GET FiT Uganda: Leveraging private investments in renewable energy

Kathrin Kaestle
Senior Project Manager
KfW Kampala
<table>
<thead>
<tr>
<th></th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Revisited: Challenges for Private Investments in RE in Uganda in 2010</td>
</tr>
<tr>
<td>2</td>
<td>GET FiT Programme – An Innovative Approach to Facilitating Private Investment into RE</td>
</tr>
<tr>
<td>3</td>
<td>Looking forward</td>
</tr>
</tbody>
</table>
Uganda in 2010
Uganda’s sector was advanced in SSA comparison, but ...

- Uganda had one of the most advanced power sector setups in Sub-Saharan comparison:
  - Fully unbundled
  - Concession agreements with private concessionaires for generation and distribution
  - Regulator established with sufficient independency and regulatory authority
  - REFITs, RE capacity targets, fiscal incentives for RE, various forms of governmental guarantees and support available

- However, ....
Uganda in 2010

Uganda’s sector was advanced in SSA comparison, but not generating desired outcomes

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td><strong>Incomplete/incoherent reform</strong></td>
</tr>
<tr>
<td><strong>2</strong></td>
<td><strong>Political and commercial risks</strong></td>
</tr>
<tr>
<td><strong>3</strong></td>
<td><strong>Inadequate incentives/RE regimes</strong></td>
</tr>
<tr>
<td><strong>4</strong></td>
<td><strong>Technical/Engineering issues</strong></td>
</tr>
</tbody>
</table>

- Long-term debt finance and equity are hard to come by, terms and conditions are generally punitive
- Few renewable deals have come to close/gone into implementation
| 1 | Background and Challenges for Private Investments in RE in Africa |
| 2 | GET FiT Programme – An Innovative Approach to Facilitating Private Investment into RE |
| 3 | Looking forward |
GET FiT addressed challenges for private investments comprehensively
Technical Assistance, Guarantee Framework, Incentive Mechanism

| 1 | Incomplete/incoherent reform | Technical Assistance | Targeted assistance for FiT implementation guidelines, standardized contract documentation (PPA, IA, DA), etc. |
| 2 | Political and commercial risks | Guarantee Framework | Political and commercial risk insurance products (World Bank PRG Program) |
| 3 | Inadequate incentives/RE regimes | Incentive Mechanism | Results-based premium payment on top of REFIT to incentivize developers/financiers to enter the market |
| 4 | Technical/Engineering issues | Interconnection/Grid Integration | Grants and concessional loans to allow public side to ensure timely and reliable grid integration and interconnection of small RE |

- Remove legal and regulatory hurdles for private investment
- Mitigate political and commercial risks
- Provide an attractive risk-adjusted return for early mover investors
- Unlock commercial finance for renewable energy deals
GET FiT Premium Payment Mechanism

Incentive mechanism

Fixed REFiT top-ups / variable viability gap payments for solar
Frontloaded, performance based over first five years of operation

Top-up (fixed for REFiT, variable for solar)

REFIT (USDc 8.1 – 11 / kWh)

20 years

50% Total GET FiT premium on COD,
residual over first 5 years

REFIT (USDc 8.1 – 11 / kWh)

KFW 20 years

GET FiT Mechanism
GET FiT Uganda

Objectives

**Bringing about 170 MW of RE on the grid by 2018**

› Mitigating the supply shortfall: increase generation capacity by up to 20%
› Reducing CO2 emissions by up to 11 million tons (over 20 years project lifespan)
› Facilitating or improving access for at least 200,000 additional consumers
› Leveraging approximately EUR 440 million in private capital with EUR 94 million grant funding (1:4.5 leverage)
› Grid benefits: reinforcement reduces distribution losses & decentralized generation increases grid stability
› Diversification of energy generation: Solar and bagasse-based projects reduce dependency on large-scale hydro
GET FiT – where are we?

Achievements

- 17 projects supported, 157 MW / 770 GWh clean, renewable electricity at affordable cost
- 1 project completed, 9 projects under construction, 4 projects achieved financial close
- Projects will be successively completed by 2018 and thus on time to meet expected supply shortage from 2016 to 2020
- Standardized PPAs for various RET (hydro, solar, biomass/bagasse)
- First reverse auction for solar / PV in SSA outside of South Africa
- Interconnection facility supporting investments into the grid for full evacuation of GET FiT projects
- 3 Technical Assistance components implemented, 2 new currently under procurement
- REFiT review currently underway
<table>
<thead>
<tr>
<th></th>
<th>Background and Challenges for Private Investments in RE in Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>GET FiT Programme – An Innovative Approach to Facilitating Private Investment into RE</td>
</tr>
<tr>
<td>3</td>
<td>Looking forward</td>
</tr>
</tbody>
</table>
Looking forward... (1/2)

All projects should achieve financial close and commence construction in 2016
› Assuming no delays in PPA / IA signing
› GET FiT and lender CP compliance pending
› All projects are obliged to achieve COD prior to end of 2018

Implementation of GET FiT grid interconnection projects underway

Two more interconnection-focused TA components for ERA currently procured
› Interconnection Code / Wheeling Agreement + Optimization of DISCO & TRANSCO regulation
Looking forward... (2/2)

For discussion during the Forum

Grid development

› Construction of key transmission infrastructure delayed with potential impacts on full evacuation of power generated by GET FiT and other projects

Future of IPPs

› Will IPP project development have the same dynamic post GET FiT?
   › Expected excess capacity
   › UETCL balance sheet
   › Government focus on public projects

Commercial financing
Thank you for your attention!

Kathrin Kaestle
Senior Project Manager
KfW Office Kampala
Email: kathrin.kaestle@kfw.de
www.kfw.de