



**BEYOND THE GRID FUND FOR AFRICA
(BGFA) - ZAMBIA**

**MINI GRID SECTOR WORKSHOP
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LUSAKA**

**PRESENTATION BY
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Outline of Presentation

1. Introduction
2. Government objectives
3. Mini grid Challenges
4. Opportunities for the Private Sector
5. Lessons learnt
6. Conclusion

1. INTRODUCTION

- Zambia faces an energy supply gap in meeting the growing needs of its people and economy.
- The country is seeking new ways to substantially increase its energy supply to meet this growing demand

And **BGFA** can address the gap through modern and affordable off-grid solutions – capable of targeting not only basic energy needs (i.e. lighting and cooking energy), but also productive uses of energy at both household and rural enterprise levels, especially in agriculture and agribusiness.

2. GOVERNMENT OBJECTIVES

► **Government objectives to increase the National electrification rate to 66% with urban to 91% and rural to 51% by 2030 can be seen through but not limited to:**

- ❖ Establishment of institutional policy framework for the energy sector. i.e. DoE, REA, ERB, OPPPI, ZESCO
- ❖ The launched Rural Electrification Master Plan (REMP) and Power System Master Plan, to give direction on electrification strategy.
- ❖ The signed Financial agreement between the European Union and Government of the Republic of Zambia to support the Zambia Energy Sector: Increased Access to Electricity and Renewable Energy Production (IAEREP)
- ❖ The World Bank Group has approved a credit facility for the Electricity Services Access Project (ESAP) towards scaling up the rural electrification.

2. GOVERNMENT OBJECTIVES

- ▶ **Government objectives to increase the National electrification rate to 66% with urban to 91% and rural to 51% by 2030 can be seen through but not limited to:**
 - ❖ Beyond the Grid Fund for Zambia – A Sweden funded programme designed and implemented by Renewable Energy and Energy Efficiency Partnership (REEEP).
 - ❖ The launched Seventh National Development Plan (7NDP) – which provides insight on regulatory improvement for increased Private sector participation.

3. MINI GRID CHALLENGES

- Rural customers are often unable to pay for the cost of energy service.
- Cost of connection and servicing customers is high
- Customers generally have low income and demand less power
- Grid encroachment
- Low returns of investment
- Private's failure to attract capital funding due to high viability gap
- Land acquisition and costly for the private sector.
- Information on site for mini grids i.e. available sites with market/ Needs assessment information
- Disposal of RE waste

4. OPPORTUNITIES FOR PRIVATE SECTOR PARTICIPATION

- Government has a number of initiatives, are aimed at creating a more conducive environment for renewable energy and energy efficiency
 - IAEREP – EU energy sector support
 - Legal, regulatory and enhancement
 - Demonstration projects through PPP model
 - ElectriFI – EU financing mechanism
 - support market development and private sector initiatives for affordable, sustainable, and reliable energy solutions.

4. OPPORTUNITIES FOR PRIVATE SECTOR PARTICIPATION

- Government has a number of initiatives, are aimed at creating a more conducive environment for renewable energy and energy efficiency
 - ESAP – World Bank funded project
 - B Component - Will address existing regulatory impediments for private sector participation in off-grid electrification, build the needed capacity at key institutions and design, and potentially pilot, financial mechanisms supporting private sector-led electrification through renewable energy mini-grids and stand-alone solar systems.
 - Preparation of a Least Cost Geospatial Electrification Plan for Grid and Off-grid Rollout
 - BGFA – Sweden funded programme
- ***The overall objective is to increase access to clean, reliable and affordable energy in rural areas.***

4. OPPORTUNITIES FOR PUBLIC PRIVATE PARTNERSHIP

- **Capital subsidies** – REA has a provision in supporting the private sector by offering ‘smart subsidies’ for rural electrification projects in line with the RE Act, and subject to such projects meeting the criteria set in the **Operational Manual: Guidelines for Financing Rural Electrification Projects**.
- **Provision of available sites for development** – The REMP has identified potential sites and REA could work with the private sector by providing them with information on rural electrification projects sites.
- **Project feasibility studies** - Could partner with the public sector to finance market and needs assessment for projects.

4. OPPORTUNITIES FOR PUBLIC PRIVATE PARTNERSHIP

- **Project land acquisition** – Partnering with the Public sector to take the lead in acquiring land on behalf of the private sector.
- **Labour for projects** – REA could work with the private sector for construction of distribution network infrastructure and land acquisition.
- **Management and Operation of the electricity infrastructure** – Could partner with the public sector to sustainably manage and operate constructed power plants through a Public Private Partnership (PPP) Model.

5. LESSONS LEARNT

- High cost of developing mini-grids
- Due to the high cost and specialised knowledge required there is need to partner with institutions involved in RE technologies for purposes of building capacity in renewable energy especially to beneficiaries.
- There is need to have anchor loads/ stimulation of economic activities/ value chain activities capable of paying a cost reflective tariffs to meet the costs of operation and maintenance of mini-grids.
- Private sector is more interested in on-grid renewable energy projects.

6. CONCLUSION

- The Rural Electrification Authority as an institution mandated to electrify the rural areas still has a huge task of electrifying all rural areas of Zambia and implementation of Renewable Energy technologies is key in accelerating rural electricity access rate.
- Hence, private sector participation is crucial and is therefore encouraged to take advantage of available opportunities the BGFZ is offering.
- Further, Government through the relevant institutions should create an enabling environment which will result in an increased number of the private sector in the implementation of Renewable energy mini grids in rural areas.

THANK YOU