Solar Energy for Education and Jobs in Tanzania

Award winning project of the United Nations! This project provides affordable stand-alone solar solutions designed for the needs of households and small-businesses.

This climate protection programme implements high-tech solar home systems including a GSM modem that deliver a clean, affordable alternative to fossil fuels for low-income households and small enterprises in Africa. The technology reduces carbon emissions effectively, owing to an innovative monitoring approach. The first project activity is implemented in Tanzania.
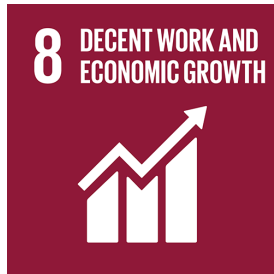
Project type:
Solar

Project location:
Tanzania

Project status:
In operation, credits available

Annual CO₂ reduction:
9,981 t CO2

Situation without project
Use of kerosene lamps and diesel generators for lighting and electricity generation

Project standard

Gold Standard®
VER

Awards

646,000
people benefit from better air

107,746
homes benefit

467
jobs created

2.5 billion people worldwide live without a reliable electricity source to fill their daily energy needs. They use inefficient and costly fuel-based lighting sources such as kerosene lamps, which greatly curtail their activities once darkness sets in. Mobisol, the programme developer, combines solar energy with innovative mobile technology and microfinance to provide high-tech solar home systems (SHS) to remote households across Africa.

The SHSs include a solar panel, battery, lights, as well as a cell phone charger. The systems are currently available in four different sizes

meeting the needs of low income households as well as of small enterprises. The smallest unit can light two rooms and charge four mobile phones per day. The largest system powers multiple lights, consumer appliances such as laptops, televisions or solar powered refrigerators and charges up to ten mobile phones simultaneously. Mobisol provides service for system installation with local trained technicians. Through the Global System for Mobile Communications (GSM) modem included in the solar controller, technical data concerning the panel, battery and energy consumption can be tracked and monitored by local technicians in a web-based interface. This remote monitoring technology allows potential maintenance problems to be addressed swiftly.

I enjoy seeing our customers happy. We install an easy-to-use and durable product with wide ranging after-sales services and warranty.

Binde Mohammed, Certified Mobisol Technician

A pay-as-you-go system circumvents the initial investment hurdle for customers who previously could not afford high-quality solar home systems. Using mobile banking the cost can be paid off conveniently via their mobile phones in a microfinanced 36-month installment plan. Customers without a personal bank account can purchase a system and relatives from other locations can help to finance it.

Thanks to this modern information and communications technology (ICT) solution, this PoA will reduce greenhouse gas emissions by the displacement of fossil fuel use, such as in fuel-based lighting systems and/or stand-alone power generators. By substituting poor kerosene lamps with strong solar powered LED lights and reliable energy, environmental but also social and economic benefits can be achieved. Taking advantage of longer light hours achieved by the electrification of their houses, beneficiaries can greatly increase their productivity through working in the evening.

Carbon finance will be invested in activities that facilitate project scale-up to reach remote locations as well as local partner capacity building, developing marketing and outreach resources, and enhancing distribution channels. The programme has been replicated in Rwanda and Kenya and has further potential in Ghana and other African Countries.

More Information about the project on the official site of the UNFCCC

This project contributes to 9 SDG's:

1 NO POVERTY

107,746 households have access to appropriate new clean and efficient technology, saving 134 USD and 167 litres of kerosene and 42 USD on mobile charging costs per household per year.

United Nations Framework Convention on Climate Change

GREENTEC AWARDS 2017 WINNER

World Economic Forum Technology Pioneer

Ashden Award winner 2017

Impressions

A small solar home system with panel, battery and two lamps.

Light increases the sense of security of the rural people and allows children to do their school work even in the evening hours.

myclimate Deutschland

3 GOOD HEALTH AND WELL-BEING

Solar home systems reduce the risk of air pollution from kerosene fumes positively improving the health of over 646,000 people.

4 QUALITY EDUCATION

Locally 800 women, men and youth have gained training from the project.

5 GENDER EQUALITY

Over 30% of employees are women with equal opportunity to gain skills as men.

7 AFFORDABLE AND CLEAN ENERGY

107,746 homes benefit from clean and efficient lighting and energy.

8 DECENT WORK AND ECONOMIC GROWTH

467 locals employed by the project

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Sustainable waste management for solar home systems in place for collection, sorting and recycling.

13 CLIMATE ACTION

The project reduces 10,000 tCO2 contributing to national and internal measures to address climate change.

17 PARTNERSHIPS FOR THE GOALS

The project promotes the dissemination of sound technologies to developing countries at favorable terms, with over 107,746 systems in Tanzania.

The larger solar home systems can power small businesses enabling entrepreneurial customers to create additional income like this tailor shop...

... this solar powered barber shop...

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