



Policies Supporting Private Sector Participation in Rural Areas

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Outline

- Overview of the Energy Sector
- Potential of Available Energy Resources
- Rural Electrification
- Current Support to Private Sector Participation in Rural Areas
- Envisaged Support to Private Sector Participation in Rural Areas
- Conclusion



Overview of Electricity Sector



Generation

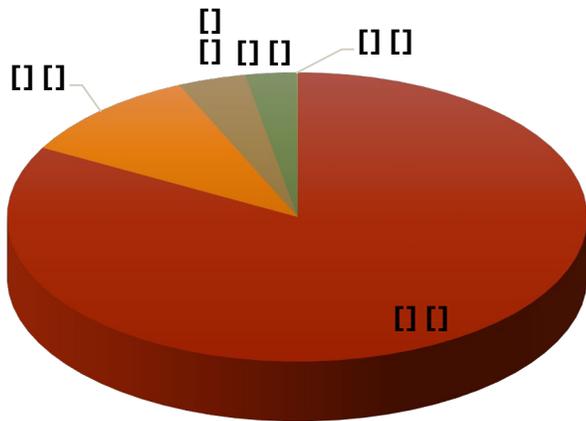
2,878 MW

Total installed capacity

83%

of large hydro

Installed Capacity by source

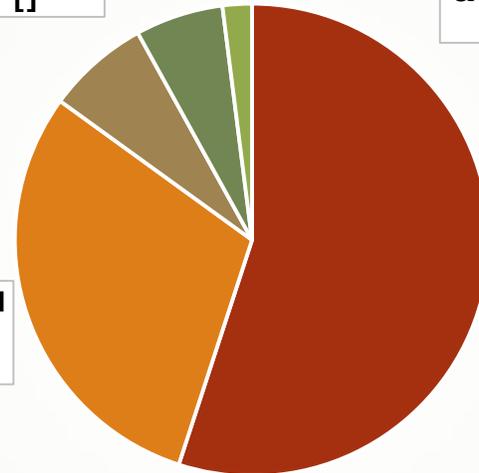


Consumption

Services
[]

Agriculture
& Forestry
2%

Commerce
& Industry
7%



Mining
55%

Household
s
30%

- Over 50% electricity is consumed by mining sector
- Household sector accounts for 30%

Access

31.2%

National

67.7%

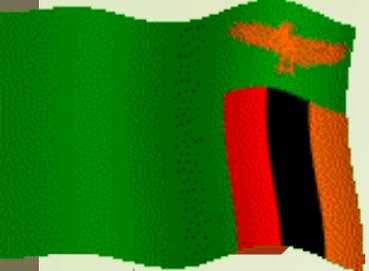
Urban

4.4%

Rural

5%

Annual Demand Growth



Renewable Energy Context



Solar

- **6-8hrs/day**, energy output of **5.5kwh/m²/day**
- Solar resource measurement completed in 2017
- Targeting on-grid **200 MW – Get Fit** (supported by REFIT Strategy) and **600 MW - Scaling Solar Program**

Wind

- Average speed **7 - 8.2 m/s** at 80 meter height
- 2 year wind resource assessment completed in December 2018

Geothermal

- 80 hot springs available in Zambia
- Studies by one IPP shows **15MW to 90MW** potential In Southern Province (Lochniver Park)

Mini-hydro

- Installed capacity of **39.55 MW**
- Potential of additional **38.6 MW**
- 0.64 MW under construction by REA

Biomass

- Study done by IRENA in 2013 indicates **500 MW** potential
- Biomass and Food Security Assessment underway



Rural Electrification

- Rural electrification used to be managed by the Ministry of Energy until 2003.
 - ❖ Rural Electrification Authority (REA) was established through the Rural Electrification act of 2003.
 - Mobilising, administering and managing the Rural Electrification Fund
 - Financing project preparation studies for rural electrification and
 - Recommending to government policies for the enhancement of rural electrification.



Rural Electrification

➔ Institutional Framework for Rural Electrification

- ❖ The Rural Electrification Act, 2003
 - Established the REA and defines its functions
- ❖ The Rural Electrification Master Plan, 2008
 - States the plan for rural electrification and
 - Least cost technologies for rural electrification
- Office for Promoting Private Power Investment
 - Facilitate engagement process for developers through of review of feasibility, Implementation Agreements etc



Current Support to Private Sector Participation in Rural Areas

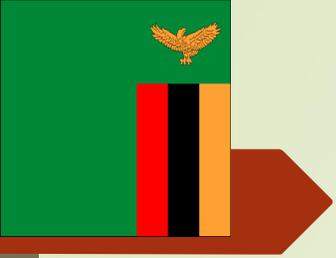
- REA designs and offers, on a competitive basis, to developers or operators, smart subsidies for capital costs on projects
- €40 grant for the **“Increased Access to Electricity and Renewable Energy Production (IAEREP)”** project which is already under implementation, and the overall objective resonates well with Electri-fi in scaling up access to clean, reliable and affordable energy and promote renewable energy production and energy efficiency across Zambia
- Electricity Service Access Project – **Off-grid Electricity Access Expansion**
DBZ will be able to provide loans for players in the offgrid space



Current Support to Private Sector Participation in Rural Areas



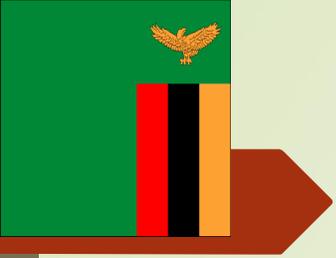
- ➔ Most investments in rural areas are in form of solar mini-grids and solar home systems and government has offered following support
 - ❖ Duty free on solar equipment to reduce the investment costs by the developers or operators
 - ❖ Mini-grid Regulatory Framework was developed in 2018 to regulate the sector and create a predictable business environment
 - ❖ Off grid Task Force – address barriers to off grid projects



Current Support Cont...

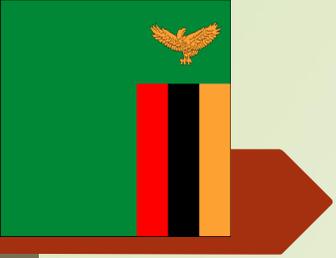


- The government with the support of the World Bank developed the resource map for wind and solar for the country (including rural areas) to reduce the feasibility study costs; and
- Also the National Electrification Plan is being developed, it will indicate least cost electrification technologies for the areas (including rural areas) and this will reduce further feasibility study costs.



Envisaged Support to Private Sector Participation in Rural Areas

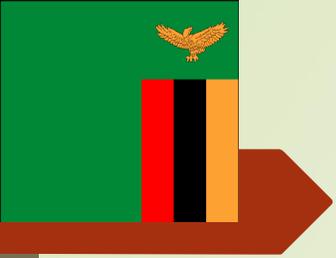
- Develop policies that will support investment in rural areas and the country at large
- Support other than policy
 - ❖ Provide attractive business models such as public private partnership
 - ❖ Promote productive use of electricity to enable consumers have sources of income to pay for electricity
 - ❖ Develop curriculum in renewable energy and testing facilities for solar equipment since investment in rural areas is inform of solar mini-grids and solar home systems



Conclusion



- the importance of electricity in driving socio-economic development in rural areas and the country at large cannot be over emphasized.
- With need to diverse the generation mix and increase access rates to electricity, there is need for concerted efforts by both the government, the Cooperating Partners and the private sector to focus attention on rural electrification
- Government will continue putting in place favorable policies to encourage more participation of the private sector in rural electrification in sight of the 51% target access rate by 2030.



Thank You



For Your Attention