: *Scaling Distributed Renewables and Clean Cooking*** will finance investments and associated technical assistance to expand energy access with DREs and clean cooking technologies and fuels for households, enterprises, farmers, schools, health clinics, and other institutions, including through financial intermediary financing. The key building blocks that would be implemented by countries and regional financing facilities include (i) results-based financing (RBF), catalytic grants, and other forms of performance-based financing for DRE and clean cooking; (ii) DRE tenders, including the IFC-led initiative, Scaling Mini Grids, and other top-down approaches; (iii) debt and equity facilities, guarantees, and other de-risking instruments; and (iv) further innovations aimed at mobilizing capital for DRE and clean cooking, including DRE electrification and clean coking provision for health facilities, schools, and other public institutions. This pillar will be implemented in close coordination with the IFC and MIGA under the DARES Platform (see Annex 8).

43. In addition to country-specific support, Pillar 3 will establish regional financing and de-risking facilities. These will be phased in gradually to support the evolving needs of the DRE and clean cooking sectors and leverage lessons generated from earlier phases via the MPA's learning agenda. Both on-lending and de-risking are needed to respond to varied

characteristics of larger and smaller companies in the various DRE and clean cooking segments. The first wave prioritizes on-lending as an agile response to the urgent financing needs of existing DRE and clean cooking companies, particularly to fill financing gaps (e.g., in longer-tenor loans, local currency, and SME financing). The MPA will therefore establish the ASCENT Regional Energy Access Financing (REAF) Platform, which will be implemented by the AFE Trade and Development Bank (TDB). The REAF Platform's objective is to lend to DRE and clean cooking companies in order to unlock their pipeline and support their trajectory toward scale. The TDB was selected as the financial intermediary (FI) owing to its (i) geographic coverage of the AFE region; (ii) experience and demonstrated ability to lend to the DRE sector (built under the ongoing Regional Infrastructure Financing Facility (RIFF) Project, P171967); (iii) ability to offer longer-tenor debt; (iv) extensive network of regional and local commercial banks, to be leveraged through co- and on-lending; and (v) strong reputation as a well-managed, competent, and financially stable FI that is also willing and able to pursue impact-oriented financing, including for SMEs, which is closely aligned with ASCENT's vision. The platform will mobilize additional private and commercial financing. A coordination mechanism will be established before effectiveness to facilitate syndication/co-financing and other collaboration with IFC and other funders.

44. In parallel, a large, transformative regional de-risking facility is under joint development with the IFC and MIGA as ASCENT's future phase, which will allow for continued growth of existing companies, while also attracting new companies and investors to the DRE and clean cooking sectors. In addition, a patient capital facility, under development, is to be brought up as a future phase focused on the needs of smaller companies, especially local companies and/or those operating in nascent markets... This phased approach is leveraging the potential of One World Bank approaches (and collaboration across energy and FCI), where appropriate, particularly on de-risking, while also building broader partnerships with other development and commercial funders. The idea is to ensure that all segments of DRE and clean cooking markets and companies, including those in FCV-affected areas, are covered to support both scale and inclusion. These will be developed and presented as a future phase (or two separate phases) of ASCENT.

B. Project Beneficiaries

45. **The main beneficiaries of the ASCENT program are people in the AFE region who will gain access to a sustainable supply of electricity and clean cooking, along with the associated benefits that accrue from having energy access** (e.g., increased jobs, access to information and technologies, improved health, reduced time spent on cooking chores, and better services provided by electrified schools and health clinics). Women, who are often burdened disproportionately by the lack of energy access, particularly for household cooking, will be provided additional income-generating and employment opportunities. Enterprises, schools, and health clinics (and their employees) will receive energy access. Other beneficiaries include electric utilities, private-sector providers of DRE and clean cooking, and project-supported government agencies, as well as the newly created workforce in the renewable energy/energy-access fields, particularly women, engaged in ASCENT skills development. ASCENT is expected to deliver electricity access to at least 100 million people (27 percent of region's unelectrified population), while setting up acceleration approaches that would expand electricity access to an additional 200 million (bringing the total to 82 percent of the unelectrified population), particularly through enabling sustainable grid electrification by the utilities and further private capital mobilization for DRE electrification. Access to electricity is critical to improving household and community level resilience. A methodology will be developed to assess the climate change adaptation and resilience benefit created by the Program as people have, among others, access to information and public services, and new and diverse income opportunities.

C. Rationale for Bank Involvement and the Role of Partners

46. **The World Bank has been at the forefront of energy access scale-up in Sub-Saharan Africa, including the AFE region**. World Bank financing of energy access in the region has grown from an average of US$400 million per year in FY 2018–20 to more than US$1 billion annually in FY 2021–23. Over the last four years, the World Bank has approved financing in the amount of US$3.5 billion, which would provide electricity access to 47 million people. This figure also

includes increased funding for DREs and clean cooking, partially driven by incentives and co-funding from ESMAP's Clean Cooking Fund. Combined with ESMAP knowledge and work in the area, the World Bank has been acknowledged as both the thought leader and top financier of energy access in the region, particularly in mini grids, the OGS sector, and clean cooking. A natural continuation of this journey, ASCENT signals the World Bank's commitment to support the AFE region achieve universal energy access.

47. **The ASCENT Program is conceived as a broad-based partnership effort, aligning and attracting public- and private-sector partners**. With a US$5 billion in IDA envelope, ASCENT aims to mobilize an additional US$10 billion, of which about US$1 billion has already been realized through the present first wave. including participation of large development partners such as the African Development Bank (AfDB) and the Asian Infrastructure Investment Bank (AIIB) and various donors are contributing via both bank-executed and recipient-executed trust fund (RETF) grant contributions via ESMAP. Climate financiers, including the Green Climate Fund (GCF) have been engaged and specific engagements are already under development to add to the current phases. A comprehensive framework for enabling carbon revenues is also under development under Phase 1 and in collaboration with the Climate Change Practice, enabled via ASCENT's digitization efforts also under Phase 1. Furthermore, strategic partnerships have been created with aligned entities, such as Sustainable Energy for All (SEforALL) and the Global Energy Alliance for People and Planet (GEAPP) to support advocacy, convening, knowledge, and innovation, and to drive catalytic impacts. Many other partnerships are under development and will be reflected in ASCENT's future phases, which is also expected to further increase leveraging of public and private capital. A strategic approach for private-sector engagement in the DRE sector has been developed, built on strategic partnerships with other development and commercial funders and leveraging One World Bank approach.

D. Lessons Learned

48. **Successful efforts to expand energy access are rooted in strong and consistent government commitment**. Where such commitment exists, it is important to align resources with the government's goals through a long-term programmatic platform approach, which would (i) put governments in the central role of priority setting and coordination of energy-access efforts; (ii) support transparent, least-cost resource allocation; and (iii) mobilize financing by aligning governments, donors, and the private sector.

49. **AFE countries urgently need to accelerate both grid and DRE-based electrification.** Successfully electrifying countries have demonstrated that accelerated pace is possible, particularly through a combination of grid and off-grid pathways. In some countries, this may require faster grid scale-up, while building up the conditions for private-sector engagement in DRE; in others, opportunities may be leveraged for DRE electrification while reforming a failing utility. One should not hold the other back; ultimately, complementary and parallel progress is needed on both fronts.

50. **Digitization can revolutionize energy access and vice versa.** The emergence of digital platforms and tools have created unprecedented opportunities for improved and accelerated planning and implementation of energy access programs (especially those using RBF), as demonstrated by champion countries that have already taken steps in this direction. Also, opportunities are opening up to leverage such platforms for carbon finance and other resource mobilization.

51. **Energy access planning and investments need to go beyond connections to ensure that generation, transmission, and distribution are expanding in proportion to electrification and that utilities are financially and operationally sustainable** to absorb new users, attract private-sector investments, and deliver reliable electricity services. On the user side, electrification must be accompanied by complementary measures to stimulate demand and productive uses to deliver the intended impacts and make electrification more viable for the utilities and DRE service providers.

52. **DRE technologies are promising solutions, but their scale-up requires overcoming market fragmentation**, caused by inconsistent policies, regulatory environments, subsidy approaches, contractual arrangements, inadequate financing instruments, and small transaction sizes. More harmonized market conditions and aligned funding approaches would

allow DRE companies to achieve economies of scale, reduce costs, and become profitable; as a result, they would attract larger volumes of private investments, including those from more mainstream, commercial investors. This goal is embodied in the WBG's DARES Platform, which underpins implementation of the proposed energy-access-expansion approach for the AFE region.

53. **Mobilization of private-sector financing must be more strategic and systematic.** This means it should not be based on short-term transactions alone but should also build the conditions for scaled-up, private-sector flows over the medium and long term. Given the still emerging nature of the DRE sector in the AFE region, a differentiated approach is needed to (i) help leading DRE companies take the next step in leaping toward scale, market expansion, and commercial viability; (ii) support the growth of second-generation and smaller local companies; and (iii) attract new, larger companies to the market.

54. **Investments in energy access must be accompanied by faster knowledge exchange and massive technical assistance and capacity- and skills-building efforts.** Even when sufficient financing to close the energy access gap is mobilized, the outcome may not be achieved due to the limited absorption capacity of implementing agencies. Significant capacity building and technical support during both the design and implementation stages are needed. Countries also need to develop effective mechanisms to learn from each other so that successful approaches can be replicated, scaled up, and adapted faster to varied country contexts.

55. **Energy access efforts must be more inclusive and address affordability challenges and constraints of vulnerable groups.** In the AFE region, more than half of the population without electricity access live in FCV-affected countries, where lack of access to clean cooking and electricity disproportionately affects low-income and vulnerable populations, especially women and girls. Further progress in accelerating energy access cannot be achieved without significantly increasing electricity and clean-cooking access rates among the remote, poorest, and most vulnerable population segments, including displacement-affected communities, as well as female-headed households (FHHs). This requires creative, context-sensitive solutions, as well as better targeting, supported by increased availability of data and digital tools.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

56. **Country-level institutional and implementation arrangements, described in the country annexes, follow those established by each respective country for its energy access expansion.** Typically, they involve government ministries in charge of energy, rural energy agencies, and national utilities, as well as financial institutions in cases where intermediary financing is involved. Each country and regional operation will be independently implemented.

57. **At the regional level, the COMESA and TDB have been selected to implement regional activities**, based on their existing working relationship with countries, private-sector companies, and financial institutions in the region, as well as their track record of implementing World Bank–financed projects, particularly in energy access under the Regional Infrastructure Financing Facility (RIFF) Project (P171967). Detailed implementation arrangements for each phase are in Annexes 2–7.

B. Results Monitoring and Evaluation Arrangements

58. **ASCENT's progress and implementation will be monitored at program, regional and project levels.** ASCENT has established a menu of indicators for individual countries and regional facilities to select from, which will contribute to aligned monitoring of outcomes for the Program. Each operation will be responsible for monitoring its project implementation and results, with COMESA monitoring of results for the entire program. Monitoring will be facilitated through the adoption of digital platforms, which will allow aggregation of results, and individualized dashboards designed for stakeholders (World Bank, COMESA, government agencies, utilities, and the private sector) to improve continuous monitoring. As noted in the Learning Agenda, the Program will support a multi-layer effort to strengthen (i) energy access–

related data collection and analysis and the statistical capacity of key stakeholders, including COMESA and national agencies; (ii) structured and systematic impact evaluation through partnerships with research institutions and donor partners; and (iii) collaborative research with pilot countries to inform improved planning and governance.

C. Sustainability

59. **All of the proposed interventions are designed to have a lasting impact, including enhancement of climate resilience of the infrastructure and communities.** Sustainability is safeguarded at technical, economic and financial, operational, and environmental levels. At the technical level, ASCENT investments will only finance proven technologies and adhere to adequate technical standards, including international quality standards for OGS and clean cooking. At the economic and financial level, the interventions will follow a least-cost electrification plan, promoting efficient allocation of resources and ensuring that interventions are economically viable. Only sustainable business models will be supported that demonstrate budgetary and technical capacity for adequate sustainable operation and maintenance arrangements. Grid extension will be accompanied by utility strengthening and further supported by separate but aligned interventions aimed at ensuring sustainable energy sectors. Technical assistance available through COMESA's Regional Acceleration Platform will ensure that government agencies, utilities, and private-sector companies can access the best-available knowledge and experts and technical assistance in order to integrate best practices into their operations. ASCENT is expected to deliver positive environmental externalities through supporting access to clean energy, including renewable energy and clean cooking, which is expected to result in greenhouse gas (GHG) reductions (measured as a PrDO indicator), as well as positive local environmental benefits (e.g., through a reduction in the harvesting of non-renewable biomass used in traditional cooking practices). Furthermore, the program will provide advisory support to public and private sector participating entities to strengthen climate resilience of the infrastructure during implementation and of institutions and community-level users during its technical lifetime.

60. **Paris Alignment:** The ASCENT MPA is fully aligned with the goals of the Paris Agreement on Climate Change. Addressing and building climate-change resilience and preparedness at both energy sector and community levels are among the Program's fundamental activities. A summary of the projects' climate disaster risk screening and climate financing informing climate co-benefits can be found in the *ASCENT Technical Note on Climate Change*, which is available on request. The Program supports implementation of climate mitigation and adaptation actions at national and regional organizational levels by providing communities access to electricity, as well as building energy-sector and community-level resilience to climate change. Alignment with NDCs, National Adaptation Plans (NAPs), and energy-sector strategies, along with adaptation and mitigation risks and measures to address these, have been assessed and confirmed for the first wave of countries and implementing agency in the relevant annexes.

61. The ASCENT Program is expected to manage risks of severe climate shocks to the activities that enhance energy access through on-grid and DRE solutions through associated strengthening of sector institutions, private-sector engagement, and relevant policies and processes. The regional technical assistance platform will provide dedicated support for informing climate-resilient design of projects through geospatial planning, technical recommendations, as appropriate, and training for public and private sector participants. This will build capacity across AFE region to understand, identify and implement asset-level and system-level measures to strengthen resilience. Mitigation goals are central to design of the ASCENT Program, which will be expected to significantly reduce GHG emissions across the region. It is anticipated that all activities financed by the ASCENT Program will be from the list of universally aligned activities.

62. **Gender Responsiveness:** The AFE region has made tremendous progress in closing gender gaps in the last decade; however, the evidence pertaining to the energy sector shows the contrary, especially with respect to access to clean and modern energy. To maximize equitable development outcomes consistent with SDG 5 (gender equality) and SDG 7, it is important not only to have a comprehensive strategy to accelerate the closing of energy access gaps but also account for gender differences in the demand for and usage of energy. The ASCENT program is committed to integrating gender-

transformative approaches to close energy access–related gender gaps and employ interventions to empower women to make meaningful contributions to the AFE energy sector. Through technical assistance to COMESA, the project will develop a comprehensive regional Gender Action Plan to build capacity for gender integration in the energy sector in COMESA member states, including development of a regional Women's Leadership Institute and STEM Skills Accelerator Institute, which will enable women's employment in the energy sector, leading to their promotion to leadership positions. With the TDB regional finance facility, the ASCENT program will utilize RBF and other strategies with gender-targeted incentives to increase (i) the employment of women with STEM backgrounds and (ii) energy access for women-owned small and medium enterprises (SMEs) to improve their productivity. In addition, the program will include a specific goal in its monitoring and evaluation (M&E) indicator to increase the number (percentage) of women with STEM backgrounds employed in the energy sector. The regional approaches will be complemented by country interventions to close gender gaps in the first wave of projects (Rwanda, Sao Tome and Principe, Somalia, and Tanzania). Further details are provided in the *ASCENT Technical Note on Gender* available on request.

63. **Citizen Engagement:** Design and implementation modalities of energy access projects inherently rely on extensive citizen engagement. Energy access activities, led by government agencies and the private sector, begin with initial consultations with relevant communities at a project's design stage. This is important for understanding the community's needs and concerns, as these will directly affect the intervention's effectiveness and sustainability. During implementation of the ASCENT projects, citizen feedback will be solicited through surveys and stakeholder engagement, as articulated in the country and regional Stakeholder Engagement Plans (SEPs) and through digitally enabled periodic surveys of a sample of ASCENT households; micro, small, and medium enterprises (MSMEs); and public institution beneficiaries. The surveys will gather their energy-access status and challenges, including satisfaction with service, to address the challenges and improve service delivery. Survey results will be shared with all key stakeholders, including government agencies and utility or private-sector service providers, and used to take informed corrective actions, as needed. Moreover, country-specific grievance redress mechanisms will be developed and used. All ASCENT projects will have at least two citizen engagement indicators that will monitor progress on upstream engagement prior to, during, and ex-post implementation to create a feedback loop that informs continuous improvement in program implementation and contributes to the learning agenda.

IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic, and Financial Analysis

Technical Analysis

64. **Project activities are based on known technologies and business and implementation models.** Grid electrification will use well-established technologies and methods. The typical investments will include extensions and strengthening of low-voltage (LV) and medium-voltage (MV) lines, substations, transformers, and service drops. The projects may finance ready boards and internal wiring to increase affordability of connections, as well as appliances and productive-use equipment. Country-specific projects may also include variable renewable energy (VRE) integration investments and equipment, including battery storage. Financing of large-scale transmission is not expected; however, on case-by-case basis, ASCENT may finance small-scale extension and upgrading of the transmission network, as necessary, for achieving the project's objectives if consistent with ASCENT's E&S instruments and risks.

65. **ASCENT will support a range of DRE technologies (e.g., small solar home systems [SHSs]; mini grids; and productive-use systems serving SMEs, farmers, and public institutions) and clean cooking technologies and fuels.** The program will not finance DRE systems larger than 20 MW. SHSs (typically in a range of 3–350 Wp) will typically be plug-and-play; comprising a solar panel, battery, and appliances, the system will come in one box and can be installed by the customer. Productive use of energy (PUE) systems, typically consisting of larger stand-alone solar photovoltaic (PV) and battery storage systems, often replacing diesel generators; sometimes bundled with specialized appliances, they are

especially used by the agriculture sector to transform productivity or preserve produce through cold storage. Renewable-energy mini grids are electric power generation and distribution systems that provide electricity to a small group of customers (from the size of a village to that of a city). They are powered primarily by solar PV and batteries, but can also use other renewable energy technologies, such as micro- and mini hydropower. Mini grids and systems for public institutions, such as schools and health clinics, are typically in the single kW to 100kW range, but larger mini grids (under 20 MW) are also possible. Mini grids and similar systems to power such public institutions as hospitals may include a diesel back-up in line with Paris Alignment methodologies. The program will only support diesel back-up where its role is marginal and meets the following conditions: (i) renewable-energy generation units are well maintained, and fossil-fuel generation is used only when the amount of renewable energy generated and stored cannot fully meet demand and (ii) fossil fuel generation is less costly than installing sufficient battery storage to meet the same demand. ASCENT will not finance captive-power for commercial and industrial (C&I) customers unless investments are directly linked to expanding energy access and comply with all other program criteria. E-mobility business models may be supported when linked to energy access, e.g., as a productive use under mini grids.

66. **ASCENT will support clean and improved cooking solutions.** Clean cooking solutions refer to technology and fuel combinations that meet the recommended indoor-air-quality guidelines of the World Health Organization (WHO) for household fuel combustion. Common fuels and technologies considered eligible are cookstoves or devices powered by electricity, natural gas, liquefied petroleum gas (LPG), biogas, solar energy, and alcohol fuels (e.g., ethanol). Low-emission biomass stoves using processed biomass (e.g., pellets) that meet ISO/TR 19867-3 voluntary performance targets for Tier 4 and above are also considered clean. Improved cooking solutions are those that meet ISO/TR 19867-3 voluntary performance targets for Tier 3. Typical improved cooking solutions include advanced biomass stoves that can achieve some health and climate benefits. The program will not finance natural gas or LPG production; however, LPG distributors that serve end users, including uses of the PAYG model, will be eligible for support where LPG is considered the least-cost solution. Companies that produce and/or distribute cookstoves (cooking devices) that meet ISO/TR 19867-3 voluntary performance targets for Tier 3 and above are eligible. Electric stoves are eligible. Companies that produce and/or distribute renewable clean cooking fuels (e.g., pellets, briquettes, bioethanol, and biogas) are also eligible.

Economic and Financial Analysis

67. **The economic viability of the proposed MPA was assessed using a standard cost-benefit analysis; the benefits captured, while significant, represent only a fraction of the full spectrum of advantages that electrification can bring** to households, MSMEs, commercial enterprises, and productive end users. Several studies provide evidence that electrification can trigger a virtuous cycle of economic and social development, extending far beyond initial savings. Electrification essentially facilitates a shift toward more lucrative occupations (Akpandjar and Kitchens 2017) by stimulating the establishment of small businesses, reducing reliance on agriculture, promoting skills development, and increasing wage-earning opportunities. Burlig and Preonas (2023) reinforce the notion that electrification extends its positive impact beyond individual households. At the regional level, it stimulates manufacturing output, boosts employment opportunities, and elevates human development indicators. This macroeconomic effect can be particularly beneficial for local economies and job markets. Research conducted in South Africa (Dinkelman 2011) indicates that electrification has a particularly positive impact on female employment. It enables women to engage in income-generating activities by freeing up their time, thanks to reduced reliance on traditional fuels and the adoption of electricity for various tasks. Notwithstanding the cost-savings focus of this analysis, it is crucial to understand that electrification sets in motion a cycle of benefits. These encompass the establishment of more businesses, a transition to higher-value production, improved education outcomes, better health, and increased employment opportunities. Over time, these positive effects accumulate, significantly enhancing the well-being of the communities and regions served. These benefits are difficult to capture in ex-ante economic analysis but will be pursued via impact evaluations, as elaborated in the Learning Agenda and Annex 9. Inclusion of all benefits would further increase the economic rates of return.

68. **The analysis focuses on all of the ASCENT pillars and technologies**: investment in electrification subprojects that encompass grid connections, grid reinforcement and extension, mini-grid connections, electrification through off-grid systems, and clean cooking connections.

- The economic costs include the project capital costs and operating costs under the grid, mini-grid, and off-grid subprojects, as well as the connection costs incurred by households, the generation cost of the additional electricity served to newly grid-connected households, and the replacement costs of mini-grid batteries. For the clean cooking component, the economic costs comprise those for the stoves themselves and their operation, consisting mainly of fuel costs.
- The economic benefits of the MPA are estimated as the avoided cost of diesel and lighting alternatives, reduction in unserved demand due to improved reliability of electricity supply, and savings on expenditure from the use of more efficient stoves. All components have economic benefit from GHG emissions reduction.

69. **Overall, the ASCENT program demonstrates economic viability, with an Economic Internal Rate of Return (EIRR) of 32 percent and a Net Present Value (NPV) of US$14 billion** at the discount rate of 6 percent. Table 4 provides further details. The analysis assumes discount rates of 6 percent and 10 percent for economic and financial analysis, respectively. Over its lifetime, the proposed MPA is expected to have a net GHG impact of approximately 80 million tons of carbon dioxide equivalent (tCO_2e).

Table 4: EIRR and NPV for the Proposed MPA

Overall program	EIRR (%)	NPV (US$, billions)
Without GHG benefits	32	14.0
With GHG benefits (low)	38	16.7
With GHG benefits (high)	44	19.5

70. **The financial analysis for grid electrification assesses the impact of offering electricity service from the utility's perspective, while that for mini grids, off-grid access, and clean cooking solutions is conducted from the consumer's perspective** since these services will be provided by the private sector. The results of the financial analysis reveal that the on-grid investments of the proposed MPA have a negative NPV of -US$683 million and an associated financial Internal Rate of Return (FIRR) of 4 percent. The financial analysis of the grid reinforcement activities also has a negative NPV of -US$171 million and an associated FIRR of 6 percent. The presence of a positive FIRR is a clear signal that the anticipated future cash flows surpass the cost of financing, underscoring the grid component's financial viability over the extended period. Moreover, concessional financing and grants, with extended loan repayment periods, serve as vital tools, can help offset initial costs and reduce financial risks, aligning it with societal and policy priorities. In the context of grid electrification, a negative NPV emphasizes the multifaceted nature of public infrastructure investments, where the economic and social benefits created far exceed immediate financial returns.

71. The financial analysis for the off-grid component of the MPA yields positive results, with an FIRR of 30 percent and an NPV of US$333 million. The RBF provision for the clean cooking activities, allows for a high FIRR of 70 percent and an NPV of US$136.5 million. Investments in mini grids result in a positive financial NPV of US$576 million, with an FIRR of 14 percent. The financial feasibility for financial intermediation is calculated by discounting the net cash inflows and outflows of a financial intermediary (FI). The FI is assumed to receive a total of US$250 million credit disbursed over five years at an interest rate of 6 percent, with a tenor of 18 years and a 5-year grace period. The cash outflows consist of the repayments to the World Bank credit. The FI is assumed to on-lend at a rate of 8 percent for a 15-year tenor to mini-grid companies, a 6-year tenor at 7 percent to off-grid companies, and a 5-year tenor at 8 percent to clean cooking companies. The cash inflows are calculated from the repayments of loans from on-lending to the FI. The cash flow model assumes a default payment rate of 5 percent and an operations and maintenance (O&M) expense of 4 percent of the FI's revenue

from the MPA. This component is financially viable, with an estimated NPV of US$12 million and an associated FIRR of 11 percent. The discount rate for the financial analysis is 10 percent.

72. **The program is robust to credible changes in parameters**. The economic rate of return for the grid component is sensitive to connection cost and has a switching value of US$1,1180 per connection, which is reached when the EIRR reaches the hurdle rate of 6 percent. For the off-grid component, the EIRR decreases to 6 percent when the price of the SHS reaches US$339 (including the value-added tax [VAT]), up from the US$207 (including the VAT) used in the analysis, which represents the median price for a 11–20 Wp SHS capable of providing Tier 1 service. The economic return on mini grids is sensitive to the price of diesel, which is the alternative source of fuel, and has a switching value of US$0.39 per kWh, down from US$0.80 per kWh. At this price of diesel, the benefits of switching to mini grids are lower than the cost.

B. Fiduciary

73. **Financial Management**. The financial management (FM) assessments for the project implementing agencies were conducted using World Bank Guidance: FM Manual for World Bank Investment Project Financing Operations, reissued on September 7, 2021. Assessments were conducted for the countries and regional institutions covered in first wave of the ASCENT program and included in the respective technical documents (summarized in the country and regional institution annexes). Procurement under PforR operations will follow procurement arrangements that will be detailed in the fiduciary systems assessments for those operations.

74. **Procurement** will be carried out in accordance with the following World Bank procedures: The World Bank Procurement Regulations for IPF Borrowers, fourth edition, dated September 2023; Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants, dated October 15, 2006 and revised in January 2011 and Anti-Corruption Guidelines as of July 1, 2016; and other provisions stipulated in the Financing Agreements. Procurement arrangements, capacity assessment, risks, and risk mitigation for first wave of borrower/recipients are detailed in the respective PADs and summarized in the country and regional institution annexes.

75. To mitigate for the potential risk of forced labor, the bidding documents will emphasize forced labor risks in solar panels and components and will require that sellers of solar panels to the project will not engage or employ any forced labor among their work force. Bidders will be required to provide two declarations: a Forced Labor Performance Declaration (which covers past performance), and a Forced Labor Declaration (which covers future commitments to prevent, monitor and report on any forced labor, cascading the requirements to their own sub-contractors and suppliers). In addition, enhanced language on forced labor will be included in the procurement contracts. The Bank will prior review procurements of solar panels and components to ensure that enhanced provisions are used by the Borrower. Procurement and FM procedures will be reflected in the respective Project Operations Manuals.

C. Legal Operational Policies

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

D. Environmental and Social

76. **The environmental risk of the overall program is rated as Substantial.** Construction activities related to Pillar 2 (e.g., creation of a right-of-way [ROW,] substations, LV and MV distribution lines, and access roads) can lead to habitat alteration, disruption and fragmentation. This can affect natural and critical habitats (e.g., wetlands), whose loss or modification can adversely impact flora and fauna, especially in countries that are home to endemic or endangered species. Other risks and hazards relate to live wires, accidents, injuries, working at height, the security and health of workers and nearby communities during construction and operation of LV and MV lines and associated infrastructure (e.g., transformers.) The construction and maintenance of transmission line ROW can pose fatal risks to birds and bats through collisions with power lines, which may result in power outages and forest/bush fires requiring an emergency response mechanism to be in place. The ASCENT program will offer significant environmental co-benefits through optimization of energy systems and enabling greater use of lower-emission energy sources, as well as assisting in adaptation to climate change through diversification of energy supply. The program will help countries to participate in international carbon markets. However, various environment, health, and safety risks could result from the activities proposed under three pillars. All required safeguard documents have been prepared and disclosed, as detailed out in annexes for each Program's phase (Annexes 3-7).

77. **Under Pillar 1, the program will provide technical assistance through regional and national platforms to establish comprehensive, coordinated frameworks and processes for accelerating energy-access efforts in the AFE region.** The terms of reference (TORs) for technical assistance activities will be consistent with Environmental and Social Framework (ESF) requirements. Pillar 3 will finance investments in DREs and clean cooking with the aim of expanding clean energy access for households, enterprises, farmers, schools, health clinics, and other public institutions. The predominant DRE will be solar PV, but other DRE technologies (e.g., mini hydro) could be included. These investments will be implemented primarily by the private sector. The TDB will act as financial intermediary (FI) OP 4.03 World Bank Performance Standards for Private Sector Activities are Fl-1 and will be applied to this pillar under TDB financing. For Pillar 3, the potential risks include the cumulative impacts of mini hydro on watersheds; impacts on drainage and hydrology at intake sites; resource efficiency and pollution mainly due to disposal and management of hazardous waste, including used batteries; nuisances related to air and noise emissions; and disturbances to land, water, and biodiversity. Key environmental risks include the capacity of private-sector operators and borrowers to implement mitigation; labor and working conditions; traffic; nuisances (e.g., dust and noise); poor construction-related waste management; disposal and management of hazardous waste, including nonbiodegradable- waste from electrical equipment; damaged or leftover solar panels; and used or damaged batteries (observed and calculated hazard severity).

78. **The Social Risk is also considered Substantial**. Technical assistance activities at the regional level and in participating countries may result in downstream impacts. For example, feasibility studies may lead to the preparation of subsequent investments that attract a higher risk rating, such as resettlement, impacts on Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities (IP/SSAHUTLC), and cumulative effects on livelihoods. All technical assistance activities must be undertaken in line with ESF requirements to mitigate potential E&S risks and impacts and in compliance with the Bank's Advisory Note on Technical Assistance.

79. **Grid electrification activities under Pillar 2 could result in a range of social impacts as it will involve civil works.** While the priority is on densification and reinforcement, new distribution lines will also be constructed, including the potential for cross-border LV/MV lines. This could result in a range of social impacts, including land acquisition, land-use restrictions, and involuntary resettlement associated with the establishment of ROWs and/or easements, depending on national requirements. The severity of any such impacts will depend on existing land uses, the importance of sites for livelihoods, and the ability of landowners to utilize the land following construction. Such impacts will differentially affect vulnerable groups, notably IP/SSAHUTLC, depending on the location of investments, as well as women, people living with disabilities, and those with smaller land plots or informal rights to the land they use. Other impacts associated with construction include the potential for labor influx with associated risks for increased transmission of diseases (including

sexually transmitted diseases) and conflict between communities and workers. Again, the nature and extent of these risks will vary, depending on the location of the investment; however, many border areas within the AFE region are known to have higher risks of social tension and conflict for a range of reasons (e.g., access to natural resources and historical tensions/conflict between groups as a result of migration [including displaced persons]). The presence of IP/SSAHULTC will need to be assessed by the Bank for each country to determine whether communities that meet the requirements of ESS 7 are present and the associated impacts on these groups (as well as the benefits associated with access to electricity). These risks will be fully described in the individual country-level E&S assessments. Risks associated with labor and working conditions include child labor, lack of contracts, and workers' inadequate access to facilities (e.g., drinking water and sanitation). Construction works can also increase the risk of sexual exploitation and abuse/sexual harassment (SEA/SH) associated with labor influx.

80. **Financing of the subprojects under Pillar 3 will involve FIs in multiple countries.** The expected focus is on DREs, which may also result in involuntary resettlement impacts, SEA/SH risks, and labor management issues; the subprojects may be located in areas where IP/SSAHUTLC are present, FCV-affected areas, or those hosting refugees. The capacity of the FIs to monitor and supervise subprojects over a large geographical area, as well as the capacity of their potential borrowers, will need to be determined but may influence the nature and scale of these risks. The FIs will need to screen projects to identify the risks such that high-risk subprojects would not be eligible for financing. The FIs' environmental and social management system (ESMS) will include screening criteria and exclusion lists to address these risks. Country-specific, social-risk characteristics have been provided in the country-level environmental and social review summaries (ESRSs) prepared under the projects linked to this MPA.

81. **Regional-level technical assistance activities, including those to be implemented by COMESA and participating countries, are mainly associated with establishing priorities, developing integrated plans, and mobilizing finance.** Pre-feasibility and feasibility studies for energy-access infrastructure are not proposed under this pillar. As such, it is expected that the direct and downstream E&S risks associated with technical assistance will be non-significant. All technical assistance activities, however, will be undertaken in line with ESF requirements to mitigate potential E&S risks and impacts and in compliance with the Bank's Advisory Note on Technical Assistance.

82. **Mitigation of forced labor risks in development of solar PV infrastructure will be addressed to ensure compliance with ESS2 requirements.** There are allegations of forced labor risks associated with the polysilicon suppliers. Regarding the risk of forced labor, under Environmental and Social Standard 2 (ESS2), where there is a significant risk of forced labor related to primary supply workers, the Borrower requires the primary supplier to identify those risks and if forced labor cases are identified, the Borrower will require the primary supplier to take appropriate steps to remedy them. Ultimately, where remedy is not possible, the Borrower will, within a reasonable period, shift the project's primary suppliers to suppliers that can demonstrate that they are meeting the relevant requirements of ESS2. See the Fiduciary Section above. In FI operations, the Borrowers/Recipients will establish requirements for obtaining declarations from solar power plant developers and solar distributors that neither they nor their solar panel suppliers have employed or engaged forced labor and will not employ or engage forced labor in the future when carrying out activities under the program. Project Operations Manuals will include templates for declaration on forced labor and contract clauses to be obtained from solar developers and distributors through relevant sub-agreements.

V. GRIEVANCE REDRESS SERVICES

83. ***Grievance Redress:*** Communities and individuals who believe that they are adversely affected by a project supported by the World Bank may submit complaints to existing project-level grievance mechanisms or the Bank'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 Bank's independent Accountability Mechanism (AM). The AM houses the Inspection Panel, which determines whether harm

occurred, or could occur, as a result of Bank non-compliance with its policies and procedures, and the Dispute Resolution Service provides communities and borrowers with the opportunity to address complaints through dispute resolution. Complaints may be submitted to the AM at any time after concerns have been brought directly to the attention of Bank Management and after Management has been given an opportunity to respond. Information on submitting complaints to the Bank's GRS and AM is available at http://www.worldbank.org/GRS and https://accountability.worldbank.org, respectively.

VI. KEY RISKS

84. **The overall residual risk rating for the overall ASCENT Program is Moderate.** The rating considers the experience gained as part of implementation of regional projects and programs in the AFE region and risks inherent to the ASCENT Program's own activities. These include lessons learned in strengthening institutional capacity, sector policies, fiduciary systems, and the mitigation measured identified in each operation. To manage the residual risks, ASCENT will provide technical assistance with quality assurance elements to help country teams in project preparation and implementation. To the extent feasible, given the level of fragility in some of the countries, ASCENT will remain adaptable to better navigate and respond to evolving sociopolitical contexts to maximize the chances of success. It will also invest in a learning agenda to raise the quality of implementation across all participating countries and regional implementing agencies.

85. **Macroeconomic risks are rated as Moderate.** Africa's post-COVID-19 pandemic economic recovery has generally been weak. Growth within the AFE region, in particular, is expected to either stabilize (Eastern Africa) or decelerate (Southern Africa), given the confluence of (i) weaker external demand, (ii) a sharp uptick in global inflation, and (iii) higher borrowing costs and adverse weather events. At the same time, the region's fragility and exposure to climate impacts pose risks to the countries' macroeconomic situation. The ASCENT Program design will help mitigate these risks by (i) strengthening the capacity of key institutions at all levels during rollout; (ii) strengthening the enabling environment for the utilities' financial recovery and mobilization of private investments; and (iii) supporting financial innovations, particularly aimed at reducing risks and mobilizing local currency financing to reduce exposure to currency risks.

86. **The environmental and social risks are rated as Substantial.** These risks emanate from the fact that the projects will be implemented in diverse locations across the AFE region characterized by varied environmental and social contexts and will be managed by different implementing agencies. The Program design is addressing these risks through provision of extensive technical capacity development, as well as technical assistance, along with continued streamlining of E&S requirements and incorporation of lessons learned into the design of future phases.

VII. RESULTS FRAMEWORK AND MONITORING

PDO Indicators by PDO Outcomes

Baseline	Closing Period
ASCENT MPA To Increase Access to Sustainable and Clean Energy in Eastern and Southern Africa	
People provided with electricity (Number)	
Oct/2023	Dec/2030
0	100,000,000
Increased regional electricity trade due to grid-based electrification (Percentage)	
Oct/2023	Dec/2030
0	5.00
Greenhouse Gas (GHG) Emissions Reduced (Metric ton)	
Oct/2023	Dec/2030
0	80,000,000

Intermediate Indicators by Components

Baseline	Closing Period
Digital Monitoring, Reporting and Verification for Energy Access & Climate Finance	
Deployment of Digital Monitoring, Reporting and Verification (D-MRV) platform (Text)	
Oct/2023	Dec/2030
No	D-MRV platform linked with 80% of ASCENT MPA participating countries
Carbon finance revenues associated with GHG reductions generated by ASCENT-financed investments (Amount(USD))	
Oct/2023	Dec/2030
0	100,000,000
Access delivered through distributed renewable energy technologies (Number)	
Oct/2023	Dec/2030
0	40,000,000
People provided with access to electricity for productive uses (Number)	

Oct/2023	Dec/2030
0	10,000,000
Private capital mobilized or enabled for energy access (Amount(USD))	
Oct/2023	Dec/2030
0	5,000,000,000
Health and Educational Facilities provided with access to electricity (Number)	
Oct/2023	Dec/2030
0	50,000
Number of people provided with clean cooking solutions (Number)	
Oct/2023	Dec/2030
0	20,000,000
Project Preparation Facility	
Number of private companies assisted by the Project Preparation Facility reaching financial close (Number)	
Oct/2023	Dec/2030
0	30
Number of projects requested by ASCENT Participating countries supported (Number)	
Oct/2023	Dec/2030
0	30
Advisory support Facility	
Number of countries implementing updated energy access strategies and plans (Number)	
Oct/2023	Dec/2030
0	15
Knowledge, Skills and Consumer Engagement	
COMESA Knowledge and skills plan implemented (Text)	
Oct/2023	Dec/2030
No Plan	Number of beneficiaries as per approved plan
Increased number of women with STEM background employed in the energy sector (Percentage)	
Oct/2023	Dec/2030
0	10
Project management and capacity building support to COMESA Secretariat	
Bi-annual capacity strengthening plans implemented (Yes/No)	
Oct/2023	Dec/2030
No	Yes
Number of annual consultation events and publicly disclosed summaries/minutes of these consultations (Number)	

Oct/2023	Dec/2030
0	8

Monitoring & Evaluation Plan: PDO Indicators by PDO Outcomes

Access to Sustainable, Clean Energy in Eastern and Southern Africa	
People provided with electricity (Number)	
Description	This indicator measures the number of people that receive access to grid, off-grid, or clean cooking solutions under the MPA. This indicator will be monitored at a disaggregated level: by gender, technology type (grid, mini-grid, distributed renewable Energy, and clean cooking), and end users (residential, businesses, farmers, schools, health clinics, and public facilities)—as appropriate for each country. Access to Energy includes grid electricity connections, all off-grid, Distributed Renewable Energy (DRE) solutions, and all clean cooking technologies. Each household connection is estimated to provide access to five people.
Frequency	Annual
Data Source	Recipients of ASCENT funding—Program implementing agencies or private-sector DRE companies
Methodology for Data Collection	Depending on the choice of reporting option selected by the recipients: (i) direct reporting by project implementing agencies or (ii) reporting through the digital MRV system. Data verification protcols will be implemented to avoid double-counting of connections by private DRE companies receiving funding from multiple ASCENT MPA sources.
Responsibility for Data Collection	COMESA secretariat PIU's digital MRV team and Statistics unit.
Regional electricity trade due to grid-based electrification (Percentage)	
Description	This indicator measures the increased volume of regional electricity trade enabled by an increase in national grid-based electrification in participating countries, including cross-border solutions, using the Southern Africa Power Pool (SAPP) and Eastern Africa Power Pool (EAPP) trade model. This indicator will be assessed at the end of the program, with an interim review on reaching 20 million people through grid-based expansion.
Frequency	Twice in program Lifetime. (i) On reaching 25 million people through grid-based expansion. (ii) At the end of the MPA lifetime or on reaching the program target of 100 million people, whichever comes first.
Data Source	Data on regional power trade from the EAPP and SAPP and national utilities. Data on increase in grid-based connection from program implementing agencies and national utilities.
Methodology for Data Collection	Direct
Responsibility for Data Collection	COMESA Secretriat Project Implementation Unit (PIU) and Statistics Unit
Greenhouse gas emissions (Metric tons of carbon dioxide equivalent (Metric tons of CO_2e)	
Description	This indicator will measure the aggregated GHG emissions reductions in countries as a direct results of the program activities, particularly related to increase in DRE.
Frequency	Annual
Data Source	Recipient private companies and program implementing agencies.
Methodology for Data Collection	Depending on the choice of reporting option selected: (i) direct reporting by project implementing agencies or (ii) reporting of connection and energy consumption through the digital MRV system. This will provide information on the number and types of connections. Emission reductions (tCO_2e) will be calculated using appropriate monitoring methodologies and emission factors.
Responsibility for Data Collection	COMESA Secretriat PIU

Monitoring & Evaluation Plan: Intermediate Results Indicators by Components

Project Preparation Facility	
Number of private companies assisted by the Project Preparation Facility (PPF) reaching financial close (Number)	
Description	The PPF will provide technical assistance grant support to eligible companies, selected following a call for proposals. The eligibility criteria will require the companies to be at an advanced stage and seeking support to complete key requirements for securing debt financing, including through the ASCENT Regional Financing Facility.
Frequency	Annual
Data Source	Recipient private companies
Methodology for Data Collection	Periodic progress reports submitted by recipient private companies
Responsibility for Data Collection	COMESA Secretariat PIU
Number of projects requested by ASCENT Participating countries supported (Number)	
Description	The project prepartion facility will provide technical assistance grants for development of projects by government agencies. These projects can be single country projects and cross-border solutions.
Frequency	Annual
Data Source	PPF
Methodology for Data Collection	Periodic progress report of the facility
Responsibility for Data Collection	COMESA Secretariat PIU
Advisory Support Facility	
Number of countries implementing updated energy-access strategies and plans (Number)	
Description	The COMESA ASCENT platform will support participating countries on strengthening the policy and regulatory environment for energy access.
Frequency	Bi-annual
Data Source	Recipient countries
Methodology for Data Collection	Periodic progress report
Responsibility for Data Collection	COMESA Secretariat PIU
Knowledge exchange, data, skills development, and consumer engagement	
COMESA Knowledge and skills plan implemented (Text)	
Description	The COMESA Secretariat will develop a detailed plan to faciltate knowledge exchange, enhancement of data quality, advocacy, and consumer engagement. This indicator tracks its development and implementation.
Frequency	Annual
Data Source	COMESA Secretariat PIU and partner entities
Methodology for Data Collection	Periodic progress reviews
Responsibility for Data Collection	COMESA Secretariat PIU
Increased number of women with STEM background employed in the energy sector (Percentage)	
Description	This is the share of women with Science, Technology, Engineering, and Mathematics (STEM) educational background in the energy sector, including public- and private-sector institutions.
Frequency	Annual

Data Source	COMESA Secretariat PIU with regional partners and member state institutions
Methodology for Data Collection	Regionwide sample employment surveys and analysis
Responsibility for Data Collection	COMESA Secretariat PIU
Project management and capacity-building support to COMESA Secretariat	
Bi-annual capacity strengthening plans implemented (Yes/No)	
Description	COMESA Secretariat will develop a detailed plan for strengthening capacity of various functions and departments within the Secretariat. These may include units, among others, working on statistics, M&E, gender, climate change, and IT.
Frequency	Bi-Annual
Data Source	COMESA Secretariat departments and PIU
Methodology for Data Collection	Periodic progress reviews
Responsibility for Data Collection	COMESA Secretariat PIU
Number of annual consultation events and publicly disclosed summaries/minutes of these consultations (Number)	
Description	These are online and in-person events held by the COMESA PIU to share information on the ASCENT MPA and seek feedback on design of the projects and insights into improving design.
Frequency	Annual
Data Source	COMESA Secretariat PIU
Methodology for Data Collection	Announcement of events and publication of event summaries on COMESA program webpage
Responsibility for Data Collection	COMESA Secretariat PIU
Monitoring, Reporting, and Verification Platforms for Energy Access & Climate Finance	
Deployment of Digital Monitoring, Reporting and Verification (D-MRV) platform (Text)	
Description	This indicator relates to deployment of the digital platform for MRV of new electricity connections made from on-grid and off-grid (DRE) solutions for reporting of customer outreach and energy consumption and for enabling results-based payments, including carbon financing. The data reported will inform the PrDO indicator on number of connections.
Frequency	Quarterly
Data Source	D-MRV team at COMESA
Methodology for Data Collection	Quarterly project reporting
Responsibility for Data Collection	COMESA Secretariat PIU
Carbon finance revenues associated with GHG reductions generated by ASCENT-financed investments (Amount, US$)	
Description	This is the amount of carbon revenue generated through data aggregation and transaction facilitation through the D-MRV system.
Frequency	Annual
Data Source	D-MRV system
Methodology for Data Collection	Purchase agreements for emission reductions associated with energy-access interventions under ASCENT (calculation based on assumption of 20 million tCO_2e at an estimated price of US$5/$tCO_2$)
Responsibility for Data Collection	COMESA Secretariat PIU
Private capital mobilized or enabled for energy access (Amount, US$)	
Description	This indicator measures the volume of financing flows from private sectors, including climate finance sources

	(e.g., carbon revenues), for on-grid, DRE, and clean cooking interventions supported through direct financing or co-financing, and enabled through project preparation facilities and dedicated technical assistance. In addition to private legal entities, this will also include retail and household investors, incl. equity providers, and private commercially-run foundations.
Frequency	Annual
Data Source	Data from private companies receiving support through project preparation funds; government program implementing agencies; regional financing facilities and participating financial institutions.
Methodology for Data Collection	Options: i) direct reporting; (ii) financing amounts estimated from the reported number of connection and energy consumption through the digital MRV system.
Responsibility for Data Collection	COMESA Secretariat PIU
Access delivered through distributed renewable energy technologies (Number)	
Description	This is a sub-indicator contributing to the PrDO and reports the number of people provided electricity through off-grid, distributed renewable energy technologies.
Frequency	Annual
Data Source	Recipients of ASCENT funding—Program implementing agencies or private-sector DRE companies
Methodology for Data Collection	Depending on the choice of reporting option selected by the recipients: (i) direct reporting by project implementing agencies or (ii) reporting through the digital MRV system. Data verification protcols will be implemented to avoid double-counting of connections by private DRE companies receiving funding from multiple ASCENT MPA sources.
Responsibility for Data Collection	COMESA Secretariat PIU
People provided with access to electricity for productive uses (Number)	
Description	This is a sub-indicator contributing to the PrDO and reports the number of people provided electricity throughoff-grid, distributed renewable energy technologies for non-residential, productive uses, including electricity, heat, and mechanical power aimed at enhancing income generation opportunities and productivity.
Frequency	Annual
Data Source	Recipients of ASCENT funding—Program implementing agencies or private-sector DRE companies
Methodology for Data Collection	Depending on the choice of reporting option selected by the recipients: (i) direct reporting by project implementing agencies or (ii) reporting through the digital MRV system. Data verification protcols will be implemented to avoid double-counting of connections by private DRE companies receiving funding from multiple ASCENT MPA sources.
Responsibility for Data Collection	COMESA Secretariat PIU
Health and Educational Facilities provided with access to electricity (Number)	
Description	This is a supplementary indicator to the PrDO as it reports the number of facilities that are provided electricity through on-grid and distributed renewable energy technologies. Each facility serves a community/village and provides a broader economic and social benefit. It is therefore reported separately.
Frequency	Annual
Data Source	Recipients of ASCENT funding—Program implementing agencies or private-sector DRE companies
Methodology for Data Collection	Depending on the choice of reporting option selected by the recipients: (i) direct reporting by project implementing agencies or (ii) reporting through the digital MRV system. Data verification protcols will be implemented to avoid double-counting of connections by private DRE companies receiving funding from multiple ASCENT MPA sources.
Responsibility for Data Collection	COMESA Secretariat PIU
People provided with clean cooking solutions (Number)	
Description	This is a supplementary indicator to the PrDO as it reports the number of people provided with clean cooking solutions. It is therefore reported separately.

Frequency	Annual
Data Source	Recipients of ASCENT funding—Program implementing agencies or private-sector DRE companies
Methodology for Data Collection	Depending on the choice of reporting option selected by the recipients: (i) direct reporting by project implementing agencies or (ii) reporting through the digital MRV system. Data verification protcols will be implemented to avoid double-counting of connections by private DRE companies receiving funding from multiple ASCENT MPA sources.
Responsibility for Data Collection	COMESA Secretariat PIU

ANNEX 1: ASCENT MPA Implementation Plan

The IDA allocation proposed for the first wave of operations is provided in Table 1 below. These operations are described in following annexes.

Table 1: IDA Allocation Proposed for first Wave of Operations

FY24 Q2 Board approval	Project ID	IDA window (US$ million)				Total IDA (US$ million)
		PBA	Regional Credit	Regional Grant	SUW	
1. COMESA regional platform	P180547	-	-	50	-	50
2. Rwanda IPF	P180575	150	150	-	-	300
3. Somalia IPF	P181341	50	-	50	-	100
4. Sao Tome and Principe IPF	P177099	20	18	-	-	38
5. Tanzania PforR	P179631	150	150	-	-	300
6. TDB Regional Facility	P181328	-	25	-	250	275
Total		**370**	**343**	**100**	**250**	**1,063**

The MPA anticipates that up to 20 countries in the Eastern and Southern Africa (AFE) region will participate in ASCENT. The estimated amounts for IDA countries, shown in Table 2, are derived from a model developed by the ASCENT technical team. These are based on the (i) estimated costs of the electrification needs derived from unelectrified populations; (ii) pace of connections based on recent performance; and (iii) absorption capacity for additional IDA funding for energy access, based on the size and performance of current or recent energy-access operations. In addition, IBRD countries with energy access deficits (Botswana, Eswatini, Namibia, and South Africa) may participate in the Program to access climate finance, carbon financing platforms and the private-sector dialogue.

Table 2: Estimated IDA Allocation for Future Phases

Country	US$ million	Country	US$ million
Burundi	150	Madagascar	320
Comoros	30	Malawi	200
Democratic Republic of Congo	400	Mozambique	500
Ethiopia	500	South Sudan	100
Kenya	450	Uganda	450
Lesotho	37	Zambia	200
New regional facilities			600
Total	**US$3,937million**		

***NOTE**: The Articles of Agreement of IBRD and IDA (IBRD Article III, Section IV, and IDA Article V, Section 1 (d)) require that before making IBRD/IDA financing, a report of a Statutory Committee (StatCom) be completed. The StatCom must include the signature of a representative of the member country where the project is located. Although the Articles do not require that a StatCom be made available before the EDs approve Bank financing, it has been a long-standing practice that StatComs are obtained before the EDs decide on Bank financing. However, to attain greater agility and efficiency in the processing of this MPA, following the precedent set by the global MPA for the "COVID-19 Strategic Preparedness and Response Program" (P173789), Management proposes to obtain the StatCom from each member state benefiting from this ASCENT MPA financing before the funds are committed by Management (i.e., before the legal agreement is signed) with respect to each such member country.*

ANNEX 2: COMESA Regional Energy Access Acceleration Platform (P180547)

Task Team Leaders: Dana Rysankova, Monali Ranade, Patrick Balla
Core Team: Deea Ariana, Francis Chibwe, Marlon Rawlins, Chandra Shekhar Sinha, Martina Bosi, Dan Radack, Lucas Belenky, Yabei Zhang, James Chacha Maroa, Margaret Auma Ombai, Bharti Solanky, Thokozani Kadzamira, Marie-Paule Ngaleu Wedex Ilunga, Baison Banda, Shaukat Javed, James Knuckles, Maria Del Rosario Fischer Loayza Cortez, Edith Ruguru Mwenda, Ntayi Anfani Bandawa; Birgit Kuba; George Ferreira da Silva

A. Context

1. **The Common Market for Eastern and Southern Africa (COMESA)** was established in 1994 as "as an organization of free independent sovereign states that have agreed to cooperate in developing their natural and human resources for the good of all their people." COMESA sums up its current strategy as "economic prosperity through regional integration." Recognizing the critical importance of sustainable, reliable, and affordable energy for competitiveness and greater economic integration of countries in the Eastern and Southern Africa (AFE) region, COMESA has been increasing its involvement in the energy sector. Through its energy program, whose main thrust is to promote regional cooperation in energy development, trade, and capacity building, COMESA supports its member countries in (i) harmonization of energy policy and regulatory frameworks, (ii) regionwide energy planning, and (ii) facilitation of trade in energy services through regional energy trade and development of a wider distributed renewable energy (DRE) market.

B. Relevance to Higher-Level Objectives

2. **The project aligns with COMESA's strategic vision.** The proposed Regional Energy Access Acceleration Platform under the ASCENT MPA will build further on the World Bank's existing engagement with COMESA under the Regional Infrastructure Financing Facility (RIFF) Project (P171967), which already supports COMESA in building a regionwide enabling environment for distributed renewables with a focus on off-grid solar (OGS) products.

C. Project Description

3. The Project Development Objective (PDO) for the Regional Energy Access Acceleration Platform is to *create an enabling environment for increasing access to sustainable and clean energy in Eastern and Southern Africa*. This Platform will monitor progress toward the overall Program Development Objective (PrDO) indicators. As an umbrella platform, the COMESA Platform shares the MPA PDO indicators. The Platform will focus on creating the enabling environment through digitization, upstream project development and policy advisory support, knowledge and skills promotion, and capacity strengthening, which are captured via intermediate indicators (Table 2.1).

Table 2.1: Results Framework

Indicator	Unit	End target
COMESA Regional Energy Access Acceleration Platform: Intermediate Results Indicators		
Deployment of D-MRV platform	Yes/No	D-MRV platform linked with 80% of ASCENT MPA participant countries
Private companies supported reaching financial close	Number	30
Projects requested by ASCENT participant countries supported	Number	30
Countries implementing updated energy-access strategies and plans	Number	15
COMESA knowledge and skills development plan implemented	Yes/No	Number of beneficiaries as per approved plan
Bi-annual capacity-strengthening plans implemented	Yes/No	Yes

4. **The Regional Energy Access Acceleration Platform** will support all countries participating in the ASCENT MPA. COMESA is able to support all ASCENT participant countries—both COMESA members and non-COMESA members (through a collaboration agreement with other regional organizations). It will provide support to countries that have joined the ASCENT program, as well as those that are preparing their projects for program entry. Managed by the COMESA Secretariat, the Platform will contribute to implementation and monitoring of the overall ASCENT program. The envisaged components under the Platform are described in this section and Figure 2.1 and Table 2.2, with details provided in the Financing Agreement and the Project Operations Manual.

Figure 2.1: Overview of the Regional Energy Access Acceleration Platform under the ASCENT MPA

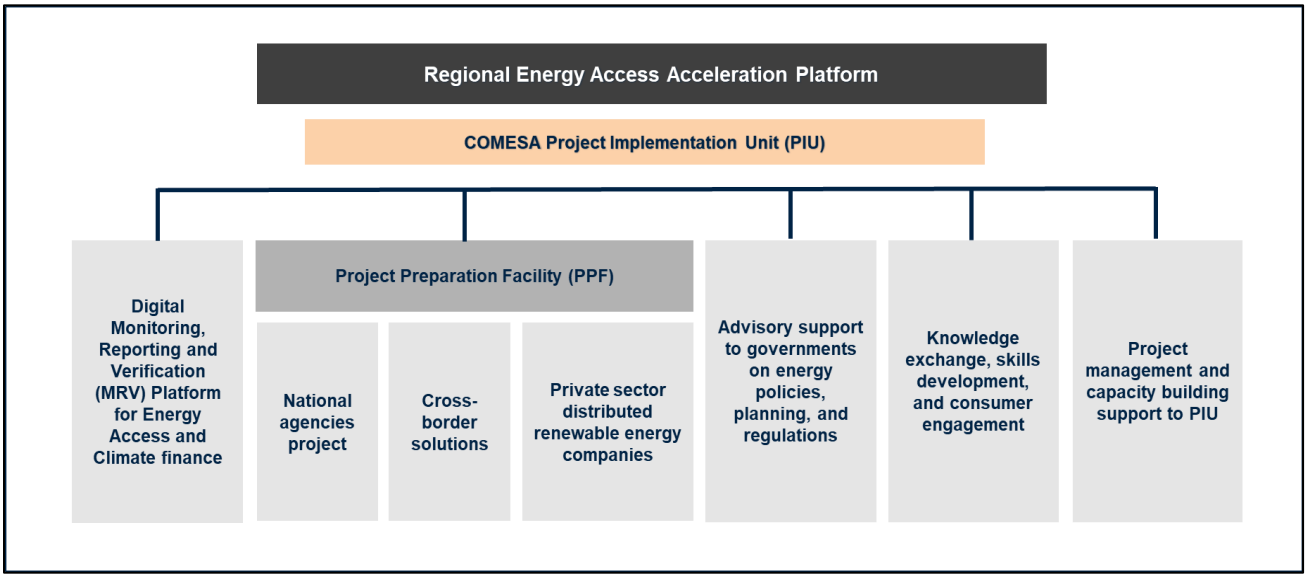


Table 2.2: Proposed Project Components and Funds Allocation

Component	MPA pillar	IDA (US$ million)
1. Digital Monitoring, Reporting, and Verification (D-MRV) Platforms for Energy Access and Climate Finance	1-Access Platforms	5
2. Project Preparation Facility	1-Access Platforms	20
3. Advisory Support Facility	1-Access Platforms	15
4. Knowledge exchange, skills development, consumer engagement, convening and partnerships	1-Access Platforms	5
5. Project management and capacity-building support to the COMESA Projec Implementation Unit	1-Access Platforms	5
Total		**50**

5. The Platform focuses exclusively on Pillar 1. It will finance technical assistance and capacity building, creating the enabling environment for all participating countries to effectively implement all three of the program's pillars:

a) **Component 1: Digital Monitoring, Reporting, and Verification (D-MRV) Platforms for Energy Access and Climate Finance.** The Platform will support countries with adoption of D-MRV platforms and other digital technology to improve sector planning; implementation of project activities; and monitoring, reporting, and verification of countries' energy-access efforts; as well as enabling access to climate financing, including facilitating participation in carbon markets. The activities under this component will entail (i) implementing a regional D-MRV platform; (ii) establishing a mechanism for carbon credits transaction; (iii) facilitating adoption and operationalization of D-MRV platforms at the country level; (iv) developing dashboards for tracking progress under ASCENT, data visualization, and information dissemination; and (v) supporting countries in other digitization needs, including adoption of specialized digital platforms for planning and development of mini grids and other distributed renewables and clean cooking technologies.

b) **Component 2: Project Preparation Facility (PPF).** The PPF—a critical component of the ASCENT MPA—will support governments and the private sector in developing bankable, investment-ready projects through a demand-driven approach. The activities envisaged under the PPF are as follows:

   a. **Sub-component 2A: Project development support to national agencies**. This sub-component will provide (i) support to national agencies (e.g., energy ministries, rural electrification agencies, and public utilities) on the design and implementation of energy-access projects supporting ASCENT program objectives, per government requests and (ii) access to specific, just-in-time support for project design from a roster of experts. The sub-component will reduce the capacity constraints of governments to prepare projects to the standards required to attract financing from both public and private sectors. This will specifically include support to government agencies to build capacity on environmental and social issues related to implementing ASCENT activities.

   b. **Sub-component 2B: Cross-border solutions**. This sub-component will identify, prioritize, and facilitate cross-border energy provision among multiple countries, spanning grid connections, on-grid renewable energy, and DRE solutions, as well as clean cooking, with the objective of accelerating energy access in border areas. Activities will include (i) identifying and prioritizing potential areas for cross-border electrification using geospatial mapping, (ii) advocacy and convening to gain support for cross-border solutions through engagement with governments and key stakeholders, (iii) advisory support to governments on negotiation and structuring of cross-border energy investments, and (iv) facilitating technical studies.

   c. **Sub-component 2C: Support to private-sector DRE and clean cooking companies.** This sub-component involves supporting the growth and bankability of private-sector DRE and clean cooking companies to attract high-quality investors. Its activities will provide (i) market intelligence on DRE and clean cooking markets to all stakeholders, including access to high-quality data through geospatial mapping and planning platforms and conducting market assessments on specific DRE and clean cooking technologies and (ii) business development support (covering technical, financial, economic, social, legal, regulatory, environmental and social safeguards, institutional, governance, transaction structuring and management issues). The sub-component will help build a strong pipeline of companies that will make it easier for them to attract commercial financing, including those of the International Finance Corporation (IFC) and the Regional Energy Access Financing Platform (REAF) managed by the Trade and Development Bank (TDB) under ASCENT (Annex 7). Support can be provided via provision of grants or access to technical expertise (e.g., via the roster of experts).

c) **Component 3: Advisory support facility.** This component will support participating countries on strengthening the policy and regulatory environment for energy access. Specific activities will include (i) supporting governments in preparing, updating, and operationalizing national electrification and clean cooking strategies and plans; (ii) preparing regional and country-specific energy-access investment prospectuses and roadmaps and supporting associated convening and roadshows to mobilize financing; (iii) supporting the adoption of best practices in energy policies and

regulations (e.g., through developing model policies and regulations and support for their operationalization), driving AFE-wide harmonization, especially in the area of distributed renewables, (iv) supporting harmonization of technical and quality standards for grid equipment, mini grids, off-grid solutions, and clean cooking, and including a review of policies and technical assistance related to e-waste and other environmental and social (E&S) policies and regulations affecting the DRE and clean cooking sectors; and (v) identifying other barriers (e.g., trade, investment, and banking) and facilitating their removal via analytics, technical assistance, advocacy, and convening.

d) **Component 4: Knowledge exchange, skills development, consumer engagement, convening and partnerships**. This component will build data, knowledge, and skills for energy-access planners, funders, and providers, as well as their current and prospective employees and energy-access consumers. It will enable participating countries to share both technical knowledge and experience in energy-access interventions, thus facilitating faster learning and replication of successful approaches. The component will launch a comprehensive effort for improving energy data availability and quality across the region by utilizing energy access surveys (including the Multi-Tier Framework [MTF] surveys), impact evaluations, and research projects, as well as through seeking partnerships with regional academic institutions. It will also provide support to government agencies and partner organizations for energy-access consumer engagement, including awareness raising, and develop effective advocacy strategies to influence policies, commitments, and actions for universal energy access in the region. In addition, in partnership with the region's academic institutions (and internally with the Education Global Practice), it will implement a targeted skills development program for energy access and renewables to create more job opportunities in the sector, especially for women. Furthermore, it will support COMESA's ambitious gender agenda through (i) including audits of gender policies on energy access in COMESA member states, with a goal of harmonizing policies to accelerate the closing of gender-related energy access gaps in the region; (ii) develop programs that attract women with STEM backgrounds to the energy sector in COMESA member states; and (iii) establish a regional Women's Leadership Institute and STEM Skills Accelerator Institute to support the development of women's skills to prepare them for energy-sector employment, including prospective leadership positions in the sector. Technical assistance will include promoting women's energy-sector participation as entrepreneurs, champions, and role models. A monitoring and evaluation (M&E) component on gender commitments under the MPA and documentation of good practices will also be included.

e) **Component 5: Project management and capacity-building support to the COMESA Project Implementation Unit (PIU).** This component will provide the COMESA PIU specific support for building capacity to implement and monitor activities under the regional Platform and strengthen capacities in specific areas, including DRE, E&S, and gender.

6. ASCENT Program will also build on and strengthen the COMESA Secretariat's Resource Mobilization and International Cooperation unit. **A donor partnership and fundraising plan** will be developed for the ASCENT program. The implementation approach for development, implementation and periodic update of the plan will be detailed in the Project Operations Manual (POM). This plan will identify other development partners, both new and those that already support COMESA Secretariat, and have expressed specific interest in the topic of energy access and climate change. In addition, the plan will identify development partners, philanthropies and private sector companies/organization as potential partners for the ASCENT Program. Based on the ASCENT work program and financing needs, WB and COMESA Secretariat will undertake specific fund-raising initiatives throughout the Program lifetime.

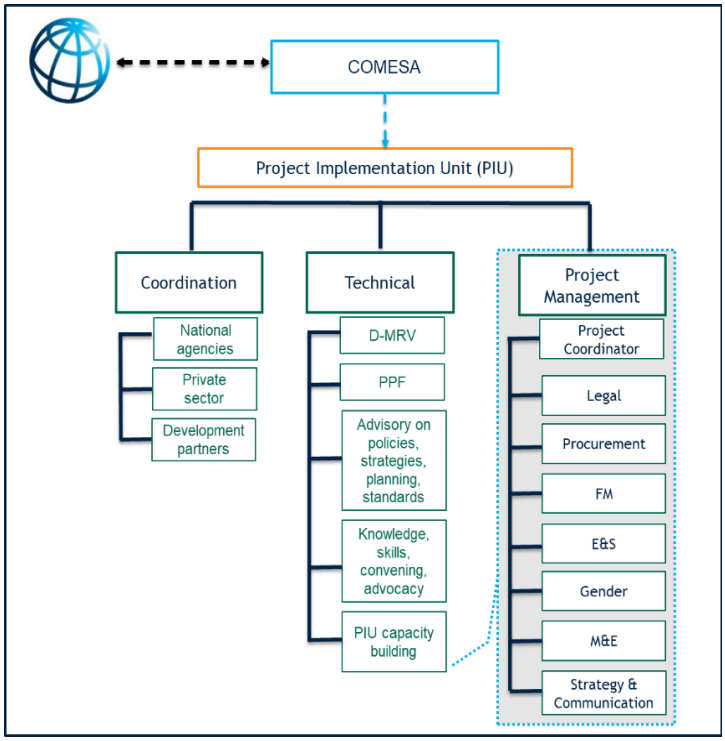
D. Project Beneficiaries

7. The Platform's direct beneficiaries will be the government agencies and private-sector companies supported, as well as the trainees (including women) under its skills-building activities. The ultimate beneficiaries will be the people of the AFE region who will have been provided access to electricity and clean cooking.

E. Institutional and Implementation Arrangements

8. COMESA will use the existing PIU under the Regional Infrastructure Financing Facility (RIFF) Project (P171967), which is already involved in the implementation of the project, but with a strengthened capacity to account for its increased scope under the ASCENT program. In Phase 2, it is expected that an IDA grant, in the amount of US$50 million, will be boosted with an additional US$10 million grant from ESMAP's Clean Cooking Fund (CCF). The COMESA Secretariat will be responsible for overall coordination of the Platform through a well-staffed PIU. From its senior staff, COMESA will appoint a project coordinator, who will be supported by a team of experts to be recruited at the PIU, including additional DRE experts and E&S and gender specialists (Figure 2).

Figure 2. Proposed PIU Structure and Implementation Arrangements



9. ASCENT program will build on and strengthen the ongoing initiatives of the COMESA Secretariat's donor coordination unit. A donor partnership and fundraising plan will be developed for the ASCENT program. The approach for development, implementation, and periodic update of the plan will be detailed in the Project Operations Manual (POM). This plan will identify donor partners that already support the COMESA Secretariat and have specifically expressed interest in the topic of energy access and climate change. In addition, the plan will identify development partners, philanthropies, and private-sector companies as potential partners for the ASCENT program. Based on ASCENT's work program and financing needs, the World Bank and the COMESA Secretariat will undertake specific fundraising initiatives throughout the program's life span.

F. Appraisal Summary

10. **Paris Alignment:** The project is fully aligned with the Paris Agreement on Climate Change on both adaptation and mitigation and is anticipated to have substantive impacts on improving climate adaptation and resilience. A summary of the project's CDRS (Climate and Disaster Risk Screening) and Climate Financing, informing climate-co-benefits, can be found in the *ASCENT Technical Note on Climate Change* (available on request).

11. **Financial Management:** The overall residual risk of financial management (FM) has been assessed as Moderate, based on an assessment conducted in September 2023 on the FM arrangements for the ASCENT MPA, which covered budgeting, flow of funds, accounting, internal control, financial reporting, and auditing arrangements. COMESA will open a segregated Designated Account (DA) denominated in US dollars and an Operational Account (OA) denominated in ZMW at a commercial bank acceptable to the World Bank; the DA will be used exclusively for the project. COMESA will use the funds disbursed under the project to pay for eligible US dollar-denominated expenditures direct from the US$ DA account and transfer funds to the ZMW OA for making local currency payments. In addition, to manage the monitor the use of the disbursed funds, COMESA will prepare and submit quarterly, unaudited interim financial reports (IFRs) to the World Bank. Lastly, the external audit of the project funds will be carried out by a qualified audit firm, based on audit terms of reference (TOR) acceptable to the World Bank.

12. **Procurement:** The World Bank has carried out a review of COMESA's procurement capacity, which it rates as Moderate. COMESA has implemented several World Bank–funded projects in the past, including the ongoing RIFF project

and the Great Lakes Trade Facilitation and Integration Project. As a result, COMESA has acquired reasonably good capacity and experience in implementing Bank-financed projects from a procurement perspective, and it is expected that procurement arrangements under ASCENT will not be complex. Contract evaluations will be based largely on conformance criteria. Contract terms and conditions will mainly be based on provisions from the Standard Procurement Documents (SPD) that COMESA uses for its Procurement Rules and Regulations (February 2014), which need to be updated and modernized. To implement procurement activities under the Regional Energy Access Acceleration Platform, COMESA will update its Procurement Rules and Regulations to include such new issues as (i) Beneficiary Ownership provisions; (ii) Environment & Safeguards provisions; (iii) Enhanced Fraud and Corruption provisions; (iv) Handling Bidder Complaints; and (v) allocation of responsibilities, risks, and liabilities. In addition, when carrying out national/regional procurement, COMESA will modify the SPD in accordance with paragraph 5.3 of the World Bank's Procurement Regulations. Newly assigned staff who have not implemented procurement under Bank financing will require training in basic procurement and use of the Systematic Tracking of Exchanges in Procurement (STEP) tool. Furthermore, the Procurement Plan and the Project Procurement Strategy for Development (PPSD) have been prepared and agreed on with COMESA.

13. **Environmental and Social (E&S):** The COMESA component will set up a platform to support implementation and monitoring of the ASCENT MPA in AFE participant countries or those aiming to participate in ASCENT, as well as private-sector DRE and clean cooking companies active in the AFE region. The grant will not directly support any activity related to construction or rehabilitation of infrastructure where direct social risks or impacts are anticipated. Expenditure on technical advisory-related services will focus primarily on consultancies, goods, training, and capacity-building activities. The grants and advisory services provided (e.g., preparation of feasibility studies and TOR) must all be undertaken in line with the Environmental and Social Framework (ESF), in accordance with the requirements of the Environmental and Social Commitment Plan (ESCP) prepared for COMESA. The grant will not directly support any activity related to construction or rehabilitation of infrastructure where direct environmental risk or potential impacts are anticipated on the biophysical environment and/or valued environmental components from the project. Given the scale and nature of the activities anticipated under the grant, the risks and impacts expected for communities and human health/safety are low and negligible, respectively. COMESA has developed and disclosed an ESCP and Stakeholder Engagement Plan (SEP) and is preparing Labor Management Procedures (LMP) to manage the E&S risks, which will be completed prior effectiveness.

G. Key Risks

14. **The overall risk for the Regional Energy Access Acceleration Platform is considered Moderate**. The COMESA Platform will only finance technical assistance. In addition, it will be implemented by an experienced PIU that is already satisfactorily involved in the implementation of the existing RIFF Project (P171967).

ANNEX 3: Rwanda (P180575)

Task Team Leaders: Norah Kipwola, Arun Singh, Yabei Zhang
Core Team: Clementine Umugwaneza, Aalok Raj Pandey, Unurtsetseg Ulaankhuu, Edith Ruguru Mwenda, Daniel Radack, Mulugeta Dinka, Joel Buku Munyori, Eric Bugingo, Yacob Endaylalu, Chantal Umuhoza, Janet Umugwaneza, Meron Tadesse Techane, Mkombozi Bosco Karake, Jacqueline Bugunya, Ntayi Anfani Bandawa, Ndiga Akech Odindo, Alexandra C. Sperling, Alfred Jean-Marie Borgonovo, Fowzia Hassan, Meskerem Legesse, Antoinette Kamanzi, Shaukat Javed, Dimitrie Mukanyiligira Sissi, Sylvie Ingabire, Mwiseneza Huguette, Belinda Mutesi, Ntayi Anfani Bandawa; George Ferreira da Silva

DATASHEET

BASIC INFORMATION

Project Beneficiary(ies)	Operation Name		
Rwanda	Rwanda - Accelerating Sustainable and Clean Energy Access Transformation in AFE MPA (ASCENT - Rwanda))		
Operation ID	Financing Instrument	Environmental and Social Risk Classification	
P180575	Investment Project Financing (IPF)	Substantial	

Financing & Implementation Modalities

[✓] Multiphase Programmatic Approach (MPA)	[ ] Contingent Emergency Response Component (CERC)
[ ] Series of Projects (SOP)	[ ] Fragile State(s)
[ ] Performance-Based Conditions (PBCs)	[ ] 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
[ ] Alternative Procurement Arrangements (APA)	[ ] Hands-on Expanded Implementation Support (HEIS)

Expected Approval Date	Expected Closing Date	Expected Program Closing Date
30-Nov-2023		31-Dec-2030
Bank/IFC Collaboration		
No		

MPA Program Development Objective

To increase access to sustainable and clean energy in Eastern and Southern Africa

MPA FINANCING DATA (US$, Millions)

MPA Program Financing Envelope	5,415.00

Proposed Development Objective(s)

Increase access to sustainable and clean energy in the Republic of Rwanda

Components

Component Name	Cost (US$)
Increasing Access to Grid Electricity	277,000,000.00
Enhancing the Reliability of Electricity Services	73,000,000.00
Increasing Access to Off-Grid Electricity, Clean Cooking Solutions, and Productive Uses of Energy	30,000,000.00
Technical Assistance, Institutional Capacity Building and Implementation Support	20,000,000.00

Organizations

Borrower:	Republic of Rwanda
Implementing Agency:	Development Bank of Rwanda, Energy Development Corporation Limited

MPA FINANCING DETAILS (US$, Millions)

Board Approved MPA Financing Envelope	**0.00**
MPA Financing Envelope:	5,415.00
of which Bank Financing (IBRD):	0.00
of which Bank Financing (IDA):	5,000.00
of which Other Financing sources:	415.00

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	**430.00**
Total Financing	**430.00**
of which IBRD/IDA	**300.00**
Financing Gap	**0.00**

DETAILS

World Bank Group Financing

International Development Association (IDA)	300.00
IDA Credit	200.00
IDA Shorter Maturity Loan (SML)	100.00

Non-World Bank Group Financing

Commercial Financing	30.00
Unguaranteed Commercial Financing	30.00
Other Sources	100.00
Asian Infrastructure Investment Bank	100.00

IDA Resources (US$, Millions)

	Credit Amount	Grant Amount	SML Amount	Guarantee Amount	Total Amount
Regional	150.00	0.00	0.00	0.00	150.00

National Performance-Based Allocations (PBA)	50.00	0.00	100.00	0.00	150.00
Total	**200.00**	**0.00**	**100.00**	**0.00**	**300.00**

Expected Disbursements (US$, Millions)

WB Fiscal Year	2024	2025	2026	2027	2028	2029	2030
Annual	0.00	20.00	25.00	45.00	65.00	70.00	75.00
Cumulative	0.00	20.00	45.00	90.00	155.00	225.00	300.00

PRACTICE AREA(S)

Practice Area (Lead)

Energy & Extractives

Contributing Practice Areas

CLIMATE

Climate Change and Disaster Screening

Yes, it has been screened and the results are discussed in the Operation Document

SYSTEMATIC OPERATIONS RISK- RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	Moderate
2. Macroeconomic	Moderate
3. Sector Strategies and Policies	Moderate
4. Technical Design of Project or Program	Moderate

5. Institutional Capacity for Implementation and Sustainability	Moderate
6. Fiduciary	Moderate
7. Environment and Social	Substantial
8. Stakeholders	Moderate
9. Overall	Moderate
Overall MPA Program Risk	Moderate

POLICY 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

ENVIRONMENTAL AND SOCIAL

Environmental and Social Standards Relevance Given its Context at the Time of Appraisal

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

ESS 9: Financial Intermediaries	Relevant

NOTE: For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

LEGAL

Legal Covenants

Sections and Description

Conditions

Type	Citation	Description	Financing Source
Effectiveness	Article V5.01(a)	The Recipient has caused the EDCL to prepare and adopt the EDCL Project Operations Manual, in form and substance satisfactory to the Association.	IBRD/IDA
Effectiveness	Article V5.01(b)	The Subsidiary Agreements, acceptable to the Association, shall have been executed, and delivered on behalf of the Recipient and each Project Implementing Entity, and such Subsidiary Agreements shall have become effective and binding upon such parties in accordance with its terms.	IBRD/IDA
Effectiveness	Article V5.01(c)	The Recipient has caused the Project Implementing Entities to prepare, consult upon, disclose, and adopt: (i) the Environmental and Social Management Framework (ESMF) consistent with the national legislation and ESS1, including GBV/SEA/H Action Plan consistent with the national legislation and ESS4, (ii) the Labor Management Procedures (LMP) consistent with the national legislation and ESS2, (iii) the Resettlement Policy Framework (RPF) consistent with the national legislation and ESS5, all as set forth in the ESCP, and in form and substance satisfactory to the Association.	IBRD/IDA
Disbursement	Section III.B.1 of Schedule 2	No withdrawal shall be made under Category (1) unless and until the Recipient has caused EDCL	IBRD/IDA

		to appoint to the Project Coordination Unit (PCU), an environmental risk management, a social risk management specialist, and a Project health and safety specialist, all with experience, qualifications and under terms of reference satisfactory to the Association.	
Disbursement	Section III.B.1 of Schedule 2	No withdrawal shall be made under Category (5) unless the Recipient has caused the BRD to: (i) prepare and adopt the BRD Project Operations Manual, in form and substance satisfactory to the Association, and (ii) appoint or recruit to the Single Project Implementation Unit (Single PIU) an environment risk management specialist, and a social risk management specialist, all with experience, qualifications and under terms of reference satisfactory to the Association.	IBRD/IDA
Disbursement	Section III.B.1 of Schedule 2	No withdrawal shall be made under Category (6) unless the Recipient has caused the BRD to: (i) prepare and adopt the BRD LOC Manual, in form and substance satisfactory to the Association, and (ii) designate a senior management representative with the responsibility for overall accountability for environmental and social performance of BRD consistent with ESS9, in accordance with the ESCP.	IBRD/IDA

A. Context

1. **Rwanda has the potential to achieve universal access to electricity ahead of the United Nation's SDG 7 target for 2030 through both grid and off-grid options.** Access to reliable and affordable electricity is recognized as a critical factor in achieving Rwanda's ambition of achieving upper-middle-income country status by 2035 and high-income status by 2050 as laid out in its National Strategy for Transformation (NST1) for 2017–24. Electricity is a cross-cutting area of focus under both the economic and social transformation pillars, which outline targets in electricity generation, quality and reliability, and access. Rwanda has made significant strides in improving energy service delivery, having achieved one of the world's fastest rates of electrification over the past decade, with an average connection rate of about 230,000 annually over the past three years. Access to electricity increased from just 6 percent in 2009 to an estimated 61 percent in 2022 (47 percent from grid and the remainder from off-grid through the private sector). However, the disparity between urban and rural access (84.6 percent versus 51.4 percent) and gender of household head (63.9 percent for male versus 54.0 percent for female) is large, as per multi-tier framework household surveys. Monthly household electricity consumption remains low, at just 16.8 kWh on average, which is less than the monthly average household consumption in nearby East African Countries like Kenya (48.6 kWh) and Uganda (42 kWh). Commensurate with access expansion from 2010 to 2023, Rwanda's power generation capacity more than tripled (from 76 MW to 354 MW). Over the same period, its share of liquid fuel–based generation declined from about 48 percent to 21.3 percent, reducing the greenhouse gas (GHG) intensity of electricity by 50 percent. In accordance with the Least Cost Power Development Plan (2023–50), about two-thirds of the electricity generated by 2050 is expected to come from renewable sources. Independent Power Producers (IPPs) account for more than 60 percent of the electricity generated, and capacity expansion over the past decade has been largely financed by the private sector. Progress toward cleaner cooking solutions, however, has been much slower. Among households, 76.1 percent use firewood; 17.3 percent use charcoal (NISR, 2022); and 67.2 percent rely on the most polluting and inefficient cooking practices (i.e., traditional cookstoves, three-stone fires, or open fire).

2. **Rwanda's National Electrification Plan (NEP) aims to achieve electricity access for all by targeting 65 percent of villages with grid connections and 35 percent with off-grid solar (OGS) solutions.** Meeting this ambition will require substantial public resources for grid expansion and intensification, including strengthening the transmission and distribution networks, while leveraging private investment in power generation and off-grid solutions. Achieving universal access ahead of 2030 will require even further acceleration of the current high pace of electrification; preliminary estimates indicate that mobilization of an additional US$1 billion will be needed (not including the costs for new generation capacity). Achieving the 2030 Nationally Determined Contribution (NDC) targets for clean cooking will require about US$800 million.

3. **Rwanda's electricity access agenda has benefited from the energy sector reforms initiated in 2013, which aimed to streamline operations, improve operational efficiency and financial performance, and create an off-taker entity for private sector–produced power.** The reforms entailed separation of electricity functions from the former combined water and electricity utility, Electricity and Water Sanitation Authority and establishment of the Rwanda Energy Group (REG), with its two subsidiaries [Electricity Utility Corporation Limited (EUCL) and Energy Development Corporation Limited (EDCL)] responsible for electricity utility operations and new energy development activities, respectively**.** The World Bank played a critical role in supporting power sector reforms by strengthening the capacity of these newly established entities and financing investment operations and policy reforms. Key supports included (i) introducing the state-of-the-art tools to support efficient, transparent, and accountable execution of operations in all areas; (ii) strengthening the management and technical capacity; (iii) developing key strategies and diagnostic studies to inform investment and policy decisions and attract financing; and (iv) implementing a programmatic series of three consecutive Development Policy Operations which were designed to support containing the fiscal impact of the electricity sector while simultaneously improving operational efficiency, reliability, affordability, and accountability of services.

B. Relevance to Higher-Level Objective

4. **The Project is fully aligned with the World Bank's Country Partnership Framework (CPF) for FY21–26 for Rwanda, as discussed by the Board on July 9, 2020 (Report 148876-RW).** The proposed intervention directly contributes to the CPF objective of "Expand access to infrastructure and the digital economy" and is expected to improve livelihoods through access to modern energy. The project is also consistent with the country's climate policies, including the updated NDC. In addition, the project will contribute to the World Bank's regional integration agenda. Rwanda is already a part of the Eastern African Power Pool (EAPP) and will need to deepen its integration with the regional network to meet increased demand from a higher national electrification rate and industrial customers. Rwanda's joint hydropower projects with Burundi and Tanzania (construction of the Rusumo Falls Hydroelectric Project) and Burundi and the Democratic Republic of Congo (preparation of the Regional Ruzizi Hydropower Project) are also expected to contribute to meeting the country's increasing demand for electricity. Similarly, investments in network reinforcement will help Rwanda to meet its increased power demand and also enhance the reliability and flexibility necessary for power trade with neighboring countries.

5. **The project is an integral part of the regional ASCENT MPA**. Rwanda is at the forefront of the region for achieving universal access to electricity. Through its experience and lessons learned, the country will contribute to the regional knowledge-exchange platform, while also benefiting from the regional platform's financing, advisory support, capacity building, and harmonization efforts (e.g., digital monitoring platform, technical and quality standards, market intelligence, carbon finance mobilization, and cross-border solutions).

C. Project Description

6. **The Project Development Objective (PDO) is to increase access to sustainable and clean energy in the Republic of Rwanda**, measured through the indicators shown in Table 3.1.

Table 3.1: Results Framework

Indicators	Baseline (June 2023)	End target (December 2029)
PDO-level indicator		
People provided with electricity (number)	0	1,880,000
Greenhouse gas (GHG) emissions reduced (tCO2e)	0	1,760,000
Intermediate results (IR) indicator		
Households provided access to grid electricity (number, thousands)	0	420
Productive users provided with access to grid electricity (number) - Women-led or -owned businesses provided new or improved access to grid electricity (number)	0	1,200 120
Energy Not Served (ENS) at Southern Hub (MWh/year)	295	259.6
Energy Not Served at Bugesera (MWh/year)	143	135.85
Households provided access to off-grid electricity (number, thousands)	0	50
Households provided new or improved access to clean cooking solutions (number, thousands)	0	80
Number of PUE technologies distributed (number, thousands) - Number of women-led or -owned businesses benefiting from distributed PUE technologies (number, thousands)	0	5 0.5
Women employed in enterprises financed by BRD (percentage)	0	15
Public institutions provided new or improved access to clean cooking solutions (number)	0	60
Amount of private investment mobilized (amount, in US$)	0	30,000,000
Beneficiaries who report they are satisfied with enhanced access to electricity (percentage)	0	80
Minimum energy performance standards adopted (number)	0	1
GRM number of cases/complaints resolved (percentage)	0	90

7. **Following is a brief description of the project's components**, the details of which are found in the Financing Agreement, the Technical Project Document, and the respective Project Operations Manuals by Project Coordination Unit (PCU) at EDCL and Project Implementation Unit (PIU) at Development Bank of Rwanda (BRD). The project will include co-financing in the amount of US$100 million from the Asian Infrastructure Investment Bank (AIIB), split pari-passu with the World Bank's financing across all project components, as described in Table 3.2.

Table 3.2: Proposed Project Components and Funds Allocation

Component	MPA pillar	IDA (US$ million)	AIIB (US$ million)
1. Increasing Access to Grid Electricity	2-Grid Electrification	207.75	69.25
2. Enhancing the Reliability of Electricity Service	2-Grid Electrification	54.75	18.25
3. Increasing Access to Off-Grid Electricity, Clean Cooking Solutions, and Productive Use of Energy (PUE)	3-Scaling DRE	22.5	7.5
4. Technical Assistance, Institutional Capacity Building, and Implementation Support for Energy Access Acceleration	1-Access Platforms	15	5
Total		**300**	**100**

a) **Component 1: Increasing Access to Grid Electricity:** This component will further support expanding grid access to about 420,000 households (including 79,000 fill-in connections), with the aim of achieving at least a 75 percent access rate in the targeted districts. The districts to be covered under the project are as follows: Bugesera, Gatsibo, Gisagara, Huye, Kayonza, Kirehe, Muhanga, Ngoma, Nyagatare, Nyamagabe, Nyanza, Nyaruguru, Ruhango, Rwamagana, and any qualifying districts that may be added.

b) **Component 2: Enhancing the Reliability of Electricity Service:** This component will support investments in improving grid stability and reliability to enable Rwanda to accelerate the access program with reliability and efficiency. Investments will include upgrading and rehabilitation of sub-stations, limited construction of high-voltage lines necessary for improving grid stability and reliability, and refurbishment and rehabilitation of selected medium-voltage (MV) and low-voltage (LV) networks.

c) **Component 3: Increasing Access to Off-Grid Electricity, Clean Cooking Solutions, and Productive Use of Energy (PUE)**: This component will support (i) off-grid electrification and clean cooking access through results-based financing (RBF) facilities established under the Development Bank of Rwanda (BRD) (Subcomponents 3.1 and 3.2); (ii) increasing access to PUE technologies designed for use by households and small and micro business enterprises via RBF (Subcomponent 3.3); (iii) a credit support facility for off-grid systems, clean cooking solutions, and PUE technologies (Subcomponent 3.4); and (iv) scaling up of clean cooking in public institutions (Subcomponent 3.5).

d) **Component 4: Technical Assistance, Institutional Capacity Building, and Implementation Support:** This component, to be implemented by both the EDCL and the BRD, will support technical studies on areas including energy efficiency and PUE, as well as other technical assistance activities relevant to achieving the PDO. The component will also support the capacity-building needs and project implementation costs at EDCL and BRD.

D. Project Beneficiaries

8. The project will benefit Rwanda's households (especially low-income households), disadvantaged women and girls (especially those living in remote areas), enterprises, and public facilities with access to electricity, clean cooking, and PUE solutions. The Rwanda Energy Group (REG), including its subsidiaries (EDCL and EUCL), and the Development Bank of Rwanda (BRD) will benefit from project investments and capacity-building support. Product and service providers of off-

grid, clean cooking, and PUE solutions will benefit from improved availability and terms of financing and increased demand for their services.

E. Institutional and Implementation Arrangements

9. **The project will utilize the implementation arrangements of the ongoing Energy Access and Quality Improvement Project (EAQIP) (P172594) and the Renewable Energy Fund (P160699) and will be jointly implemented by the EDCL and the BRD.** As under the EAQIP, the EDCL will cover all grid-related components (Components 1 and 2), the institutional clean cooking program (Subcomponent 3.5), and overall program coordination; while the BRD will implement the off-grid and clean cooking RBF programs, develop a new RBF program for PUE, and extend the credit facility to support the three RBF programs (Subcomponents 3.1–3.4). Both the BRD and the EDCL will implement Component 4. Using the same implementation arrangements that are efficiently working under the EAQIP, the REF will (i) eliminate duplication of effort and transaction costs for the Government of Rwanda, (ii) enhance the efficiency of implementation, (iii) strengthen the capacity of government institutions, and (iv) help streamline development-partner coordination of the program. The Project Coordination Unit at the EDCL and the Project Implementing Unit (PIU) at the BRD will be appropriately strengthened to take on the increasing workload. Two steering committees, established during implementation of the EAQIP, will continue to provide high-level government oversight and strategic guidance to the EDCL and the BRD. As in the case of the EAQIP, the BRD will take the lead in implementing the off-grid electrification and clean cooking Subcomponents (3.1 and 3.2), while the EDCL will cover certain technical aspects of implementation and verification. This arrangement will also be extended to the RBF for PUE technologies (Subcomponent 3.3) and the credit support facility (Subcomponent 3.4). Subcomponent 3.4 will build on existing credit-line windows under the REF. It will employ existing country systems to facilitate access to finance; a revolving line of credit will be provided for retail lending and to eligible financial institutions for on-lending to eligible enterprises engaged in off-grid electrification, clean cooking, and PUE technologies. The Financial Intermediary (FI) assessment for the BRD was conducted and detailed in the Rwanda Technical Project Document.

F. Appraisal Summary

10. **Paris Alignment:** The proposed Project is fully aligned with the Paris Agreement on Climate Change on both adaptation and mitigation and is anticipated to have substantive impacts on improving climate adaptation and resilience. Furthermore, the proposed project is not expected to have substantive contributions to GHG emissions or create carbon lock-in. A summary of the project's Climate and Disaster Risk Screening (CDRS) and Climate Financing, informing climate-co-benefits, can be found in the publicly disclosed Climate Change Technical Document.

11. **Financial Management (FM).** The project's FM arrangements meet the World Bank requirements and provide reasonable assurance that the proceeds of the financing will be used for their intended purposes. The project's arrangements will rely on the existing Public Financial Management (PFM) system and the individual FM Systems in each of the implementing agencies with some amendments in consideration of the project's and the World Bank's FM requirements. Based on the assessment conducted, the FM risk of the project is rated as Moderate. The project will maintain segregated Designated Accounts (Das) for EDCL and the BRD, which will be maintained at National Bank of Rwanda (BNR) and denominated in US dollars or other hard currency that would be agreed with the Ministry of Finance and Economic Planning (MINECOFIN). The EDCL and the BRD will also maintain corresponding project operational accounts denominated in Rwandan francs. The project has joint co-financing with the AIIB, split pari passu with the World Bank's financing across all project components; thus, there will be a separate DA for AIIB. The interim financial report (IFR)-based method will be used, covering six-month forecasts of cash-flow needs, and will be submitted quarterly. The activities managed by the EDCL will be subject to external audit by the OAG (or a private audit firm that it assigns, which must be acceptable to IDA), which has been auditing other World Bank–funded projects implemented by the Government of Rwanda. For project activities managed by the BRD, audit will be carried out by a private audit firm. The audit reports and

management letters will be submitted to the World Bank within six months after the end of the financial year and will be publicly disclosed in accordance with the World Bank Access to Information Policy.

12. **Procurement:** Procurement will be carried out in accordance with the *World Bank Procurement Regulations for Borrowers under Investment Project Financing*, dated September 2023; *Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants*, revised July 1, 2016; and the provisions stipulated in the Financing Agreement. The Procurement Plan, as agreed between the World Bank and the recipient, specifies procurement methods and their applicable thresholds, as well as activities that will be subject to the World Bank review. The implementing agency will submit the Procurement Plan through the online Systematic Tracking of Exchanges in Procurement (STEP) tool, and it will be disclosed to the public. The Procurement Plan will be revised at least annually and as needed throughout the project duration. Through the mandatory use of STEP by the implementing agencies, the World Bank will be able to monitor all procurement transactions. The project Procurement Strategy for Development (PPSD) for the proposed project, which includes detailed market conditions, risks, and corresponding market approaches for identified procurable items, is prepared and the first 18 months of the Procurement Plan is agreed. Based on the assessment conducted, the procurement risk of the project is rated Moderate.

13. Environment and Social (E&S): The possible E&S risks and impacts related to the project during the construction and operation/maintenance phases are diverse and are expected to have both positive and negative impacts on the environment, as well as potential health and safety risks to workers and communities if not managed properly. To mitigate these risks, the client has prepared the appropriate safeguards instruments: the Environment and Social Commitment Plan (ESCP), Environmental and Social Management Framework (ESMF), Resettlement Policy Framework (RPF), Stakeholder Engagement Plan (SEP), Land Management Procedures (LMP), and the Environment and Social Management Systems (ESMS) and has already disclosed SEP and ESCP. The remaining documents will be finalized and disclosed as per ESCP. Site-specific instruments for subprojects, including the Environmental and Social Impact Assessment (ESIA)/Environmental and Social Management Plan (ESMP), Resettlement Action Plan, and Occupational Health and Safety Plan (OHSP) will also be prepared before commencement of the subprojects. These instruments will guide project implementation, in accordance with the Environmental and Social Framework (ESF). E&S risk is rated Substantial**.**

14. Gender: The proposed Project will build on the efforts made under on-going project and delve into several aspects related to filling gender inequality specifically in facilitating access to new and improved electricity both through grid and off-grid solutions including clean cooking and PUE technologies. The Project will also focus on creating energy sector jobs for females in the STEM fields. Progress towards closing the gender gap in Rwanda's energy sector will be monitored through a number of indicators: (a) women led/owned businesses provided with access to grid electricity; (b) women led/owned businesses benefiting from distributed PUE technologies; and (c) women employed in enterprises financed by BRD."

G. Key Risks

15. **The overall risk for the Project in Rwanda is Moderate.** Only the risks rated as Substantial are elaborated in this section.

16. **The (E&S) risks are Substantial.** The proposed activities under the Project, including civil works related to MV and LV power transmission and distributions lines, may have potential risks and impacts on biodiversity, natural resources, and/or cultural heritage sites. Potential Occupational Health and Safety (OHS) issues include management of oils and lubricants for transformers and supporting infrastructure. The planned activities under Component 2 could also pose environmental and OHS risks during replacement of transformers in the existing substations and construction of new ones and associated feeder connections. The Project's technical assistance involving improvements in sector performance and policy/regulations may also entail direct and indirect E&S risks. Furthermore, there are also potential E&S risks related to

off grid solutions under Component 3, which include electronic waste management issues comprising storage and final disposal of used batteries containing hazardous waste, recycling/disposal of solar panels from stand-alone solar home systems and related OHS issues such as fire and explosion risks from clean cooking solutions.

17. **For social safeguards, the rating considers the likely social risks and impacts resulting from project activities related to scaling up grid electricity and clean cooking solutions in schools.** These risks include the potential impact on the affected people's livelihoods due to restrictions on land use and land acquisition; gender-based violence (GBV) brought about by labor influx at electricity construction sites and in schools where clean cooking infrastructure will be installed; and those related to discrimination in accessibility of project services (e.g., solar systems).

ANNEX 4: Sao Tome and Principe (P177099)

Task Team Leader: Samuel Oguah
Core Team: Joao Tinga, Sheila Pene Neves, Zaida Silva Gomes, Nadia Tembe Bilale, Camilla Gandini, Susana Malheiro Mendes, Jacqueline Lockward, Fowzia Hassan, Veronika Gyuricza, Nicholas Rogerson, Frank Ngoussome, Zelia De Fatima Arieiro Pinheiro, Cynthia De Amorim Tiny, Collins S. Umunnah, George Ferreira Da Silva, Sara Maria Rico Dourado, Sandro Trigueiros, Waleska Magalhaes Pedrosa, Leonardo Tshama, Edith Mwenda, Birgit Kuba ; George Ferreira da Silva

DATASHEET

BASIC INFORMATION

Project Beneficiary(ies)	Operation Name		
Sao Tome and Principe	Access to Clean Resilient Electricity under the ASCENT Regional Program - Multi Programmatic Approach (MPA)		
Operation ID	Financing Instrument	Environmental and Social Risk Classification	
P177099	Investment Project Financing (IPF)	Moderate	

Financing & Implementation Modalities

[✓] Multiphase Programmatic Approach (MPA)	[✓] Contingent Emergency Response Component (CERC)
[ ] Series of Projects (SOP)	[ ] Fragile State(s)
[ ] Performance-Based Conditions (PBCs)	[✓] 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
[ ] Alternative Procurement Arrangements (APA)	[ ] Hands-on Expanded Implementation Support (HEIS)

Expected Approval Date	Expected Closing Date
30-Nov-2023	31-Dec-2028
Bank/IFC Collaboration	
No	

MPA Program Development Objective

To increase access to sustainable and clean energy in Eastern and Southern Africa

MPA FINANCING DATA (US$, Millions)

MPA Program Financing Envelope	5,415.00

Proposed Development Objective(s)

The Project Development Objective (PDO) is to increase access to sustainable and clean energy in Sao Tome and Principe.

Components

Component Name	Cost (US$)
On-grid and Off-grid Electricity Access Expansion	22,000,000.00
Solar PV scale-up through deployment of common infrastructure	23,300,000.00
Improved governance and institutional capacity building	15,400,000.00
Contingent Emergency Response Component	0.00

Organizations

Borrower:	Democratic Republic of Sao Tome and Principe
Implementing Agency:	Ministry of Infrastructure and Natural Resources

MPA FINANCING DETAILS (US$, Millions)

Board Approved MPA Financing Envelope	**0.00**
MPA Financing Envelope:	5,415.00
of which Bank Financing (IBRD):	0.00
of which Bank Financing (IDA):	5,000.00
of which Other Financing sources:	415.00

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	**68.70**
Total Financing	**68.70**
of which IBRD/IDA	**38.00**
Financing Gap	**0.00**

DETAILS

World Bank Group Financing

International Development Association (IDA)	38.00
IDA Grant	38.00

Non-World Bank Group Financing

Trust Funds	9.70
Energy Sector Management Assistance Program	6.90
Japan Policy and Human Resources Development Fund	2.80
Commercial Financing	8.00
Unguaranteed Commercial Financing	8.00
Other Sources	13.00
African Development Bank	13.00

IDA Resources (US$, Millions)

	Credit Amount	Grant Amount	SML Amount	Guarantee Amount	Total Amount
National Performance-Based Allocations (PBA)	0.00	20.00	0.00	0.00	20.00

Regional	0.00	18.00	0.00	0.00	18.00
Total	**0.00**	**38.00**	**0.00**	**0.00**	**38.00**

Expected Disbursements (US$, Millions)

WB Fiscal Year	2024	2025	2026	2027	2028	2029
Annual	0.50	3.50	8.00	15.00	15.00	5.10
Cumulative	0.50	4.00	12.00	27.00	42.00	47.10

PRACTICE AREA(S)

Practice Area (Lead)

Energy & Extractives

Contributing Practice Areas

CLIMATE

Climate Change and Disaster Screening

Yes, it has been screened and the results are discussed in the Operation Document

SYSTEMATIC OPERATIONS RISK- RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	Substantial
2. Macroeconomic	High
3. Sector Strategies and Policies	Moderate
4. Technical Design of Project or Program	Moderate
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Substantial

7. Environment and Social	Moderate
8. Stakeholders	Moderate
9. Overall	Substantial
Overall MPA Program Risk	Moderate

POLICY 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

ENVIRONMENTAL AND SOCIAL

Environmental and Social Standards Relevance Given its Context at the Time of Appraisal

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

NOTE: For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

LEGAL

Legal Covenants

Sections and Description
Financing Agreement Section I.A.2: For purposes of Project implementation, the Recipient, through MIRNMA, shall maintain throughout Project implementation, the Technical Implementation Unit ("TIU"), with a structure, functions, adequate staff, including a Project Coordinator no later than 45 days after the Effective Date, and resources, as further detailed in the Project Operations Manual, acceptable to the Association, to be responsible for day-to-day Project management, supervision, coordination, monitoring, and evaluation, including all technical, environmental and social aspects.
Financing Agreement Section I.A.3: The Recipient, through MIRNMA, shall establish and maintain throughout Project implementation a Project Steering Committee, with a structure, composition and functions, as further detailed in the Project Operations Manual, acceptable to the Association, which shall convene at least once every six (6) months, to be responsible for reviewing Project progress and provide high-level guidance and coordination for Project implementation.
Financing Agreement Section I.C.1(c): Not later than two months after the Effective Date, AFAP shall recruit an additional accountant.
Financing Agreement Section I.C.1(d): Not later than four (4) months after the Effective Date, AFAP shall update the computerized accounting software to facilitate financial reporting of the Project.
Financing Agreement Section I.C.1(e): Not later than six months after the Effective Date, AFAP shall hire an external auditor.

Conditions

Type	Citation	Description	Financing Source
Effectiveness	Financing Agreement Article IV 4.01(a)	The Recipient has adopted the Project Operations Manual in form and substance satisfactory to the Association.	IBRD/IDA
Effectiveness	Financing Agreement Article IV 4.01(b)	The ESMAP Grant Agreement has been executed and delivered and all conditions precedent to its effectiveness or to the right of the Recipient to make withdrawals under it (other than the effectiveness of this Agreement) have been fulfilled.	IBRD/IDA
Effectiveness	Financing Agreement Article IV 4.01(c)	Adopt the ESMF and RPF in form and substance satisfactory to the Association.	IBRD/IDA

Effectiveness	Financing Agreement Article IV 4.01(d)	The Subsidiary Agreement has been executed and delivered and all conditions precedent to its effectiveness have been fulfilled.	IBRD/IDA
Disbursement	Financing Agreement Section III.B(1)(b)	No withdrawal shall be made under Category (2), unless and until the Outputs Agreement has been executed and delivered and all conditions precedent to its effectiveness have been fulfilled	IBRD/IDA
Disbursement	Financing Agreement Section III.B.(1)(c)	No withdrawal shall be made under Category (3), unless and until the Outputs Agreement, and an agreement providing for co-financing of Part 1(b) of the Project have been executed and delivered and all conditions precedent to its effectiveness have been fulfilled	IBRD/IDA
Disbursement	Financing Agreement Section III.B(1)(d)	No withdrawal shall be made for Emergency Expenditures under Category (4), unless and until all of the following conditions have been met in respect of said expenditures: (i) (A) the Recipient has determined that an Eligible Crisis or Emergency has occurred, and has furnished to the Association a request to withdraw Financing amounts under Category (3); and (B) the Association has agreed with such determination, accepted said request and notified the Recipient thereof; and (ii) the Recipient has adopted the CERC Manual and Emergency Action Plan, in form and substance acceptable to the Association.	IBRD/IDA
Disbursement	ESMAP Grant Agreement Section III.B(1)(b)	No withdrawal shall be made under Category (2), until the PPA and the Sub-Grant Agreement have been entered into in accordance with Section I.E of Schedule 2 to the ESMAP Grant Agreement	Trust Funds
Disbursement	ESMAP Grant Agreement Section III.B(1)(c)	No withdrawal shall be made under Category (3), until the PPA, the Implementation Agreement and the Escrow Agreement have been entered into in accordance with Section Section I.E. of Schedule 2 to the ESMAP Grant Agreement	Trust Funds

A. Context

1. **Sao Tome and Principe (STP) is a small-island, lower-middle-income country that aims to achieve universal access to electricity through last-mile efforts and actions to reduce costs and improve reliability and affordability.** STP faces an acute macroeconomic crisis, along with structural challenges typical of small and remote states. The nation's high dependence on expensive diesel for power generation results in high electricity supply costs, which is further compounded by volatility in international fuel prices. Of its 37.9 MW in installed generation capacity, only about 17.3 MW is currently available, 97 percent of which is diesel based. In addition to expensive fossil fuel–based generation, other factors contributing to the country's high cost of supply—the third highest in Sub-Saharan Africa (US$0.34 per kWh)—are small-scale operations, lack of interconnectivity between systems, under-investment in energy infrastructure, and management challenges at the National Water and Electricity Utility (EMAE)**.** Even a high tariff of US$0.22 per kWh is not sufficient to cover for the supply costs, making the energy sector a key driver of fiscal deficits. The EMAE's US$120 million debt to the National Fuel Company (ENCO), which imports fuel for electricity generation, represents 32.2 percent of gross domestic product (GDP) or about one-third of total public debt.

2. **While access to electricity is high in terms of Eastern and Southern Africa (AFE) standards—84 percent, almost all of which is grid-based—supply is unreliable, and affordability issues hinder extending electricity to the last-mile population.** Poor infrastructure, coupled with tightening of fuel supply to the EMAE due to growing arrears, has contributed to the unreliable supply of electricity to those with grid access (e.g., in June 2023, the country had no diesel for a two-week period). Owing to the unreliability of grid supply, most businesses use costly and polluting back-up diesel generators. High connection costs, long distance of households from grid infrastructure, and the high tariff are barriers to connecting the remaining population without electricity. The poorest households in STP's bottom expenditure quintile are five times more likely to lack electricity access compared to those in the top quintile (as er multi-tier framework household survey of 2018). The market for off-grid products is quite small because of limited demand, and off-grid solutions deployed in some public institutions have not been sustainable due to a lack of proper maintenance programs.

3. **The Government of STP has developed core strategies to reduce the cost of electricity supply, improve service reliability, reduce the electricity sector's environmental footprint, and achieve universal access to electricity by 2030.** A least-cost power development plan has been developed to maximize the share of renewable energy and progressively reduce diesel-based thermal generation. The Green Energy Acceleration Plan, which has been adopted, foresees 50 percent renewable-energy generation by 2030. Achieving the 2030 ambition will require a significant scale-up in access compared to the current pace of electrification. The proposed project will help catalyze private-sector development of solar photovoltaic (PV) capacity to reduce the cost of electricity; extend the electricity grid to connect households; deploy sustainable off-grid solutions to remote households currently without access; and provide sector institutions technical assistance and capacity-building support to deliver efficient, reliable, and affordable service.

B. Relevance to Higher-Level Objective

4. **The proposed project is aligned with the STP's Country Partnership Strategy (CPS) for FY2014–18**. Specifically, it contributes to *Theme One: Supporting Macroeconomic Stability and Inclusive* Growth by supporting the government's efforts to reduce diesel dependence, electricity generation costs, and the need for subsidies (through more renewable energy integration) and improving the operational performance and efficiency of the public utility (EMAE). These activities will contribute to reduced subsidies and enhanced macroeconomic stability by lowering power generation costs and facilitating implementation of cost-reflective tariffs. The investments to enable deployment of utility-scale solar generation will also reduce dependency on diesel-based power generation, in turn, lowering the country's exposure to high and volatile international oil prices and hedges against the impacts of price shocks. The proposed project is consistent with the country's Nationally Determined Contribution (NDC) of 2021, which plans to reduce emissions by 27 percent (109 kt CO_2e) by 2030. On climate mitigation, the country commits to increase its renewable energy share in the national grid,

reduce network losses, and increase energy efficiency. With regard to adaptation, the NDC implementation plan seeks to reduce climate-related risks and increase the resilience of communities and sectors by strengthening technical and institutional capacities, mainstreaming climate resilience into national and subnational planning budgeting, and several investments.

5. **The project is an integral part of the regional ASCENT MPA**. STP has achieved a relatively high electrification and with ASCENT it has an opportunity to reach universal electricity access ahead of 2030, but the reliability and affordability of electricity access needs to approve in parallel. STP will demonstrate a wholistic approach to expanding and improving electricity access while tackling institutional challenges, providing valuable lessons for other countries, especially smaller countries and island states with similar capacity, market size and institutional constraints. At the same time STP is expected to significantly benefit from the regional platform's advisory support, capacity and skill building, and harmonization efforts (e.g., digital monitoring platform, technical and quality standards, market intelligence and carbon finance mobilization).

C. Project Description

6. **The Project Development Objective (PDO) is to increase access to sustainable and clean energy in STP**, measured through the indicators shown in Table 4.1.

Table 4.1: Results Framework

Indicators	Baseline	End target
PDO-level indicator		
People provided with electricity (number), disaggregated by technology (on-grid, off-grid)	0	43,000
Total financing mobilized or enabled for clean energy (US$, millions), disaggregated by source (private and MDBs)	0	12
Greenhouse gas (GHG) emissions reduced (tCO_2e/year)	0	15,000
Renewable energy capacity enabled (MW)	0	15
Intermediate results (IR) indicators		
Distribution lines constructed or rehabilitated under the project (km)	9	400
Public buildings provided with new solar systems (number)	0	28
Women engaged in productive uses of energy (PUE) (number)	0	20
Upgraded Dispatch Center (SCADA) is operational (Yes/No)	No	Yes
Power evacuation lines constructed (km)	0	2.9
Energy storage capacity enabled (MWh))	0	8
Integrated management system installed and functioning (Yes/No)	No	Yes
Establishment of revenue management mechanism (Yes/No)	No	Yes
Staff trained under the project in EMAE (number)	0	20
Staff trained under the project in DGRNE and AGER (number)	0	10
Women in technical positions employed at the energy utility (percentage)	8	12
Recommendations of EMAE business processes review implemented (Yes/No)	No	Yes
Allocation of budget for payment of maintenance for solar PV systems in public buildings (Yes/No)	No	Yes
Annual consultation events and publicly disclosed summaries/minutes of these consultations (number)	0	5
Distribution lines constructed or rehabilitated under the project (km)	9	400
Public buildings provided with new solar systems (number)	0	28

7. **Below is a brief description of the project components,** the details of which are found in the Financing Agreement, the Technical Project Document and the Project Operations Manual. The project will include co-financing from

ESMAP (US$6.9 million) and PHRD (US$2.8 million), administered by the World Bank, and parallel AfDB financing (US$13 million) (Table 4.2).

Table 4.2: Proposed Project Components and Funds Allocation

Component	MPA pillar	IDA	ESMAP	PHRD	Total World Bank	AfDB	Total
1: On-Grid and Off-Grid Electricity Access Expansion	2-Grid electrification; 3-Scaling DRE	14.2	0.0	2.8	17.0	5.0	22.0
2: Solar PV Scale-Up through Deployment of Common Infrastructure	3-Scaling DRE	13.4	6.9	0.0	20.3	3.0	23.3
3: Improved Governance and Institutional Capacity Building	1-Access platforms	10.4	0.0	0.0	10.4	5.0	15.4
4: CERC		0.0	0.0	0.0	0.0	0.0	0.0
Total		**38.0**	**6.9**	**2.8**	**47.7**	**13.0**	**60.7**

a) **Component 1: On-Grid and Off-Grid Electricity Access Expansion:** This component will support (i) electricity network reinforcement to allow for supply to growing demand; (ii) electricity network expansion in underserved areas; (iii) last-mile electricity connections, including payment for connection fees, to help customers better afford connection costs; (iv) deployment of grid-connected and off-grid solar(OGS) systems for public facilities (particularly education and health facilities) to build resilience, reduce operating costs, and enable the provision of better services; and (v) off-grid connections for households toward closing the energy-access gap to foster greater inclusion.

b) **Component 2: Solar PV Scale-Up through Deployment of Common Infrastructure:** This component will finance investments and risk mitigation instruments to expand grid-connected, utility-scale solar PV in STP. Specifically, the proposed project will finance site preparation for up to 15 MWp of solar PV capacity, an initial 5 MWp solar PV plant (to be managed by a private operator), an interconnection line from the solar park to the network, and battery energy storage. It will also provide risk mitigation instruments; namely, a tariff buy-down solution to ensure the tariff is financially viable to the off-taker and a liquidity guarantee, also covering off-taker risk, for a 10 MWp plant to be developed through an independent power producer, resulting in overall savings of more than US$6 million per year. The component will also support modernization of the national dispatch center and supervisory control and data acquisition (SCADA) system on Sao Tome Island.

c) **Component 3: Improved Governance and Institutional Capacity Building:** This component will extend ongoing investments in EMAE under the ongoing Power Sector Recovery Project (P157096) to improve its operational performance by financing a new management information system and providing prepayment meters to its outstanding residential customers. This component will also build the sector's institutional capacity for improved policy formulation, implementation, and regulation, as well as system operations.

d) **Component 4: Contingent Emergency Response Component (CERC) (US$0 million, capitalized in an emergency):** The objective of this component is to support the STP government's response in an eligible emergency. The component will be governed by paragraph 12 of the World Bank's Policy on Investment Financing (Rapid Response to Crises and Emergencies). If an eligible emergency is being declared, the government may request the World Bank to reallocate project funds to support the response effort. The component would be capitalized by drawing on uncommitted funds under Components 1–3. The component could also be utilized for processing additional financing should funding for this become available due to an eligible emergency.

D. Project Beneficiaries

8. The proposed project will provide on-grid access to 10,000 households and off-grid access to 800 households, covering nearly 100 percent of currently unelectrified households. The increased connectivity and access to electricity will facilitate the development of PUE to generate income and jobs for communities, including women beneficiaries; in turn, helping with poverty alleviation and greater inclusiveness. Provision of electricity access is also expected to increase the productivity of industrial and commercial consumers. The project will provide electricity access to health and education facilities, which will contribute to improved human development outcomes for approximately 56,000 people in rural areas.

E. Institutional and Implementation Arrangements

9. **A Technical Implementation Unit (TIU) which sits under the Ministry of Infrastructure, Natural Resources and Environment (MIRNMA), will be responsible for all technical aspects** as well as ensuring adherence to environmental and social requirements. Given the complexity of the proposed operation, an open international process will be launched to recruit an experienced project manager as project coordinator for this proposed project and ongoing Power Sector Recovery Project (PSRP–P157096). The Project Coordinator will be assisted by a Technical Advisor (the current coordinator for the PSRP). The TIU is currently staffed with: (i) an Electrical Engineer; (ii) a Social Development Officer; and (iii) an Environmental Officer. As the main beneficiary, the electricity and water utility, EMAE, will dedicate three full-time staff to the TIU. The Principe government will constitute a team that will work closely with the TIU on all aspects of relevant activities. For activities co-financed with the AfDB, the same procurement process launched under the proposed project will be used by the AfDB.

10. **The Project Administration and Fiduciary Agency (*Agência Fiduciária de Administração de Projectos* [AFAP]) is responsible for fiduciary management**, which covers procurement and financial-management functions (including disbursement responsibilities) and retains the personnel needed to fulfill these roles. A full-time Procurement Officer, a part-time Senior Procurement Specialist, a Financial Management Officer, and a Project Accountant are already in service in AFAP. In addition, a part-time Senior Environmental and Social Development Specialist in AFAP will provide guidance to the TIU team on environmental and social compliance.

F. Appraisal Summary

11. **Paris Alignment:** The proposed project is fully aligned with the Paris Agreement on Climate Change on both adaptation and mitigation and is anticipated to have substantive impacts on improving climate adaptation and resilience. Furthermore, the project is not expected to have substantive contributions to greenhouse gas (GHG) emissions or create carbon lock-in. A summary of the project's Climate and Disaster Risk Screening (CDRS) and Climate Financing, informing climate-co-benefits, can be found in the publicly disclosed Climate Change Technical Document.

12. **Financial Management (FM):** The project's FM arrangements meet the World Bank's requirements and provide reasonable assurance that the proceeds of financing will be used for their intended purposes. An FM assessment was undertaken to evaluate the adequacy of the project's FM arrangements. FM was assessed as adequate with residual risk rated Substantial. AFAP, which has experience implementing World Bank-financed projects, will be responsible for the FM aspects of the project. FM and disbursement arrangements have been agreed upon. The project funds, expenditures, and resources will be accounted for using automated accounting software. The project will make use of reimbursement, advances, and direct payment disbursement methods for IDA as detailed in the DFIL. The PIU will prepare unaudited interim financial reports (IFRs) covering all project funds and related expenditures and submit such reports to the World Bank within 45 days of the end of each calendar quarter. The project financial statements will be audited annually by an independent external auditor based on the terms of reference approved by the World Bank.

13. **Procurement:** Procurement will be carried out in accordance with the World Bank Procurement Regulations for IPF Borrowers, dated September 2023 (and as amended over time) and the provisions stipulated in the Financing Agreement. Moreover, the Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants, dated October 15, 2006 (and revised in January 2011 and July 2016) will apply. A Procurement Plan, covering at least the first 18 months of project implementation, as informed by the Project Procurement Strategy for Development (PPSD), has been agreed. The procurement plan will be managed through the World Bank's Systematic Tracking of Exchanges in Procurement (STEP) tool. The TIU is staffed with a full-time Procurement Officer, a part-time Senior Procurement Officer who can provide adequate support to undertake the procurement activities foreseen under the project. However, considering the nature of this project, additional support may be required if the workload at AFAP increases for a specific period. Procurement risk is considered Substantial.

14. Procurement and Financial Management arrangements, roles and responsibilities, methods, and requirements for carrying out procurement under the proposed project will be elaborated in the Project Operations Manual.

15. **The environment and social (E&S) risks are considered Moderate.** Overall, the project will have significant environmental co-benefits through optimization of energy systems and enabling greater use of energy sources with lower emissions. Nevertheless, key environmental risks and impacts are related to (i) site preparation, (ii) improvement of access road to site, and (iii) and upgrading and expanding the distribution network in selected areas. The risks and impacts are anticipated to include (i) land clearing and vegetation loss, (ii) occupational and community health and safety issues, and (iii) waste management and safe disposal of any construction debris and hazardous materials. These risks and impacts are anticipated to be temporary, largely occurring during the project's construction phase, and manageable through implementation of established mitigation measures. The anticipated adverse social risks and impacts are not likely to be significant and can be managed through project design and development of appropriate mitigation measures. While it is expected that the project's overall social benefits will be positive, connectivity works could result in the following social risks and potential negative impacts: (i) small-scale involuntary resettlement impacts; (ii) potential Occupational Health and Safety (OHS) and Community Health and Safety risks; (iii) possible gender-based violence (GBV), sexual exploitation and abuse (SEA), and sexual harassment (SH) resulting from works; (iv) labor influx risks, including sexually transmitted infections (STIs) and teenage pregnancy; and (v) negative impacts of social inclusion due to disproportionate access to project services and other benefits. Social risks and impacts are expected to be site-specific, predictable, and temporary, which may be prevented, managed and/or mitigated through the application of established mitigation measures, as detailed in the project's E&S instruments.

16. **Gender:** In public institutions of the energy sector, women represent less than 15 percent of the workforce on average, mainly occupying non-technical positions. Owing to their very low asset ownership and financial inclusion, women's participation in income-generating activities is quite limited. The project will be leveraged to narrow these gaps through women's increased participation in renewable energy operations. This will include training-to-work and scholarship-internship programs. The project will also endeavor to enhance opportunities within the beneficiary communities through the promotion of PUE. Indicators will track progress in closing the gender gap in EMAE's employment of staff, with a target of women representing 12 percent of technical staff, preferably with STEM backgrounds (from the current 8 percent baseline) and 30 percent of solar-park operations and maintenance (O&M) staff (from the current baseline of zero). The number of productive energy users will also be monitored.

G. Key Risks

17. **The overall risk for the project in STP is Substantial.** Political and governance, macroeconomic, and institutional-capacity risks are assessed as Substantial, while E&S risks are rated as Moderate. Only the risks rated as Substantial are elaborated in the following paragraphs.

18. **The political and governance risk is rated as Substantial**. The level of the government's commitment to implementing the reforms needed to improve the financial health of the sector will impact the ability to fully implement project activities. Without significant reforms, it will be challenging to attract private developers to commit to investments in generation. Tariffs are below cost recovery and will need to be revised for high-consuming customers. Mitigation measures will include continued coordination, as well as working closely with the government, EMAE, and the high-level crisis committee on the implementation of reform programs. Key reform measures (e.g., application of the approved tariff methodology) have been adopted through development policy operations (DPO)s. The team will work with the International Monetary Fund (IMF) and development partners to align and reinforce messages at the highest level of government (the Prime Minister's Office) to minimize the risk of delays in implementing policy measures.

19. **Macroeconomic risks are rated as High**. The inherent macroeconomic risk is high due to the reliance of government finances on external grants, uncertainty related to the exchange rate, risk exposure of the financial sector, and the energy sector's fragility. These conditions can generate further pressure on the electricity sector and expected private-sector contributions to the project. Current global market conditions create pressure on an already constrained power sector due to fuel price increases. Macroeconomic risks are mitigated by the government's commitment to sound policies and structural reforms, backed by an active IMF program and multifaceted support by other projects, including the World Bank–supported DPO series. The residual risk is therefore considered High.

20. **The institutional capacity risk for implementation and sustainability is rated as Substantial.** Implementation of the ongoing PSRP is significantly delayed owing to several key factors: (i) lack of clarity among stakeholders in their roles; (ii) insufficient coordination among the AFAP, EMAE, and the Ministry of Infrastructure, Natural Resources, and Environment (MIRNMA); and (iii) limited government oversight (e.g., the project steering committee failed to convene for several years). Activities under the proposed project, based on known technologies and business models, are yet to be used in STP (e.g., this will be STP's first IPP). To address these challenges, regular stakeholder meetings will be included as part of implementation procedures. A new project coordinator will be selected through an international process to attract seasoned candidates with experience in various aspects of project management. The owner's engineers are proposed for all investments. The terms of reference for the transaction adviser for the solar tender includes extensive market outreach to minimize the risk of failed procurement. Various design elements of the project include technical assistance to complement and build the government's implementation.

21. **The Fiduciary risk is Substantial**. The overall fiduciary risk rating is due to the country context, the ability of AFAP, MIRNMA and EMAE to work in close collaboration in order to timely implement procurement activities, the ability of AFAP to enforce internal control mechanisms, and the risk of delay in financial reporting due to the increased volume of work with the new project. To mitigate the FM risks, and to ensure compliance, the following actions will be implemented: (i) recruit a competent project Accountant; (ii) update the AFAP Financial Management Manual (FMM) to include procedures that cover activities under the project; (iii) update the accounting software to facilitate financial reporting for the proposed project; and (iv) no later than six months after project effectiveness, sign an addendum for the external auditor to include audits of the proposed project financial statements. Procurement capacity will be strengthened with additional staff as considered.

ANNEX 5: Somalia (P181341)

Task Team Leaders: Patrick Thaddayos Balla and Paul Baringanire
Core team: Tigran Parvanyan, Grace Nyaguthii, Mohamed Ismael Hersi, Alia Mohamedelhassan Hamid Hassan, Deea Ariana, Abdisalam Abdullahi, Nancy Muthoni Wainaina, Janerose Muboka Lubisia, Sabine Mathilde Isabelle Cornieti, Zijun Li, Francis Akolu Muthuiya, Stephen Diero Amayo, Haroub Ahmed Haroub, Simon Sottsas. Fowzia Hassan, Shaukat Javed, Edith Ruguru Mwenda, Ntayi Anfani Bandawa; Birgit Kuba; George Ferreira da Silva

DATASHEET

BASIC INFORMATION

Project Beneficiary(ies)	Operation Name		
Somalia	Accelerating Sustainable and Clean Energy Access Transformation in SOMALIA		
Operation ID	Financing Instrument	Environmental and Social Risk Classification	
P181341	Investment Project Financing (IPF)	Substantial	

Financing & Implementation Modalities

[✓] Multiphase Programmatic Approach (MPA)	[ ] Contingent Emergency Response Component (CERC)
[ ] Series of Projects (SOP)	[✓] Fragile State(s)
[ ] Performance-Based Conditions (PBCs)	[ ] 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
[ ] Alternative Procurement Arrangements (APA)	[✓] Hands-on Expanded Implementation Support (HEIS)

Expected Approval Date	Expected Closing Date	Expected Program Closing Date
30-Nov-2023	30-Nov-2028	31-Dec-2030

Bank/IFC Collaboration
No

MPA Program Development Objective

To increase access to sustainable and clean energy in Eastern and Southern Africa

MPA FINANCING DATA (US$, Millions)

MPA Program Financing Envelope	5,415.00

Proposed Development Objective(s)

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

Components

Component Name	Cost (US$)
Sector Capacity and Institution Enhancement and Project Implementation Support	8,500,000.00
Electricity Distribution Network Rehabilitation and Reinforcement in Mogadishu city and FMS	10,000,000.00
Distributed Renewable Energy with Solar PV and BESS in Mogadishu and other FMS	81,500,000.00

Organizations

Borrower:	Federal Ministry of Finance Somalia
Implementing Agency:	Ministry of Energy and Water Resources

MPA FINANCING DETAILS (US$, Millions)

Board Approved MPA Financing Envelope	**0.00**
MPA Financing Envelope:	5,415.00
of which Bank Financing (IBRD):	0.00
of which Bank Financing (IDA):	5,000.00
of which Other Financing sources:	415.00

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

IDA Resources (US$, Millions)

	Credit Amount	Grant Amount	SML Amount	Guarantee Amount	Total Amount
National Performance-Based Allocations (PBA)	0.00	50.00	0.00	0.00	50.00
Regional	0.00	50.00	0.00	0.00	50.00
Total	**0.00**	**100.00**	**0.00**	**0.00**	**100.00**

PRACTICE AREA(S)

Practice Area (Lead)
Energy & Extractives

Contributing Practice Areas

CLIMATE

Climate Change and Disaster Screening

Yes, it has been screened and the results are discussed in the Operation Document

SYSTEMATIC OPERATIONS RISK- RATING TOOL (SORT)

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

POLICY 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

ENVIRONMENTAL AND SOCIAL

Environmental and Social Standards Relevance Given its Context at the Time of Appraisal

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

NOTE: For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

LEGAL

Legal Covenants

Sections and Description
Independent Verification (Section I.A.3 of Schedule 2 to the Financing Agreement). The Recipient shall, not later than twelve (12) months after the Effective Date, recruit and thereafter maintain throughout the period of implementation of the Project, the services of an independent monitoring and verification firm, with qualification and experience and under terms of reference acceptable to the Association, to: (i) carry out independent audits (including technical, fiduciary, and safeguards), and assessment of environmental and social performance of contractors and ESPs, and such other functions as may be detailed in the POM; and (ii) prepare and submit bi-annual reports with its conclusions and observations to the Project Steering Committee and the Association.
ESPs License (Section I.C.1 of Schedule 2 to the Financing Agreement). In carrying out activities under Parts 1 and 2 of the Project, and prior to commencing any civil works for sub-project benefiting one or more ESPs, unless the Association otherwise agree: (a) the Recipient, assisted by the National Electricity

Authority (NEA) shall agree in writing, with the respective ESPs, the terms and conditions for the update of the ESP(s)' license (each a "Revised License"), with such details acceptable to the Association and as may be provided in the Project Implementation Manual; (b) the Recipient and ESPs shall enter into such other contractual arrangement regarding the DRE generation infrastructure, with such details acceptable to the Association and as may be detailed in the Project Implementation Manual.

Conditions

Type	Citation	Description	Financing Source
Effectiveness	4.01 a	The Recipient has prepared and adopted the Project Implementation Manual (PIM), in form and substance satisfactory to the Association	IBRD/IDA
Effectiveness	4.01 b	The Recipient has adopted the Environmental and Social Management Framework, Stakeholder Engagement Plan, Labor Management Procedures, Resettlement Policy Framework, and Gender-Based Violence Action Plan – all in form and substance satisfactory to the Association	IBRD/IDA

Context

1. **Somalia features a small and fragmented fossil fuel–based energy system, making access to reliable and affordable electricity beyond reach for a majority of the population**. The country is emerging from conflicts that destroyed the public infrastructure. It has a decentralized energy system that is installed and operated by private energy service providers (ESPs), using relatively low-capacity networks with small-scale diesel generators as isolated mini grids; these initially serve their own loads and gradually expand to serve neighborhoods. The country's electricity access rate is estimated at 50 percent overall (70 percent in urban areas compared to 32 percent in rural areas, and only 9 percent in the nomadic population); however, the quality of access is extremely poor. Nearly 8 million people are without access. The cost of electricity in Somalia is high, averaging about US$0.61 per kWh (excluding Somaliland, where the cost is in a range of US$0.73–0.90 per kWh). Somalia ranks in the upper 5 percent globally for power cost and in the upper 15 percent globally for expenditure on electricity as a share of gross national income (GNI) per household (RISE 2020).

2. **Achieving universal access to reliable and affordable electricity will require significant investments involving isolated mini grids operated by the ESPs as part of a future interconnected distribution network** with a national grid that can potentially utilize wheeling and cross-network power sales. An interconnected distribution network and a transmission grid will be needed in the medium and longer term to facilitate uptake of large-scale generation and connection of new customers.

3. **Today, a significant opportunity can be harnessed to expand and improve energy access via the already existing mini grids run by the ESPs**. To prepare for the interconnected systems, significant improvements in service provision and access expansion are needed in the short and medium term. These include hybridization (i.e., adding solar photovoltaic [PV] and battery storage to replace or reduce fossil fuel–based generation), strengthening, and densification. To achieve least-cost universal electrification, geospatial analysis has identified the need for complementary supply solutions (grid, mini-grid, and stand-alone). Generation capacity will need to increase to 1,000–1,800 MW by 2037 (base-case scenario) from the current level of 276 MW (2023). Over the next two decades, significant investments (about US$3 billion) would be needed throughout the supply chain.

A. Relevance to Higher-Level Objective

4. **The program is fully aligned with the World Bank's Country Partnership Framework (CPF) for FY19–22 for the Federal Republic of Somalia, which explicitly identifies energy access as a catalyst for unlocking Somalia's growth potential.** Activities under the proposed project focus on renewable-energy generation and increased access to electricity services. The project will help Somalia's move to a greener trajectory through utilization of renewable energy, contributing to greenhouse gas (GHG) reduction and helping to achieve the country's Nationally Determined Contribution (NDC) of 30 emissions reduction by 2030, compared to the business-as-usual (BAU) scenario.

5. **This project is an integral part of the regional ASCENT MPA**. Somalia exemplifies a complex context of an FCV-affected country, where private sector–based DRE electrification is the only way to rapidly expand electricity access and the challenging investment environment calls for innovative approaches. The Somalia project will also benefit from the regional platform's financing, advisory support, capacity building, and harmonization efforts such as digital monitoring platform, technical and quality standards, market intelligence, carbon finance mobilization, and cross-border solutions.

C. Project Description

6. **The Project Development Objective (PDO) is to increase access to clean energy through private-sector participation in Somalia**, measured through the indicators shown in Table 5.1.

Table 5.1: Results Framework

Indicators	Baseline	End target
PDO-level indicator		
Increased number of people with access to electricity (number)	0	1,820,000
Greenhouse gas (GHG) emissions reduced (tCO_2e)	0	1,290,000
Intermediate results (IR) indicator		
Renewable-energy generation capacity (other than hydropower) constructed (MW)[CRI]	0	30
Capacity of solar PV installed (MW)	0	30
Capacity of BESS installed (MWh)	0	90
Distribution lines constructed or rehabilitated (km)	0	150
Technical and commercial loss reduction achieved (%)	0	10
Private-sector ESPs financed (number)	0	3
Tariff-setting methodology adopted by the Somalia National Electricity Authority (Yes/No)	No	Yes
ESPs issued operating license (number)	0	5
Women with STEM background employed in energy sector as a result of TA to ESPs (percentage)	0	10
Women own enterprises with access to electricity (percentage)	0	30
Female headed households with access to electricity (percentage)	0	10
People trained in the MRV system (number)	0	50
Least-cost generation plan prepared and adopted (Yes/No)	No	Yes
National Electrification Plan and rollout plan prepared and adopted by Cabinet (Yes/No)	No	Yes
Transmission and distribution grid codes prepared (Yes/No)	No	Yes
GRM number of cases resolved /complains resolved (percentage)	0	90
Contractors have conducted at least one stakeholders meeting in project areas (percentage)	0	90

7. **Following is a brief description of the project components and costs** (Table 5.2), the details of which are found in the Financing Agreement, the Project Technical Document and the Project Implementation Manual.

Table 5.2: Proposed Project Components and Funds Allocation

Project component	MPA pillar	IDA (US$, millions)
1. Distributed Renewable Energy (DRE) with Solar PV and Battery Energy Storage Systems (BESS) in the capital city of Mogadishu and other major load centers in the Federal Member States (FMS)	3-Scaling DRE	81.5
2. Electricity Distribution Network Rehabilitation and Reinforcement of the Mini Grids serving the Mogadishu capital city area and other FMS major load centers	3-Scaling DRE	10
3. Sector Capacity and Institution Enhancement and Project Implementation Support	1-Access platforms	8.5
Total		**100**

a) **Component 1: Distributed Renewable Energy (DRE) with solar PV and battery energy storage systems (BESS) in the capital city of Mogadishu and other major load centers in the Federal Member States (FMS).** This is proposed to include design, supply, and installation of a total of about 30–50 MW 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 ESPs with the project funds used to buy down capital costs to lower the cost of supply. It is estimated that the project will contribute to lowering the cost to about USc35-45 per kWh from the current average estimated at about USc60 per kWh.

b) **Component 2: Electricity Distribution Network Rehabilitation and Reinforcement of the mini grids serving the Mogadishu capital city area and other major load centers of the FMS**. Activities under this component aim to reduce network losses (both technical and commercial) and increase the network's capacity to connect new customers. The component will also include activities to address last-mile access barriers, especially for low-income households. Supporting activities include supply of equipment and materials for the medium-voltage (MV) and low-voltage (LV) distribution network; metering equipment and service connections; and installation services, including detailed line surveys.

c) **Component 3: Sector Capacity and Institution Enhancement and Project Implementation Support.** Activities under this component will enhance and build on the ongoing Energy Sector Recovery Project (ESRP, P173088). They include supporting policy and regulatory development, sector planning, and feasibility studies for renewable-energy projects; capacity building and business support to the ministry and ESPs; implementation of the Gender Action Plan; and project implementation, including support for the environmental and social (E&S) safeguards, financial management (FM), and procurement.

D. Project Beneficiaries

8. **The main beneficiaries are 1.82 million Somali people—including the poor and disadvantaged women and girls—**who will gain access to affordable, reliable, and sustainable electricity services and associated benefits from increased access to economic opportunities. The project will specifically focus on creating job opportunities for women in renewable energy and energy access. Also, sector institutions and the ESPs will benefit from the project's capacity-building activities. Improvements in efficiency, transparency, and accountability of sector operations supported by the project will help enhance image and credibility of the institutions facilitating leveraging private investment and sustained operations.

E. Institutional and Implementation Arrangements

9. **The project will rely on the existing institutional and implementation arrangements established under the ongoing ESRP.** The project will be implemented by the Project Implementation Unit (PIU) established at the Ministry of Energy and Water Resources, in close coordination with the ESPs. An owner's engineer firm will be recruited to support the PIU in detailed designs; procurement; contract management, including fiduciary, environment, and social-risk aspects; and monitoring and evaluation (M&E). The Project Implementation Manual prepared for the ongoing ESRP will also be used for the proposed project. An independent monitoring and verification (M&V) firm will be hired to provide independent audits, including assessments of the contractors' and ESPs' environment and social performance. A Project Steering Committee (PSC), co-chaired by the Ministry of Energy and Water Resources and Ministry of Finance, will provide overall oversight of Project implementation and policy guidance, as well as decision-making on critical high-level implementation issues (e.g., approval of selection criteria and obligations of the beneficiary ESPs).

F. Appraisal Summary

10. **Paris Alignment:** The proposed project is fully aligned with the Paris Agreement on Climate Change on both adaptation and mitigation, and is anticipated to have substantive impacts on improving climate adaptation and resilience.

Furthermore, the project is not expected to have substantive contributions to greenhouse gas (GHG) emissions or create carbon lock-in. A summary of the project's Climate and Disaster Risk Screening (CDRS) and Climate Financing, informing climate-co-benefits, can be found in the publicly disclosed Climate Change Technical Document.

11. **Financial Management (FM):** The project's FM arrangements meet the World Bank's requirements and provide reasonable assurance that proceeds of the financing will be used for their intended purposes. The project will rely on and use the same FM arrangements as for the ongoing ESRP, as detailed in the Project Implementation Manual. This includes deployment of a qualified and experienced accountant to the PIU, supported by a team of accountants based at the External Assistance Fiduciary Section in the Accountant General's office. The main fiduciary risks associated with the project include challenges with supervision of construction works and potential for diversion of project resources due to prevalent insecurity, inadequate capacity of the implementing agency, and challenges of monitoring decentralized project activities especially under Component 2. The FM risk is therefore rated Substantial. A Designated Account (DA) will be opened in the Central Bank of Somalia from where project funds will be channeled, and payments made from. Disbursement will follow the transactions-based Statements of Expenditure (SOE) method. Within 45 days after the end of each quarter, the project will submit unaudited, interim financial reports to the Bank. The project's annual budgets, based on approved annual work plans, will be compiled by the PIU team and approved by Parliament as part of the national budget. External audits will be conducted by the Office of the Auditor General (OAG), with capacity support from a private auditing firm.

12. **Procurement:** The Project's procurement will be carried out in accordance with World Bank Procurement Regulations for IPF Borrowers, dated November 2020; Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants (revised July 1, 2016); and provisions stipulated in the Financing Agreement. The PIU established at the Ministry of Energy and Water Resources is staffed by a dedicated Procurement Specialist, who will be responsible for implementation of the procurement activities supported by an owner's engineer. The borrower has prepared the Project Procurement Strategy for Development (PPSD) and Procurement Plan for the first 18 months has been agreed, with a focus on key procurement activities to select the optimum fit-for-purpose method and market approach. The World Bank's Systematic Tracking of Exchanges in Procurement (STEP) online tool will be used to prepare, clear, and update procurement plans, and conduct all procurement transactions for the project. PIU staff have been trained in using STEP. While the PIU has basic familiarity with the World Bank's Procurement Regulations, it has limited familiarity with complex procurement and contract management. The procurement risk is rated as Substantial. Mitigation measures will include providing focused and needs-based procurement training, recruitment of an owner's engineer to support the PIU, and utilizing a Contract Management Plan for large-value contracts.

13. **Environmental and Social (E&S):** To identify and manage the project's E&S risks and impacts, the Ministry of Energy and Water Resources has prepared the necessary instruments, including the Environmental and Social Management Framework (ESMF), Environmental and Social Commitment Plan (ESCP), Stakeholder Engagement Plan (SEP), Resettlement Policy Framework (RPF), and Labor Management Procedures (LMP). The ESMF includes E&S risk and impact screening criteria, as well as a template for preparing Environmental and Social Impact Assessments (ESIAs) and Environmental and Social Management Plans (ESMPs), as necessary, for managing risks and impacts related to site-specific subprojects. During implementation, the project will ensure the application of stringent measures appropriate to the nature and scale of the risk and impact. These include (i) avoiding involuntary resettlement (if unavoidable, minimizing it by considering alternatives during the project design phase) and forced eviction; (ii) in cases of land acquisition, preparing, consulting, obtaining approval, disclosing, and implementing Resettlement Action Plans (RAPs) before the start of civil works; (iii) conducting a risk assessment of sexual exploitation and abuse (SEA)/sexual harassment (SH) and an action plan to prevent, mitigate, and adequately respond to SEA/SH risks; (iv) having an appropriate grievance redress mechanism

(GRM) in place; and (v) requiring construction contractors, as a condition of their contracts, to implement and comply with ESMPs, including preparation of construction management plans consistent with ESMPs.

14. **Gender:** The project will provide technical assistance on consumer awareness and education programs, targeting women and vulnerable households to engage in income-generating activities. Various market development activities targeting women in rural and borderland areas, particularly pastoral communities, will be explored during project implementation. Project M&E will include tracking the number of female-headed households (FHHs) and women-owned small and medium enterprises (SMEs) benefiting from electricity connections, as well as the number of women with STEM background provided with employment in the sector as a result of TA support to the ESPs.

F. Key Risks

15. **The overall risk for the project in Somalia is Substantial.** Only the risks rated as Substantial or higher are elaborated in the following paragraphs. A fluid political and security situation results in a high political/governance and security risk; while macroeconomic, institutional capacity, fiduciary, and E&S risks are assessed as Substantial.

16. **Political and Governance risk is considered High**. Relations among Federal Government of Somalia (FGS) and Federal Member States (FMS) could impact project implementation. Concerns related to adequacy of political commitment and capacity to create partnerships to strengthen institutions and to set up enabling regulatory environment may also undermine success of the project. There is also a potential risk regarding contestation around the allocations and selection of project locations. Mitigation measures include coordination and working closely with the various key stakeholders such as the FGS, FMS, National Electrification Authority (NEA), and the ESPs during project implementation. The project activities are prioritized as per the assessments of the Somalia Electricity Power Masterplan for the targeted major load centers; the geospatial analysis completed with World Bank support; and the ongoing options analysis for distribution investments in Mogadishu and other load centers.

17. **The macroeconomic risk is considered Substantial.** Energy-sector operations have been financed mainly by the ESPs, whose cash-flow constraints cause concern for the operations' overall sustainability. Project implementation will help in reducing the cost of supply and increased operational efficiency of the beneficiary ESPs; this, in turn, will make electricity affordable to a larger base of consumers, contributing to the financial sustainability of sector operations.

18. **The institutional capacity for implementation is Substantial** given the low capacity within the implementing agency (Ministry of Energy and Water Resources) and ESPs undermining the ability to effectively prepare and implement the project in a timely and effective manner. To mitigate these risks, the project will utilize the existing PIU established under the ongoing World Bank–financed ESRP. An owner's engineer will be recruited to support the PIU in the detailed activity design, procurement, and contracts management. The project also includes capacity-building activities to establish effective management of sector activities.

19. **Fiduciary risks are Substantial.** The FM and procurement environment in Somalia remain challenging, with some potential levels of mismanagement, fraud, lack of transparency, and corruption. Although anti-corruption regulations are in place, problems persist, contributing to low levels of trust in government institutions. Mitigation measures, based on FM and procurement assessments, are covered in the Project Implementation Manual; these include retaining the dedicated procurement and FM specialists of the ESRP's PIU. On-the-job fiduciary training and periodic reviews by the World Bank will be undertaken to help in mitigating these risks.

20. **E&S risks are Substantial.** The potential risks are related to (i) E&S risk management and the impacts of associated facilities, such as ESP generation facilities under Components 1 and 2; (ii) disposal and management of liquid and solid waste and hazardous waste (e.g., polychlorinated biphenyls [PCBs] from older transformers and capacitors used by the ESPs, transformer parts and oils, certain amount of heavy metals, used and damaged solar panels, and batteries); (iii) soil

erosion and degradation; (iv) fauna and flora disturbance leading to loss of habitat due to land clearance; (v) dust and noise; (vi) contamination and degradation of water; and (vii) health and safety of employees and communities (e.g., those associated with the operation of vehicles, plants, and equipment; working at heights; contamination associated with improper handling of e-waste; electrocution; environmental aesthetics; and resource use). It is expected that these risks and impacts will be managed in accordance with the World Bank's environmental, health, and safety guidelines and the relevant requirements of Environmental and Social Standards ESS1, ESS2, ESS3, ESS4, and ESS6.

21. Key social risks include (i) ensuring security for project operations and associated workers; (ii) potential land acquisition required for MV-line (less than 33 kV) corridors and possible expansion of existing and greenfield mini grids and distribution network; (iii) forced displacement of internally displaced people (IDP); (iv) legacy issues around land and unsettled/multiple claims with existing generation sites occupied by the ESPs and the distribution network; (v) systemic weakness in the capacity of implementing agencies to identify, understand, and prevent adverse E&S impacts of the project; (vi) fragility, conflict, and violence (FCV); (vii) vulnerability and social exclusion; (viii) potential establishment of worker camps, which may exacerbate risks associated with GBV or SEA/SH; and (ix) labor influx and associated GBV risks, given the country's stark poverty rates. Currently, the project's GBV risk assessment is High, based on the available information and results using the GBV risk-assessment tool. A GBV action plan has been prepared. All E&S risk-mitigation measures have ben detailed in the ESF instruments prepared under the ongoing ESRP and updated for the project. Given the government's own budget situation, the project will require making an exceptional provision for payments of land compensation through World Bank funds.

22. **The security situation risk is High.** Some parts of Somalia remain insecure, which affects access to the project sites and security for staff of both government agencies and contractors. In addition to flexibility with regard to selection of sites subject to the security situation, the project implementation will consider contingency plans and require contractors to put in place standard operating procedures for undertaking project activities in case of restricted site access. Specifically, the project design offers flexibility to undertake activities in areas with low security risk and, when required, select new sites. A Security Management Plan was prepared under the ongoing ESRP, which will be updated before commencement of subproject activities under the project to ensure that adequate security risk management and emergency responses and duty of care for project workers, project-affected parties, and contractors are in place.

ANNEX 6: Tanzania (P179631)

Task Team Leaders : Carla de Nobrega, Monali Ranade, Rhonda Jordan Antoine
Core Team: Anna Hurbert Magambo, Bingying Wu, Rehema Mercy Mashayo, Wahida Kakar, Mohammad Kandeel, Violette Mwikali Wambua, Herbert Oule, Alexander Elias Songoro, Fredrick Manase Nkya, Raymond Joseph Mbishi, Nkundwe Jonah Mwakiluma, Meskerem Mulatu Legesse, Maiada Kassem, Mugambi Mugisha Mwendia

DATASHEET

BASIC INFORMATION

Project Beneficiary(ies)	Operation Name		
Tanzania	ASCENT - Tanzania Rural Electrification Acceleration Program		
Operation ID	Financing Instrument	Does this operation have an IPF component?	
P179631	Program-for-Results Financing (PforR)	No	

Financing & Implementation Modalities

[✓] Multiphase Programmatic Approach (MPA)	[ ] Fragile State(s)
[ ] Contingent Emergency Response Component (CERC)	[ ] Fragile within a non-fragile Country
[ ] Small State(s)	[ ] Conflict
[ ] Alternative Procurement Arrangements (APA)	[ ] Responding to Natural or Man-made Disaster
[ ] Hands-on Expanded Implementation Support (HEIS)	

Expected Approval Date	Expected Closing Date	Expected MPA Program Closing Date
30-Nov-2023	29-Dec-2028	31-Dec-2030
Bank/IFC Collaboration	Joint Level	
Yes	Complementary or Interdependent project requiring active coordination	

MPA Program Development Objective

To increase access to sustainable and clean energy in Eastern and Southern Africa

MPA FINANCING DATA (US$, Millions)

MPA Program Financing Envelope	5,415.00

Proposed Program Development Objective(s)

To increase access to sustainable and clean energy

Organizations

Borrower:	United Republic of Tanzania
Implementing Agency:	Rural Energy Agency
Contact:	Hassan Saidy
Title:	Director General
Telephone No:	255787472737
Email:	info@rea.go.tz

MPA FINANCING DETAILS (US$, Millions)

Board Approved MPA Financing Envelope	**0.00**
MPA Financing Envelope:	5,415.00
of which Bank Financing (IBRD):	0.00
of which Bank Financing (IDA):	5,000.00
of which Other Financing sources:	415.00

COST & FINANCING (US$, Millions)

Maximizing Finance for Development

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

SUMMARY

Government program Cost	**650.00**
Total Operation Cost	**300.00**

Total Program Cost	300.00
Total Financing	**300.00**
Financing Gap	**0.00**

Financing (US$, Millions)

World Bank Group Financing

International Development Association (IDA)	300.00
IDA Credit	300.00

IDA Resources (US$, Millions)

	Credit Amount	Grant Amount	SML Amount	Guarantee Amount	Total Amount
Regional	150.00	0.00	0.00	0.00	150.00
National Performance-Based Allocations (PBA)	150.00	0.00	0.00	0.00	150.00
Total	**300.00**	**0.00**	**0.00**	**0.00**	**300.00**

Expected Disbursements (US$, Millions)

WB Fiscal Year	2024	2025	2026	2027	2028	2029
Annual	0.00	120.00	100.00	74.00	5.00	1.00
Cumulative	0.00	120.00	220.00	294.00	299.00	300.00

PRACTICE AREA(S)

Practice Area (Lead)

Energy & Extractives

Contributing Practice Areas

Infrastructure, PPP's & Guarantees

CLIMATE

Climate Change and Disaster Screening

Yes, it has been screened and the results are discussed in the Operation Document

SYSTEMATIC OPERATIONS RISK- RATING TOOL (SORT)

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

POLICY 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

LEGAL

Legal Covenants

Sections and Description
Section I.A.D(a) of Schedule 2 to the FA To facilitate the carrying out of Part B of the Program, the Recipient shall ensure that the administrative agreement entered into between the Program Implementing Entity and the Fund Administrator ("Program Administrative Agreement"), under terms and conditions approved by the Association, shall be updated, not later than three (3) months after the Effective Date, to reflect the activities under Part B of the Program as set forth in Schedule 1 to this Agreement, and include, inter alia: (i) that the Program Implementing Entity shall provide the Fund Administrator with the funds allocated under the Program for the purpose of carrying out Part B of the Program; (ii) the requirement that the Fund Administrator performs its functions to assist the Program Implementing Entity in carrying out Part B of the Program with due diligence and efficiency, in conformity with appropriate administrative and financial management practices, and in accordance with the Program Operations Manual.
Section I.F(2) of Schedule 2 to the FA Without limitation to the provisions of sub-paragraph (a) immediately above, the Recipient shall not later than one hundred and eighty (180) days after the Effective Date, or (i) one hundred and eighty (180) days after the Effective Date of COMESA Financing Agreement (whichever shall be the later date), establish a memorandum of understanding with COMESA, outlining the collaboration and coordination arrangements, satisfactory to the Association, that will enable Recipient to participation in the regional energy access acceleration platform on the same terms as the Recipient's member states.

Conditions

Type	Citation	Description	Financing Source
Effectiveness	Art V. 5.01(a)	the Recipient has prepared and adopted the Program Operations Manual, in form and substance satisfactory to the Association; and	IBRD/IDA
Effectiveness	Art V. 5.01(b)	the Recipient has prepared and executed the Subsidiary Agreement with the Program Implementing Entity, in form and substance satisfactory to the Association.	IBRD/IDA

A. Context

1. **Tanzania has made impressive progress in increasing the electrification rate in recent years; however, approximately two-thirds of the population remain without access.** In Tanzania, electricity access, defined as connectivity, has increased from 7.0 percent in 2011 to 37.7 percent in 2020,[1] which is one of the fastest access expansion rates in Sub-Saharan Africa. This rapid increase in access has been driven primarily by (i) strong political commitment and support for the rural electrification expansion programs, as espoused under the Government's Big Results Now Initiative, and an ambitious National Rural Electrification Program (NREP); (ii) introduction of a petroleum levy to finance the NREP; and (iii) reductions in connection fees[2] and service charges (first introduced in 2013). Despite these achievements, a large disparity remains between electricity access rates in urban areas (73.2 percent) and rural areas (24.5 percent) and between national grid coverage (78.4 percent) and the overall access/connectivity rate (37.7 percent). This disparity is a result of the historical emphasis on backbone grid extensions. This has resulted in the national grid reaching 78.0 percent of villages, with full coverage expected in 2023; but out of connection distance for most households. The Rural Energy Master Plan (REMP) lays out the path to reach 100 percent energy access by 2031/32, shifting the focus to densification, promoting productive uses of energy (PUE) to encourage demand growth, and increasing the role of off-grid solutions.

2. **Tanzania has consistently identified inadequate, expensive, and unreliable power supply as a critical constraint to increased electrification and economic growth and has set ambitious targets to increase electricity generation capacity.** The current total installed electricity generation capacity in Tanzania is 1911 MW (1872 MW main grid and 39 MW isolated grids), compared to the peak demand of 1431 MW, recorded on May 15, 2023. The electricity generation mix includes natural gas 64 percent, hydropower 31 percent, heavy fuel oil 5 percent and biomass less than 1 percent. Abundant hydro, solar, wind, and geothermal resources can play a key role in the country's sustainable economic development and in meeting national and international climate goals, including the recently updated NDCs that were submitted to the United Nations Framework Convention on Climate Change (UNFCC) in June 2022. Tanzania aims to increase its share of renewable energy in the energy-generation mix to 78 percent by 2030 (28.45 GWh) (including large hydro).

B. Relevance to Higher-Level Objective

3. This program directly supports the Country Partnership Framework's (CPF) focus on Tanzania's Five-Year Development Plan and Zanzibar's Third Strategy for Growth and Reduction of Poverty (ZSGRP III), addressing the challenges of carving a growth path that is more inclusive and sustainable. The program contributes across the three areas of strategic focus: Focus Area 1, enhance productivity and accelerate equitable and sustainable growth—by expanding electricity services; Focus Area 2, boost human capital, social inclusion, and gender equity—by expanding access to education and health services in newly electrified areas; and Focus Area 3, modernize and improve efficiency of public institutions—by strengthening electricity-sector institutions. The program contributes to the recently updated Nationally Determined Contribution (NDC) (June 2022) highlighting Tanzania's intent to enhance the use of renewable energy potential across various sectors to meet its commitment to avoid 30–35 percent of its business-as-usual (BAU) emissions by 2030.

4. **This Program is an integral part of the regional ASCENT MPA**. While Tanzania's electrification rate is still below the regional average, it is mounting successful acceleration efforts. Its focus is on fast-paced grid densification with an added ambition of accelerating DRE investments can serve as an example for countries that need to accelerate their efforts. Tanzania will also benefit from the regional platform's financing, advisory support, capacity building, and

[1] REA, Energy Access Situation Survey, 2020.
[2] The electricity connection fee for the population in rural areas is TZS 27,000 (US$12) and in urban areas is TZS 177,000 (US$77).

harmonization efforts such as digital monitoring platform, technical and quality standards, market intelligence, carbon finance mobilization, and cross-border solutions.

C. Program Description

5. **Government Program.** The REMP sets out the requirements for meeting universal access to modern energy targets in a cost effective and timely manner. The proposed project, designed as a program for Results (PforR), directly contributes to a time-and-cost slice of the cost of REMP implementation. The total cost for implementation of the REMP over an eight-year period (2022–30) is estimated at US$6.04 billion, including about US$1.5 billion for improvements in the upstream grid, which will serve many other purposes beyond rural electrification. Out of the funding need of US$4.5 billion for expansion of modern energy services, more than 95 percent is for on-grid, mini-grid and off-grid solutions and the remaining 5 percent for clean cooking solutions. With the rapid grid extension, the REMP has also identified network overload as a major challenge that must be addressed to maintain and improve the quality of power services. While this remains outside the PforR scope, it is being supported under the National Grid Alleviation program, which is financed by TANESCO and supported by other donor partners. Furthermore, the Renewable Energy Investment Facility (REIF) is expected to support small power producers, which can support TANESCO's strategic areas initiative to enhance network quality, increase reliability of supply, and increase renewable energy supply to the grid, thereby offsetting the increased consumption from the new connections supported by this PforR. The proposed program is a scale-up of the on-going PforR Tanzania Rural Electrification Expansion Program and Additional Financing (TREEP) (P153781) and focuses on REMP investment areas to strengthen implementation of the government program and institutional mechanisms for scaling up access and funds mobilization from public and private sectors.

6. **The ASCENT-Tanzania PforR Program Development Objective (PDO) is to increase access to sustainable and clean energy in Tanzania.** Following is a brief description of the PforR program (Table 6.1). Details are provided in the Financing Agreement, program Technical Document and program Operations Manual.

Table 6.1: Results Framework

Indicators	Baseline	End Target
PDO Indicator		
People provided with electricity (Number)	0	4,000,000
Intermediate Indicators by Results Areas		
Expanding On-Grid Access to Electricity		
Number of women-owned/led businesses provided electricity (Number)	0	10,000
Number of female STEM graduates obtaining Engineers Registration Board registration and among those hired by the energy sector	0	80
Contractors have conducted at least one stakeholder meeting in each project area (Percentage)	0	90
Number of female-headed households provided with electricity (Number)	0	16,000
People provided with access to energy for productive use (Number)	0	16,000
Increasing Supply of Distributed Renewable Electricity in Rural Areas		
Renewable Energy Investment Facility Operationalized	REIF design complete	REIF fully operationalized
Private capital mobilized or enabled for clean energy access (Amount (USD))	0	30,000,000
Access delivered through distributed renewable energy technologies (Number)	0	10,000
Renewable energy capacity enabled (Megawatt)	0	5
National Access Acceleration Platform		

Indicators	Baseline	End Target
PDO Indicator		
Capacity strengthening for use of Digital Monitoring, Reporting & Verification (Text)	Limited use of digital system	Stakeholder capacity built for effective utilization of digital platforms for MRV, planning and energy sector M&E
Policy and regulatory framework for renewable energy and electrification strengthened (Text)	Rural Energy Master Plan updated	Policy environment strengthened
Percentage of beneficiaries who report they are satisfied with access to electricity, through beneficiary survey (Percentage)	0	80
Strategic capacity strengthening and technical assistance needs identified (Text)	No Annual capacity building plans	REA annual capacity building plans

Table 6.2: Proposed Disbursement Linked Indicators and Funds Allocation

Results Framework	Baseline	End Target	Disbursement Amount (USD)
DLI 1: **Cumulative number of grid-based electricity connections made under the program (Number)**	1,585,000	2,397,606	**Total: USD 277,655,982**
DLI 2: Renewable Energy Investment Facility Operationalized	REIF approved by REA Board	REIF fully operational	**Total: USD 19,719,544**
DLR 2.1: (i) REA Board approves updated REIF operating guidelines, including establishment of REIF 'special fund account' and (ii) appointment of the REIF independent committee and (iii) launch of pilot round of application for REIF support	REIF approved by REA Board	REIF launched Pilot round of applications from private companies	USD 3,943,924
DLR 2.2: REA Board approves evaluation report of pilot round of selection process of private companies applying for REIF support	REIF launched Pilot round of applications	REA Board approves evaluation report	USD 5,258,540
DLR2.3: (a) REIF cumulatively disburses US$5 million to private companies selected as per REIF operating guidelines and REA Board approved evaluation report DLR2.3: (b) REIF cumulatively disburses US$10 million to private companies selected as per REIF operating guidelines and REA Board approved evaluation report	REA Board approves evaluation report	Disbursement targets achievement	DLR2.3(a): USD 5,258,540 DLR2.3(b): USD 5,258,540
DLI 3 Policy and regulatory framework for renewable energy and electrification strengthened	**No**	**Yes**	**USD 2,624,474**
DLR 3.1 Strategy for encouraging Productive Uses of Energy in newly electrified villages developed	No strategy	Yes	USD 362,510
DLR 3.2 Development of SPP Standard Financing Framework (including, TANESCO periodic publication of strategic areas report, sector financial model, pilot application of model, invitation to private sector and roll out by EWURA)	No current framework	Framework published	USD 2,261,964
Total			**USD 300 Million**

7. The PforR supports the following activities under the government's program outlined in the REMP:

a) **Result Area 1: Expanding On-Grid Access to Electricity**, as per Pillar 2 of the ASCENT MPA framework. Specifically, this program supports densification and last-mile connections under the ongoing REA Phase 3-Round 2, which targets last-mile grid connections and densification including, but not limited to, rounds 2B and 2C and the Hamlet

Electrification Plan (HEP) including, but not limited to, phases 1 and 2: (i) installing medium-voltage (MV) (33 kV and 11 kV) lines and low-voltage (LV) lines; (ii) installing MV/LV distribution transformers; and (iii) procuring materials for connection and metering of new customers in rural areas. The disbursement linked indicator (DLI 1) is the number of people provided with electricity. As this DLI continues support from TREEP to the ongoing REA program, the baseline is set at 1,585,000 connections, which is the end target of the TREEP program. This new PforR will partially support the next 812,606, connections, with an end target of 2,397,606 connections. The resulting number of people provided electricity access under the program—approximately 4,063,030 (considering 5 people per household)—constitutes approximately 10.7 percent of the remaining unelectrified population in the country (approximately 59 percent of the 64 million population), given the current electrification rate.

b) **Result Area 2: Increasing Supply of Distributed Renewable Electricity in Rural Areas**, through scaling off-grid solutions as per Pillar 3 of the ASCENT MPA framework. The REIF has the overall objective of enabling the scaling up of local private-sector investment/participation in the country's rural renewable energy and national electrification targets. Results Area 2 builds on the existing support being provided under the TREEP that provides sub-loans to eligible Investment Enterprises through Participating Financial Institutions (PFIs) to refinance Small Power Projects (SPPs) to increase access to renewable energy in rural areas. The REIF will facilitate a package of several funding instruments and schemes including (i) matching grants, (ii) results-based financing (RBF), (iii) credit lines, (iv) equity, and (v) mezzanine and risk mitigation instruments as further detailed in the REIF operating guidelines. The REIF will also make provision for technical assistance and capacity-building programs, including such interventions as end-to-end tendering assistance and collaboration with local and international partners to build technical expertise and sector knowledge among all stakeholders so that REIF's impact is sustainable.

c) **Result Area 3: National Access Acceleration Platform** through strengthening the capacity of sector institutions for expanding on-grid and distributed renewable solutions, as per Pillar 1 of the ASCENT MPA framework. This result area complements ongoing capacity-building activities under the TREEP to implement the REMP by supporting (i) the development of strategies for increasing PUE and use of alternate clean-energy solutions in newly electrified villages and (ii) development of SPP Standard Financing Framework (including TANESCO periodic publication of strategic areas report, sector financial model, pilot application of model, and invitation to private sector) and rollout by EWURA. The disbursement linked indicator (DLI 3) will strengthen the policy and regulatory framework for renewable energy and electrification.

D. Institutional and Implementation Arrangements

8. **The implementation arrangements established under the ongoing TREEP Program will be maintained under the proposed new program.** The Rural Energy Agency (REA), under the oversight and coordination of the Ministry of Energy (MoE), is the lead implementing agency for the program, in alignment with the Rural Grid Access Program (RGAP) under the REMP Implementation Framework.

9. The Program Steering Committee (PSC), chaired by the permanent secretary of the MoE, with representation of sector agencies including Ministry of Finance (MOF), MOE, REA, and Tanzania Electric Supply Company (TANESCO), will ensure the coordinated implementation of the program. A Memorandum of Understanding (MOU) between the REA and TANESCO is signed for each procurement lot awarded. These MOUs clearly outline the terms and conditions under which TANESCO supports the REA in implementation of grid densification (especially in network planning, quality assurance, and supervision aspects of the program). In addition, services of the Project Management Company (PMC) will continue to provide support and training to the REA, along with providing on-demand support.

E. Appraisal Summary

10. **Paris Alignment.** The program is fully aligned with the Paris Agreement on Climate Change on both adaptation and mitigation and is anticipated to have substantive impacts on improving climate adaptation and resilience. Further, the proposed program is not expected to contribute substantively to greenhouse gas (GHG) emissions or create carbon lock-in. A summary of the program's Climate and Disaster Risk Screening (CDRS) and Climate Financing, informing climate-co-benefits can be found in the publicly disclosed Climate Change Technical Document.

11. **Fiduciary.** The operation will use the PforR financing instrument guided by the Policy for Program for Results Financing issued in July 2017. A Fiduciary Systems Assessment (FSA) was carried out in line with the Operational Policy for Program for Results Financing (issued July 2017; directive effective as of July 2019). The existing systems were found adequate for handling financial management, procurement, complaints, and fraud and corruption. The systems provide reasonable assurance that the financing proceeds will be used for their intended purposes, with due attention to economy, efficiency, effectiveness, transparency, and accountability. The program is not expected to procure any high contracts valued at or above the Operational Procurement Review Committee (OPRC) thresholds (US$115 million for works, US$75 million for goods and non-consulting services, and US$30 million for consultant services). There will be one audit report of funds disbursed to the REA covering the audit opinions on financial statements. An annual fiduciary assessment will be conducted for the program, supported mainly by the Internal Audit Departments and the Public Procurement Regulatory Authority (PPRA). This assessment will be supplemented by on-site visits by the Bank's fiduciary staff at least twice a year. Procurement risk is rated Substantial and FM risk is rated Moderate.

12. Environment and Social (E&S). An Environment and Social Assessment (ESSA) was conducted by the World Bank team as part of preparation for this PforR support. The ESSA has built on experience on implementing the E&S requirements of TREEP, including the additional financing. The program has devised appropriate measures, including enhancing the program Action Plan (PAP), which was developed under TREEP Additional Financing to factor the experience gained from implementing this PAP. During ESSA preparation, the World Bank confirmed that Tanzania's environmental and social management systems have adequate capacity to manage proposed program risks and impacts. Similarly, the implementing institution (REA) has adequate capacity to integrate and manage the likely environmental and social issues and risks during project implementation.

13. **Gender.** In the energy sector's public institutions, women represent less than 15 percent of the workforce on average, mainly occupying non-technical positions. In addition, with very low asset ownership and financial inclusion, women's participation in income-generating activities is quite limited. The proposed program will build on efforts made under TREEP and delve into strategic programs and actions to close the gender-equality gaps in Tanzania's energy sector by ensuring women's equitable participation and benefits in the energy value chain. It envisions addressing the identified gender-equality gaps through providing female-headed households and enterprises owned and led by women with access to reliable, affordable, and clean electricity. It also designs a program to attract more female professionals to the energy sector in line with REA's Strategic Plan 2022–26 (RESP). Two gender-related indicators are proposed to be included in the Result Framework to track progress towards closing the gender gap in the energy sector. The indicators are: (a) Number of women owned /led enterprise businesses provided electricity (20,000); (b) Number of female STEM graduates obtaining Engineers Registration Board registration and among those hired by the energy sector (0 to 80).

F. Key Risks

14. **The overall risk rating of the operation is Moderate**, which is the same as the current risk rating of the Tanzania Rural Electrification Expansion Program (TREEP) Parent and AF Programs. Only the risks rated substantial and above are

elaborated below. The fiduciary systems assessment has identified substantial risk, and relevant risk mitigation measures have been included as Program Action Plans (PAPs). The Bank will continue to monitor and mitigate these risks through implementation of the Program, continued close policy dialogue, and complementary Bank engagements, such as the Zanzibar Energy Sector Transformation and Access Project (P169561), Tanzania-Zambia Transmission Interconnector Project (TAZA – P163752), and the Programmatic Technical Assistance in the sector.

15. **The fiduciary risk (Financial Management (Moderate) and Procurement (Substantial)) for the program is assessed as Substantial**. The FSA revealed that the implementing agency, REA, has experience in handling World Bank–funded projects. There is a residual risk as the government is requiring its institutions and agencies use the MUSE Accounting system going forward, which may cause disruptions when transition from the current ACCPAC Navision. Another risk is the influence of the D-Fund system that has affected all Bank-funded projects and programs. Mitigation measures are provided in the PAP. The Bank will continue to monitor these through fiduciary supervision. Procurement risk is rated Substantial. The REA has gradually improved its procurement performance; however, there are still areas for improvements remains, including, delays in paying vendors which impairs project implementation; time required to vetting of contracts by the Attorney General office; and record keeping and management system. Other risks identified from the PPRA audit reports of 2022, a new audit report is due shortly, were delays in procurement process and in concluding contracts, inaccuracy in technical specifications, awarding contracts beyond bid validity period etc. Appropriate mitigation measures are provided in the Program Action Plan, including (i) specific tailored training on procurement and contract management for large works packages and consulting services for construction supervision and (ii) establishment and monitoring of Contract Management Plan; measurement of fiduciary Key Performance Indicators (KPIs) on procurement and financial management throughout the procurement cycle.

ANNEX 7: TDB Regional Financing Facility (P181328)

Task Team Leaders: Dana Rysankova, Marlon Rawlins, Jon Exel, Monali Ranade
Core Team: Patrick Balla, Jon Exel, Ahmed Rostom, James Knuckles, Maria del Rosario Fischer Loayza Cortez, Yabei Zhang, Besnik Hyseni, James Chacha Maroa, Margaret Auma Ombai, Bharti Solanky, Thokozani Kadzamira, Marie-Paule Ngaleu, Henry Amena Amuguni, Boaz Okoth Akello, Michael Goldberg, Shyamala Shukla, Leah Kiwara, Deea Ariana, Shaukat Javed, Edith Ruguru Mwenda, Ntayi Anfani Bandawa; Birgit Kuba, Gilles Marie Veuillot, Edwin Nyamasege Moguche, Meron Tadesse Techane; George Ferreira da Silva

DATASHEET

BASIC INFORMATION

Project Beneficiary(ies)	Operation Name		
EASTERN AND SOUTHERN AFRICA	Accelerating Sustainable and Clean Energy Access Transformation - Regional Energy Access Financing Platform		
Operation ID	Financing Instrument	Environmental and Social Risk Classification	
P181328	Investment Project Financing (IPF)	Substantial	

Financing & Implementation Modalities

[✓] Multiphase Programmatic Approach (MPA)	[ ] Contingent Emergency Response Component (CERC)
[ ] Series of Projects (SOP)	[ ] Fragile State(s)
[ ] Performance-Based Conditions (PBCs)	[ ] 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
[ ] Alternative Procurement Arrangements (APA)	[ ] Hands-on Expanded Implementation Support (HEIS)

Expected Approval Date	Expected Closing Date	Expected Program Closing Date
30-Nov-2023	30-Mar-2029	31-Dec-2030
Bank/IFC Collaboration	Joint Level	
Yes	Complementary or Interdependent project requiring active coordination	

MPA Program Development Objective

To increase access to sustainable and clean energy in Eastern and Southern Africa

MPA FINANCING DATA (US$, Millions)

MPA Program Financing Envelope	5,415.00

Proposed Development Objective(s)

The Project Development Objective is to increase access to sustainable and clean energy in Eastern and Southern Africa.

Components

Component Name	Cost (US$)
Debt financing for DRE and clean cooking companies	265.00
Result based financing for frontier markets	12.00
Technical assistance, tools and innovation	17.00

Organizations

Borrower:	Trade and Development Bank
Implementing Agency:	Trade and Development Bank

MPA FINANCING DETAILS (US$, Millions)

Board Approved MPA Financing Envelope	**0.00**
MPA Financing Envelope:	5,415.00
of which Bank Financing (IBRD):	0.00
of which Bank Financing (IDA):	5,000.00
of which Other Financing sources:	415.00

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	**594.00**
Total Financing	**594.00**
of which IBRD/IDA	**275.00**
Financing Gap	**0.00**

DETAILS

World Bank Group Financing

International Development Association (IDA)	275.00
IDA Credit	275.00

Non-World Bank Group Financing

Trust Funds	19.00
Energy Sector Management Assistance Program	19.00
Commercial Financing	300.00
Unguaranteed Commercial Financing	300.00

IDA Resources (US$, Millions)

	Credit Amount	Grant Amount	SML Amount	Guarantee Amount	Total Amount
Regional	25.00	0.00	0.00	0.00	25.00
Scale-Up Window (SUW)	250.00	0.00	0.00	0.00	250.00
Total	**275.00**	**0.00**	**0.00**	**0.00**	**275.00**

PRACTICE AREA(S)

Practice Area (Lead)	Contributing Practice Areas
Energy & Extractives	Finance, Competitiveness and Innovation

CLIMATE

Climate Change and Disaster Screening

Yes, it has been screened and the results are discussed in the Operation Document

SYSTEMATIC OPERATIONS RISK- RATING TOOL (SORT)

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

POLICY 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

Have these been approved by Bank management?
[✓] Yes [ ] No

Is approval for any policy waiver sought from the Board?
[✓] Yes [ ] No

ENVIRONMENTAL AND SOCIAL

Environmental and Social Standards Relevance Given its Context at the Time of Appraisal

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

NOTE: For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

LEGAL

Legal Covenants

Sections and Description
Independent Verification (Section II.3 of Schedule 2 to the FA). The Recipient shall cause TDF not later than one hundred eighty (180) days after the signature of the Subsidiary Agreement, to procure services of verification agent(s) with qualifications, experience and terms of reference, satisfactory to the Association, for the purpose of RBF and Catalytic Grants, to provide additional verification of Beneficiaries and fiduciary arrangements of respective Grants, in accordance with the verification protocols established in the POM.

Other Undertakings (Section IV.2-5 of Schedule 2 to the FA). Except as the Association shall otherwise agree, the Recipient shall maintain: (a) a Capital Adequacy Ratio of not less than twenty per cent (20%); (b) an Open Credit Exposure Ratio of not more than ten per cent (10%); and (c) an insurance policy on callable capital in respect of its Class A shares (as defined in the Recipient's Charter) held by its member states whose credit rating is less than investment grade. For purposes of this section, an investment grade credit rating as of the date hereof is a rating for long term, unsecured and non-credit enhanced debt obligations of BBB- or higher by Standard & Poor's and Fitch and Baa3 or higher by Moody's. For each of its fiscal years, the Recipient shall review on an annual basis whether it would meet the requirements set forth in sub-section 2 above in respect of such fiscal year and the next fiscal year, and shall furnish the Association, as part of the Project Reports, the results of such review upon its completion. If any such review shows that the Recipient would not meet the requirements set forth above for the period covered by such review, the Recipient shall promptly take all necessary measures, in order to meet such requirements.

Conditions

Type	Citation	Description	Financing Source
Effectiveness	Article V	The Recipient has prepared and adopted the Project Operations Manual, in form and substance satisfactory to the Association	IBRD/IDA, Trust Funds
Effectiveness	Article V	The ESMAP Trust Fund Grant Agreement has been executed and delivered and all conditions precedent to its effectiveness or to the right of the Recipient to make withdrawals under it (other than the effectiveness of this Agreement) have been fulfilled.	IBRD/IDA
Disbursement	Section III.B.1 of Schedule 2	No withdrawal shall be made under Category (1) unless and until the Recipient has, in form and substance satisfactory to the Association modified the ESMS to include the guidelines for PFI lending, and for direct Sub-Credits	IBRD/IDA
Disbursement	Section III.B.1 of Schedule 2	No withdrawal shall be made under Category (2) unless and until: (i) the Recipient has, in form and substance satisfactory to the Association, prepared and adopted an Inclusion Strategy that will enable vulnerable and marginalized groups and individuals to benefit from the Project; (ii) a technical and fiduciary (i.e., procurement and financial management) assessment of TDF (for Part 2 of the Project) has been carried out, in a manner acceptable to the Association; and (iii) the Subsidiary Agreement has been executed on behalf of the Recipient and TDF.	Trust Funds

A. Context

1. **The rise of distributed renewable energy (DRE) technologies and business models provides transformative energy access acceleration opportunities in the AFE region, if accompanied by adequate support.** DRE electrification progress is also opening opportunities to start addressing clean cooking access, leveraging growing synergies between the sectors (i.e., rise of eCooking, joint offering of services, and similarities in RBF instruments). However, progress in deploying DREs to close electricity access gap must accelerate. To achieve universal electricity access in the AFE region, DREs (at least cost) need to service an additional 250–300 million people, requiring US$33–62 billion, according to geospatial modeling. Additional funding is required for clean cooking. Furthermore, progress has been uneven across the region, technologies, and user types.

2. **Private/commercial financing needs to increase and become available to a broader range of technologies, geographies, company types, and users.** Some DRE segments, such as those serving commercial and industrial (C&I) customers, are now fully or nearly commercial and increasingly attracting larger amounts of private-sector financing. But electrification-oriented DRE segments (e.g., mini grids and OGS), as well as clean cooking, are lagging behind. Although companies in these segments have already mobilized about US$2 billion to support their growth in AFE, including from private investors, most of their funding still originates with development finance institutions (DFIs). In addition, financing is highly concentrated in just a few key markets and a handful of companies. Enabling private sector flows to more mature market segments would free up concessional finance to target smaller companies and less mature markets. Private capital mobilization for DRE and clean cooking companies is held back by multiple barriers and market failures, including affordability constraints of their end users, inadequate policy and regulatory frameworks, fragmentation and inefficiencies of public funding, cost of capital, both real and perceived risks deterring commercial investors, and lack of financing and de-risking instruments tailored to the specific characteristics of the DRE and clean cooking sectors.

3. **The proposed Project (ASCENT's Phase 6) is an integral part of ASCENT's approach for scaling up DRE and clean cooking and mobilizing private sector via partnerships and "One World Bank Approach"** (see Annex 8). The project will build on a successful engagement with the Eastern and Southern African Development Bank (TDB), leveraging the successful experience in financing off-grid solar sector under the Regional Infrastructure Financing Facility Project (RIFF, P171967). Under this project, TDB has successfully supported provision of financing and mobilization of additional commercial finance for off-grid solar companies. TDB is one of the African leading development banks and is operating according to commercial principles. TDB lends to public sector, large, small, and medium corporations, and other Financial Intermediaries (FIs). Traditionally, its main lending activity has been trade finance, but as of recent years, TDB has been advancing its project and infrastructure finance lending, with an increasing focus on renewable energy lending. TDB has also established Trade and Development Fund (TDF), as a subsidiary, which has as its mandate (i) provision of financing on concessional terms to promote the economic and social development of beneficiary participants; (ii) provision of other forms of financing, technical assistance, and grants, and undertake activities of an educational nature, such as capacity building and training activities (supporting overall objectives of TDB), and as such it can be a recipient of grants and technical assistance (including trust funds). The Project will leverage the combined strengths of TDB and TDF to enable financing for both larger and smaller companies and those in nascent markets and underserved groups, including female entrepreneurs, while mobilizing additional capital.

B. Relevance to Higher-Level Objective

4. **Achieving universal electricity access by 2030 is the World Bank's priority for enabling sustainable development in the AFE region**. The WBG's Africa Regional Integration and Cooperation Assistance Strategy (FY21-FY23) also emphasizes that achieving universal energy access is a priority for the region. The Project will contribute to regional

integration outcomes and leverage regional integration approaches through creating a regional market for DRE, while mobilizing and enabling private capital.

5. **The Project will deploy principles of maximizing financing for development, featuring collaboration with the IFC and MIGA**. The Project will support only private sector/commercial enterprises. TDB debt financing will be provided on market terms, with the incentives to co-finance and collaborate with other funders. By filling the existing financing gaps, the Project will aim at increasing (as opposed to displacing) private and commercial funding for DRE and clean cooking. Moreover, the facility will tap into MIGA's existing and newly developed products to mitigate investment risks associated with a nascent industry and challenging markets. The proposed Project will initiate ASCENT's DRE financing scale-up and is expected to generate new investment opportunities for the IFC and MIGA, as well as other commercially oriented funders by growing the DRE and clean cooking market. The Project will feature a coordination mechanism (expected to be in place before effectiveness) that aims to facilitate co-financing and collaboration opportunities with the IFC and MIGA, as well as other funders committed to supporting commercially viable and sustainable DRE and the clean cooking sector; the goal is to leverage a variety of instruments and tools (equity, debt, grants, and technical assistance) that each can provide to bring the access-oriented DRE and clean cooking segments to scale.

6. **Paris Alignment.** The Project is fully aligned with the Paris Agreement on Climate Change on both adaptation and mitigation and is anticipated to have substantive impacts on improving climate adaptation and resilience through providing access to clean energy, using distributed renewable technologies, supporting both mitigation (reduced emissions) and adaptation (increased resilience of communities and supporting climate-resilient DRE systems) angles of climate change. Project activities actively incorporate resilience and risk-reduction measures, including screening criteria for sub-projects and technical assistance for climate-resilient design. The proposed project is not expected to contribute substantively to greenhouse gas (GHG) emissions or create carbon lock-in. Further details can be found in the *ASCENT Technical Note on Climate Change* (available on request). The Project contributes to implementation of individual countries' Nationally Determined Contributions (NDCs) and their National Adaptation Plans.

C. Project Description

7. **The PDO is to increase access to sustainable and clean electricity in the Eastern and Southern Africa (AFE) region** (Table 7.1).

Table 7.1: Results Framework

Indicators	Baseline	End Target
PDO level indicators		
People provided with access to electricity (million)	0	5
- *People provided with access to clean coking (million)*		*1*
- *Enterprises/farmers provided with electricity (thousand)*		*100*
- *Renewable energy capacity enabled (MW)*		*35*
Financing mobilized for delivery of modern energy services (US$ million)	0	400
- *Of which private/commercial*		*300*
Intermediate results indicators		
Greenhouse gas emissions reduced (tCO2e) (lifetime ERs)	0	4,420,000
Share of lending with participation of another FI (co- or on-lending) (percentage)	0	35
DRE and clean cooking companies participating in RBF (number)	0	5
Female-owned SMEs with access to clean energy through the project (number)	0	1,000
Women employed in supported DRE and clean cooking companies (percentage) (of which women with STEM background)	32 (16)	40 (30)
Deployment of D-MRV platform (yes/no)	No	Yes

Indicators	Baseline	End Target
PFI capacity strengthening program in place (yes/no)	No	Yes
Number of financial innovations launched (number)	0	3
Portfolio quality indicators tracked (yes/no)	No	Yes
Supported mini grid companies have conducted at least one stakeholder meeting in project area (percentage)	0	100
Beneficiaries (end users) who report they are satisfied with enhanced access to electricity and/or clean cooking (through a beneficiary survey) (percentage)	0	80

8. **The Project will establish the ASCENT Regional Energy Access Financing Platform (ASCENT-REAF).** The Platform will be a key part of the financing infrastructure set up by ASCENT to scale up DRE and clean cooking sectors and mobilize private and commercial capital (see Annex 8). In the context of Project's preparation, ASCENT's market scoping has identified a near-term potential pipeline of about US$4 billion from leading 11 OGS, mini-grid, and clean cooking companies and about 20 "next generation" DRE and clean cooking companies. This includes about 900 mini grids in seven AFE countries. ASCENT-REAF aims at unlocking this near-term pipeline in order to enable the continued upward trajectory of both the *scale-up* and the *next generation* companies. ASCENT aims to address existing companies' financing, technical assistance, and capacity-building needs, while strengthening their commercial orientation and ability to attract commercial funders by applying financial rigor or a commercially-run FI and engaging other regions' commercial banks and FIs.

9. **To this end, ASCENT-REAF will work toward enabling debt financing tailored to DRE and clean cooking companies' needs that is not readily available on the market**, including long-term debt, local currency financing, and financing for smaller companies with high growth potential. It will also (i) initiate systematic market-building interventions in unserved and underserved markets, including FCV, by establishing a regional RBF facility focused on frontier markets and targeting gender gaps; (ii) mobilize additional commercial capital, while building the engagement and capacity of regions' commercial banks to lend to DRE and clean cooking sectors (via on-lending under Component 1 and provision of capacity building under Component 3); and (iii) attract new sources of finance leveraging carbon markets, green/sustainability bonds, and other climate finance opportunities. The Project is expected to mobilize an additional US$300 million in private/commercial financing and at least US$100 million from development partners.

10. **ASCENT-REAF will support a range of DRE technologies from small solar home systems (SHSs) and mini grids and productive use systems serving a range of beneficiaries (households, SMEs, farmers, schools and health clinics).** Since the ASCENT-REAF Platform's objective is to support energy-access expansion, more commercially oriented DRE segments aiming to service industrial and commercial clients (C&I) are ineligible unless there is a specific link to expanding energy access (e.g., connection from the captive power C&I system to powering a mini grid for neighboring communities and/or inclusion of C&I clients in broader mini-grid companies' investment portfolios). Similarly, e-mobility subprojects could be supported if clear linkages to energy access can be demonstrated (e.g., solar charging stations as one of the mini-grid's productive-use applications). In theory, ASCENT-REAF could support subprojects of up to 20 MW; in practice, however, the vast majority of subprojects will be under 1 MW (as per the identified pipeline of potential investments): 95 percent of mini grids in the identified potential pipeline are under 100 kW and none currently exceed 5 MW (see Section IV.A (i) of the PAD on eligible clean coking technologies and fuels).

11. **The Project will include the following components (Table 7.2**). Details are included in the Financing Agreement, Project Technical Document and Project Operations Manual.

Table 7.2: Proposed Project Components and Funds Allocation under the Project (US$M)

Component	MPA pillar	IDA-SUW	Regional IDA credit	ESMAP RETF grant	Total
1: Lending to DRE and clean cooking companies	3–Scaling DRE	250	15	0	265
2: Results based financing (RBF) for frontier markets	3–Scaling DRE	0	0	12	12
3: Technical assistance, tools, and innovations	1–Access Platforms	0	10	7	17
Total		**250**	**25**	**19**	**294**

a) **Component 1: Lending to DRE and clean cooking companies:** This component will provide loans to DRE and clean cooking companies to expand electricity and clean cooking access in IDA-eligible countries in the AFE region that are TDB members. Eligible borrowers will be private/commercial enterprises legally operating in project-eligible countries, with track records in delivering energy services with eligible DRE and clean cooking technologies. Only economically and financially viable subprojects will be supported. The subprojects will also be screened for climate resilience and support provided to develop climate resilient designs. The project will support DRE and clean cooking companies either through direct lending or through on-lending via eligible PFIs. For direct lending, the TDB will follow its established processes for screening and due diligence, which are already used under the RIFF, bringing together sectoral, financial, risk, and operational considerations. For larger transactions, the TDB is expected to seek co-financing, which is further incentivized by Project's target to mobilize at least US$300 million in private/commercial capital. For smaller loans (not to exceed US$10 million per loan) to small and medium enterprises (SMEs), the TDB may lend via its subsidiary TDF, specialized in SME financing, for the total cumulative amount, not to exceed 25 percent of the overall IDA SUW loan. The TDB will assume the credit risk and will be solely responsible for the repayment of the loan to the World Bank. Like the TDB, the TDF will only lend for economically and financially viable subprojects, but will focus on SME lending, using its due diligence expertise related to SME lending.[3] PFI lending is expected to be built up gradually. Initially, on-lending through the PFIs will be restricted to smaller DRE projects (those under 2 MW), which typically have relatively minor E&S impacts. The possibility of expanding this limit will be considered once the PFIs demonstrate their ability to effectively handle E&S aspects and the TDB confirms its capacity to oversee the PFIs.

b) **Component 2: RBF for the frontier markets:** This component will establish a regional RBF facility, which will finance grant funding via RBF and performance-based catalytic grants to support DRE and clean cooking expansion in markets unserved or underserved by national programs. RBF will support the same technologies as in Component 1. Eligible companies will need to demonstrate prior experience in the DRE and clean cooking sectors. The RBF grants will be geographically targeted. They will partially offset the initial costs and risks associated with companies expanding their operations and setting up their sales and service infrastructure in new regions and bridging the affordability gap, thereby incentivizing the private sector to serve more underserved areas, while keeping end-user prices affordable. Performance-based catalytic grants will be offered to support companies entering new markets in order to pilot promising innovations in business models and help (smaller) companies grow. RBF and catalytic grants will be disbursed against pre-defined results and milestones. This component will be led by the TDF under a subsidiary agreement between the TDB and TDF.

c) **Component 3: Technical assistance, institutional strengthening, tools, and innovations for DRE and clean cooking:** This component will finance technical assistance, capacity building and institutional strengthening,

[3] The TDF can only access IDA-SUW credit and is not eligible to access a regional IDA credit.

acquisition of geospatial/digital tools, and development and piloting (via lending or grants) of financial innovations (Table 2). This will include (i) technical assistance to the TDB and TDF to gain better understanding and ability to carry out due diligence on DRE and clean cooking subprojects, including for E&S aspects, climate resilience, and building a pipeline of viable subprojects;(ii) acquisition of tools supporting due diligence and monitoring processes, including digital planning, management, and monitoring, reporting and verification (MRV) platforms; (iii) contracting of RBF implementation support and independent verification; (iv) supporting strengthening of the TDB's internal capacity on gender and a gender action plan; (v) technical assistance for DRE and clean cooking companies, including on E&S aspects and climate-resilient designs; (vi) technical assistance and capacity building for PFIs, including on E&S aspects; and (vii) development and piloting of innovative financing instruments that can be scaled up under Components 1 and 2 and/or through future ASCENT phases, including affordable hedging/swaps for local currency lending, de-risking/guarantees for small companies and underserved/FCV markets, and promising aggregation structures, and (viii) institutional strengthening for TDB and TDF. This will also include support for monetizing carbon revenues and mobilizing other climate finance, such as via renewable energy certificates (RECs), green bonds or other commercially oriented climate finance mechanisms. The Component will also finance the TDB and TDF's Project Management and Operating Costs.

D. Project Beneficiaries

12. **The main beneficiaries are at least 6 million people in the AFE region who will gain sustainable and clean access to electricity via DREs (anticipated 5 million people) and clean cooking (anticipated 1 million)**, and associated benefits from increased jobs, access to information and technologies, improved health and reduced time spent on cooking chores, and other benefits that accrue from having energy access. This, in particular, includes women, who often carry the burden of lack of access to energy, in particular clean cooking, and who will also be provided with additional income-generating and employment opportunities. Other beneficiaries include enterprises (and their employees) who will receive energy access. Still other beneficiaries include private-sector DRE and clean cooking providers that will be supported by the Project, as well as the newly created workforce in the renewable-energy/energy-access fields, particularly women, who will have benefited from employment incentives under the Project and parallel skills development engagement under the ASCENT MPA. The Project include a beneficiary feedback indicator, which will source information on satisfaction with electricity or clean cooking service based on periodic consumer surveys.

E. Institutional and Implementation Arrangements

13. **The project will be implemented by the TDB**. This bank was selected as a financial intermediary (FI) for this Project due to its (i) geographic coverage of the AFE region; (ii) experience and demonstrated ability to lend to the DRE sector (built under the ongoing Regional Infrastructure Financing Facility (RIFF) Project, P171967); (iii) ability to offer longer-tenor debt, (iv) extensive network of regional and local commercial banks, which will be leveraged through co- and on-lending; and (v) strong reputation as a well-managed, competent, and financially stable FI that is also willing and able to pursue impact-oriented financing, including for SMEs, and thus is aligned closely with ASCENT's vision.

14. **Implementation arrangements will leverage capacity built under the RIFF project**. The TDB will establish a coordination team, which will include, at minimum, a program/project manager, DRE specialist, two environmental and social specialists, financial management specialist, procurement specialist, and gender and inclusion specialist. It is also expected to include two investment officers and a monitoring and evaluation officer. Component 2 and parts of Components 1 and 3 will be implemented by the TDF via a subsidiary agreement, subject to the satisfactory assessment of its capacity. The TDB will also support the TDF in implementation, while the latter's capacity is being built. The TDF will be required to comply with all legal, technical, financial, fiduciary, and safeguards requirements of the project, and will follow the TDB's ESMS. Implementation of the project will follow the procedures established in the Operations Manual, including all eligibility criteria, screening and due diligence processes and threshold for World Bank no objections, including

direct lending, PFI lending and grants. Eligible PFIs will include commercial banks, specialized FIs, including fintech lenders, and micro-finance institutions. PFI due diligence will be described in the Operations Manual. The PFIs will follow the same eligibility criteria for DRE and clean cooking technologies and companies as those under TDB's own lending. World Bank no objection will be required for all pipeline additions. The TDB will share quarterly reports on pipeline and semi-annual progress reports, including results and key portfolio information, as established in the Operations Manual.

F. Appraisal Summary

15. **Financial Management (FM):** An FM assessment has been carried out for the project in accordance with the World Bank's policy and directives on Investment Project Financing (IPF), concluding that the overall FM arrangements satisfy the Bank's minimum requirements. As the implementing agency, the TDB retains overall fiduciary responsibility of the project, although a subsidiary agreement will be signed with the TDF for implementation of Component 2 (and parts of Components 1 and 3). The TDB has adequate capacity to manage the project, including a well-staffed accounting department; a comprehensive entity financial policies and procedures manual implemented under the RIFF project; and satisfactory FM performance under the RIFF. Based on the identified risks, summarized in the risk section below, the FM risk of the project is rated as Substantial. Adequate mitigation measures to manage these risks have been adopted (see the risk section below). The TDB will open two segregated foreign currency DA accounts (DA-A and DA-B) in a commercial bank through which funds from the Bank shall be deposited. All transfers of funds to the TDF will be done through DA-B, and this DA-B will only be opened and operationalized on lifting of the TDF disbursement condition. Both the TDB and TDF will open a segregated local currency project account (PA) in a commercial bank account acceptable to the IDA. The project will adopt the IFR report-based method of disbursement, whereby disbursement will be based on six months forecast.

16. **Procurement.** The TDB will be the implementing agency, responsible for all procurement activities under the project. For project Component(s) that will not be implemented by the TDB as FI, that is Component 3 technical assistance and advisory services, procurement will be carried out in accordance with "The World Bank Procurement Regulations for IPF Borrowers, dated July 2016 and revised in September 2023, Fifth Edition," hereafter referred to as "Procurement Regulations." The entire project will, however, be subject to the World Bank's "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants" (revised July 1, 2016) and other provisions to be stipulated in the project's Legal Agreement with the Borrower. A Procurement Plan covering at least the first 18 months of project implementation, as informed by the PPSD, has been agreed. The project will use STEP, the Bank's online procurement planning and tracking tool, to record all procurement actions. The TDB is assessed to have reasonably adequate capacity to execute the envisaged profile of procurements under the project. The overall residual procurement risk rating is Moderate.

17. **Environmental and Social (E&S)**. The Project will apply OP 4.03 (World Bank Performance Standards for Private Sector Activities). OP 4.03 is considered more suitable for the TDB since its Environmental and Social Management System (ESMS) incorporates IFC Performance Standards as the underlying technical standards for project financing. Moreover, all its private-sector clients are familiar with and apply these standards. The project is categorized as FI-2 in accordance with OP/BP4.03. This categorization is based on the review of prospective project activities and in accordance with BP4.03 paragraph. The TDB has a well-established Environmental and Social Management System (ESMS) that includes a clearly defined E&S policy and institutional commitments to integrate E&S sustainability into all its operations. The ESMS effectively addresses E&S procedures for direct lending, and TDB is proactively enhancing it to include comprehensive guidelines for lending through PFIs, thus creating a more robust framework. The TDB will finalize a Guidance Note for indirect lending before disbursing project funds for on-lending. It is also developing a guidance note for E&S risk management in technical assistance. The system incorporates an exclusion list and aligns with the IFC Performance Standards, as well as the E&S requirements of other DFIs. The primary concern regarding PFIs is about their commitment to and understanding of the E&S risks and impacts associated with DRE subprojects. Additionally, their capacity to

effectively identify and manage E&S risks and impacts is crucial. The TDB will develop tools and guidance materials to support PFIs in the assessment of DRE subprojects and for providing guidance on the management of E&S risks and impacts. Although the ESMS has provisions for identifying and assessing involuntary resettlement risks and impacts, the TDB's experience in managing involuntary resettlement risks is limited. The project will support the TDB in building this capacity. The TDB will also develop an Inclusion Strategy to be applied under Component 2, and as applicable under the other components. Stakeholder engagement, information disclosure, and grievances management will be required for all concerned parties under ASCENT. The TDB's ESMS is already disclosed on its website, along with an external communication mechanism to receive, assess, and respond to queries and complaints about its operations. The TDB will require all PFIs to also disclose their ESMS and develop, disclose, and implement an external communication mechanism in line with the IFC's Interpretation Note on Financial Intermediaries.

18. To mitigate the alleged forced labor risks in the solar supply chain, and in line with labor legislature and regulations of AFE countries where the TDB will operate, the project will seek prohibition of forced labor in contracts related to procurement and supply of solar PV plants and equipment. The TDB will establish requirements for obtaining declarations from solar power plant developers and distributors that neither they nor their solar panel suppliers have employed or engaged forced labor and will not employ or engage forced labor in the future when carrying out activities under the program. The Operations Manual will include templates for declaration on forced labor and sample contract clauses to be obtained from solar developers and distributors through relevant sub-agreements.

19. **Gender.** The proposed project will play a critical element in ASCENT's overall gender strategy. Specifically, the project will utilize RBF with gender-targeted incentives to increase the employment of women with STEM backgrounds by DRE and clean cooking service providers and for women-owned and/or women-led enterprises to have access to energy resulting in improved productivity of their businesses—both are tracked through the project's Results Framework (see above). The project will provide comprehensive capacity building to the TDB and TDF on gender, including for developing and implementing a gender action plan, which will include additional indicators tracking the narrowing of various regional and country-level gender gaps through the regional financing facility.

G. Key Risks

20. **The overall risk for the project is Substantial.**

21. **Macroeconomic risk is rated Substantial.** Worsening macroeconomic environment in some of the AFE countries, especially inflation and exchange rate fluctuations, are increasing the macroeconomic risk for TDB-financed projects. The macroeconomic challenges of TDB shareholders and sovereign borrowers could also potentially have spillover effects on the TDB's strength, performance, and credit rating. To date, there has been no significant negative impact. TDB continues to actively manage this risk through (i) diversifying its shareholder base and minimizing lending concentration; (ii) building capital buffers, currently in excess of 40 percent; (iii) raising new capital; (iv) conducting robust risk management of enterprises; and (v) utilizing a risk transfer instrument to manage sovereign risk.[4] The TDB has a highly developed independent risk management system and an active risk management approach, and its financial performance remains acceptable, reaffirmed by international ratings of BB+ from Fitch (stable outlook, September 2023), a rating of Baa3 from Moody's (negative outlook, October 2023), and a BBB+/A2 from GCR (stable outlook, September 2022).[5] The proposed project will support the TDB's diversification strategy, increasing its lending to companies in DRE and clean cooking sectors. The project will only support subprojects implemented by private/commercial enterprises and will not adversely affect

[4] This is an insurance policy on callable capital in respect of its Class A shares (sovereigns) held by its member states whose credit rating is less than investment grade. This insurance policy is held with an AA- rated company and provides for fast disbursement to the TDB in the event of distress or inability of its shareholders to provide capital when called.

[5] See also the datasheet for undertakings included in the Financing Agreement related to TDB financial performance.

project countries' debt position. The project will not result in any contingent liabilities or other fiscal risks for the project countries.

22. **Environment and Social (E&S) risk is rated as Substantial.** The E&S risk is rated Substantial but reflects FI-2 in accordance with OP/BP4.03. This categorization is based on the review of the prospective project activities and an expectation that, in accordance with BP4.03 paragraph 21, potential adverse E&S risks or impacts will be few in number, generally site-specific, largely reversible, and readily addressed through mitigation measures. The TDB's existing ESMS and E&S policy are generally suitable for direct lending projects; however, it lacks experience in managing complex E&S issues independently. For indirect lending through PFIs, the TDB is developing a Guidance Note, which is expected to be ready by Q4/23. The risk management approach is documented in the Environmental and Social Action Plan (ESAP), which consists of (i) a list of restricted activities under ASCENT; (ii) dedicated E&S resources for the project; (iii) cascading down of E&S risk management requirements and responsibilities to the PFIs; and (iv) E&S capacity building of the PFIs. Investments that involve relatively higher E&S risk situations/circumstances—in line with how those that are formulated in the World Bank's OP 4.03/Performance Standards—would be permanently restricted under ASCENT.

23. **The fiduciary risk is rated as Substantial**. While the TDB has adequate capacity to manage the project and will leverage the robust FM capacity already developed in implementation of the RIFF project, there are risks related to (i) delayed preparation of the AWPB and incurring expenditure above approved budget; (ii) the TDF being a newly established entity with no prior experience in implementing Bank-funded projects and tested FM systems; (iii) the complexity of the project in terms of credit lines, RBF, and catalytic grants requiring clear guidelines; and (iv) delay in submission of IFRs with proper clarity on the various sources of funding and activities. These risks are mitigated by the TDB managing all fiduciary responsibilities until the TDF capacity is fully established, as well as through detailed provisions in the Operations Manual and timely preparation of the AWPB and institutional strengthening and capacity building provided under Component 3.

H. Policy Compliance

24. The project requires a waiver of Bank policies. A waiver is requested to allow provision of an IDA SUW Credit to a Regional Organization. The specific waiver requested is of Section III.2(c)(i) of the Bank Policy: Financial Terms and Conditions of Bank Financing, effective July 1, 2023 (the "Financial Terms Policy"), which provides that IDA Regular SUW financing may only be provided to member countries. The TDB, being a regional organization, rather than an IDA-eligible country, is not eligible to receive IDA Regular SUW financing. Accordingly, a waiver of the mentioned eligibility criterion is required.

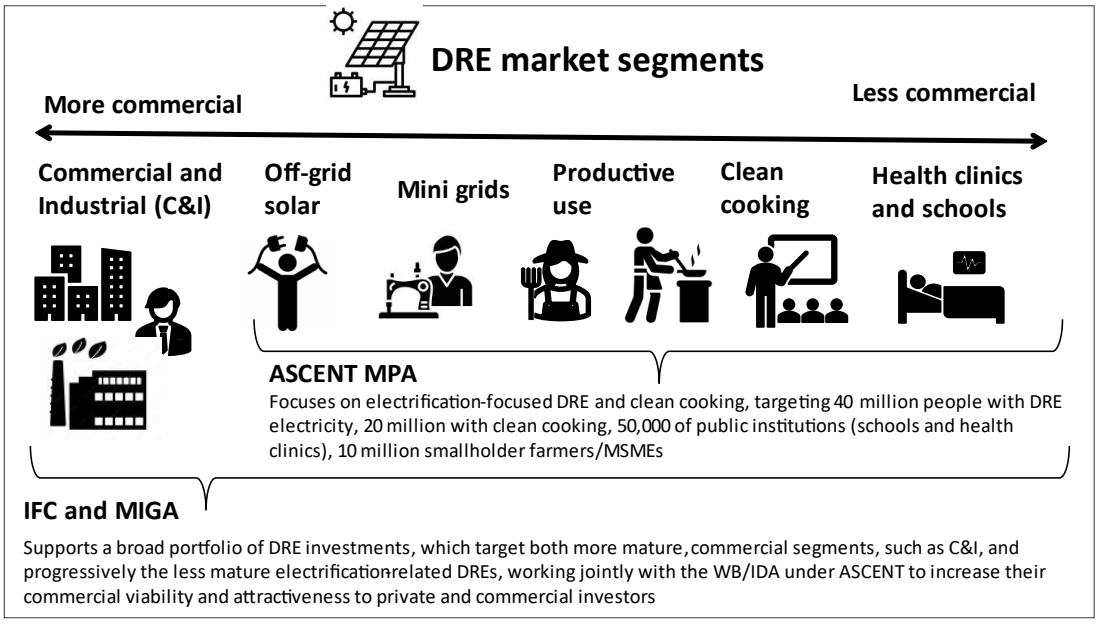
25. The project involves Financial Intermediary Financing. A Financial Intermediary Assessment has been completed and disclosed.

ANNEX 8: ASCENT Private Sector Mobilization Approach for DRE and Clean Cooking

DARES Program leads: Dana Rysankova/Jon Exel, Jan Kappen (IBRD/IDA), Jessica Stiefler (MIGA), Yann Tanvez (IFC)
Core Team: Hirotaka Kurosu, Bill Gallery, James Knuckles, Maria Arango, Johanna Galan, James Knuckles, Rida Rizvi

1. **DRE and clean cooking segments offer a promising scope for private-sector mobilization, given that DREs and clean cooking services are already predominantly delivered by the private sector.** Private/commercial financing, however, needs to increase and become available to a broader range of technologies, geographies, company types, and users. Some DRE segments, such as those serving commercial and industrial (C&I) customers, are now fully or nearly commercial and increasingly attracting larger amounts of private-sector financing. The electrification-oriented DRE segments (e.g., mini grids and OGS), as well as clean cooking, however, are lagging behind. These are the DRE segments targeted by ASCENT (Figure 8.1).

Figure 8.1. *One World Bank* engagement under different DRE segments



2. **Companies in these DRE and clean cooking segments have already mobilized about US$2 billion (including from private investors) to support their growth in AFE, but most of their funding still originates with development finance institutions (DFIs).** In addition, financing is highly concentrated in just a few key markets and a handful of companies. The seven largest OGS companies have captured about 70 percent of all equity and debt financing mobilized for OGS in Sub-Saharan Africa to date. Similarly, 80 percent of commercial financing in the mini-grid sector has been deployed in six companies. [6] While financing for the larger, "scale-up" companies has started to grow, start-up financing is stagnant and seed financing has been decreasing.[7] Furthermore, while FCV-affected countries present the largest opportunity for DRE electrification (due to their low electrification rates and the lack of grid infrastructure), financing flows into FCV markets

[6] ESMAP: Mini Grids for Half a Billion People, 2022 and World Bank, IFC, GOGLA and CLASP: Off-grid Solar Market Trends Report, 2022
[7] As per analytics and consultations carried out for the project preparation.

have been slow. Enabling private-sector flows to more mature, scale-up companies and market segments would free up concessional finance to target smaller companies and less mature market segments.

3. **ASCENT will strategically deploy a *One World Bank* approach and build broad-based partnerships to achieve its targets**: (i) 100 million people with new electricity access (40 million via DREs); (ii) 20 million people with clean cooking access; and (iii) electrification of 10 million smallholder farmers, micro, small, and medium enterprises (MSMEs), and 50,000 schools, hospitals, health clinics, and other critical public institutions. To scale up investment in energy access, ASCENT will build partnerships with public, private/commercial funders, MDBs/DFIs, and regional development and commercial banks, as well as philanthropic and climate funders. It aims to mobilize at least US$10 billion in financing, of which about half would be from private/commercial sources, including carbon finance and other commercially/market-oriented climate finance sources, mobilized over the seven years of ASCENT's implementation.

4. **ASCENT will be the key deployment mechanism for approaches and innovations developed under the Distributed Access with Renewable Energy Scale-up (DARES) Platform**, but it will support only the electrification-related DRE segments, primarily mini grids and OGS systems for both households and productive uses, as well as clean cooking. ASCENT will not support investments in the more mature commercial and industrial (C&I) segment, which will, however, continue being supported via the IFC and MIGA and could also benefit from ASCENT's technical assistance for building an enabling policy and regulatory environment. Considering ASCENT's focus on new connections, which are increasingly rural and concentrated in the bottom 40 percent of the AFE's population (therefore among the world's poorest people), private-sector financing will be carefully designed and blended with public-sector support so that it does not result in an undue financial burden for the poor.

5. **ASCENT's preparation stage has identified a near-term pipeline of about US$4 billion from 11 leading OGS, mini-grid, and clean cooking companies and about 20 "next generation" DRE and clean cooking companies.** Private-capital mobilization for these companies, however, is held back by multiple barriers and market failures, including affordability constraints of their end users, inadequate policy and regulatory frameworks, fragmentation and inefficiencies of public funding, risks deterring commercial investors (both real and perceived), and lack of financing and de-risking instruments tailored to the specific characteristics of the DRE and clean cooking sectors. Table 8.1 summarizes planned measures to address them.

Table 8.1. Measures Aligned to Attract Private Capital to DRE-Oriented Segments and Clean Cooking

Address affordability to drive scale and inclusion.	Increase the scale, efficiency, and predictability of results-based financing (RBF) and other performance-based grants available to DRE and clean cooking companies in order to address affordability and incentivize private-sector expansion in nascent (including FCV) markets and unserved and underserved populations. Improve financial and contractual structures to support bankability and ensure better alignment with the timelines for commercial financing deals.
Fill gaps in the current financing offering.	Set up, improve, and scale up financing and risk mitigation instruments targeting gaps in the existing financing offering**,** including longer-term debt, local currency financing, access to blended finance and equity/patient capital for smaller companies, and comprehensive risk mitigation instruments, tailored to specific characteristics of DREs, leveraging lessons learned from past efforts. Enable development of larger DRE portfolios, including via aggregation platforms and leveraging regional approaches. Build incentives and improve capacity of DRE and clean cooking companies to reinforce their commercial orientation and a faster path to profitability.

	Enable new sources of finance, in particular, those related to climate (both mitigation and adaption), starting with scaling up carbon finance.
Build a regional ecosystem supporting DRE and clean cooking sectors	Support governments to improve planning and the enabling environment, including regulatory frameworks and contractual terms to improve bankability of DRE and clean cooking transactions. Build platforms and partnerships to improve coordination and provide transparency and predictability of deployment of public resources, including by expanding the use of digital platforms. Build capacity and skills, including in government agencies and the private sector, especially local companies and suppliers and their existing and potential workforce, particularly women and youth.
Innovate	Examples include: Development and demonstration of approaches that will open new avenues for private-sector mobilization, including bringing new (larger) companies to the market (e.g., those in adjacent industries, such as agriculture, telecommunications, and mining) to accelerate complementary activities. Opening up those segments previously in the public-sector domain to the private sector (e.g., electrification of schools and health clinics). Aggregation of platforms to help catalyze the next generation of fast-growth companies. Leveraging potential of cross-sectoral collaboration and enabling productive use of energy (e.g., through the first thematic DARES compact on “Powering Farmers” under development).

6. **Private-sector mobilization will follow a phased approach, leveraging the MPA framework and its learning agenda**. Given that the US$5 billion mobilization target represents a considerable scale-up from the existing private and commercial investments in the DRE space, ASCENT’s private-sector mobilization approach will follow a phased strategy, responding to the evolving sector needs and leveraging ASCENT MPA’s potential for innovation, learning, replication, and scale-up. The existing and planned region-wide efforts will be complemented by the individual country phases/projects, which will deploy additional technical assistance and grants resources to drive DRE expansion, following country-specific priorities and context. Opportunities for joint approaches with the IFC and MIGA will be explored, where appropriate, including accelerating and replicating the Scaling Mini Grid approach.

- S**tep 1: Setting up an enabling regional ecosystem**: Phase 1 will establish the Regional Acceleration Platform, implemented by COMESA, which will start putting in place the ecosystem required for the comprehensive energy access scale up in the region. The Acceleration Platform will support both governments and the private sector with data, market intelligence, knowledge, technical assistance, and comprehensive skills building. It will help improve and align policy and regulatory regimes, deploy digital platforms, build larger (including cross-country) portfolios, improve bankability of transactions, and provide an opportunity for a structured consultation with the private sector. It will also facilitate carbon revenues and other climate financing for participating countries.
- **Step 2: Supporting existing DRE and clean cooking companies on their growth path, while strengthening their commercial orientation**: Phase 6 under the first ASCENT wave will establish the ASCENT Regional Energy Access Financing Platform (ASCENT-REAF), which will be implemented by the Eastern and Southern African Trade and Development Bank (TDB). The Financing Platform will scale up availability of debt financing for ASCENT-targeted

(electrification-oriented) DRE and clean cooking companies. Specifically, the financing platform will (i) fill gaps in the existing debt financing offering, especially long-term and local currency debt; (ii) reinforce the investment readiness of the supported companies, exposing them to the commercially oriented and "like-minded" standards and rigor (from the ESG and sustainability perspective) of the Financial Intermediary (FI) and building their capacity to access new private and commercial investors; (iii) enable debt financing flows to smaller companies (with 25 percent of financing targeting smaller companies via the TDB's impact-financing subsidiary, Trade and Development Fund [TDF]) and nascent markets (through a regional RBF targeting unserved and underserved areas); (iv) support financial innovations through piloting new financing approaches and instruments, with a focus on aggregation, as well as local currency structures; and (v) engage other international, regional, and national commercial banks/FIs, thereby preparing the DRE and clean cooking sector for larger capital mobilization. A coordination mechanism will be set up to leverage opportunities for syndication and other financing/collaboration across funders, including with the IFC, as well as MIGA, allowing also for the possibility of the ASCENT transactions (including the TDB syndicated transactions) benefiting from MIGA's risk mitigation instruments. The facility will aim to mobilize US$400 million in additional capital (US$300 million of which is private/commercial capital) through co- and on-lending structures.

- **Step 3: Supporting larger capital mobilization and attracting new companies and investors through comprehensive de-risking:** As a subsequent phase, ASCENT will mobilize guarantee instrument enhancements, following the directions set forth in the World Bank's *Evolution*. ASCENT's market sounding has identified only a small number of existing guarantee instruments available from partner organizations that could be deployed to support DRE companies in the AFE region, which is not sufficient to attract capital at scale. Based on initial market scoping, a comprehensive guarantee facility, with a target amount of about US$500 million, applied predominantly at a regional level, and leveraging IDA, MIGA and IFC financing and risk mitigation instruments, as well as those of other donors, could unlock approximately US$3 billion in debt and US$2 billion in equity, alongside US$2 billion in results-based grants and technical assistance from development partners. The main risks to mitigate include slower-than-expected demand uptake, regulatory and political risks, short-term liquidity constraints, foreign exchange risks, macroeconomic shocks, and natural disasters, especially those affecting end users. The regional de-risking facility would unlock the next phase of DRE growth, which would not only support the existing companies, but also attract new companies and investors to the market.

- **Step 4: A more comprehensive patient capital mobilization to grow local companies and challenging markets**. The de-risking facility will include or be complemented by targeted support to enable patient capital, including equity, with a particular focus on early-stage companies, which would further facilitate growth of promising next generation companies, particularly supporting nascent markets, and building a comprehensive ecosystem of incubation, technical assistance, and financing that helps smaller companies grow and build partnerships with larger companies. Steps 3 and 4 could be brought in simultaneously.

7. **In these steps, ASCENT will leverage the expertise of the IFC and MIGA in private-sector investment and structuring** to make a wider range of DRE segments financially viable while also transparently building collaboration and partnerships with other DRE funders (Box 1).

Box 8.1: IFC and MIGA Contributions to ASCENT

ASCENT will leverage the comparative advantage of the IFC and MIGA to help mobilize private capital for DRE. At the same time, ASCENT presents an opportunity for the IFC and MIGA to grow a more viable investment pipeline and faster deployment of their instruments.

The IFC has actively committed to investment in the DRE space by leveraging its investment/upstream instruments, depending on the maturity of the DRE segments. The IFC has initiated its Scaling Mini Grid Program and expanded its initiatives to accelerate private-sector investment in DRE. Currently, it has a total of US$275 million Long Term Finance portfolio in C&I, mini-grid, and the OGS sector, with a joint effort with different industry groups when applicable, and currently has more than US$700 million DRE project pipelines in Africa. While earlier investments were largely in the C&I sector, the IFC pipeline of mini grids is growing.

MIGA is actively developing risk-mitigation solutions that better respond to the unique risks of distributed energy while, at the same time, adjusting its due diligence and approval processes to be more responsive to the needs of the market. With a current portfolio of approximately US$94 million, MIGA has a strong pipeline of clients and transaction across DRE segments, including clean cooking. In addition to innovating around transaction structures and risk-mitigation solutions, MIGA will leverage its blended finance instruments, including the Fund for Advancing Sustainability and its Renewable Energy Catalyze Trust Fund, to deliver timely technical assistance to its guarantee clients, as needed. These embedded technical-assistance resources are designed to enhance the development impact of MIGA, reduce transaction risk, and support the sustainability of the client's investments, accelerating the DRE company's sustainability and development impact management. MIGA will also leverage the Private Sector Window MIGA Guarantee Facility to support the deployment of risk mitigation solutions.

The IFC and MIGA are committed to working closely with the World Bank team and host-country governments to support the development of sector reforms and business models that will facilitate and enable increased energy access and service reliability for both the DRE and distribution segments, while attracting private-sector investment at scale. This enabling environment would include broader stakeholder engagement, including with companies and investors. In addition, the World Bank/IDA, IFC, and MIGA teams (working through the DARES Platform) will engage closely with others in the DFI and donor community to align on key enabling environment matters and ensure that the wider stakeholder group is speaking with one voice. In addition, through ASCENT, World Bank/IDA, IFC, and MIGA will leverage the convening role of COMESA for engagement with energy ministries and regulators at a regional level to accelerate the reforms agenda and facilitate broad dissemination of information on new approaches. Early engagement on the regulatory reform will be essential to accelerate access to financing and will facilitate MIGA and the IFC's ability to deploy risk mitigation solutions and financing instruments to mobilize private-sector investment and avoid the potential for downstream transaction delays due to an inadequate enabling environment.

Catalyzing local currency financing from local financial institutions, will be essential for the long-term sustainability of DREs. Risk-mitigation solutions and guarantees have been identified as an important enabler, but it is recognized that complementary support from capacity building and the development of transaction pipelines are necessary to create a fertile ecosystem for local FI engagement in the DRE sector, including enhancing regulators' knowledge of guarantee instruments and facilitate the dialogue around the potential regulatory capital relief enabled by these guarantee instruments. The IFC and MIGA will also engage with key financial institutions, such as those included in the Private Sector Investment Lab, to develop and test a package of complementary solutions to build the fertile ecosystem necessary to catalyze and accelerate local FI investments in DREs.

The World Bank, IFC and MIGA team will work together to develop a regional de-risking facility, built around World Bank/IDA, IFC, and MIGA instruments and strengths, combined with knowledge and convening power.

Note: For example, Société Générale, Standard Bank, HSBC, and Standard Chartered each has a network of local subsidiary banks in Sub-Saharan Africa.

ANNEX 9: Description of Knowledge Compact on Energy Access for Economic Transformation

Core Team: Stuti Khemani, Aidan Coville, Hee Kwon (Samuel) Seo, Dana Rysankova, Monali Ranade, Nicolina Lindblad, Deea Ariana, Sharmila Bellur

A. Context

1. **Achieving SDG 7—and thus ensuring access to affordable, reliable, sustainable, and modern energy for all—is among the key calls to action to end poverty on a livable planet.** Furthermore, energy access has the potential to strategically complement and enable the development of other sectors, improving education and health, raising agricultural productivity, allowing people to move out of subsistence agriculture into businesses and jobs, diversifying incomes and strengthening resilience to shocks, growing cities as hubs of economic activity, and thus setting countries on the path of inclusive and sustainable prosperity. However, research and evidence on how energy access interacts with other policies to contribute to economic transformation is rarely available.

B. Objectives

2. **This collaborative Knowledge Compact of Eastern and Southern Africa (AFE) and the Development Economics Vice Presidency (DEC) aims to conduct targeted research.** The Knowledge Compact includes impact evaluations (IEs), which can source policy ideas from economic principles and research based on real-world projects, as well as rigorous methodologies for data collection and analysis. These will enable the ASCENT Multiphase Programmatic Approach (MPA) to contribute to the structural transformation of Africa's economies. The Knowledge Compact will help place the ASCENT MPA at the forefront of learning, responding to the World Bank's *Evolution*, which calls for strengthening the outcome orientation of operational engagement**.**

C. Project Description

3. **Leveraging and generating knowledge to reap the economic potential of energy access**. Research and evaluation will be embedded in ASCENT from the outset, enabling the program to build strategic complementarities with other programs and policy makers, using knowledge to design policies for impact and learning from credibly independent and rigorous IE. This will be variously accomplished in ways that include, but are not limited to, the following elements:

a) **Documenting Impacts of Improved Energy Access and Reliability:**

- Rigorous impact evaluation(s) of energy access and increased service reliability on health; education; agricultural productivity; gender; employment; growth of businesses, jobs, and urban centers; household economic and social well-being and resilience.

b) **Building Capacity for Statistics and Policy Design:**

- To ensure better quality, credible data on a variety of indicators of energy access and economic outcomes, the knowledge team will assist in assessing the statistical capacity and quality of data being gathered by implementation agencies under the ASCENT MPA, beginning with COMESA.
- Data to inform implementation will include both primary data collected through household, firm, and government surveys (e.g., Multi-Tier Framework and IE surveys), as well as administrative/secondary data on energy access (government monitoring), energy use (utility/mini-grid operators), DRE and clean cooking market assessments and data derived from digital platforms, among others. The learning program will also strengthen country/regional capacity for data collection and analysis.

- Policy implications of available knowledge will be brought into dialogue with relevant agencies.
- Obstacles, including policies, that hinder private capital from sufficiently financing energy infrastructure in Africa will be identified through dialogue with agencies that oversee policies related to attracting private financing.

c) **Addressing Knowledge Gaps for Policy Design:**

- How can energy utilities improve performance to deliver reliable and cost-effective services?
- How can energy tariffs and complementary fiscal policies reduce the political risk to private companies to recover returns from their investments, and enable take-up by households, businesses, and service public facilities?
- Are there other types of disaggregated risks (e.g., access to land, including in conflict-prone and fragile areas) that need to be addressed through the policy framework?
- How can we unlock the latent productive uses of increased electricity access (e.g., through agriculture and irrigation programs and small and medium enterprises)?

D. Implementation Arrangements

4. **The Africa Region Chief Economist Office will lead the work and collaborate with DEC (Development Economics Research Group [DECRG] and Development Impact Evaluation [DIME] group) to build research teams to jointly work with the AFE energy team on various aspects of this Knowledge Compact.** The work will begin by engaging with COMESA to build capacity for statistics, data collection, and economic design of the ASCENT Regional Acceleration Platform. Various countries will be selected for in-depth engagement—potentially Sao Tome and Principe, Rwanda, Somalia, Tanzania, and Zambia—to make linkages with broader country reform programs; the World Bank's Country Partnership Strategy (CPS) Policy dialogue with these countries' respective electrification agencies will feed into the design of the ASCENT program. An AFE-DIME regional workshop on IE will help to match a large network of researchers with potential opportunities for IE on micro-empirical questions relevant to the program (e.g., demand of households and public facilities). A larger evaluation design—the economic effects of expanding access over time, accruing that from an agglomeration of benefits or local spillovers at the district/local government level—will be drafted and implemented under the DEC's IE review protocols.

5. **The ultimate scope and scale of knowledge activities will be a function of the budget for engagement,** which is likely to be secured over time and through multiple sources. The research and project team will support efforts to secure budget from the World Bank (Bank Budget), development partners (Trust Funds), and government counterparts. This will include leveraging existing government-executed, monitoring and evaluation (M&E) budgets as part of the MPA. Knowledge priorities and policy and operational relevance will be established in the country and regional context. This, combined with the quality of the research designs (as judged by external reviewers), will inform the selection of specific research projects within the Knowledge Compact