



Solar Saver: Second Generation Lights

SUMMARY

Country	Zambia
Implementer	SolarAid
Target groups	Low-income users of small solar-powered products
Duration	12/2021 – 06/2023
Type of energy use	Electrification

CHALLENGE

Solar-powered lighting is an integral part of many strategies to supply rural areas of Zambia with renewable energy access. A quarter million of these solar lights and systems have been sold in Zambia. While the acquisition costs of these systems are relatively low and there are almost no upkeep costs as the solar installations do not require fuel, the systems wear out over time due to heavy usage. Instead of buying a new system, the preferred remedial action for many Zambians is to repair the lights. In many instances, however, repairs are virtually impossible as spare parts for solar-powered lights are sparse, and the required know-how to repair these systems is not widespread. Furthermore, growing electronic waste is fueled by higher consumption rates of electric equipment, short life cycles, and few repair options.

IMPACT LOGIC

This project extends the life of small solar-powered products by providing better maintenance and repair options for low-income Zambians. Off-grid electricity system sustainability is increased through the development of a repair network. SolarAid identifies five repair technicians, ensuring that they follow clear codes of conduct, and trains them further focusing on the different kinds of solar-powered products available. Following, repair days for rural communities are organized. During these events, people can bring in their defect products for inspection and if possible to repair them. SolarAid provides the necessary spare parts and tools for these repairs, as the original manufacturers oftentimes do not provide these resources. Electronic waste is reduced by repairing defect solar-powered lights and other equipment instead of throwing it away and buying new products. Moreover, the overall consumption of fossil fuels is reduced as less generators need to run to produce electricity.

INNOVATIVE PROJECT ELEMENTS

SolarAid has developed a repair app which provides repair guidance for different solar products. The app enables technicians to receive specific product repair information, and gives customers an opportunity to learn more about solar repair and expand on their own repair skills to extend the life of their solar products. This app is open-source and can be shared with anyone who is interested, which makes the project easily scalable and replicable in other countries.

FURTHER INFORMATION

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