Off – Grid Energy Solutions – Role of Subsidies.

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Accra, Ghana
Population without Regular Access to Electricity

Geography

Worldwide

Kenya

Africa

Size

1.6B

30M

589M


REV is a RE and EE project development and advisory firm
Why are we in this space?

Because no one should have to do without modern clean energy
Economics of off-grid Renewable Energy solutions
an illustration

Kerosene

Solanterns

Break even will be achieved after 5 months of purchase

* Average costs per month Lightning Africa Annual Report 2011
Challenges

- Long lead times – as is normal for energy projects globally.
- Still emerging policies
- Limited early stage capital
- Limited local technical expertise
- Limited infrastructure
- Project size relative to larger economies
- Need to adapt technologies for local conditions
- Limited consumer finance
Off – Grid Business Models
Some examples

- Smart Mini – Grids
  - Locally owned and operated
  - Tied to utility
  - Hybrid generation
- Rental Models for appliances
- Appliance distribution models tied to micro – lending/micro-leasing
- Cogeneration
Role of Subsidies – an entrepreneur’s perspective

CAPEX
Economics of off-grid Renewable Energy solutions
an illustration

Break even will be achieved after 5 months of purchase

* Average costs per month Lightning Africa Annual Report 2011
Examples of CAPEX Subsidies

- Subsidies for purchase of mini-grid generation and distribution equipment

- Subsidies for purchase of appliances such as solar lanterns, solar home systems, biogas digesters etc

  Subsidies may be in the form of rebates on equipment, discounted financing for the same equipment etc
Why CAPEX?

- Limited financing for renewable energy equipment
- Subsidized CAPEX on mini-grids = Lower tariffs for consumers + quicker payback for operators
- If you build it, they will come...........but only at the right price
- Subsidizing CAPEX ensures sustainability.
- CAPEX subsidies cap subsidy provider’s exposure
Conclusion

- Enormous need for off grid energy solutions
- Existing and emerging business models that meet these needs
- Significant challenges exist that call for appropriate interventions
- Subsidies have a role to play
- Subsidizing capital costs at consumer level for appliances and generation and distribution equipment for mini-grid operators increases access to energy, ensures sustainability while capping subsidy provider’s exposure.
Thank You!

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