

Little Sun Solar Lamp



Why to choose this solution?

The solution provides light in homes and can also be used as torch. It helps in lighting for homes, it has Dimensions of 12x2.9cm and weight of 120 g including batteries and all is recyclable. The solar panel has PV of 0.5W and battery capacity of 500 mAh.

Savings per day or production:

The Little Sun solar lamp reduces financial bills, since it is bought once and replaces paraffin or candles for lighting. This helps the family to save money to be used for other domestic needs. It helps by reducing indoor-pollution-related diseases of the lungs and eyes. It also helps in reducing accidents caused by kerosene lamps and candles in the homes. It is environment-friendly, as there is no release of CO₂/kWh emission, when used. These factors, combined with customer experiences, show the lamp to be technically proven, environment friendly, and economically better.

Cost in money and in own time to construct:

The lamp is very cheap compared to the price of buying paraffin each day. The lamp costs US\$ 35,000 (USD 10).

Lifetime:

The lamp has two-year warranty. The battery will last up to five years when used daily.

Maintenance needed:

The lamp should not be left out in rain. Put the lamp in the sunlight for charging.

Resources needed in use:

Sunlight for charging; the panel, the LED, and the battery are all inbuilt.

Problems and limits:

The intervals between charges of the battery become shorter over time with repeated recharging; they must be charged for at least eight hours on the first use. The initial investment is somewhat high, which may make it inaccessible to low-income households.

Where and how can you get it or make it?

JEEP is promoting these lamps in many districts of Uganda. So far, 7552 lamps have been distributed. This solar lamp is designed in Germany, manufactured in China, then airlifted to Uganda. In Uganda it can be

accessed at JEEP Folkecenter.

Skills needed to produce, install, maintenance, use:

Requires skilled personnel to produce. Maintenance and use do not require unusual skills.

How to use it:

Not relevant.

How to maintain it:

Not relevant.

Climate effect (if any):

It is environment-friendly since there is no emission of carbon. Solar lamps run solely on natural radiation from the sun. The lamp reduces carbon emissions to the atmosphere in cases where kerosene lamps are used, hence conserving the environment. It is simple, reliable, and safe to the person operating it. It is also energy-efficient.

Where it is used and how many users are there?

It is effectively used in off-grid, rural, and peri-urban areas for home use in Uganda. Around 7,552 households are using the lamp in Uganda.

Why is it successful?

It is efficient and can be operated easily. It has contributed greatly to reduction of kerosene- and candle-related accidents and deaths in homes. It has improved health and increased productive hours, since all of the family can use it at the same time for different activities.

If you can make it, a short description, typical problems, materials needed:

Trained personnel are required to make this product.

How to make it (if possible):

Not relevant.

How is it delivered and by whom?

The business model for the Little Sun solar lamp involves procuring the products and selling them to the end-users. This lamp is tested by Uganda National Bureau of Standards and can be purchased by any person in Uganda. The lamp can be accessed from JEEP Folkecenter in Uganda.

Successful financial model

Support from donor agencies and other development partners provides these lamps at a subsidized price.

What policies and strategies helped the success?

Government programs implemented by different ministries, for example the Ministry of Energy and Mineral Development as well as the Ministry of Water and Environment, are conducting training of communities on the benefits of solar energy. Training and advocacy are being provided in communities to instill positive attitudes toward environmental conservation. The government, through the Ministry of Health, is encouraging promotion of solar power in off-grid, peri-urban, and rural areas. There are many solar subsidies and tax waivers, which have been put in place through the Uganda revenue authority.

More info:

<https://littlesun.com/uganda/> and JEEP

Sources:

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