Rural electrification in Mozambique

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Mozambique is a country with a very low rural electrification rates.

The pace of rural grid electrification is slow and for most remote areas access to the national electricity grids will not occur within a foreseeable future.

The electricity generation relies heavily on hydro power station Cahora Bassa situated in the north western part of the country.

The responsible for electrification in Mozambique are:
1- EdM which buys most of its distributed electricity from Cahora Bassa dam to low costs which somewhat complicates competition and introduction of other energy resources.

The tariff implemented by EdM is regulated by the Ministry of Energy

2 FUNAI is strongly supported by donors and is responsible for rural off-grid electrification mainly using diesel generator and solar panel systems (there are very few NGO’s involved in rural electrification (RE))
Energy policy and tutelation

- The Ministry of energy is responsible for rural electrification and energy policies in Mozambique with the following objectives and mission:
  1. Promote actions to assure energy supply with large quality and reliability;
  2. Assure favorable conditions to the investment in the sector;
  3. Assure the rural electrification;
  4. Promote the energy diversification, through the growing use of new energies and renewable energy;
  5. Promote the rational use of petroleum products and its progressive substitution;
Mission (cont...)

6 promote the expansion and use of petroleum products and natural gas in the country;

7 Promotion of investment programs economically viable for the development of energy resources (hydropower, forests, coal and natural gas);

8 Increase the export of energy products;

9 Improvement of the efficiency in energy use;

10 Promote the development of conversion technologies and environmentally beneficial energy utilizations (solar, wind and biomass);

11 Promoting a dynamic business sector more efficient and competitive.
Actual situation of energy in Mozambique

- Mozambique has 128 districts in which 61 are using electric energy supplied by EDM and 67 are using solar panels and electricity generators which means that they don’t have electricity 24 hours a day.

- The access to energy is growing year by year and more people are using it and it’s a result of combination of different types of energy.

- Only 20% of the population has access to energy.
Generaction Of Electricity

- Mozambique has installed a capacity of 2290.85 MW, distributed by 7 electricity generating stations as shown bellow:
- Cahora Bassa – 2075MW;
- Chicamba Real – 38.4MW;
- Mavuzi – 52MW
- Corumana – 16.6MW;
- Cuamba – 1.1MW;
- Lichinga – 0.75MW;
- Ressano Garcia – 107MW;
Actual situation of energy in Mozambique (cont...)

Total consumption of the country is 1300MW including Mozal with 900MW and Moma Heavy Sands with 22MW.
The strategy for the energy sector was approved in October 2000, which is based on the policy for the sector and set three main objectives of economic development, including:

- Eradication of absolute poverty;
- Reduction of disparities in development between different regions;
- Development of the commercial sector of the country.
Constraints found

- Mozambique has 128 distrits and the government hope to electrificate 102 distrits by the end of the year
- The number of the domestic consumers is more or less 2,380,000 Mozambican
- The income of the population comes from agriculture and independent works and because of it the number of non-paid invoices is considerably high
- The electrification projects investments are high despite the search is low due to poverty
Example of Some projects in renewable energy

- School electrification using photovoltaic system
Algumas Realizações no Domínio das Energias Renováveis

Water pumping systems using photovoltaic systems
Some projects using renewable energy

Water pumping of Inhambane Province
Some projects using renewable energy

Micro Hydro of Chua – Manica 25KVA
THANK YOU

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