Mozambique Country Window:

Energy System Transformation Outlook (ESTO)





GET.transform is co-funded by













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ABOUT US

GET.transform

Our Technical Approach

MOZAMBIQUE ESTO

Mozambique's Energy Vision - Status of Energy Sector Transformation in Mozambique

Energy Snapshot - Generation Mix and Installed Capacity

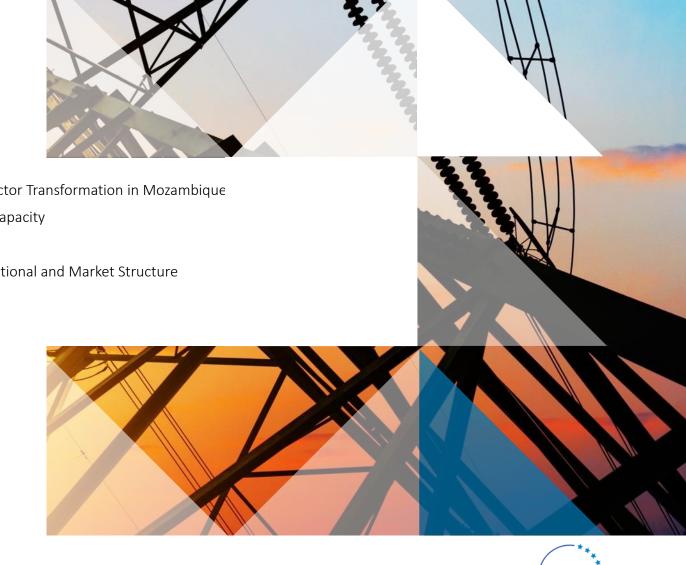
Key Stakeholders

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COUNTRY WINDOW

Country Window Set-Up









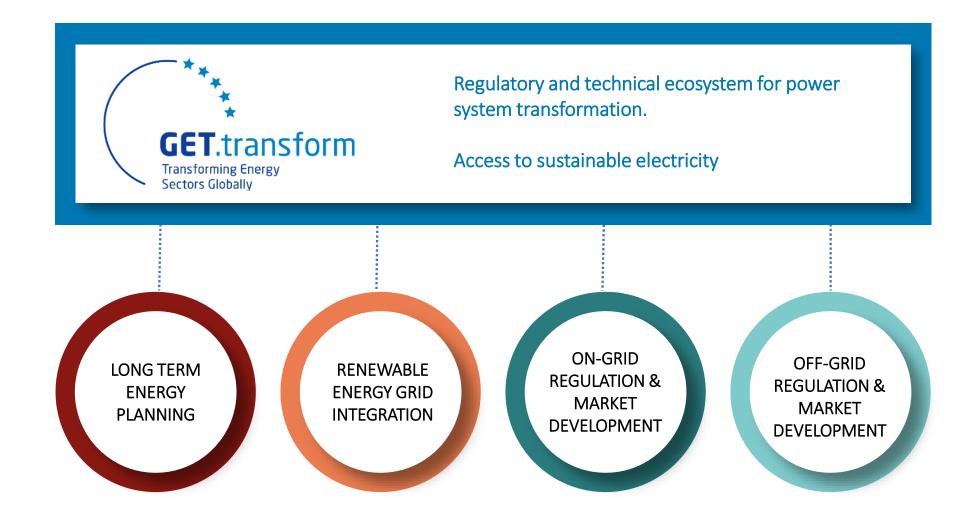
What is GET.transform?

- Technical assistance (TA) and capacity building for the public sector to establish conducive policy and investment frameworks for the transition of the energy sector
- Hub of expertise with > 50 renowned (inter)national energy experts
- Implementation through regional and country windows with expert staff on the ground incl. secondments
- Scaling across countries through collaboration with regional institutions and other TA initiatives





GET.transform Workstreams





GET.transform Workstreams



Developing integrated energy and power system investment plans, outlining development paths for energy sector transformation



RENEWABLE ENERGY GRID INTEGRATION

Updating of technical power system planning and operational procedures that enable the operation of renewable energy dominated power systems



ON-GRID
REGULATION &
MARKET
DEVELOPMENT

Supporting institutional reforms that allow for new market actors and renewable energy participation: market model design, non-discriminatory grid access, cost-reflective services

Design and management of solicited auctions as well as market-driven mechanisms for procuring on-grid energy



OFF-GRID
REGULATION &
MARKET
DEVELOPMENT

Supporting off-grid electrification planning and data management frameworks

Developing mini-grid regulatory frameworks and technical standards and designing award mechanisms for procuring off-grid energy







Foreword

The purpose of the Energy System Transformation Outlook (ESTO) is to document a high-level summary of the electricity landscape in Mozambique and to present the outcome of a high-level overview and assessment that followed a 'review, interview, identify' approach.

INTERVIEW PHASE REVIEW PHASE Focused on a desk-top review of a Focused on further discussions multitude of publicly available with the key public sector actors (MIREME, ARENE, FUNAE, EDM) energy and power to identify potential needs, sector publications. opportunities and gaps, and culminated in the public sector actors formally expressing their key priority **PHASES** needs.

IDENTIFY PHASE

focused on defining potential technical assistance and capacity building projects that will strongly support the power transition in Mozambique, and that GET.transform is well positioned to support. It also provides a starting point for further engagement with the public sector and other donor agencies.

The ESTO is not a formula of what should be done by the country or the public sector actors.

The ESTO is a means of obtaining feedback to enrich our understanding of the power sector in Mozambique and to identify support activities and synergies with other donor and development agencies.



Mozambique's Energy Vision

"Mozambique has the goal to achieve universal energy access by 2030".

National Electrification Strategy (2018), Energy for All Programme

ENSURE

FINANCIAL VIABILITY



The Government of Mozambique aims to establish a cost-reflective tariff for grid consumers.

ENABLE

EMISSION ABATEMENT



In its latest NDC (2021), Mozambique commits to reducing emissions by 40 MtCO2eq between 2020 and 2025. The total investment required to generate these reductions and the other actions foreseen in this updated NDC 1 is estimated to be around USD 7.586 billion.

Mational Electrification Strategy
MCREASE

GENERATION CAPACITY



Goal is to increase generation capacity by 600 MW, whereby 200 MW is variable renewable energy and the remaining 400 MW are from Temane Gas Combined Cycle power plant. By 2040, 20% of the generation mix shall come from solar and wind.

ENERGY ACCESS



The Government of Mozambique aims at achieving universal access (100%) by 2030. 70% thereof shall be covered through grid-connected systems and 30% through off-grid access.



Challenges and Opportunities

Challenges

Technical and operational losses are high at 29%, well above the 20% median for SSA

Significant arrears accumulated, threatening efforts to mobilize private investment Weak sector
financial
viability,
compromising
access to
electricity

Low-density, country's length and low poverty levels requires transmission corridors to maximize use of low-cost and low carbon energy resources and regional market

Lack of timely tariff application and tariff methodology resulted in inadequate resources to recover costs

Mozambique has one of the fastest paced electrification programs in Africa

Opportunities

- Access to electricity stands at 39.8
 percent in 2021 with an impressive
 increase of 15.5 percent points in the
 last 4 years
- Connecting 350,000 households a year and will connect 6.2 million households through the grid by 2030 reaching 50% of the population.
- To achieve universal access by 2030, 600,000 connections per year need to be achieved

The country is endowed with large untapped renewable energy and low-cost resources that can power Mozambique and the region

- Large untapped hydropower and other undeveloped solar renewable energy potential far exceed projected domestic demand
- Mozambique already exports about 70
 of its electricity to South Africa, SAPP and through bilateral contracts to seven countries.



Source: World Bank, 2022

Status of Energy Sector Transformation in Mozambique

Mozambique has the largest power generation potential in Southern Africa and is a leading electricity exporter in the region.

Total installed capacity stands at 2.8 GW and is estimated to reach 6 GW over the next 20 years. The largest power generation plant in the country is the Cahora Bassa hydro dam, operated by the government-owned Hidroeléctrica de Cahora Bassa (HCB). HCB sells 65% of its generation to South Africa, and the remaining 35% is sold to the Northern regions of Mozambique and to Zimbabwe.

Currently, 78% of electricity generated come from Hydro, 16% from natural gas, 4% from fuel oil and 2% from solar. According to the integrated Master Plan for the power sector, Mozambique has the ambition to integrate 30% of its generation from renewables such as wind and solar in the next 20 years.

The national electrification rate is currently at 44%, and by 2030 it is expected that universal coverage is reached with 68% grid connected households, 19% via Solar Home Systems and 13% via mini-grids. The recent reform of the sector laws and regulations such as the new electricity law (passed 2022) and Regulation for Access to Energy in Off-Grid Sites (2021) have created an enabling environment for private sector participation in electrification efforts.

Challenges continue to exist related to the underdeveloped transmission and distribution network, the lack of fiscal incentives, lack of access to commercial financing at favorable rates as well as last mile distribution difficulties.

The country works in cooperation with development partners through financial and technical assistance programmes to support electrification efforts by both public and private entities.

The first Independent Power Projects (IPPs) in Mozambique came online in 2015. These projects have paved the way for future IPP negotiations and auction mechanisms such as PROLER and Get.FiT. A total of 575 MW from 16 RE IPP projects are either developed or in pipeline for execution.

Current gaps that have been identified as the power sector transforms, include:

- mechanisms to reduce off-taker risk for IPPs, planning and monitoring capacity for the government (specifically to define off-grid, on-grid and new generation sites),
- lack of distributed generation legal framework to foster development in this new market segment,
- solicited bid mechanisms for off-grid generation (similar to on-gird processes such as PROLER and Get.FiT), as well as
- the update of the Integrated Energy Masterplan since its development in 2017 and the development of the Energy Transition Strategy (2023).



Status of Power Sector Transformation in Mozambique: the Government's Programme

Achieving universal access by 2030 and becoming a regional energy hub

Accelerating access to electricity

On-going and scale up of grid & off-grid connections

Clean Cooking

Transmission

Achieving a strong and smart grid with national reach and coverage to propel growth and development

Reliable power to industrialize Mozambique

Solar energy auctions (+275 MW)

Development of hydropower for Mozambique and the region (+1500 MW)

> Gas to power to provide quality electricity service (+530 MW)

Regional powerhouse

To develop large indigenous resources economically, an aggregated demand is required, and regional trade would be critical

Improve operational and financial performance

Sector Financial Modelling

Financial Strengthening Plan

> Revenue Protection Program

Least-cost **Planning**

Current GET.transform TA Support on Long-Term **Sectoral Reforms** On- & Off-Grid Regulation and Market Development

- New Electricity Law
- Mini-grid regulatory framework and subregulations
- Tariff reform for off-grid
- Mini-grid tendering mechanism
- Distributed Generation
- **Energy Transition** Strategy
- Contribution to sectoral planning and coordination
- Capacity development

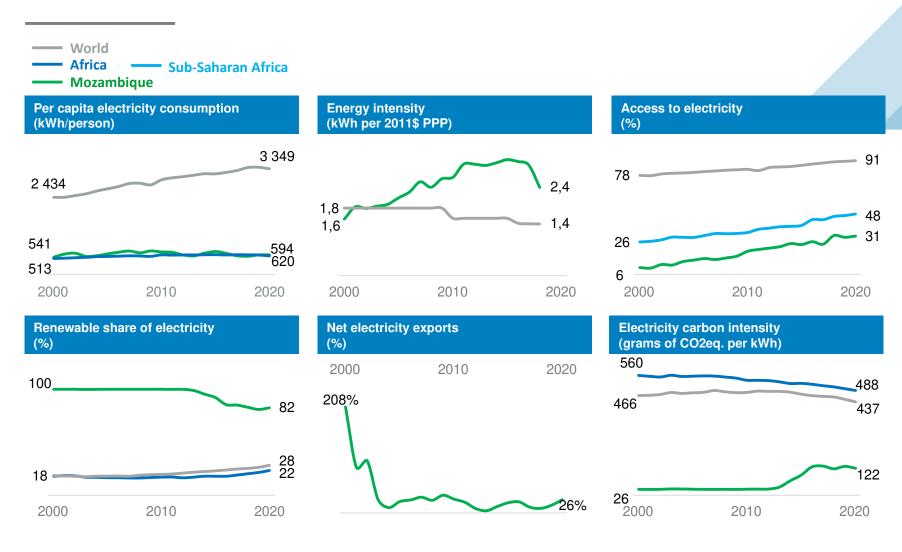
Long-term Sector Reforms Tariff Reform

- Soft-unbundling
- Creation of an Independent System Operator (ISO)

Source: World Bank, 2022



Energy Snapshot



Source: OurWorldInData.org and data.worldbank.org

Key Figures

Economy

Population: 32.08 million (2021)

GDP per capita (current US\$): 491.9 (2021)

GDP growth: 2.4% (2021)

Environmental

CO2 emissions: 0.2 metric tons per capita (2019)

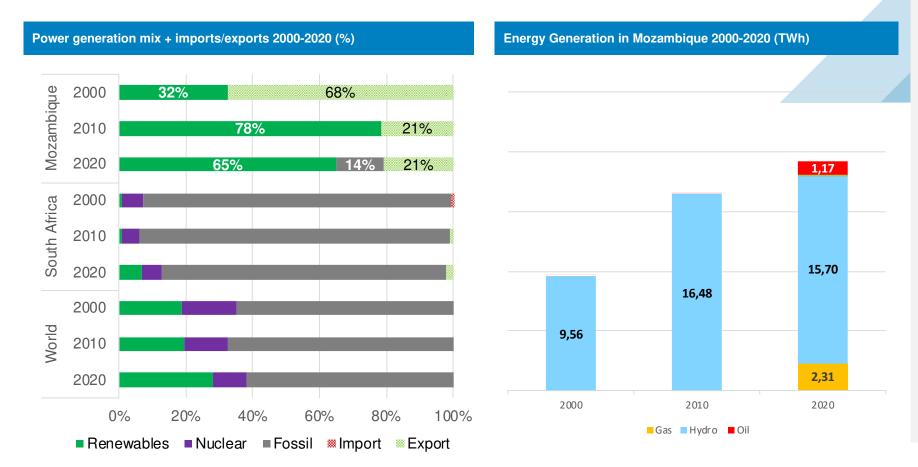
Electricity carbon intensity: 122 grams of CO2eq. per kWh (2020)

Energy

Per capita electricity consumption (kWh/person): 620 kWh/person (2020)

Access to electricity: 44% (2022)

Generation Mix & Installed Capacity



Key Statistics for Mozambique (2021)

Electricity demand: 16.2 TWh Local generation: 19.91 TWh Exported energy: 3.67 TWh

Energy generated (2020):

- Hydro 15.7 TWh
- Gas 2.31 TWh
- Oil 1.17 TWh
- Solar 30 GWh
- Bioenergy 130 GWh

Source: own elaboration based on OurWorldInData.org



Key Stakeholders in Current Power Supply Market

Institution		Description		
Ministry of Mineral Resources and Energy (MIREME)		MIREME is the Government ministerial entity with oversight of the petroleum, electrical energy and mineral resource sectors including the development and setting of policies and strategies as well as oversight of public companies (such as ENH, EP, EDM, EP) and public regulatory institutions, including INP (Petroleum), ARENE (electricity and petroleum products) and INAMI (mineral resources).		
	MIREME	<u>DNE</u> (National Directorate of Energy); <u>DPC</u> (Directorate for Planning and Cooperation); <u>DNCH</u> (Directorate for Coal and Hydrocarbons); <u>DNPO</u> (Directorate for Planning and Budget, under Ministry for Economy and Finance)		
Energy Regulatory Authority (ARENE)	Autoridade Reguladora de Energia	ARENE is the regulatory authority which supervises, regulates, and sanctions electricity supply activity, sets/approves tariffs and prices for electricity, fuels and cooking gas as well as the administration of tenders in these sectors including the tenders under the PROLER and other donor programmes.		
Fundo de Energia (<u>FUNAE</u>)	FUNAE-FP PUNDO DE ENERGIA	FUNAE is the public agency responsible for promoting and implementing off-grid energy access and fuels distribution, with a focus on renewable energy.		
Electricidade de Moçambique, EP (<u>EDM</u>)	ELECTRICIDADE DE MOÇAMBIQUE, E.P.	EDM is the national vertically integrated public power utility, responsible for generation, transmission distribution and commercialisation of electricity in Mozambique. EDM is also responsible for the electrification programme of Mozambique and for the operation, dispatch and management of the National Transmission Network (RNT). EDM is subjected to the supervision of MIREME.		



Key Stakeholders in Current Power Supply Market

Institution		Description		
Hidroelectrica de Cahora Bassa (<u>HCB</u>)	CAHORA BASSA	Mozambique has three transmission systems for electric energy. HCB (Hidroelectrica de Cahora Bassa): The Northern system is fed from Cahora Bassa (Hidroeléctrica de Cahora Bassa, HCB). Manica in the center. Gabinete de Implentacao do Projecto Hirdoelectrico de Mphanda Nkuwa (GMNK)		
Gestor do Sistema Eléctrico Nacional (GSEN)		GSEN is the Manager of the National Electricity System. The institution was created under Law 21/22 (Electricity Law), pending formal constitution via approval by Council of Ministers. It is the first step towards unbundling EDM which so far performs GSEN's functions including market operation.		
Renewable Energy Associations (<u>AMER</u> & <u>ALER</u>)	Associação Lusófona de Energias Renováveis Associação Moçambicana de Energias Renováveis	AMER (Associação Moçambicana de Energias Renováveis) is a national renewal energy association and ALER (Associação Lusófona de Energias Renováveis) is a lusophone renewable energy association who are both key actors in the renewable energy sector in Mozambique. AMER is a non-profit association whose mission is to promote renewable energy in Mozambique. ALER is a non-governmental development organisation with the mission to promote renewable energies in Portuguese-speaking countries. The association facilitates business opportunities by supporting the private sector and attracting financing and investment, by liasing with national and international authorities to create a favourable regulatory framework, and by coordinating all stakeholders, acting as a cooperation platform and the common voice of renewable energies in Portuguese-speaking countries.		
Private Sector Self-Generators and/or IPP's		Key Private Sector Players: Mini-grid Developers, RE businesses, Project developers, Financial Institutions and private financiers/investors, PAYGo companies, end users (PUE)		



Regulation and Energy Policy Instruments

Electricity Law no. 21/97 (1 October 1997)

- By the Ministry of Energy and Passed by Parliament
- Gave strong focus on public sector as driver of electrification
- The New and Renewable Energy Development Policy (PDENR) (2009)
 - Establishes directive for renewable energy integration and investment

Public Private Partnership Law (11/2011)

 Lays foundation for investment in energy infrastructure via concession mechanism / contractual arrangement with the state The Integrated Master Plan for Mozambique Power System Development (2017)

 Scenarios for production, transmission and distribution of energy Regulation for Access to Energy in Off-Grid Areas (Decree 93/2021)

 Regulates the processes for licensing and concessions for solar home systems, mini-grids and clean cooking

1997 > 1998 > 2009 > 2011 > 2011 > 2012 > 2017 > 2018 > 2021 > 2022

National Energy Policy (Decree n.° 5/1998)

 Focuses on access to energy at lowest cost possible for development purposes The New and Renewable Energy Development Strategy (EDENR) for the 2011-2025 period (2011)

 Establishes goals for renewable energy integration and investment

Public Private Partnership Regulation (Decree 16/2012)

- Regulates process for acquiring concessions
- Applicable to all energy generation project

National Electrification Strategy (2018)

 Establishes target for universal access by 2030 and prescribes on-grid and off-grid ratios as well as institutional arrangements

New Electricity Law (Law 12/2022)

- Update of Law 21/97
- Gives more space for private investment.
- Revokes PPP law for small projects

Source: own elaboration (GreenLight 2023)



Regulation and Energy Policy Instruments

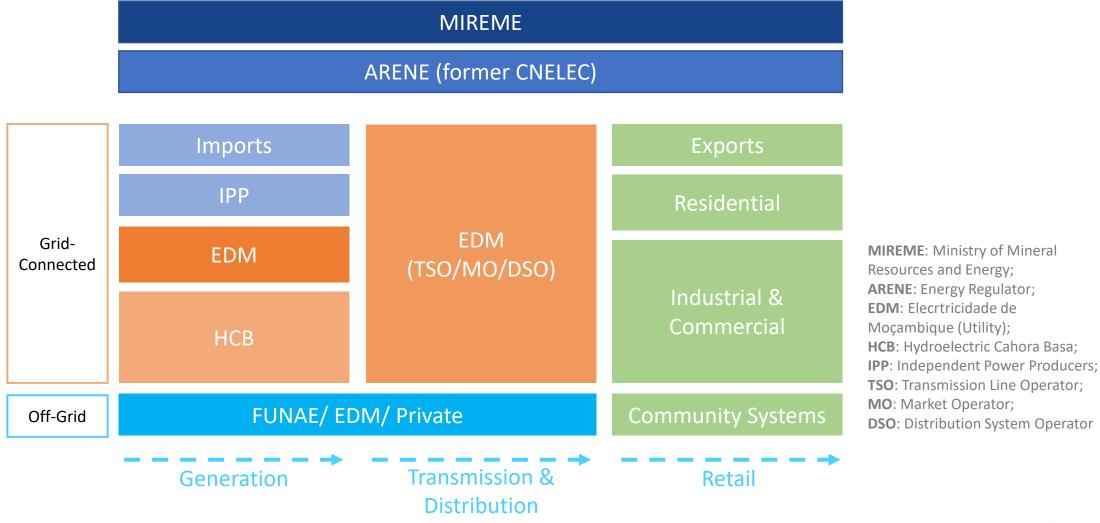
Key Takeaways

- The energy sector in Mozambique has been transforming from a public investment-oriented sector (emphasised by the Electricity Law of 1997) to gradually promoting for private investment in generation for both on-grid and off-grid projects.
- Large-scale power generation investments are encouraged to follow a public-private partnership structure (via the PPP law and regulation), while smaller generation projects (such as mini-grids) are now exempt from the application of the PPP law as highlighted in the off-grid energy regulation and the new electricity law approved in 2022.

- The regulatory framework puts a strong emphasis on the diversification of the energy matrix via new and renewable energy sources.
- Currently in process of approval are several specific regulations related to mini-grids such as:
 - Regulation on concessions;
 - Regulation on tariffs,
 - Regulation on interconnection with main grid;
 - Norms and standards as well as environmental and social guidelines.



Institutional and Market Structure







Institutional and Market Structure

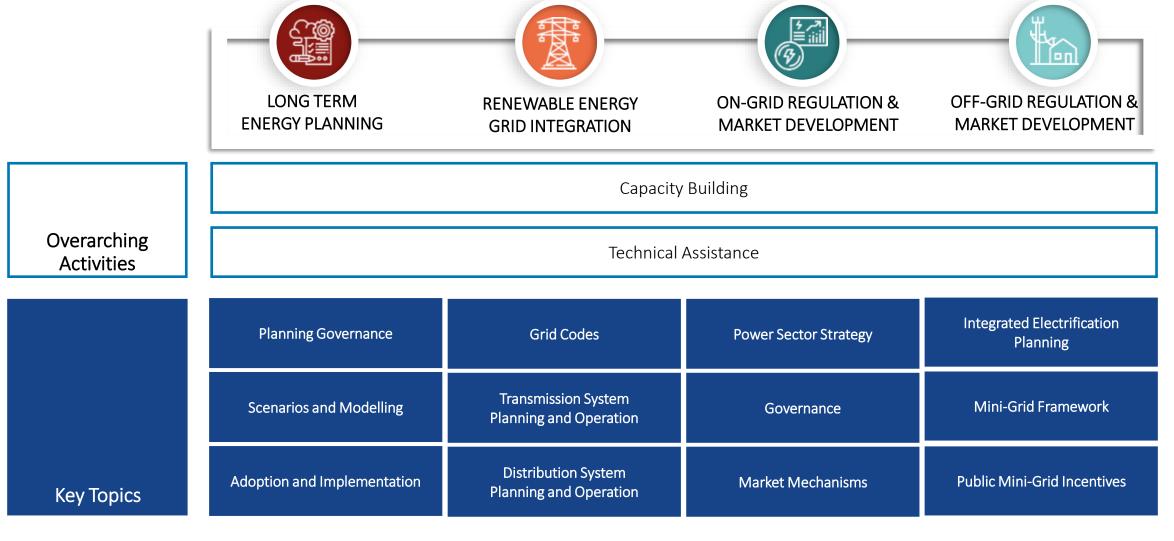
Key Takeaways

- The energy sector in Mozambique is supervised by the Ministry of Mineral Resources and Energy;
- The Energy Regulator ARENE's functions extend to Economic Regulation (Tariff-Setting), Technical regulation (Quality of Service), and driving public procurement process for energy concessions.
- The national utility EDM acts as the Transmission Line Operator, the Market Operator as well as the Distribution Systems Operator. Power is acquired from imports, IPPS, own production and the largest generator Cahora Bassa Hydro Eclectic Dam. Electricity is retailed to end users or exported in the SADC region.

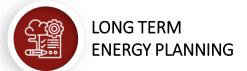
- IPPs have developed projects via solicited bids (such as the PROLER program) or unsolicited application for concessions.
- For off-grid, the Energy Fund (FUNAE) has largely been responsible for investing and operating public mini-grids (97 to date) as well as some stand alone systems. EDM too has an off-grid directorate, however no projects have been developed to date. Private sector has worked mostly in the solar home system space, with around 5 PAYG operators. With the new off-grid energy regulation there is an enabling environment for private operators of Mini-Grids.



GET.transform Advisory Services









Integrated Energy Masterplan (2018-2043) The document formulates a comprehensive "National power system development master plan" for 25 years including power generation, transmission and distribution planning. The plan covers the entire supply chain: US\$18bn is to be spent on upgrading energy generation, US\$9bn on transmission and US\$7bn on distribution. The plan forecasts a rise in installed generation capacity from existing levels of 2.6 GW to 17.7 GW by the time it expires. Of around 15 GW of capacity to be installed, 8.5 GW is forecast to be gas-fired generation. A mix of hydro (4.3 GW), coal (1.4 GW), solar (530 MW) and wind (150 MW) will provide the rest.

National Electrification Strategy (NES) Encompassing both grid and off-grid solutions to achieve universal access to energy. NES funding requirements are USD 540 million annually. Electricity connections will need to ramp up from 165,000 a year in 2018 to 350,000 in 2020 and to 590,000 on average between 2025 and 2030 to achieve universal access by 2030, with an estimated investment of USD 6.5 billion. It is expected that 70% of the population will be connected to the grid while 30% will be provided with off-grid energy solutions.

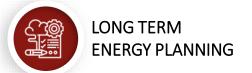
Off-grid energy roadmap 2020-2030 Provides an Off-Grid Strategy in Support of Achieving Universal Access in Mozambique by 2030. It is estimated that approximately 7.2 million SHS will be deployed in Mozambique through 2030 with an investment of USD 1.8B. 13% of households in the country are expected to be connected via mini-grids and 19% via solar home systems.





- There is a need to strengthen the planning capacity of MIREME. The ministry has a lack of integrated planning and coordination; lack of criteria for prioritizing projects; and a need to better coordinate activities between EDM and FUNAE. This can be delivered via short term trainings, embedded support or software to facilitate planning and forecast energy needs/projects and priorities.
- There is a need to perform a strategic environmental assessment of the energy sector as a means to prioritize projects and develop a clear strategy for development of the sector (environmental integrity).
- There is a need to update the Integrated Energy Masterplan adopting a more integrated approach, introducing new project and projections since the last version was made in 2017, and updating the on-gird/off-grid areas.
- There is a need to transform the NES to a national electrification plan (NEP) with clear targets, timelines, roles and responsibilities.
- The off-grid energy roadmap focuses most analysis on SHS. There is a need to assess the investment requirement and investment plan for mini-grids as well.











- Several programmes are supporting MIREME with energy planning (most notably EU-ERC and Enabel), however the results are not visible yet.
- Support MIREME in the development of the national **Energy Transition Strategy** for a just green and resilient energy system transformation.
- Opportunity to develop synergies with existing programmes such as EU-ERC to provide short term technical assistance in specific outputs needed for long-term planning (update of Integrated Energy Masterplan; development of a National Electrification Plan; a strategic Environmental Assessment for the energy sector, etc).







According to the "Integrated Master Plan Mozambique Power System Development", of the 6,000 MW additionally installed capacities over the next 25 years, 30% that are generated come from RE such as solar and wind (10% for domestic power supply = 600 MW; 20% for regional consumption = 1,200 MW). Hydro energy will continue to play a leading role with existing Cahora Basa installed capacity and new generation from Mphanda Nkuwa, Cahora Bassa North, Lupata and Boroma (totaling 3,600 MW). The rest is projected to be fed by nationally explored natural gas.

EDM has a directorate for RE and energy efficiency in order to dedicate itself exclusively to topics related to renewable energies. It is currently leading the renewable energy auction program (PROLER) launching 3 solar IPPs and 1 wind project as a means to integrate renewables into the grid. Similarly, the Get.fit program is to provide a top-up finance mechanism to plug in additional RE generation capacity.

The National Energy Control and Dispatch Center (NCC) financed by KfW and Sweden will further contribute to the integration of RE into the grid due to automatic balancing of energy supply and demand.





- Develop a standard for grid integration for Embedded Generation (EG)
- Develop regulatory framework for Energy Storage Systems
- Capacity Building on Renewable Energy Integration
- Capacitation on combined demand/load forecasting with generation

- Collaboration with EDM is essential
- Synergies with the National Control Center (NCC) project and capacity building will be important







THE NEW ELECTRICITY LAW (NEL): The NEL's objective is to accelerate universal access and to promote competitiveness, efficiency and sustainability of and investment in power supply activities. The law takes account of the need to adjust the legal framework for the Mozambican power sector to the technological and financial evolution and the new sources of energy. It addresses the constraints and barriers regarding private investment and refers new policy and strategy documents prepared by the Government of Mozambique (GoM) such as the National Electrification Strategy. Among other reforms the NEL:

- (i) Revokes the application of the PPP law to smaller energy sector projects with the aim of reducing the period required for getting concessions and licenses significantly
- (ii) Simplifies the private investment procedures and clarifies taxes in order to make the Law coherent with NES $\,$
- (iii) Covers all needed regulations and administrative procedures in order to guarantee competitiveness, transparency, non-discrimination and predictability for private investment into power generation
- (iv) Caters for the restructuring of the power sector by underlining EDM's responsibility for transmission and distribution and the significance of independent power producers (IPPs) for power generation.





- There is a need to clearly define fiscal incentives for IPPs, and simplify investment procedures for developers (including exchange control and repatriation of funds)
- Continuous support for government (ARENE) to evaluate both solicited and unsolicited proposals for IPP concessions, as well as to develop more efficient procurement processes.
- **Distributed Generation is not yet regulated** in Mozambique. It features in the NEL as a sub-sector which still needs to be regulated.
- Support the utility and regulator with tariff setting study as a means to reach objective of cost reflective tariffs
- Support EDM with a regional trade strategy (SAPP energy market trade optimization)
- Assessment on quality of service performance of the utility to develop a quality of service strategy /regulation (EDM / ARENE)
- Develop a quality of service code for on-grid (EDM / ARENE)

- Several programmes are already supporting on-grid markets and regulations such as AFD (via PROLER), EU (via ERC), AfDB via SEFA and KfW/SIDA (via NCC).
- A gap is identified for support with Distributed Generation (DG), as no other programme currently covers this topic. DG is referenced in the NEL and is a priority to regulate (incl. viability studies).







Regulation for access to energy in off-grid areas (decree 93/21) aims to create a positive environment for development of the off-grid energy projects such as mini-grids and solar-home systems. The regulation gives clear procedures for private investment in the sector. The main regulation is supported by more specific regulations that cover tariffs, interconnections with the national grid, norms and standards, environmental and social aspects, concessions, and registration of mini-grids and energy services.





- Support with geospatial mapping of off-grid location and priority projects is important.
 This information is critical for off-grid electrification planning purposes and attracting investment;
- The regulatory framework has already been established; however, it is important to support the government in the implementation of this framework (granting concessions, revising proposals and tariffs, monitoring of projects, etc)
- To reach targets of 13% of population electrified by mini-grids, it is necessary to **launch** an ambitious procurement program to attract investment for priority sites. The government requires a similar process used in on-grid projects (PROLER) which can be applicable to the context of off-grid.
- Support is required for assessing the initial viability of selected off-grid locations for mini-grid projects. This requires pre-feasibility studies to understand which needs to be the installed capacity, number of connections, types of connections (commercial, domestic, industrial) and estimated investment cost. This information is used to prepare a possible tender for the selected sites.
- **E-waste management strategy and supporting regulation for off-grid sector** (specifically focused on SHS components) is essential and not yet developed.











- Learn from the experience of PROLER (on-grid auction mechanism) and **develop a mini-grid tender mechanism** with a similar structure. \rightarrow ongoing TA support by GET.transform, two-phased approach: design, piloting implementation incl. review
- Support the government with technical assistance to implement the practical administrative steps as per the new regulation for access to energy in off-grid areas.
- Continued technical assistance with the tariff tool (developed by GET.transform) will be needed as proposals (whether solicited or unsolicited) for mini-grids are received by ARENE.



Technical Assistance Requests by Stakeholders

Ministry of Mineral Resources and Energy (MIREME)

- Support with the update of the Integrated Energy Masterplan;
- Support to develop an energy transition strategy for Mozambique;
- Capacity building in planning possibly through the development of a National Electrification Plan (based on the National Electrification Strategy);
- Support in regulatory provisions for the implementation of the National Electrification Strategy
- Support with a digital platform for off-grid and on-grid project mapping, monitoring and planning purposes;
- Support with the development of a Mini-Grid Tender Mechanism (to be driven by ARENE)
- Support in Mini-grid site identification, mapping and planning for new sites
- Support with Distributed Generation regulations, training and capacity building;
- Support with energy efficiency regulation, training and capacity building
- Support to elaborate on energy sector NDCs

Mozambique Energy Regulatory Authority (ARENE)

- Continued support and capacity building on the mini-grid tariff tool;
- Support to develop a Mini-Grid Tender Mechanism to be used by ARENE;
- Technical Assistance to implement the Mini-Grid Tender Mechanism;
- Support with Distributed generation regulatory frameworks, capacity building and training:
- Develop ad white paper on Distributed Generation

Mozambique Electricity Company (EDM)

- Request to be involved in the Mini-Grid Tender Mechanisms design process
- Support with training and capacity building for Distributed Generation;
- Request to participate in international exchange with peer utilities to learn from best practices.

Mozambique Energy Fund (FUNAE)

- Request to be involved in the Mini-Grid Tender Mechanism development process;
- Request to consider compatibility of the Mini-Grid Tender Mechanism and existing FUNAE Mini-Grid procurement processes.;
- Support to explore private sector management models for existing publicly funded mini-grids and possible role of the mini-grid tender mechanism to incorporate existing FUNAE mini-grids in the "cluster of sites" for private sector operation.







Country Window Setup

Country

- 1 x Country Coordinator manages
 GET.transform activities at country level.
- Synergy is ensured with the GET.invest Country Window.
- The Mozambique Country Window is implemented with support by the GIZ Energy Cluster Mozambique in Maputo.

GET.transform HQ

- 1 x Africa Partnerships coordinator for overarching CW strategy support.
- 1 x Advisory Services Focal Point for LTEP and RE-Integration.
- 1 x Advisory Services Focal Point for Policy and Regulation.

Technical Assistance Partners

- Expert Consulting Pool for LTEP and RE-Integration.
- Expert Consulting Pool for Policy and Regulation.
- Local consulting experts collaborate with above pools.



Interaction with GIZ Mozambique Energy Portfolio

GET.TRANSFORM	GET.INVEST	ENERGISING DEVELOPMENT (ENDEV)	GREEN PEOPLE'S ENERGY (GBE)	SUPPORTING CLIMATE POLICY AND ENERGY TRANSITION
Power Sector Transformation	Mobilising Investment in Renewable Energy	PtX Market Development	Rural Electrification, Productive Use and Capacity Development	
Long-Term Energy Planning Support to MIREME on Energy Transition Strategy Renewable Energy Grid	Private sector mobilisation	Supporting sustainable market development for renewable energies (PV, ICS, MHP)	Creation of decentralised energy supply to strengthen social institutions and productive use	Dialogue/exchange for evidence-based climate policy
 Integration Scaling Distributed Generation, focus on C&I On-Grid Regulation & Market Development 	Project pipeline development	Increasing the connection rate of low-income households to the electricity grid	Strengthening education and training opportunities for RE	Climate data evaluation
 Scaling Distributed Generation, focus on C&I Off-Grid Regulation & Market Development Development of Mini-Grid Regulations and Mini-Grid Tendering Mechanism 	Capacity strengthening of public actors for market development	Strengthening education and training opportunities for renewable energies	Mobilising private investment and boosting demand for decentralised RE	Nationally determined contributions (NDC) reporting



Alignment with Other Development Partners

FLI-SUPPORTED

	EU-SUPPORTED				
GET.TRANSFORM	ERC/EU-TAF/PROLER	OFF-GRID FUNDING PROGRAMMES	WORLD BANK	AFDB	
Power Sector Transformation	Renewable Energy, Rural Electrification, Resilience of Energy Systems	Renewable Energy, Rural Electrification: Mini-Grid Funding Windows	Renewable Energy, Expanding Energy Access	Renewable Energy, On & Off-Grid Electrification, Upgrading Energy Infrastructure	
Long-Term Energy Planning • Support to MIREME on Energy Transition Strategy	Support through ERC on Energy Efficiency, Energy Planning and information system, standardisation of financial models, RE strategy and vRE study	KFW / GET FiT: technical/financial support to MIREME for rural electrification, with 10-15 minigrid projects, TA on PPA/PPF Brilho: funding of mini-grids, TA on	Support to energy reform and access, including TA to unbundle EDM and accelerate the use of electricity for economic growth, and social services	Design of mini-grid funding window SEFA with potential collaboration on future tendering cycles	
Renewable Energy Grid Integration • Scaling Distributed Generation, focus on C&I (in collaboration with GET.invest)	Energy access action being scoped by EU-TAF to support implementation of national electrification strategy (based on least-cost approach)	regulatory issues and digitalisation of procurement/concession processes for mini-grids BGFA: mini-grid funding with a focus on PUE, institutional support services	Support on energy access via grid densification and off-grid electrification ProEnergia	Technical Assistance through AMAP (Africa Mini-Grid Acceleration Programme)	
On-Grid and Off-Grid Regulation & Market Development • Development of Mini-Grid Regulations and Mini-Grid Tendering Mechanisms	On-grid: support to auction processes for RE generation projects through the PROLER Programme	for increased private sector participation and site selection Enabel/RERD: support to FUNAE for mini-grid funding, support on planning and preparation	Policy and planning support: support to MIREME on National Electrification Strategy, support to EDM to update the Integrated Masterplan (2018-2043)	Improve generation, transmission, and distribution of power supply networks and energy efficiency – support to implement the Mozambique Renewable Energy Integration Program (MREP)	

ESWG (Energy Sector Working Group) – Contribution towards enhanced coordination, Policy & Regulation Priority Checklist Tool (GET.transform)



Thank you for your attention



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