

Solar PV Working Group

What can impact on actual production levels leading to be very different from the planned levels? How can they be closer to each other?

- The estimation of the demand is very challenging as beneficiaries usually either:
 - Over estimate what they can afford (as equipment may need to be purchased, such as TV, fridge, etc)
 - Under estimate as once they have the facility, they find they can make more use of it (e.g. they sign up for lighting and then use it for other things as well)
- In the design phase there is an overestimation because the sizing uses performance ratio that are based on the grid connected systems when generation is distributed.

Import issues-VAT exemption

- Countries have different policies. These policies have an impact on the final cost of solar products.
- **Rule of origin**
 - The EU rules that manufacturers be from ACP-EU countries, sometimes with cost implications.
 - To ensure the success of the implementation of projects, good planning of the procurement will identify components that may be supplied from other origins other than ACP-EU countries so that permission can be requested ***during project start up.***

Price of energy provided, operation and maintenance

- Willingness to pay: the community has to be sensitized on the cost of operation and maintenance and benefits, such as cost of solar lighting is cheaper and cleaner than petrol/kerosene lighting.
- It was felt that we underestimate the capacity to pay for solar services
- Models such as leasing of equipment may be more affordable

How can ownership be insured, how to avoid expensive equipment is stolen?

- The community should ensure the proper security of their stations
- Allowing the community to benefit from the installation can help in enhancing ownership, e.g. in a school - evening adult literacy classes, or installing a street light in a communal area
- Security sometimes has an extra cost implication on the overall cost of the installation

Technical and financial affordability and replacement

- The community involvement is key to ensuring success throughout the processes
- 3 tiered approach for maintenance:
 - Basic maintenance by user
 - First line support by local technicians
 - More advanced support still requires experts which affects sustainability
- To ensure affordability and replacement 2 potential models have been used:
 - Leasing of equipments : With this model the cost of repair and disposal is the responsibility of the contractor
 - Beneficiaries pay monthly fees based on the quantity of the energy they have consumed.
- Replacement continues to be a risk for sustainability – we did not have the answer

Batteries Maintenance

- Maintenance free batteries are beneficial but caution on the manufacturing date has to be taken care of.
- With the flooded batteries users have to be taught on how to maintain them: refilling with distilled or rain water when acid level is down

Batteries Disposal

- Follow the car industry.
- As there is a value for lead acid batteries, contractors of solar installations should collect used batteries and pay related fees to beneficiaries as is now done for bottle recycling system.