

# Beyond the Grid Fund for Zambia - Evaluation

**Public webinar**

17<sup>th</sup> June 2024

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# Section 1

# Introduction

# Purpose of this evaluation

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## Overview and context

- BGFZ was a multi-year programme seeking to catalyse off-grid energy market development
- Funding and contract management was provided by the Embassy of Sweden
- REEEP was the main delivery partner, joined by Nefco 2019
- Structured around three pillars:
  - **RBF grants** and advisory support to four energy service providers.
  - **A platform for market change**, implemented through the Zambian Off-Grid Task Force.
  - **Market data and information**, with the development of the EDISON data system

## Purpose of the evaluation

- An independent evaluation
- Supplement to previous analysis on BGFZ.
- Understand to what degree elements of BGFZ had been successful (and can be continued or replicated) and which elements may need to be adapted or avoided
- Help to understand which elements have been key in contributing to BGFZ outcomes

## Overview of team structure

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**Ed Day**

Team Lead – off-grid energy and evaluations



**Daphne Pit**

Off-grid investment and programme expert



**Katherine Liakos**

Evaluation senior expert

- Ed – Greencroft Economics - team lead
- Daphne – Pit Pure Power - co-lead on content relating to off-grid solar program design and implementation
- Katherine - co-lead on evaluation methodology

# The evaluation ran from January to May and is based on 30 interviews and 242 documents















## 30 key informant interviews

- 7 with BGFZ programme implementation team and funders
- 3 with BGFZ grant recipients
- 6 with other Zambian private sector representatives
- 5 with development cooperation partners
- 7 with investors
- 2 with industry representatives / consultants

## 242 documents reviewed

- 15 relating to BGFZ scoping and design
- 47 contracting and Covid-response
- 127 progress reporting and annual reviews for the four ESPs
- 8 files specific to the operations of the OGTF
- 12 interim impact assessments and evaluations
- 33 additional files in response to a Q&A process

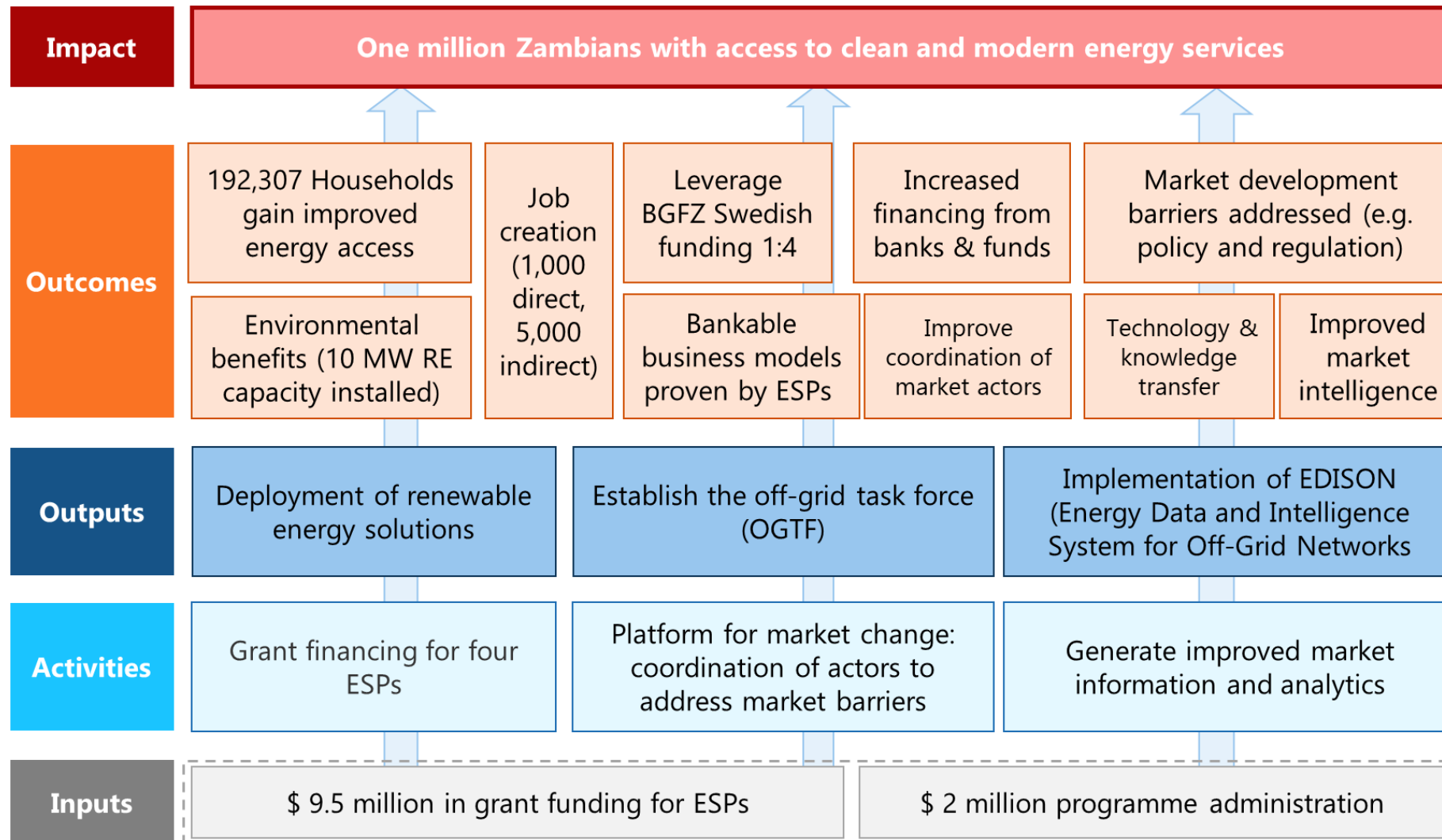
## The formal Evaluation Questions this evaluation sought to answer

EQ 1	Was the programme design relevant to the context and changing market conditions?		<b>2.5</b>
EQ 2	Did the BGFZ programme align with strategic priorities (of GoZ, of SIDA)?		<b>2.3</b>
EQ 3	How relevant/ appropriate were the BGFZ programme's components?		<b>2.5</b>
EQ 4	How well did the BGFZ consider other interventions in Zambia in its design and implementation?		<b>3.0</b>
EQ 5	To what extent did the BGFZ achieve its objectives as a whole		<b>2.3</b>
EQ 6	To what extent did each sub-component achieve its objectives?		<b>1.9</b>
EQ 7	How consequential was BGFZ's contribution to the realisation of the objectives and outcomes?		<b>1.7</b>
EQ 8	Did partner agencies increase their capacities as a result of BGFZ?		<b>2.0</b>
EQ 9	How effective / cost-effective was the administration of BGFZ?		<b>3.0</b>
EQ 10	How cost-effective was each BGFZ component?		<b>1.3</b>
EQ 11	How impactful was BGFZ deployment of off-grid solar products on end users (households)		<b>2.0</b>
EQ 12	How likely is it that will outcomes will be sustained / continue to increase after BGFZ ends?		<b>0.7</b>

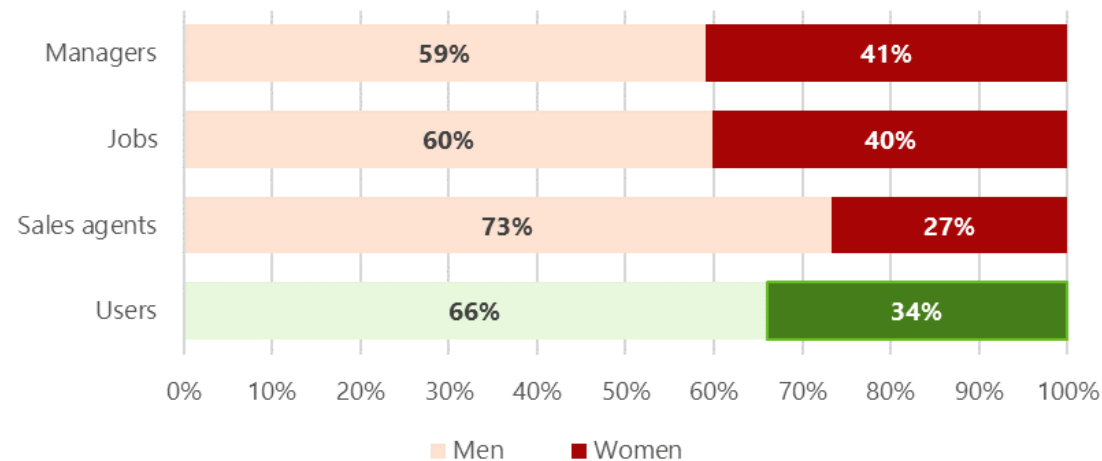
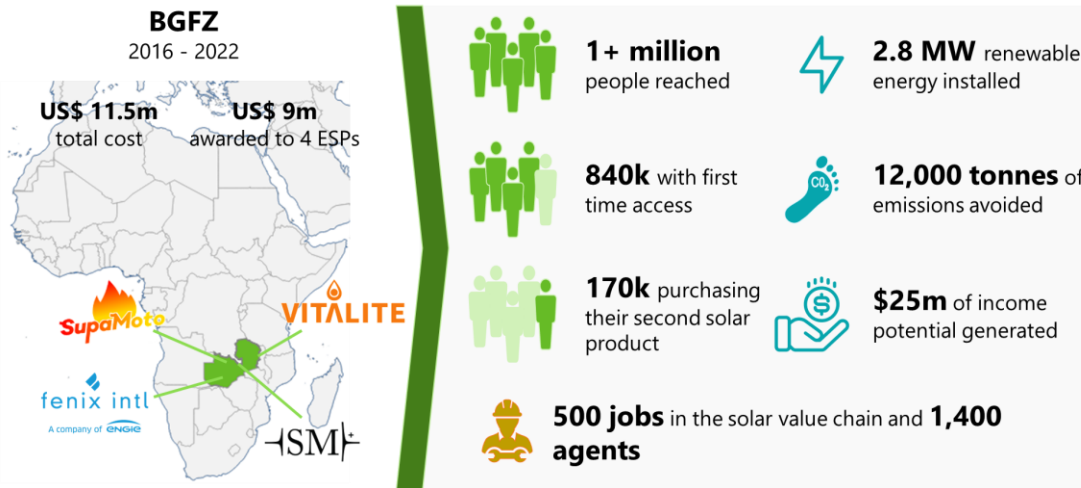
## **Section 2**

## **Overview of findings**

# Brief recap of the BGFZ Theory of Change

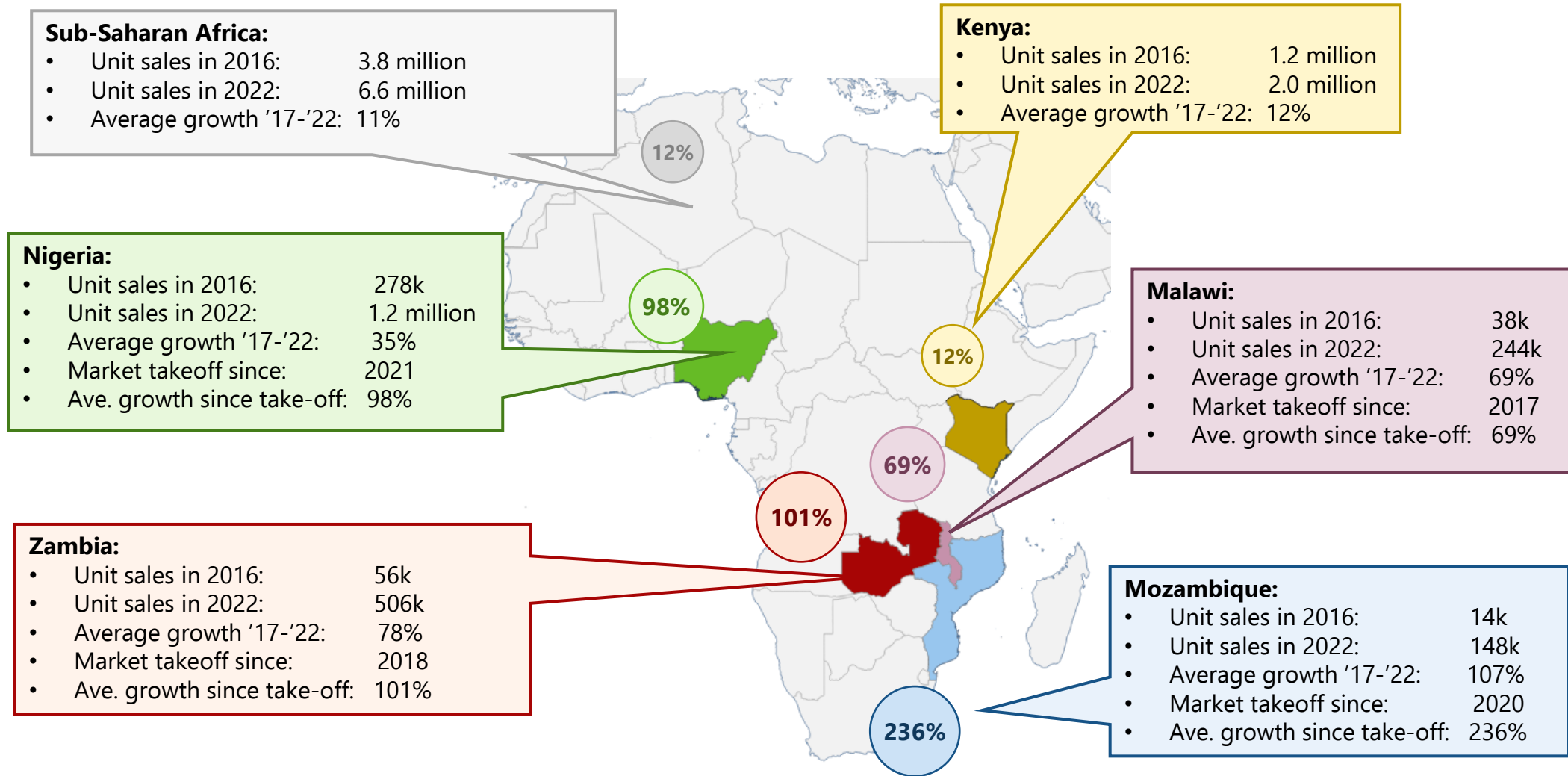


# Impact – reaching over one million Zambians



- Reached over 1 million people
- 3 MW of renewable energy capacity installed, and 12,000 tonnes of CO2 emissions avoided
- Adjusted GOGLA impact metrics suggest around \$25m of additional income generated
- 500 employees and 1,400 agents working for the four ESPs
- Set a benchmark for gender – improved ratio of women to 40% in supply chain
- Reach for users above national average income – penetration in relatively affluent peri-urban / nearby rural
- Mostly lower Tier systems – the “energy ladder” not proven

# Zambia's market development is in line with – and in most cases outstrips – other countries across Africa



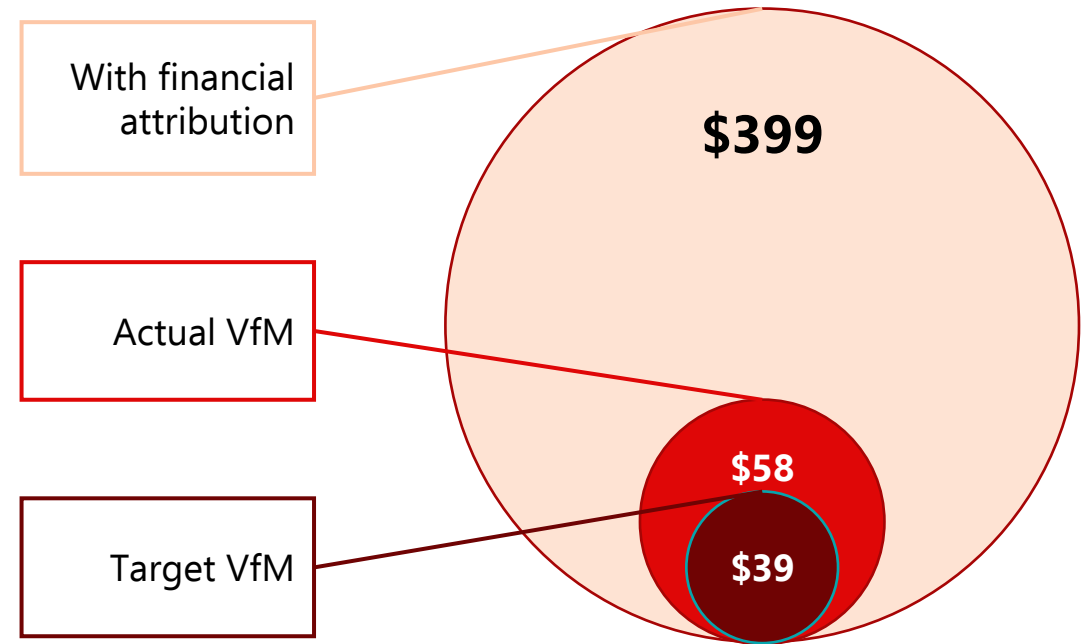
## Overview of findings

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- There was much more optimism in 2015/16 than there is with the benefit of hindsight in 2024
- Overall BGFZ performed very well as one of the early generation of RBF type schemes in the off-grid energy sector
- Financial sustainability for the grant recipients was not yet achieved by the end of the program, would have been a hard bet to make and not one that would be expected in today's context
- Total number of connections realised were largely pushed by one of the grantees, where the other ESPs needed more time to reach scale-ability
- As a whole BGFZ scores well, while there are some areas of under-performance when unpicking specific activities ; see learnings
- BGFZ was one of the earlier stages RBF – should note it was a soft form of RBF taking into account not only sales targets but also overall company development as milestones for disbursement.

# Value for money is hard to calculate – but BGFZ appears to have delivered cost-effectively compared to energy access benchmarks

- The target VfM weighted across the four ESPs would have been around \$39 (i.e. \$ per system\*)
- Outturn was slightly higher at \$58+----- – still a very good result
- Accounting for other funding and finance the VfM coefficient rises to \$399
- There are limited benchmarks, but these results appear in line with other early stage market development programmes
- BGFZ programme appears to have been cost-effective.
  - -the cost per active ESS appears in line with – indeed better than – comparator programmes.
  - Programme management costs appear to be in line with, again rather on the low end, of comparable programmes.



#	AECF REACT	UNCDF CE4PR	BGFZ
Programme management as a share of funds deployed <sup>[1]</sup>	30%	50%	28%
Cost per energy service connection <sup>[2]</sup>	\$ 98	\$ 289	\$ 52

## **Section 3**

# **Conclusions, lessons learned, recommendations**

# Conclusions

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## Strengths

- Highly relevant and coherent
- Achieved ESP portfolio objectives in terms of people connected, and all ESPs met co-finance targets
- Contribution highly significant for the four ESPs in achieving scale and
- OGTF a key support in realising policy reforms
- Programme management pragmatic, cost-effective, and well appreciated by ESPs

## Weaknesses

- Targets not achieved for some individual ESPs
- Lack of local ownership, local private sector and policy makers peripheral
- Complex data system (EDISON, followed up by PROSPECT), while visionary and with high potential public value, is yet to really bear fruits
- Outcomes are fragile and need continued grant support across all of the BGFZ pillars

## Lessons learned (1/2)

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- Need to build strong local ownership and institutional strengthening to ensure successes are sustained and not dependent on being driven by international support / personnel
- Close working relationship with companies is important to understand the local context and adaptability is highly appreciated in the nascent market context
- Market development takes time – rapid scale up can be self-defeating and risks creating a bubble that may burst if companies are pushed to grow too fast
- Some form of targeting beneficiaries is needed to ensure additionality, but may be in conflict with the aim to develop commercially sustainable companies
- The jury on the reverse auction mechanism is out
- Soft RBF can result in a scramble for grants, with incentives misaligned
- Hard RBF can fail to adapt to circumstances, with companies learning as they go, and risks pushing companies into failure

## Lessons learned (2/2)

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- Raising commercial finance is very hard to do – equity in particular is hard to come by
- Taking on commercial debt is a highly risky growth strategy – companies are less resilient to shocks (e.g. macroeconomic, currency depreciation etc.)
- On the other hand, raising layers of grant / highly concessional funding dilutes the impacts that can be attributed
- PAYGo customer repayments are highly vulnerable – one of the first things customers will cut back on if they face an income shock
- Technical assistance and advisory may struggle to deliver quick wins unless highly demand-led by companies

## Recommendations

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1. Stay close to grantees and be pragmatic
2. Build a portfolio and have a high tolerance for failure
3. Slow and steady wins the race when it comes to cofinance
4. Be highly intentional about trading off (short-term) impact and commercialisation objectives
5. Set credible and binding red lines to make sure companies face clear incentives
6. Find solutions to local currency financing if promoting PAYGo
7. Dedicate resources to overcome gender barriers in the workforce (don't push higher costs onto companies if not prepared to put in place a pain-share arrangement)

# Section 4

## Q&A