



PROMOTING HIGH-PERFORMING APPLIANCES ADVISORY SERVICES FOR GOVERNMENTS

WHY OFF-GRID SOLAR PRODUCTS?

The off-grid solar sector has grown rapidly over the past decade and is now a US\$1.75 billion annual market serving 420 million users, with further growth predicted. Off-grid solar solutions are playing a key role in helping to achieve universal access to electricity by 2030 while also delivering important environmental and health benefits to underserved populations.¹ There are hundreds of companies active in the sector, of all types and sizes, from product manufacturers to last-mile distributors, pay-as-you-go service providers, commercial banks, and much more. A plethora of donor-supported programmes are also actively intervening to correct market failures and accelerate market growth.

The ultimate beneficiaries of these efforts are the households and businesses that are able to harness the energy of the sun to obtain modern energy services such as lighting, refrigeration, cooling, and communications. The key components of any solar energy system are the solar module, battery and charge controller, and the appliances and other equipment that actually deliver the desired energy services.

Unfortunately, today's off-grid solar energy market is characterised by products with varying levels of quality and durability. Some are designed and manufactured well, while others fall short of expectations for safety, durability, and performance. For many consumers, purchasing a solar product is a major decision and investment. Spending limited funds on a poor-quality product could be devastating for the consumer and harm the reputation of off-grid solar products generally.

1. GOGLA and Lighting Global. Off-Grid Solar Market Trends Report 2020.



WHAT CAN GOVERNMENTS DO?

Governments have an important role to play in ensuring that consumers have access to affordable, high-quality products and in keeping poor-quality products out of the market. Specific measures governments can take to achieve these aims include the following:

Adopt test methods to create a uniform process for comparing products fairly and to establish a legal basis for testing and verifying the accuracy of manufacturers' product claims.

Institute a labelling scheme so buyers can more easily compare products found in the marketplace and determine for themselves which will meet their needs.

Create a product registration system to collect data on the products on the market, monitor changes in the mix of products over time, and facilitate enforcement of mandatory standards.

Implement a campaign to raise awareness among consumers of the availability and benefits of high-quality solar products.

Adopt internationally harmonized product standards that define the criteria a product must meet. These could be 'voluntary' standards that products need to meet in order to participate in a particular programme or become eligible for a financial incentive, or they could be 'mandatory' standards that products must meet in order to be allowed entry into the country.

Institute tax/duty exemptions or other financial incentives to increase the availability and affordability of high-quality products that meet international standards.

Put in place regulations and enforcement mechanisms to ensure compliance with mandatory standards.



HOW CAN WE HELP?

Our team has considerable expertise in off-grid solar and has produced a range of resources providing data, guidance and advice to decision-makers. Here are some of the ways our team of experts can support governments:



Brief decision makers on the state of solar appliance markets, drawing on documents we have produced such as [State of the Off-grid Appliance Market Report](#) and country profiles for [Sierra Leone](#) and [India](#).



Introduce the Testing Business Case Modelling tool, which builds on [research published](#) in 2019 and is intended to help governments explore their options for meeting national testing needs.



Present to technical committees and regional bodies on existing [test methods](#) and [quality standards](#), including those for standalone solar energy systems, fans, televisions, refrigerators, water pumps and electric pressure cookers.



Provide targeted content for public consultations/stakeholder workshops, expanding on the June 2019 publication [Promoting High-Performing Off-Grid Appliances](#).



Help governments to develop new test methods and quality standards. [Quality standards for off-grid-appropriate fans and televisions](#) are under development.



Advise on the design of effective compliance programs at the national and regional levels.



Help analysts utilise existing data on the performance, quality, and safety of solar energy products in the [VeraSol product database](#) and other sources of high-quality data to inform the design of incentive and procurement programmes.



Review draft terms of reference for consultants that support government efforts such as strategic planning, policy development, capacity building, standards adoption and implementation..

GET IN TOUCH

If you are interested in obtaining these services, please contact us!

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Efficiency for Access is a global coalition working to promote high performing appliances that enable access to clean energy for the world's poorest people. It is a catalyst for change, accelerating the growth of off-grid appliance markets to boost incomes, reduce carbon emissions, improve quality of life and support sustainable development. Current Efficiency for Access Coalition members have programmes and initiatives spanning three continents, 44 countries, and 22 technologies. EfficiencyforAccess.org



Verasol supports high-performing, durable off-grid solar solutions that expand access to modern energy services. An evolution of Lighting Global Quality Assurance, VeraSol strives to make safe, affordable, and durable products the default option in the market. VeraSol's core services help sector actors implement and improve quality assurance across all areas of the market. VeraSol.org