

**GET FiT
MOZAMBIQUE**

GET FiT Mozambique Renewable Energy Tenders

Information to investors and
project promoters

May 30th

Hotel Cardoso

707 Avenida dos Mártires de Mueda,
Maputo, Mozambique



Multiconsult

GET FiT Mozambique

SESSION CONTENT



Session Moderator

- *Ms. **Mari Sofie Furu** – Director GFM and Head of Renewable Energy Advisory Services, Multiconsult Norge AS (Programme Implementation Consultant)*

1. Introduction of the GET FiT programme and GET FiT in Mozambique

- *Ms. **Mari Sofie Furu***

2. Solar PV+BESS (GET FIT Mozambique On-grid programme):

- *Dr. **Benon M Mutambi** – Resident Programme Manager*

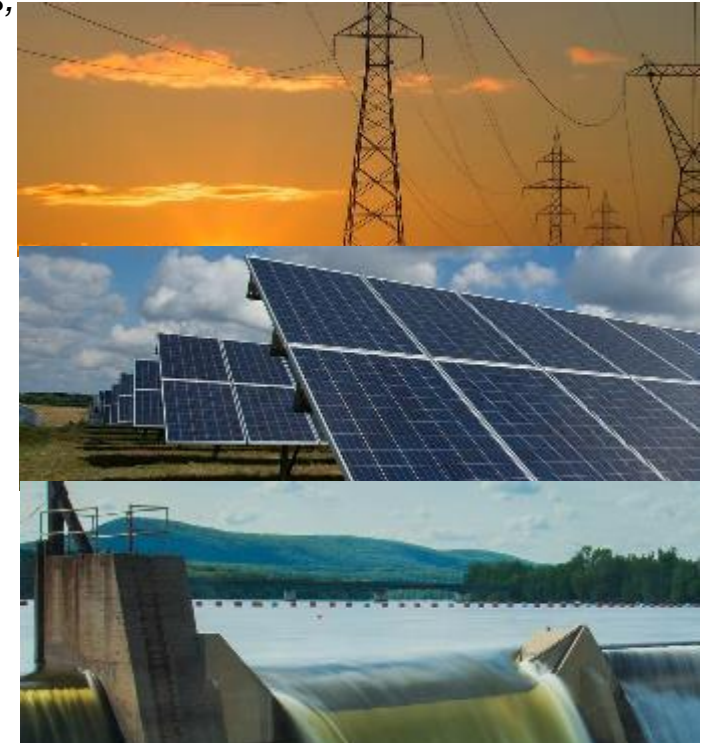
3. GET FiT Mini-grid programme

- *Mr. **Emmett Costel** – Resident Programme Manager*

4. Environmental & Social Management in Renewable Energy Development

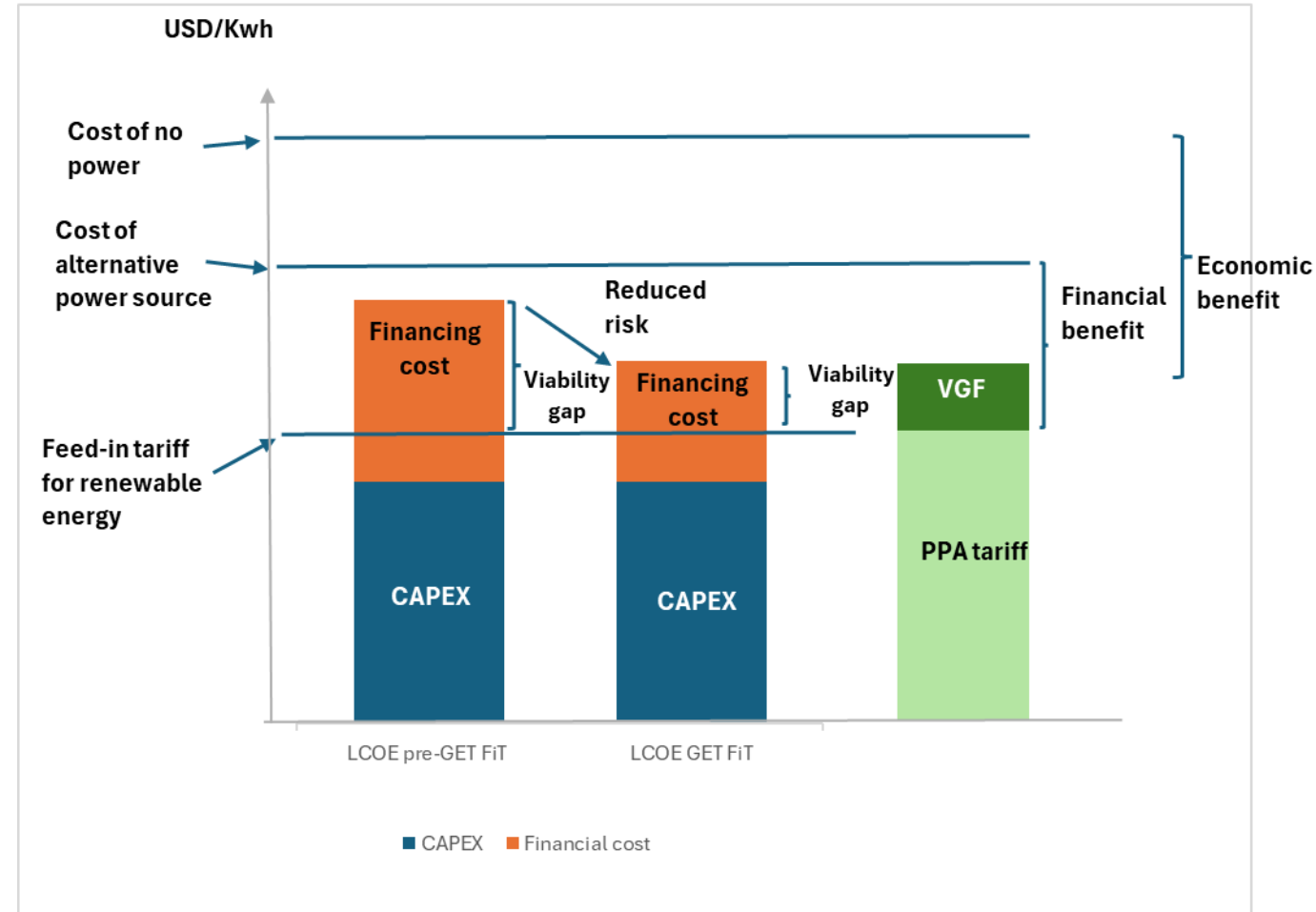
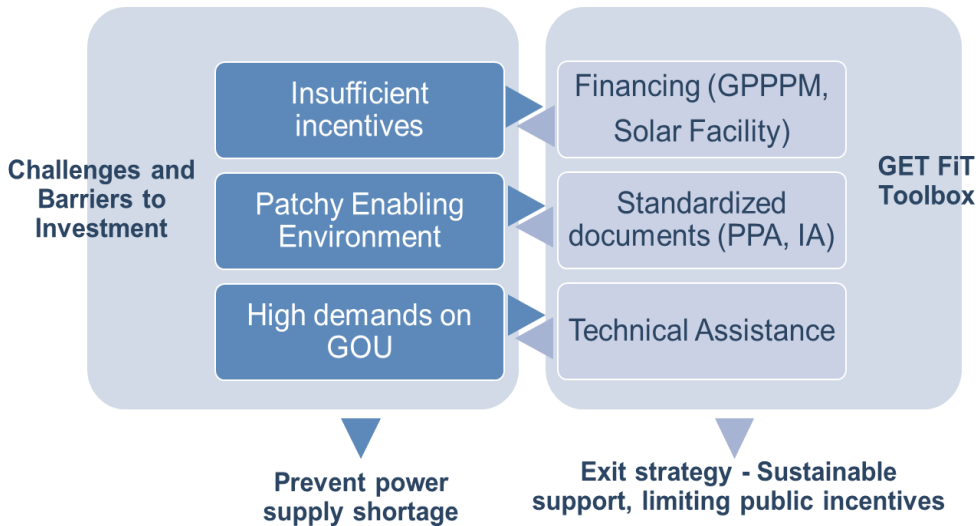
- *Mr. **Svein-Erik Hårklau** – Environmental and Social Expert*

5. Questions and Next Coming Up



A short history of GET FiT

Unlocking private investment in small-scale, grid connected, renewable energy through improved investment frameworks



GET FiT Uganda results

Generation capacity, track record, and a favorable investment framework



GET FiT PORTFOLIO

17
Projects

158 MW

760 GWh/y

Hydro

14 118.4 MW
579.7 GWh/y

Solar PV

2 20 MW
33.5 GWh/y

Bagasse

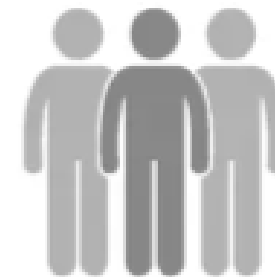
1 20 MW
147 GWh/y

4.6 GET FiT
Leverage Ratio

455 Million USD in Private
Investments Leveraged



● GET FiT Grants ● Private Financing ● Public Financing



Jobs Created
13,570
Ugandan Employment
90%

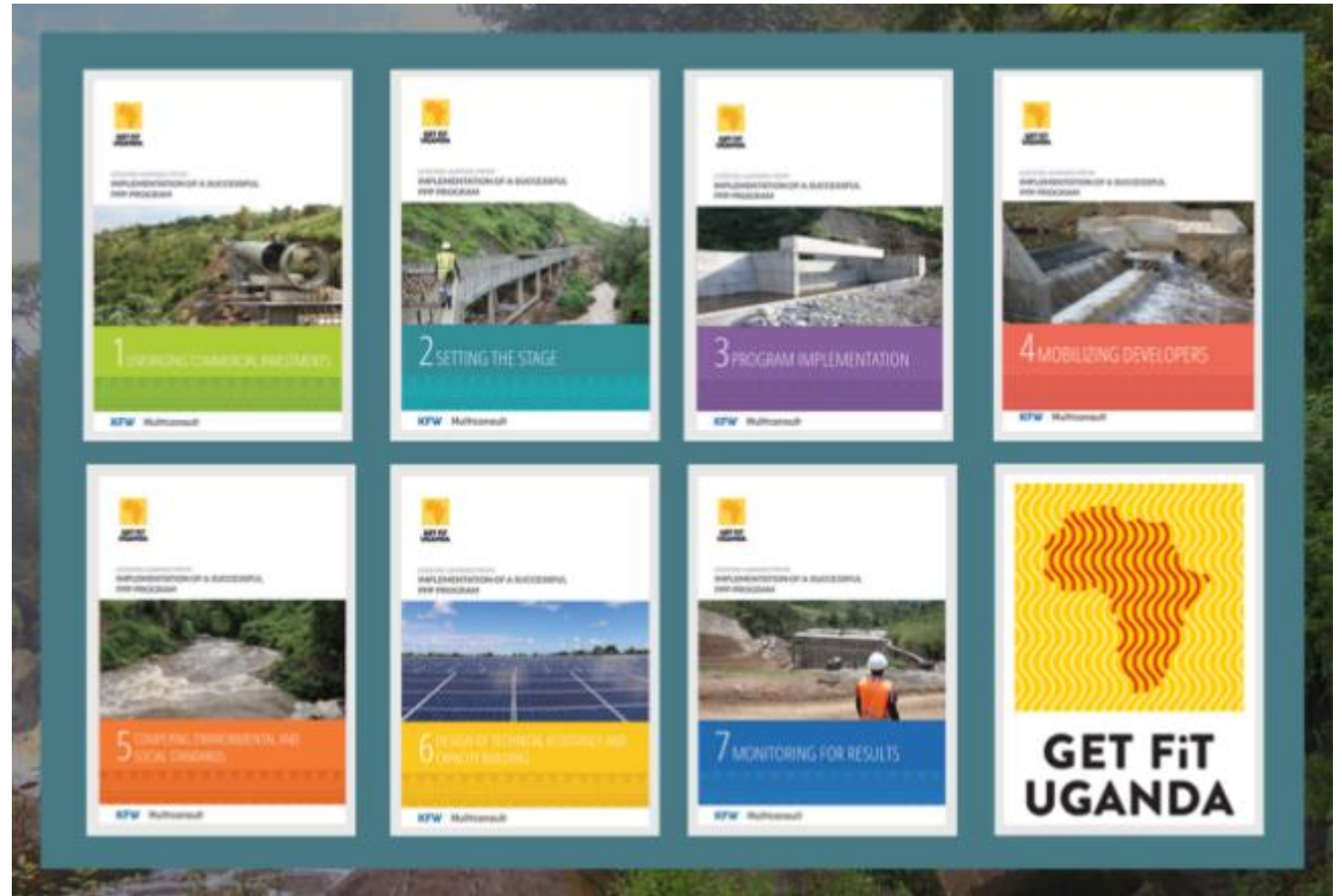
GET FiT Uganda Lessons Learned

Implementation stage lessons learned are available and there is more to come.



Building on the
Implementation stage
lessons learned.

New, final studies of
operational stage
experience: end 2024.



GET FIT Zambia – What happened?

Important lessons to learn also here!

- Successful tender completed in 2019
- Bid prices (tariffs) so favourable that the Government increased the capacity allowed from 100 MW to 120 MW
- Six solar PV projects of 20 MW each awarded to three successful bidders
- Average price: 4.41 USDc (2019)
- This price is significantly lower than the current cost of supply
- Zambia is in a situation with serious load shedding due to water levels

**SO:
THE GET FIT ZAMBIA SOLAR PV PROJECTS
SHOULD BE A NO-BRAINER!?**



No projects have reached Financial Close

- Macro-economic
- Off-taker and other risks
- Financiers/lenders withdrawing

2024:

- Successful bidders remain committed
- Reforms and sector improvements are underway
- GET FiT has provided a special risk mitigation package

**THE PROJECT PORTFOLIO IS BACK ON
TRACK AND MOVING**

The GET FiT Value Proposition for Mozambique



Specific for Mozambique on-grid programmes:

Distributed generation capacity to improve supply capacity and stability in remote locations of the national power transmission and distribution grid.

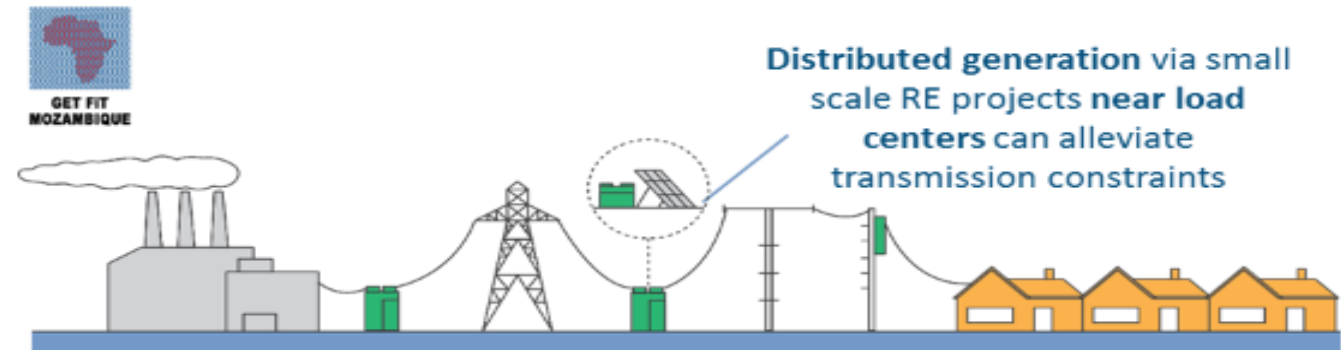
Overall objective in line with GET FiT philosophy:

An improved investment framework for renewable energy

Traditional strategy to address transmission constraints



GET FiT alternative option – localized and targeted RE



GET FiT Mozambique Renewable Energy Tenders

Several tender rounds foreseen



2024 – GET FiT Solar PV + BESS tender

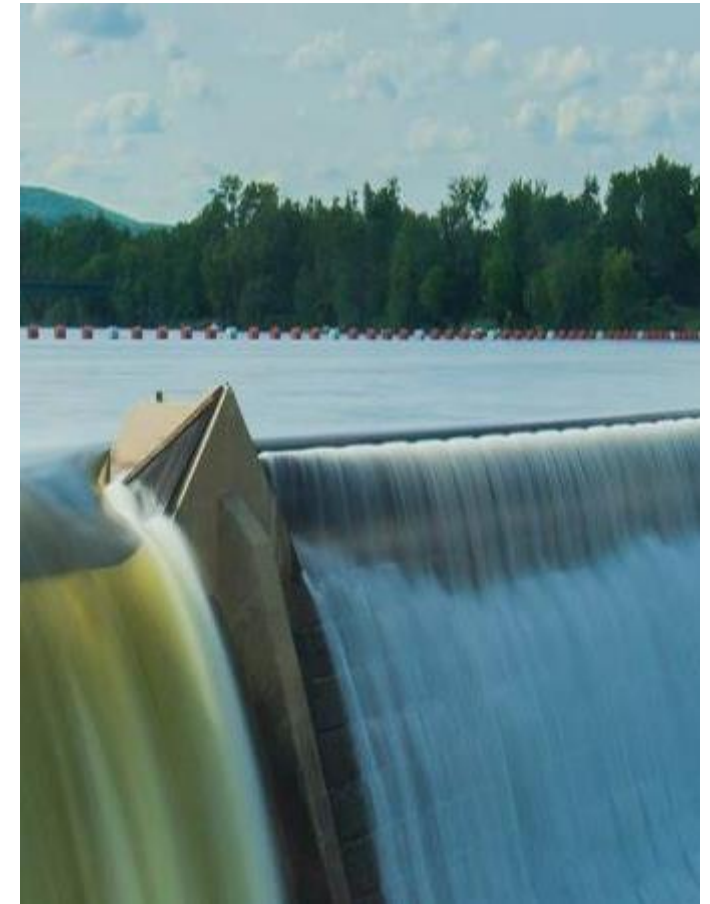
- 5 – 10 MW Solar PV with integrated storage capacity, on-grid IPP projects
- German Financing (BMZ through KFW)

2024 – GET FiT Mini-grids tender

- Privately developed, owned and operated mini-grids in off-grid area
- German Financing under the Green People's Energy programme (BMZ through KFW)

2025/2026 – GET FiT Small Hydropower tender

- Small Hydropower on-grid IPP projects
- European Union Financing (EU through KFW)



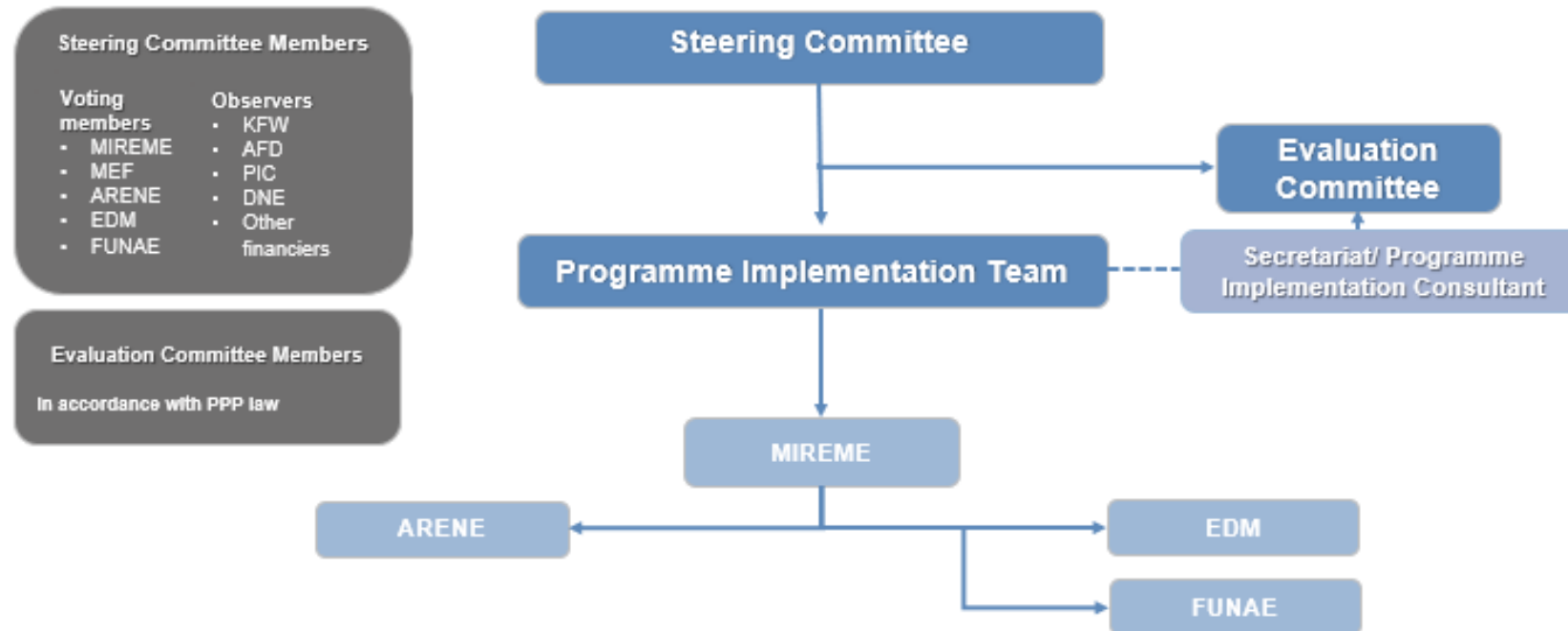
GET FiT Mozambique Governance

MIREME is Project Executing Agency



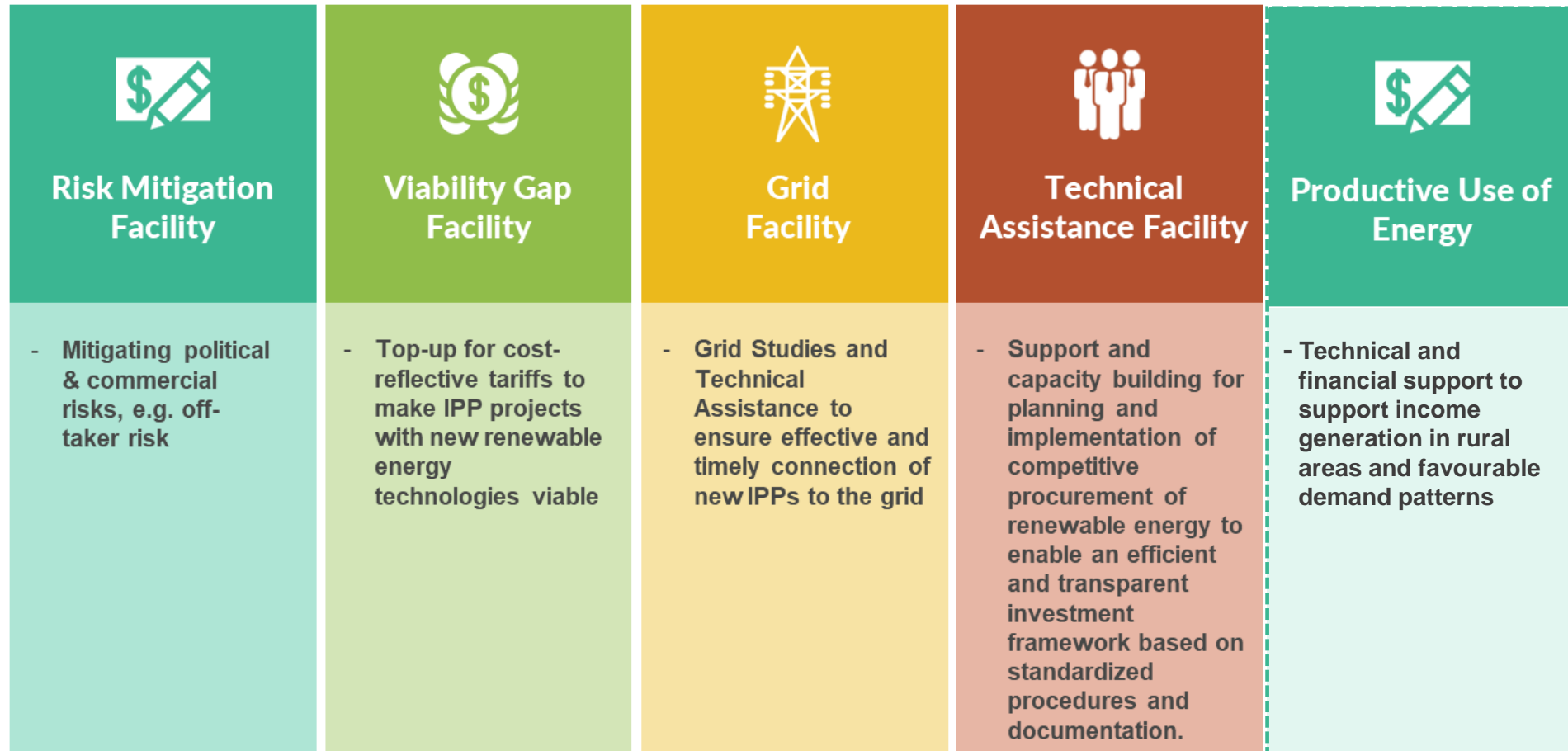
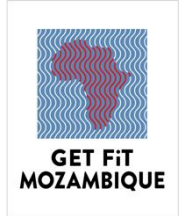
Day-to-day implementation:

- Managed by a Programme Implementation Team
- Supported by:
 - Technical Assistance from the GET FiT Secretariat
 - Programme Implementation Consultant



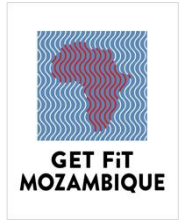
GET FiT Mozambique Toolbox

The four components of the GET FiT Toolbox address barriers to realizing small RE IPPs



GET FiT Mozambique Solar PV+BESS

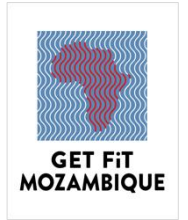
Program overview



1. Program setup
2. Site selection
3. RfQ launch, evaluation & shortlisting of applicants
4. RfP launch, evaluation & selection of preferred bidders
5. Project construction
6. Commissioning
7. Compliance monitoring
8. Management of VGF

Project sites

Considerations in site selection

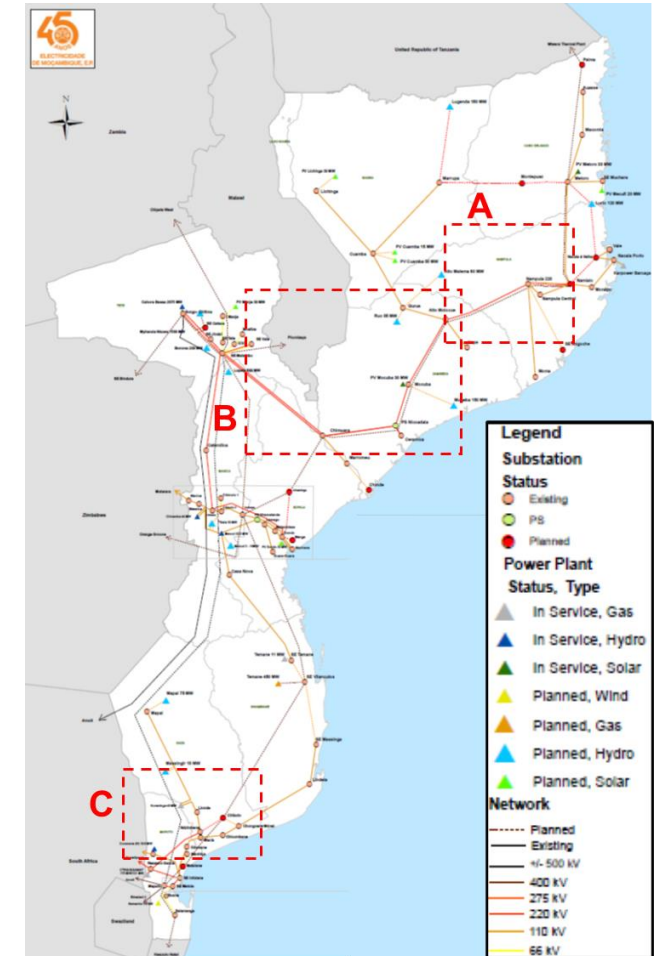


COMPLETED

- Tender process will be based on preselected sites.
- Main consideration in the site selection: increase and improve reliability of power supply & minimize system losses.
- Six 33 kV lines in 4 provinces have been studied in close collaboration with EDM.
- Distance from the existing grid (<4km)
- Steady state and transient grid connection studies done.
- Capacity of sites 5-10 MW.
- Packaged into two Lots of roughly equal size to increase economies of scale.

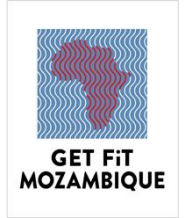
ONGOING

- Preliminary screening to ensure technical and environmental suitability for connecting a PV plant plus BESS
- Provisional DUATs will be secured by EDM before the launch of RfP.
- This approach reduces the costs & risks related to land acquisition.
- Detailed geotechnical, environmental and social studies and other feasibility studies is the responsibility of the successful bidder (IPP).



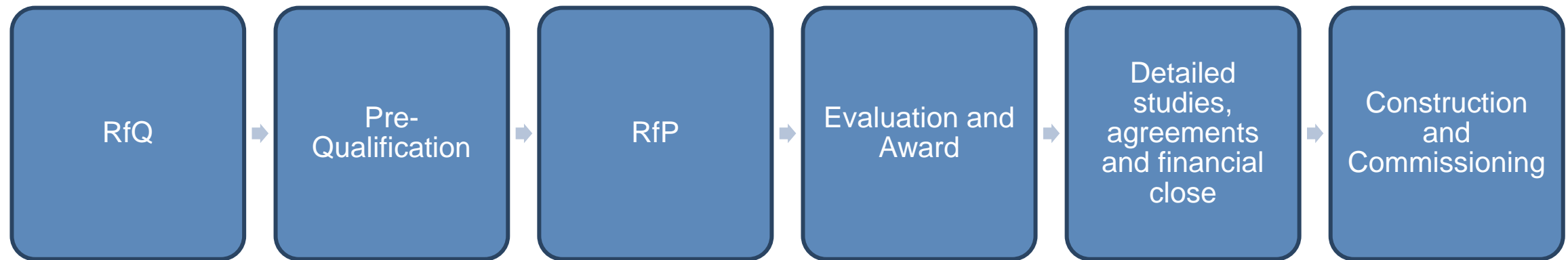
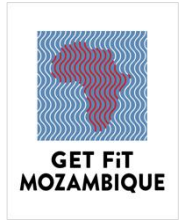
Solar PV + BESS tender

General overview



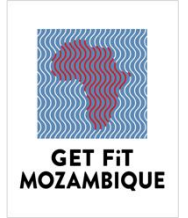
- The tender will be executed under the aegis of **ARENE** according to their mandate under **Article 7(1)(b) of Law 11/2017 of 8 of September (ARENE Act)** as well as **Article 12 (1) of the Electricity Law 12/2022 of 11 July**.
- ARENE intends to select experienced and qualified IPPs to develop, finance, construct, own, operate and transfer solar PV+BESS.
- **Two (2) Lots of up to 20 MW** Solar PV each + BESS each with subprojects with an expected individual installed capacity **between 5 MWp and 10 MWp** .
- Maximum of **10** applicants may be shortlisted.

From RfQ to Commissioning

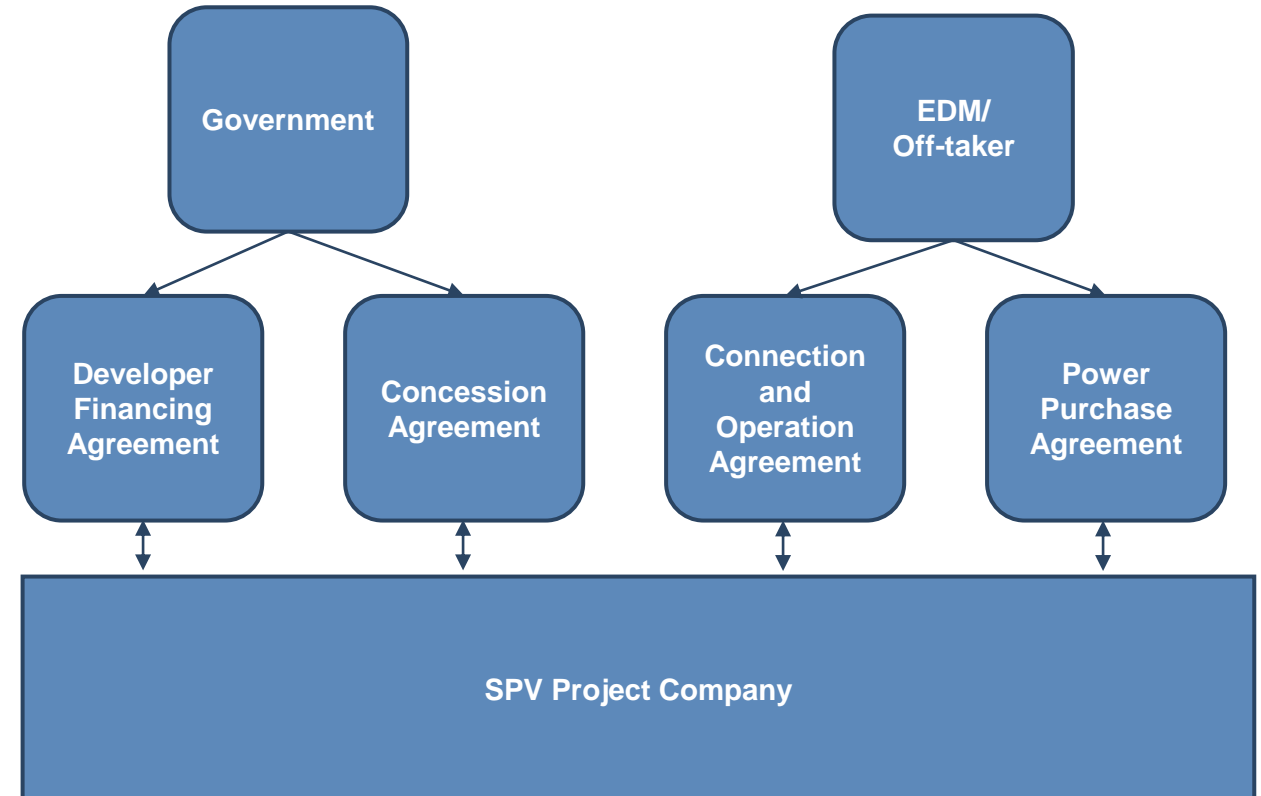


Indicative project agreements

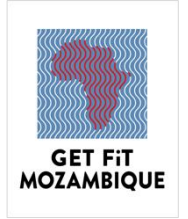
(PPA, Concession Contract, CO&A, DFA)



- Indicative list of project documents:
 - **Concession contract**
 - **Power Purchase Agreement**
 - **Connection and Operation Agreement**
 - **Developer Financing Agreement**
- Standardized bankable documents and therefore non-negotiable



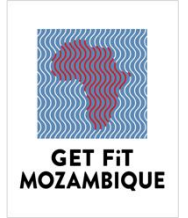
Responsibility of the selected bidders



- Prepare a complete Environmental and Social Impact Assessment and Environmental and Social Action Plan for each Subproject in accordance with the IFC PS under consideration of the GET FiT Mozambique Environmental and Social Management Framework
- Obtain the DUAT for all subprojects
- Conduct all other required preparatory studies including technical feasibility of the solar PV power plant, yield assessments, site investigations (topographical, geotechnical and hydrological)
- Obtain all required permits, licenses and approvals
- Design, finance and construct the infrastructure connecting the power plant to the existing grid. Connection to the grid will be based on a Loop-in Loop-out (LIPO) concept.
- The line will be transferred to EDM on completion.
- The line will be constructed in accordance with the minimum standards prescribed by EDM.
- EDM will have an oversight role without interfering with the activities of the IPP.

Qualification Criteria

Technical



Focus: Demonstrate relevant project development, implementation and operational experience related to solar projects according to relevant standards

- Experience in developing, financing, designing, constructing and operating small utility-scale solar PV plants.
- Present the potential BESS suppliers, their track record, and capacity.
- Demonstrate relevant Environmental, Social, Health & Safety (ESHS) experience in developing and implementing similar capacity power projects in accordance with IFC PS or similar international ESHS standards.

Qualification Criteria

Financial



Focus: Demonstrate adequate financial capacity to develop and implement the project on IPP basis

- Applicant's net worth
- Short-term liquidity (special criteria for investment funds)
- Documented experience in raising equity or debt

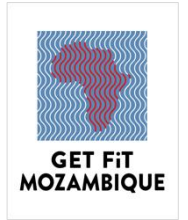
Ranking criteria

For selection of shortlist



- **Experience in developing IPP projects** in similar investment environments will score more favourably.
 - Special consideration is given to investors/developers of small and medium-scale projects.
- Project implementation **experience in Mozambique**
 - Projects developed in Mozambique on an IPP basis and have reached COD.
- **Local participation**
 - Level of participation of Mozambican partner(s)

Next steps



- Launch of RFQ will be announced on **ARENE** and **German Trade and Invest (GTAI) websites**
- Interested firms can request access to ARENE data room for download of RFQ by email to be sent to ARENE
 - Signing of the undertaking of confidentiality prerequisite for getting access.
- Submission period approx. **eight to ten weeks**
- **Physical submission** to ARENE

GET FiT Mozambique: Mini-grids

Green People's Energy for Africa: Mozambique

Programme overview



KfW



Multiconsult



ELECTRICIDADE
DE MOÇAMBIQUE, E.P.



GET FiT Mozambique
Mini-grids

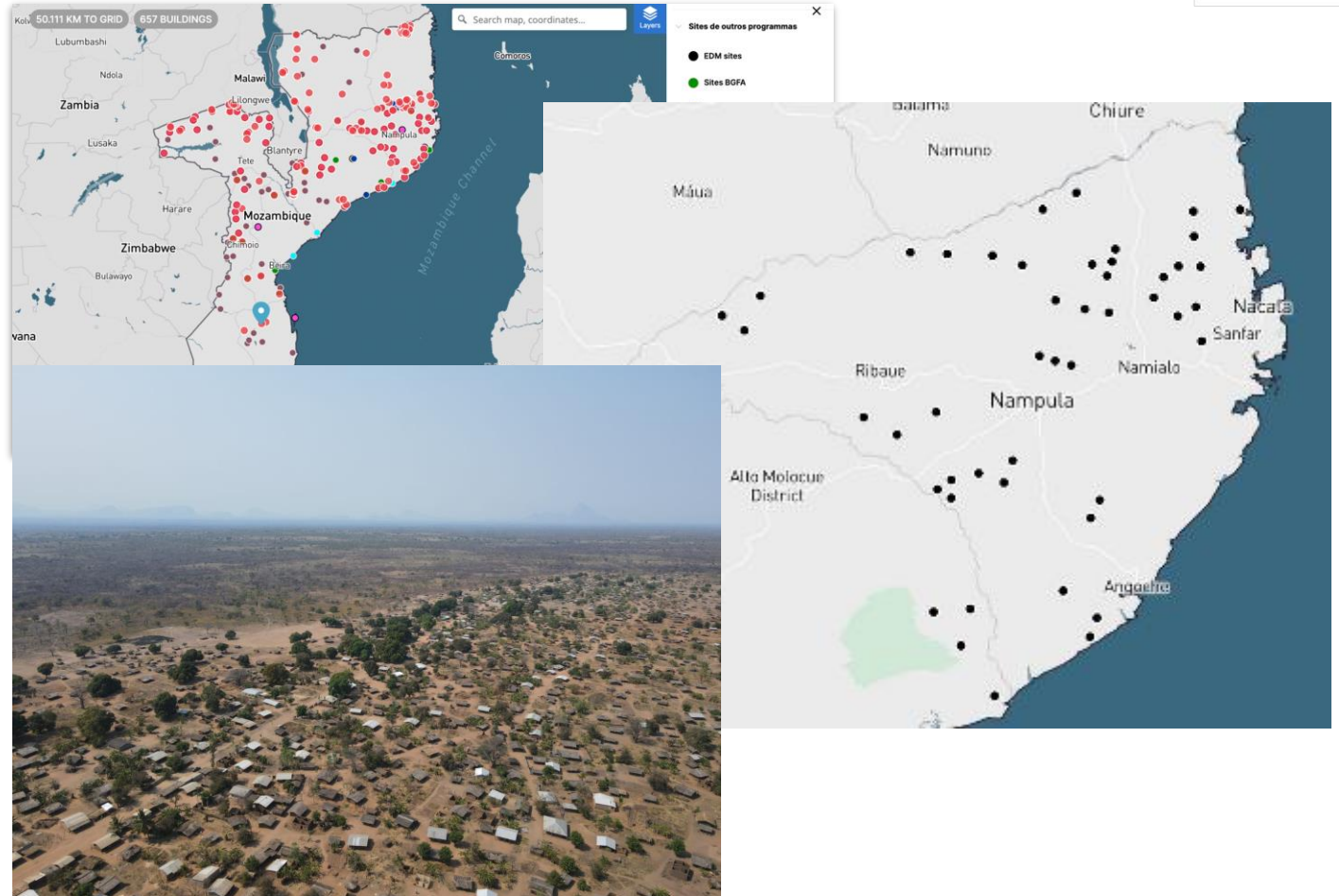
GET FiT Mozambique: Mini-grids

Funded by Green People's Energy for Africa



AGENDA

1. Programme Overview
2. The GET FiT toolbox
3. The journey thus far ...
4. Site Selection
5. Pre-feasibility Studies
6. Tender Mechanism
7. Next steps



Green People's Energy for Africa: Mozambique Mini-grids



| | |
|--|---|
| Programme Title | Green People's Energy for Africa: Mozambique (GPE) |
| Country | Mozambique |
| Funding Entity | KfW Development Bank – BMZ GPE |
| Programme Executing Agency (PEA) | Ministério dos Recursos Minerais e Energia (MIREME) |
| Programme Implementing Unit (PIU) | Direcção Nacional de Energia (DNE) |
| Funding Allocation | EUR 23.48 Million |
| Programme Implementation Consultant (PIC) | Multiconsult Norge AS |
| Secretariat | Jointly with GET FiT Mozambique |
| Financial Agreement | 4th September, 2019 |
| Separate Agreement | 26th August, 2021 |
| Programme Implementation Contract | 13th October, 2023 |

GET FiT Mozambique: Mini-grids



Goal:

Boost rural electrification through private sector-led development of mini-grids with Solar PV and BESS.

Objective:

Promoting the role of the private sector in the construction and operation of mini-grids based on renewable energy (RE) sources.

Indicative target:

Enable private investment and operation of 10 – 16 mini-grids with installed capacity ranging from 200-500 kW totalling 3 MW.

- Following the Programme Inception Phase and Preliminary Field Work and Site Validation ... in conjunction with the Programme Implementation team (PIT) and KfW, the programme's targets have been redefined.
- The new scope is indicatively defined as a **total of 3 MW divided over 10-60 sites, each with a capacity range from 50 to 500 kW and 50 – 700 customers per site.**

Government Engagement

Roles & responsibilities

MIREME: DNE – National Directorate of Energy

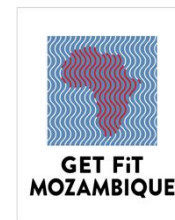
- Programme Executing Agency / Implementation Unit
- UIPCE

ARENE

- Pre-qualification (RFQ)
- Tendering Process (RFP)
- Tariff Regime

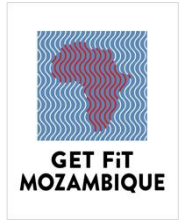
FUNAE & EDM

- Site Selection and validation
- Pre-feasibility studies



Toolbox

Ferramentas



GET FiT / GPE Solutions



Viability Gap
Facility

Viability Gap Funding

A tariff top-up will fill the gap between the off-grid tariff as per regulation and the tariff charged to the consumer



Technical
Assistance Facility

Capacity Development Facility:

Support for Programme management, preparation and implementation of tender, legal issues and E&S management



Productive Use of
Energy

Productive Use of Energy promotion

Technical and financial support to support income generation in rural areas and favourable demand patterns

- Special of the toolbox for GE Fi Mini-grids is the **promotion of productive uses of energy (PUE)** to enhance socio-economic impacts and ensure the financial and operational sustainability of the electrified communities.
- **€1.5M** have been earmarked as part of a disposition fund to promote productive uses.
- This initiative will aim to **catalyze access to appliances at the household level, enterprise development, asset finance and foment anchor loads.**

The journey thus far ...

O trajecto desde o início ...

- **Resolução n.º 52/2023, de 14 de Dezembro - Plano de Acção de Electrificação fora da Rede.**
- **Exclusivity of sites in Nampula for KfW financing.**



REPÚBLICA DE MOÇAMBIQUE

MINISTÉRIO DOS RECURSOS MINERAIS E ENERGIA
DIRECÇÃO NACIONAL DE ENERGIA

À
Multiconsult Norge As
Maputo

Nota n.º 274 /MIREME/DNE/ 431/24

Data: 01 de Abril de 2024

Assunto: Proposta de apoio aos concursos de Mini – Redes Públicas - Plano de Electrificação das Zonas Fora da Rede e pedido de exclusividade.


Exmo. Senhor,

Acusamos a vossa nota datada de 24 de Fevereiro do ano em curso, sobre o assunto em epígrafe o qual solicita ao MIREME a aprovação dos 44 locais inseridos no Plano de Electrificação das Zonas Fora da Rede, na Província de Nampula, para a implementação do Programa Green People Energy(GPE) for Africa: Mozambique a ser implementado pela empresa Multiconsult Norge As.

Sobre o mesmo, informamos que analisado os fundamentos do pedido o Ministério dos Recursos Minerais e Energia aprova a solicitação.

Sem mais de momento, os melhores cumprimentos.

A Directora Nacional


Marcelina Andrea Mataveia
(Especialista)

Next steps

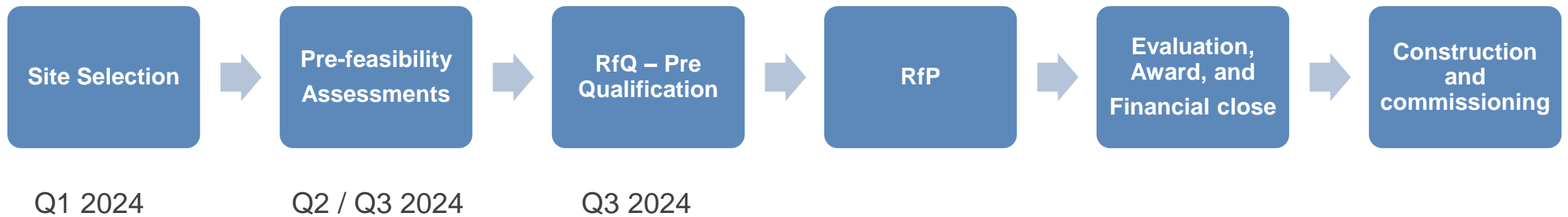
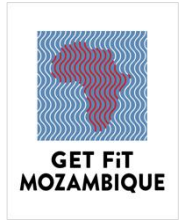
Próximos passos



- **Pre-feasibility Assessments**
- **Adjudication of land**
- Launch of RFQ will be announced by ARENE – **Q3 2024**
- Interested firms can request access to ARENE data room for downloading of RfQ by email to be sent to ARENE.
 - Signing of the undertaking of confidentiality prerequisite for getting access.
- Submission period **approx. eight weeks**



Timeline



Environmental and Social Management in Renewable Energy Projects

GET FiT Mozambique

Svein Erik Hårklau, Multiconsult

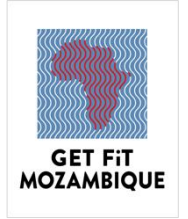


KfW



Multiconsult

Environmental, Social, Health and Safety



Objective of this brief presentation:

- Clarify the environmental, social, health and safety expectations in the GET FiT Programme.
- Enable potential bidders to plan based on predictable context.

Importance of the ESHS standards:

- Meet national licensing requirements.
- Meet financiers' requirements for timely financial close.
- Key to identify and reduce risks and impacts as well as avoid potential delays and unforeseen costs.
- Can build local support through engagement and local development benefits – social licence to operate.

Environmental, Social, Health and Safety



Relevant standards:

National level (examples only):

- Environmental Framework Law (Law no. 20/97);
- Regulation for Environmental and Social Impact Assessment (ESIA) Process (Decree no. 54/2015);
- General Guidelines for the Preparation of Environmental Impact Studies (Ministerial Diploma no. 129/2006);
- General Guidelines for Public Participation Process in the ESIA process (Ministerial Diploma no. 130/2006);
- Regulation for the Management of Hazardous Waste (Decree no. 83/2014);
- Land Law (Law no. 19/97);
- Regulation on the Resettlement Process Resulting from Economic Activities (Decree no. 31/2012);
- Labour Law (Law no. 23/2007);
- Energy Law (Law no. 12/2022).

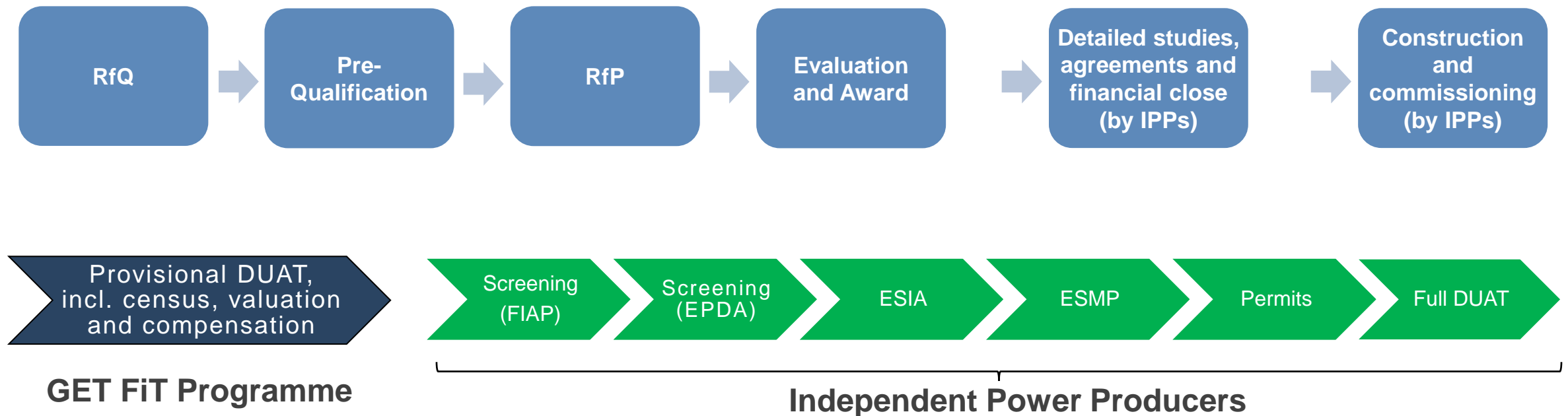
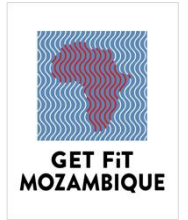
International standards:

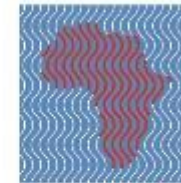
IFC Performance Standards (2012):

- PS 1: Assessment and Management of Environmental and Social Risks and Impacts
- PS 2: Labor and Working Conditions
- PS 3: Resource Efficiency and Pollution Prevention
- PS 4: Community Health, Safety, and Security
- PS 5: Land Acquisition and Involuntary Resettlement
- PS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
- (PS 7: Indigenous Peoples)
- PS 8: Cultural Heritage

KFW Sustainability Guideline (2023), ILO Conventions (core labour standards), etc.

Environmental, Social, Health and Safety





**GET FiT
MOZAMBIQUE**

GET FiT Mozambique Renewable Energy Tenders

Information to investors and
project promoters

May 30th

More questions? Contact us

info@getfit-moz.org
getfit-moz.org



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