# “Financing Mechanisms for Clean Energy Technologies in Developing Countries”


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# Outline of Presentation

1. The Importance of Financing for promoting widespread diffusion of clean Energy Technologies
2. Key financing issues in the sub region
3. Current developments
4. Financing mechanism
5. Menu of options
6. Barriers to CDM/Voluntary carbon market
7. Case Study
8. Existing sources of financing

# The Importance of Financing

- The potential of clean/RETs resources in the sub-region is significant
- The actual market penetration of clean/RETs in the sub region is believed to be far below their market potential
- Adequate financing of clean/RETs applications has been identified as one of the key barriers

# The Importance of Financing (Cont)

- Widespread diffusion of clean /RETs in the sub region will require huge investments in national and local RETs infrastructures in all member states in the coming years

- These investments will need to come from both the public and private sectors

# Key Financing Issues

- Availability of capital to clean/renewable energy developers
- The cost of money
- The ease of obtaining low-cost funds
- Institutional complexities that hinder financing and market growth

# Current Developments

- There is a rapidly growing interest in clean/RETs investment in the West Africa sub region
- Clean/RETs Finance forums are now being held regularly in the subregion
- Clean/RETs finance funds/financing firms are springing up in the subregion

# Barriers to Investment

- Low level of policy attention and lack of institutional framework

- low quality – low confidence resulting from

  the absence of any form of standards & certification

# Barriers to Investment (Cont)

- Knowledge gap-low level of awareness of renewable energy/clean energy technologies

- Missing capacity-lack of technical and marketing capability for the manufacture and selling of clean/RETs

# Financing Mechanisms

- Several innovative financing mechanisms for clean/RETs developers and end users have been devised and tested in most developing countries

- RETs financing can be either public or private sector led or a hybrid

- A general observable trend is a shift from the traditional government-and subsidy-centered approach

  to a market-oriented approach in which consumer-side financing or fee based service is the key issue

# Menu of Options

1. Financial incentives from government

- Production or user tax credits
- Offering guarantees to reduce loan risk
- Standing-offer contracts that provide a fixed higher tariff for clean/RETs products/service
- Direct financial assistance in the form of rebates or free installation

# Menu of Options (Cont)

2. Loans/grants - FIs, NGOs, int'nal facilities etc

- Providing Revolving Funds for RETs service providers (ESCOs)

  - start-up and growth capital in the form of loans & equity

- Providing Micro-Finance for RETs end-users –

  to help potential RETs users who can not make outright purchase

# Menu of Options (Cont)

3. Capital Investment from Banks/FIs

4. Private Investors

5. Funds from environmental markets (sale of environmental attributes such as greenhouse gas emission reduction credits)

# Barriers to CDM/Carbon Market

- Complex CDM Modalities & Procedures
- Transaction cost to hire service providers
- Heavy institutional requirements for project cycle
- Knowledge gap between carbon credits buyers & sellers

## Barriers to CDM/Carbon Market (Cont.)

- Financial intermediaries lack of knowledge about CDM/carbon market
- Majority of potential in small projects, difficult to attract financing
- Lack of entities capable of bundling projects for the buyers

# CASE STUDY

African Rural Energy Enterprise Development (AREED) Program

# Goal

The long-term goal of AREED is to:

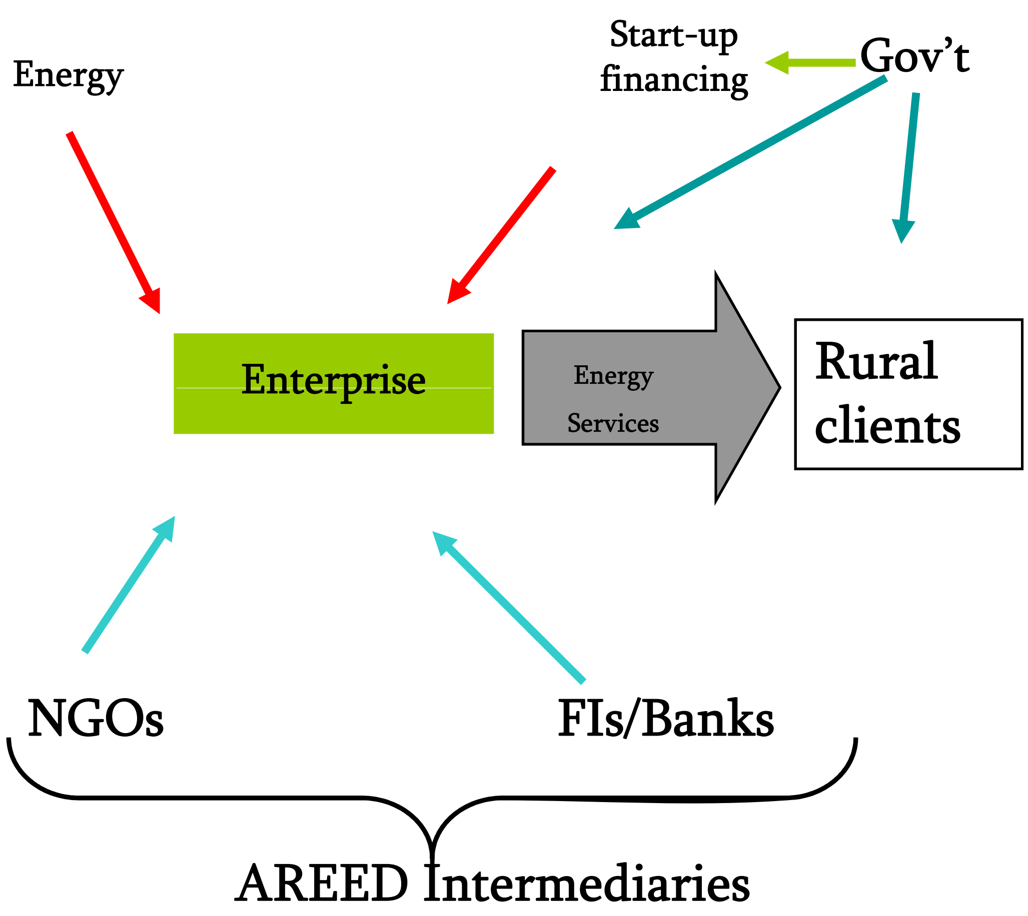
- Provide innovative financing mechanisms to support clean/RETs on a sustained basis
- Provide peri-urban and rural areas access to affordable and clean energy services
- Increasing local economic activity without detriment to the environment.

# Objectives

- Assist local entrepreneurs create sustainable energy service companies
- Establish capacity within a country to support energy entrepreneurs
- Provide a practical approach of promoting energy for sustainable development

- Training and tools to help entrepreneurs start and develop energy businesses
- Enterprise start-up support in areas such as business planning, structuring and financing
- Seed capital for early stage enterprise development
- Partnerships with banks and NGOs involved in rural energy development

## AREED SUPPORT



# Financing

- Provides seed capital and/or 2nd stage finance
- US$ 25,000 – US$ 250 000
- Various forms – loans and/or equity
- Interest rates on loans are investment specific

# Results

The results in Ghana to date have been significant:

- More than 250 entrepreneurs trained in clean/RETs business planning/enterprise development

- About $1,500,000 invested in 14 enterprises- covering modern energy products and services

# Results (Cont.)

- Providing sustainable energy services to nearly 100,000 Ghanaians

- Employs a total of 105 people

# Existing Sources of Financing

International Funds:

- The Global Environmental Facility (GEF)
- The Global Village Energy Partnership (GVEP)

# Existing Sources of Financing (Cont)

International Funds:

- Renewable Energy and Energy Efficiency Partnership (REEEP)
- The IFC's Renewable Energy and Energy Efficiency Fund (REEF)

# Existing Sources of Financing (Cont.)

## Regional Funds

- African Rural Energy Enterprise Development (AREED)
- African Biofuels & Renewable Energy Fund

## RET Finance House

- E+Co

# Thank You!