



CONFERÊNCIA ALER

RENOVÁVEIS NA  
ELECTRIFICAÇÃO  
DE MOÇAMBIQUE

ALER CONFERENCE  
RENEWABLES IN THE  
ELECTRIFICATION OF MOZAMBIQUE

# REGIME TARIFÁRIO PARA AS ENERGIAS NOVAS E RENOVÁVEIS (REFIT)

## GET FIT Mozambique

### Introduction to the Programme



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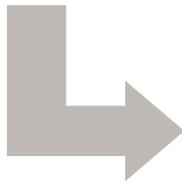
## »» Content

- 1 GET FIT Uganda – Results and Approach
- 2 GET FiT Roll Out Programme
- 3 Potential GET FiT Programme in Mozambique

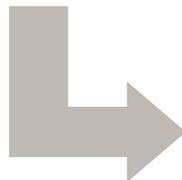
## »» African Power Markets in Transition

### Challenges for leveraging private investment in renewable energy

1	<b>Incomplete / incoherent reform</b>	Weak design and faulty implementation of sector unbundling and renewable energy promotion programs (including standard documentation)
2	<b>Political and commercial risks</b>	Detrimental country risk profiles and weak off-taker structures
3	<b>Inadequate incentives/ RE regimes</b>	RE promotion programs (such as FiTs) offer inadequate commercial incentives especially for early-movers
4	<b>Technical/ engineering issues</b>	Grid integration of RE requires significant investment in transmission infrastructure



**Long-term debt finance and equity are hard to come by, terms and conditions are generally punitive**



**Few RE deals have come to close/ gone into implementation**

## »» GET FiT Uganda

### Results Achieved 2012 - 2016

- Total of 21 projects approved with additional on-grid energy capacity of up to 170 MW (hydro, biomass, solar)
- Energy production increase of 20% (800 GWh p.a.)
- Access to energy for > 200.000 households (1.2 million people) also in rural areas
- USD 500 million in private investments leveraged with limited amount of grant funding (leverage factor of 4.5)
- Transparent and efficient legal and regulatory framework for RE IPPs is in place
- Experience gained by public sector to manage IPP transactions
- Compliance with IFC Social and Environmental Performance Standards
- Uganda is SSA country with second highest number of IPPs in Africa after South Africa

## »» GET FIT Programme Uganda - Stimulating private investments into RE

Focus on 3 support elements to initialize a sustainable renewable energy sector development:



- Top-up of RE feed-in tariff
- Grants/ concessional financing for grid integration
- Political risk insurance products
- Commercial risk insurance
- FiT implementation guidelines
- Standardized contract documents (PPAs, grid connection)
- Competitive procurement process

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# »» GET FIT - Roll Out Programme

Preparatory Studies to assess the prospects of a GET FiT type programme in: Ghana, Mali, Nigeria, Ethiopia, Kenya; Rwanda, Tanzania, Malawi, Mozambique, Namibia

Situation in the Power Sector	Legal, Regulatory, Institutional & Policy frameworks	RE IPP pipeline	Key bottlenecks for private investment in RE	Country-specific Outline for a GET FiT Program
				
<ul style="list-style-type: none"> <li>› Supply situation generation &amp; transmission</li> <li>› Share &amp; future opportunities for RE</li> <li>› Financial performance of the sector</li> </ul>	<ul style="list-style-type: none"> <li>› Current energy sector framework</li> <li>› Policies incentivising investments into RE</li> <li>› Analysis of existing PPA and related documents for RE</li> <li>› Identification of key stakeholders facilitating RE development</li> </ul>	<ul style="list-style-type: none"> <li>› Developers</li> <li>› Equity partners</li> <li>› Technologies</li> <li>› Locations</li> <li>› Envisaged tariff</li> </ul>	<ul style="list-style-type: none"> <li>› Political risks &amp; requirements for risk mitigation</li> <li>› Commercial risks &amp; requirements for risk mitigation</li> <li>› Legal and regulatory risks</li> <li>› Review of existing REFITs</li> <li>› Grid integration issues</li> </ul>	<ul style="list-style-type: none"> <li>› REFIT Tariff Support</li> <li>› Off-taker Support</li> <li>› Grid Integration</li> <li>› RE portfolio composition (~250 MW)</li> <li>› Technical Assistance</li> <li>› Economic Impacts</li> <li>› Buy-in commitment from partner governments</li> </ul>

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# MARKET STUDY: SUMMARY RESULTS FOR DUE DILIGENCE AREAS



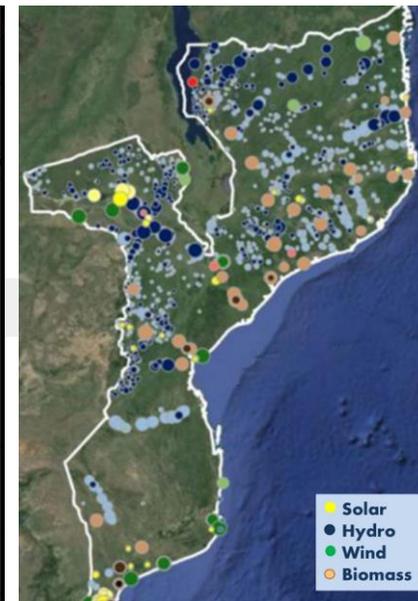
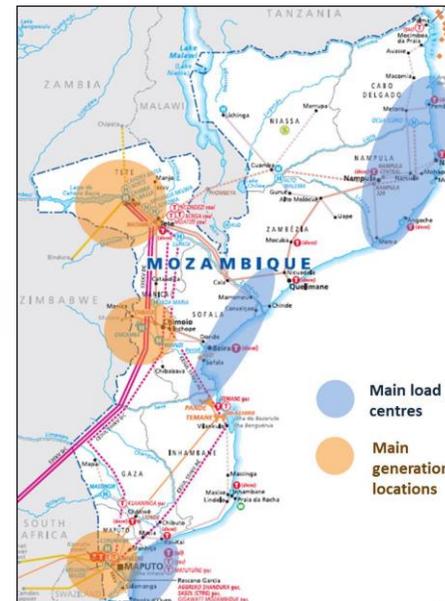
An assessment of readiness, political will and economic justification for GET FiT;  
*not* an overall score for “GET FiT Appropriateness”

Country	RE potential and power market situation	Legal/ regulatory/ policy framework	IPP pipeline	Financial landscape	Implementation considerations
<b>Southern Africa</b>					
Malawi 	Readiness	●	●	●	●
	Outlook	➔	➔	➔	➔
Mozambique 	Readiness	●	●	●	●
	Outlook	?	?	➔	➔
Namibia 	Readiness	●	●	●	●
	Outlook	➔	➔	?	➔

# SECTOR CONTEXT & RATIONALE



- Power sector dynamics and challenges
  - Strong demand growth
  - long distances from production to load areas
  - transmission constraints
- Abundant and well mapped renewable energy resources
  - Dispersed generation opportunities gaining attention
  - Improve supply security
  - Stabilize systems
- Regulatory momentum:
  - Renewable energy policy and strategy
  - REFIT programme
  - Cost-plus based REFITs (cost-reflective??)

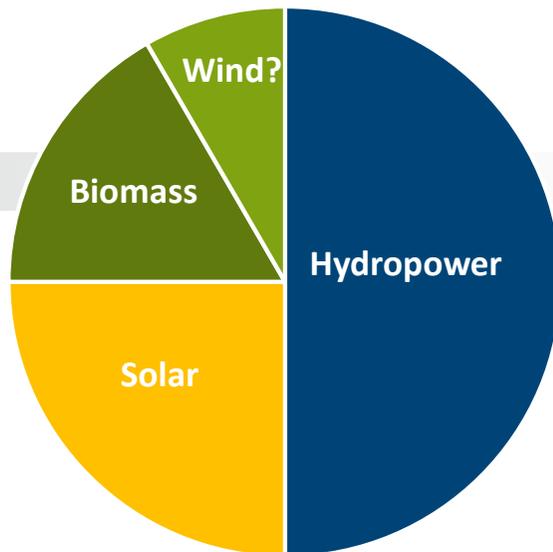


# KEY BARRIERS TO A SUCCESSFUL RE IPP FRAMEWORK



- Perception of ‘reasonable price’ and the value of dispersed (RE) power production
- Political and off-taker risk – attract investors and financiers
- Weak RE IPP track-record and experience in key institutions
- REFIT framework new, incomplete and untested
- Institutional constraints
  - The Energy Regulator (ARENE) will be active from December 2017, and will take time to be full operational;
  - Human Resources
  - Efficiency and transparency in bureaucratic and formal processes and procedures

# GET FIT MOZAMBIQUE INDICATIVE TOOLBOX



- Programmatic risk mitigation
  - Political risk insurance products
  - Commercial risk insurance products to mitigate e.g. off-taker risks; forex risk
- Bridging the viability gap
  - REFITs vs. investors' requirements
  - REFITs vs. alternative power sources - EDM incremental cost
- Technical knowledge base strengthening
- Support to financial and developer community
- Ensure effective REFIT implementation
  - MIREME as host institution
  - Complete set of standardized transactional documentation (IA, PPA, GCA)
  - Efficient procurement (REFIT/Auction)

# GET FIT Mozambique – Country Specific Project Design

## GET FIT Mozambique



- Incentive mechanism
  - Results-based buy-down of REFiT to reduce cost burden for EDM
- Guarantee Framework
  - Political risk insurance products
  - Commercial risk insurance products to mitigate e.g. off-taker risks; forex risks
- Standardized Contract Documentation
  - PPA
  - Implementation Agreement
  - Grid Integration Agreement
- Studies
  - RE Grid integration
- Technical Assistance
  - Local GET FIT Coordinator and GET FIT Secretariat to support host institution during implementation

# Design Study

## Plans and Approach

- Funding for FS available from UK Gov. (DECC)
- Design Study:
  - Review of regulatory framework, development of draft PPA
  - Programme design, risk mitigation requirements, calculation of tariff support
  - Grid integration study, identification of project pipeline
- **GET FiT Coordinator** based in Maputo:
  - Coordinate implementation of FS
  - Coordination among key stakeholders
  - Develop communication platform for developers and financiers
- Timeline:



# German Financial Cooperation in Mozambique Project Portfolio in Energy Sector

Objective: Cost-Efficient and Environmentally-Friendly Energy Supply



## Rehabilitation of Mavuzi (52 MW) and Chicamba (38 MW) HPPs

Loan € 18 m (signed in 2013)

Status: 95% completion

## New Tsate HPP (50 MW)

Total costs up to € 210 m

Financiers: KfW, Sida, EIB

Status: Feasibility Study completed, ESIA 2018, financial close 2020



## EDM Power Network Modernisation Programme

Loan € 21,8 Mio. (signed in 2017)

Status: Detailed Design to begin 2017

## EDM Short-Term Investment Programme (STIP)

Grant € 9 m (signed in 2016), co-financing with EIB & Norad

Status: Detailed Design



## Mozambique – Malawi Interconnector

Grant € 30 m

Status: Appraisal 2018

## »» Get in touch – we would be happy to advise you



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