#### Why is off-grid solar important in Ethiopia?

Off-grid solar products provide low-cost energy access to millions of Ethiopians. For the millions of people living in remote rural areas of Ethiopia who lack access to the power grid or cannot afford electricity, solar energy represents an important first step on the energy access ladder.

Are off-grid renewables viable in Ethiopia?

In Ethiopia, the alignment of other development goals such as health with energy has enabled the development of off-grid renewables. In both cases, however, modern renewables such as wind and solar remain marginal, reaching negligible segments of the total population.

How many off-grid products are there in Ethiopia?

So far,800,000off-grid products meeting Lighting Global's Quality Standards have been imported and distributed by eight approved retailers,providing clean,safe lighting and modern energy services to more than three million Ethiopians.

Can communities be engaged in deploying off-grid energy systems in Ethiopia and Mozambique?

Community energy offers a framework to develop local technology implementation and management skills to create close relationships between communities and their infrastructure. However, current legislative and governance frameworks in Ethiopia and Mozambique constrain the possibility of engaging communities in deploying off-grid energy systems.

Does Ethiopia have a wind power system?

Ethiopia has connected 33% of its population to the national grid and 11% with off-grid solutions--mostly mini-grids and solar PV systems. Since 2012, wind farms have been installed to compensate for the shortfalls of hydroelectric power in the dry season, but wind energy remains marginal in the national energy mix [63].

Is Ethiopia 'the forgotten giant of clean electricity'?

When the International Energy Agency president, Fatih Birol, called hydropower 'the forgotten giant of clean electricity' at the World Economic Forum in 2021, he referred to Ethiopia as one of four countries leading the growth of hydropower globally.





In Ethiopia, several studies have been conducted to electrify off-grid communities using stand-alone hybrid systems, such as solar PV-WTs-DGEs-battery (Gebrehiwot et al., Citation 2019; Mekonnen et al., Citation 2021; Benti et al., Citation 2022, Citation 2023). These studies have primarily focused on MiG design, combining various energy



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off-grid population (Source: off-grid solar market trends report 2016 by Bloomberg and lighting global) Presented by: Yonas Workie (Ind. Eng. MSc.), Managing Director of Sun Transfer Tech PLC Ethiopia: Some study also suggest Off-grid population in Ethiopia is now more than 70 million, there are more than 14 million rural house holds which

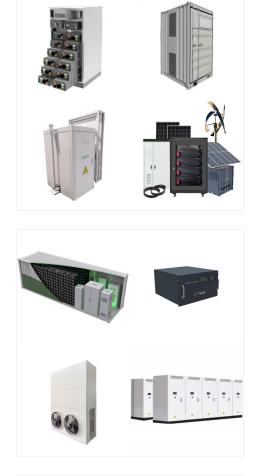


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The warranty tracking and enforcement service, along with a battery replacement and maintenance incentive scheme, provide consumer rights protections and further bolster the market for solar products in Ethiopia. The Ethiopia Off-Grid Renewable Energy Programme of Activities demonstrates how carbon revenue can be used to reduce barriers to





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World Bank Off-Grid Solar Program: Supported by the World Bank, this initiative aims to expand off-grid solar solutions to households, health centers, and schools across Ethiopia, targeting areas without reliable grid access.



Instead of relying on kerosene, candles, dry cell batteries and other fossil fuel-based sources of power, they can now turn to off-grid solar to light up their homes, watch television and charge mobile phones, thanks to an initiative of ???





Boasting a potent solar capacity of 650 kWp and 1.6 MWh of lithium battery storage, the project serves as a beacon for sustainable energy solutions and a brighter future in the country. By utilizing renewable energy, the endeavor not only reduces carbon emissions but also offers a scalable model that could inspire similar projects elsewhere.

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