

# SOLAR ENERGY AS A DRIVER FOR SOCIETAL IMPACTS

Elephant Energy: Solar for all partnership, in six Northern regions of Namibia (Kavango, Kunene, Ohangwena, Omusati, Oshana and Oshikoto)



Elephant Energy is an American project developer that has a background in promoting solar energy for off-grid communities in Namibia already prior receiving the EEP grant for this project, called "Solar for all partnership".

Currently, more than 70% of Namibia's urban population has access to the national grid, whereas the respective figure for the rural population is only 15%. As Namibia's population is scattered, it will still take time before a larger part of the rural population is reached by the national grid. Given this context and Elephant Energy's previous success with solar lamps in Namibia, the motivation to implement this project was strong.

The project started on the 1st of November 2013, and was planned to be finalised on the 28th of April, 2014. Due to some unexpected delays, the project was finalised around six months after the planned finalisation date. This can be considered to be the first lesson to be learnt: it is possible that the planned project schedule needs to be adjusted.

## Project targets

The project targeted the following issues to ensure sufficient development impacts:

1. Solar lights are not available in rural areas
2. Much more information on RE alternatives is needed: without providing this information, people simply cannot know about how e.g. solar lamps can make a great change in their lives
3. Sustainable distribution network is needed, including marketing and financing
4. The affordability of solar lamps is questionable, even if it is clear that then less money is needed for other energy sources

Due to these four reasons, the aim of this project was to sell 10 000 solar lamps to rural people. High quality solar lamps with maintenance and reparation possibilities were chosen as it was clear that satisfied customers are the key for successful adoption of solar energy. To reach the project target, the project activities comprised of establishing at least one distribution hub for the solar lamps, training 30 rural sales agents on the use, marketing and sales of solar lamps, as well as administering a rent-to-own program. In addition, implementing a marketing campaign to educate rural Namibians about the benefits of solar energy was one of the project activities.

## Project results

In general, the project results have been positive and this project can be considered to be a success. The project started with a wide selection of solar products (10-15 different) but along the way the product range has been updated to better fit the needs of the customers (in total five solar products: four lamps and one radio).

The planned distribution network, a sales hub and independent sales representatives have been implemented, as well as the other project activities. The capability of the project developer to update the distribution network model according to the needs of the project shows substantial flexibility: in the revised model, it is the regional sales managers that have a more crucial role which at the same time increases their motivation to sell and to take responsibility. The sales agents are coordinated by the regional sales managers.

The sales results did not reach the target although the distribution network was in place. In this project, the unexpected sales barriers comprised of challenges in the product procurement due to lack of capital and lack of suitable warehouses. Other barriers included revision of the distribution network model as well as competitors.

## Lessons learnt and key take aways

Although not only this project specific, it seems that people often tend to be optimistic with sales targets and the time needed to implement a project. Therefore it is worthwhile to keep in mind that although a project plan with its targets and schedules might be perfectly done, there can always be one or more unexpected issues that draw the project to the opposite direction than what the original plan is. Some extra time is good to have – it is unlikely to be a problem if all goes as planned and even faster!

By implementing this project, the Elephant Energy has found that processes such as administration, internal controls, recruitment and training can easily take substantially more time than expected – especially if the project takes place in several regions. When the key personnel is busy with these, it is clear that other important tasks need to wait. The positive outcome of this is that for the next projects, it is much easier to assess the time these necessary tasks might take.

Another learning is in the credit model for the end-user: lowering of the upfront cost and paying in installments is the safest to do with products that have the needed technology built in. Otherwise the credit model becomes "manual" and is limited to customers that are known by the sales personnel.

This project has also shown the huge role the right employees have: the sales personnel is very motivated to help their communities and therefore understanding this can be a key for successful recruitment and sales.

As part of measuring and assessing the results, Elephant Energy made a survey among the customers of solar lamps. Findings from the survey confirmed that the solar lamp facilitated the completion of household activities, led to reduced energy expenditures, and in some cases assisted with income generation. Real-life examples include a successful delivery during the night: thanks to the neighbours who brought their solar lamps to assist, the baby was happily born. Another example from the market place shows the benefits of using a solar lamp: the stearin of candles does not drop any more on meat, which helps with the quality of the products. In addition, the use of solar has tripled the income of this meat seller which has resulted, for the first time in the life of the seller, an opportunity to save money.

These positive outcomes are reflected in Elephant Energy's thoughts too: the societal impact and the huge positive difference that the solar lights make in the lives of the people are for sure the key motivations for the Elephant Energy to continue with similar projects.