

# Access to Energy: how to make it sustainable? EDF's approach

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# The objectives, the method

- Objectives
  - To find sustainable approaches to give access to modern energies for the rural population in developing countries
  - To enable rural population to access not only to a better comfort but also to economical development
  - In order to reduce their poverty (Millennium Development Goals)
- Method:
  - Pilot projects in several countries in Western and Central Africa
  - To learn and better know the context
  - To design an approach which can be developed in a large scale, can be replicable and sustainable

# The concept: RESCOs

- A concept adapted to countries where the rural electrification rate is low: usually less than 50 %
- The main principles:
  - The service has to be paid by the customer
  - The service needs to be affordable for it
  - => external support through investment subsidies
  - Commitment of local actors
  - Priority to renewable energies provided they are available and economically viable

# RESCO: description

- A local company (under the local legal framework)
- Which sells energy services (lighting, cooking, refrigeration, phone recharge, productive uses...) in a defined territory
- Managed by local actors in a professional manner
- With international and/or national shareholders
- The RESCO is committed with the local authorities
  - In the long term (15 to 25 years)
  - Supported by an institutional framework
- A minimum size to ensure scale effect and mobilise donors: 10 to 15,000 customers

# EDF's experience

- 4 RESCOs in 3 countries
  - **Korayé Kurumba** in Kayes region (**Mali**) since **1999**: 5,000 customers, 22 villages, micro grids and gensets due to size of the households and the density of population – partnership with Total – transferred to the employees mid of 2009
  - **Yéelen Kura** in Koutiala region (**Mali**) since **2001**: 5,000 customers, 15 villages, micro grids and gensets and SHS – biofuels tests – partnership with NUON – transferred to FRES and the employees end of 2008
  - **Temasol** in **Morocco** since **2002**: 26,000 customers, 20 provinces, SHS and solar pumping – partnership with Total and Tenesol
  - **KES** in **South Africa** since **2002**: 10 → 40,000 customers, KwaZulu-Natal and Eastern Cape, SHS with prepayment meters, LPG – partnership with Total and Calulo
  - And other projects...

# Lessons learnt

- In 2008, after 7 to 10 years, a mid-term assessment of the business model and the impacts of these programs in the 3 countries: Mali, South Africa and Morocco
  - Analysis of the financial, technical, institutional situation of each RESCO
  - Customer surveys

# Main results: the model

- Quantitative objectives in term of consumers were not achieved because of « stop and go » in subsidy policies.
- Existing operators are too dependent of public authorities
- Institutional status is not really protecting the RESCOs when problems appears: PPP is not fully operational
- The support of international groups becomes a handicap: local authorities may think that operation deficit can be supported by « big companies ».
- Opportunities of new developments exist

# Mains results: the customers

- The household energy budget evolution : more uses and expenses for the less poor, some saving for the poorest.
- Economical impacts of households-oriented programs are limited.
- No collective impacts are perceived (school, employment, migration...)
- Nevertheless, electricity is perceived as a social progress.
- But consumers are also frustrated: all their energy needs and expectations are not met.

# Conclusion

- Optimistic notice: the fundamental objective to supply basic energy services required by the customers in the long term have been reached (at least partially)
- Several improvements have been highlighted to improve their long term viability:
  - Importance of a local actor
  - Public Private Partnership (PPP) has to be improved by associating the 3 partners (public authorities, donors and operators) throughout the life of the program
  - A huge need of training at all levels
  - Diversification of the activities

Many thanks for your attention

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