Alliance for
Rural
Electrification
Shining a Light for Progress

Financing schemes for RET Deployment

UNCTAD Meeting on RET as Energy Solutions for Rural Development

Geneva, 9-11 February 2010

Simon Rolland
Policy and Development Officer, Alliance for Rural Electrification

The Alliance for Rural Electrification
Mission and Objectives

Alliance for Rural Electrification
Shining a Light for Progress

ARE promotes and provides efficient renewable solutions for rural electrification in developing countries.

- The Alliance **attracts and unites** all relevant private actors in order to speak with one voice about rural electrification with renewable energies.
- The Alliance generates **technical and financial solutions** about rural electrification in developing countries.
- **ARE communicates and advocates for rural electrification** using RET and convinces all relevant stakeholders.

ARE: Our Members

Alliance for Rural Electrification
Shining a Light for Progress

Acciona Solar
ASIF
BP Solar
Conergy
Ecotècnia
Enersys
European Photovoltiac Industry Association (EPIA)
European Renewable Energy Council (EREC)
European Small-Hydro Assocation (ESHA)
European Wind Energy Association (EWEA)
Fondazione Madre Agnese
Fortis Wind
Global Wind Energy Council (GWEC)
Guascor Solar
IDAE
Innovation Energie Développement (IED)
Institute for Solar Energy Systems (ISE)
Institute for Sustainable Power, Inc.
Isofoton
IT Power
KXN
Outback Power
Phaesun
Q cells
Scatec Solar
Sharp
SMA
Solar Pack
Solaria Energia y Medio Ambiente
Solarworld
Steca
Studer Innotec
Sunlabob
Trama Tecnoambiental
University of Southampton
University of Twente

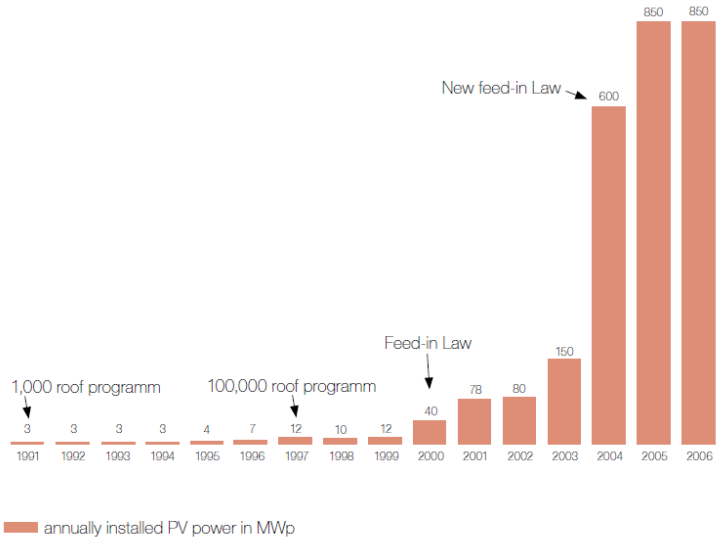
Deployment of RETs in the developed world

Alliance for Rural Electrification
Shining a Light for Progress

Where have RETs developed well? Germany, Spain, USA
Italy, France, Greece, Portugal

Why? Proper regulatory framework in place.
Feed-in-tariffs in Europe.
Incentive Tax Credits.

How? Industry through National Associations working with National Governments on the right frames.



Influence of FIT on annual PV installations in Germany

Results? Financing works (income visibility, low risk perception).
Private Equity flows (even with long pay-backs).
National Industry develops fast.

Deployment of RETs in the developing world

Alliance for Rural Electrification
Shining a Light for Progress

Where have RETs developed well?	Good efforts at a small scale. No role models to be followed. SHSs programs have had a lot of failures, due to poor follow up and involvement (even though some successes thanks to MFI and fee for service).
Why?	No easy solutions for regulatory frameworks, attracting the banks and the private sector
How?	Not organized communication between industry and international organizations and receiving countries.
Results?	Lack of successful models, and examples to replicate.

Slide 5

CG3 I changed the space between question and answer
CGuerrero; 08.02.2010

CG4 This sentence it is a bit strange
CGuerrero; 08.02.2010

Opportunities ahead!!

Alliance for Rural Electrification
Shining a Light for Progress

RETs are already at a cost level and technology development stage that can finally contribute to reduce the problem of access to energy in a very significant way.

There are two main areas to be addressed:

- Access for the very poor, where basic electricity supply could deliver lightening at home level. This require isolated stand-alone solutions.
- Access to continuous and reliable electricity supply that could allow a community to develop. This can be addressed through decentralized mini-grids.

Rural Electrification: Financing schemes

Alliance for Rural Electrification
Shining a Light for Progress

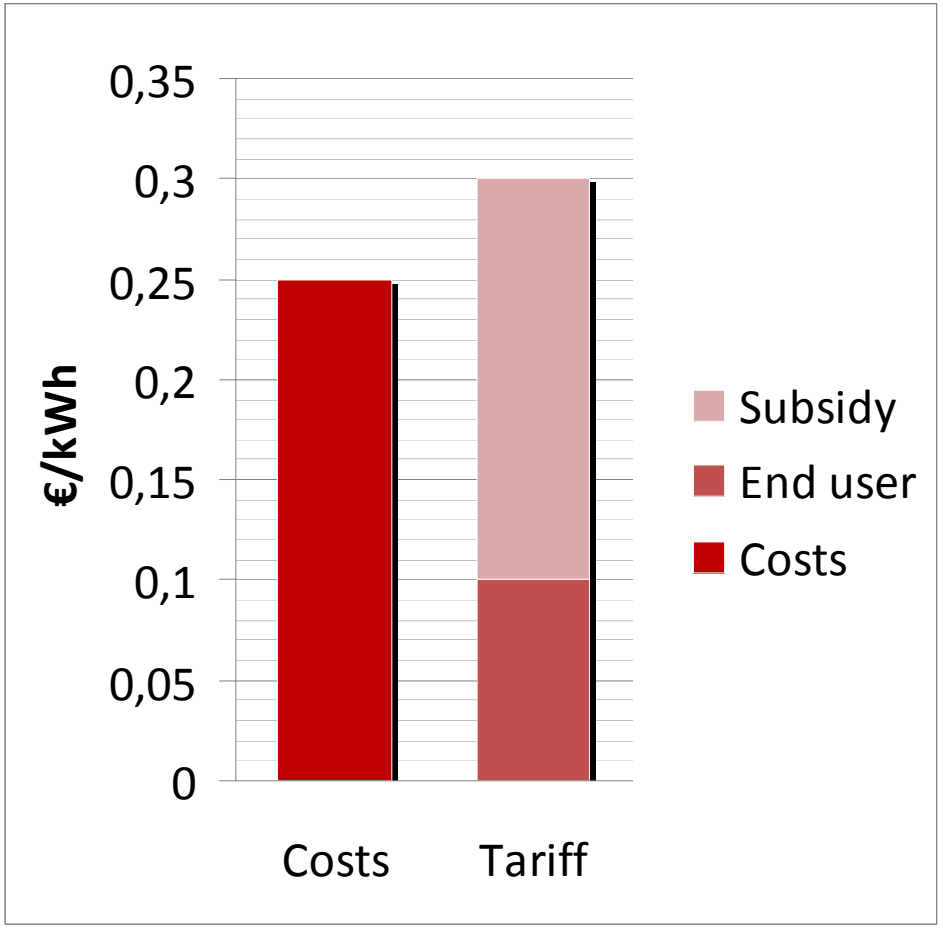
Name	Description	Advantages	Shortcomings
Donations	Small RE applications and EHS donated	Easy and fast deployment of technologies.	- Crowd out private initiatives - Little local ownership or appreciation. - O&M not secured Reinforces passive attitudes.
Micro Lending	Rural consumers helped to finance small energy investments	- High personal responsibility - Possible O&M by micro-financing institutions	- Not viable for mini-grids - Depends on availability of MFI
Clean Development Mechanism (CDM)	CO2 savings generated by the project can be sold in the framework of emissions trading schemes.	- Stable international framework - Insist on environmental dimension of rural electrification	- Slow and costly process - Necessary critical size - Not all technologies - Only complementary source of financing
Connection based subsidy	One-time subsidy granted according to the number of connections achieved	-Incentive for investment and for maximising connections in very scattered areas - Mobilisation of capital & entrepreneurship	- Risk of system overstretch system - Risk of insufficient resources for O&M
FiT for off-grid (RPT)	Output based subsidy which complements tariffs paid by the end consumer	- Strong incentive for mobilisation of private capital and entrepreneurship - Can boost PPP and community driven electrification - Safeguard O&M	- Requires stable refinancing either through cost-splitting, state budget or special - International funds - Metering indispensable

Financing schemes for Rural Electrification

Alliance for Rural Electrification
Shining a Light for Progress

ARE Choice: the Regulated Purchase Tariff:

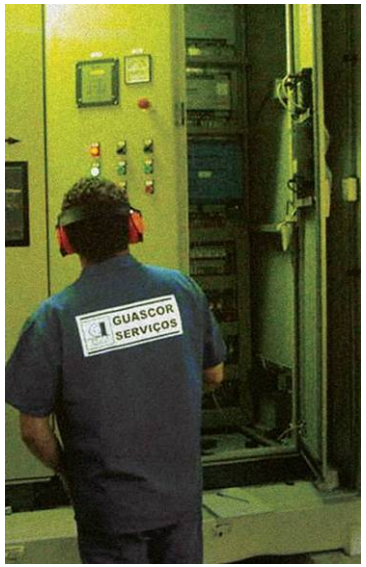
- Based on the FiT adapted to off/mini-grid.
- Upfront costs of system is spread over a fixed period
- Consumers pay fixed tariff.
- Ongoing tariff payments are subsidised (by national government / international development finance) to make up the full costs.
- Renewable IPP recovers costs plus marginal profits over the fixed period.
- Long-term contract obliges company to *maintain* the system (repairs, replacements etc).



From “energy as a product” to “energy as a service”

Alliance for Rural Electrification
Shining a Light for Progress

In order to further commit the private sector, **we need to move from a project philosophy based on “energy as a product”** (*selling and installing a system*) to an approach based on **“energy as a service”** (*selling, installing, maintaining and operating a system*), where companies assume the management of the projects.



A long term relationship between companies and contracting authorities **spur the contractor to maintain and increase its investment and to develop added services**. This would result in the generation of local employment and the overall evolution towards higher reliability and sustainability of the installed systems.

Rural Electrification: A political Challenge

Alliance for Rural Electrification
Shining a Light for Progress

Lack of institutional and policital stability and clarity, inadequate legal and regulatory framework.

Among others:

- **Access to electricity must rank high** on the development agenda
- Access to electricity should follow a **reliable long term strategy** and the legal framework must allow for private and local initiatives **compulsory quotas**
- **Subsidies for fossil fuels** should be phased out or transferred to the RETs. Trade barriers such as monopolistic rights, unfair and/or changing tax rules or custom duties, or burdensome administrative procedures should be removed.
- A **close dialogue between policymakers, the private sector and representatives of rural communities** is indispensable for sustainable policies (Better education/communication on RETs).

Alliance for Rural Electrification
Shining a Light for Progress

Thank You

Simon Rolland
Policy and Development Officer

Alliance for Rural Electrification

www.ruralelec.org

Slide 11

CG9 What about your email or telephone?

CGuerrero; 08.02.2010