

Quality Standards for Off-Grid Solar Products

National governments can use mandatory quality standards—backed up by an effective compliance regime—to protect consumers from poor-quality products. Several governments across Africa and South Asia have already taken steps in this direction in relation to off-grid solar products, and others are expected to do so in the near future. This document explains how standards can be used to protect consumers, shows what success looks like, and lays out the key steps in adopting and implementing quality standards.

HOW DO STANDARDS PROTECT CONSUMERS?

Quality standards provide a widely known and understood benchmark for product quality. With mandatory national standards in place, all market actors know what is expected of products offered for sale in a given market.

Standards can be used as three lines of defense against poor-quality products—starting when products are designed and flowing through to distribution and sale:

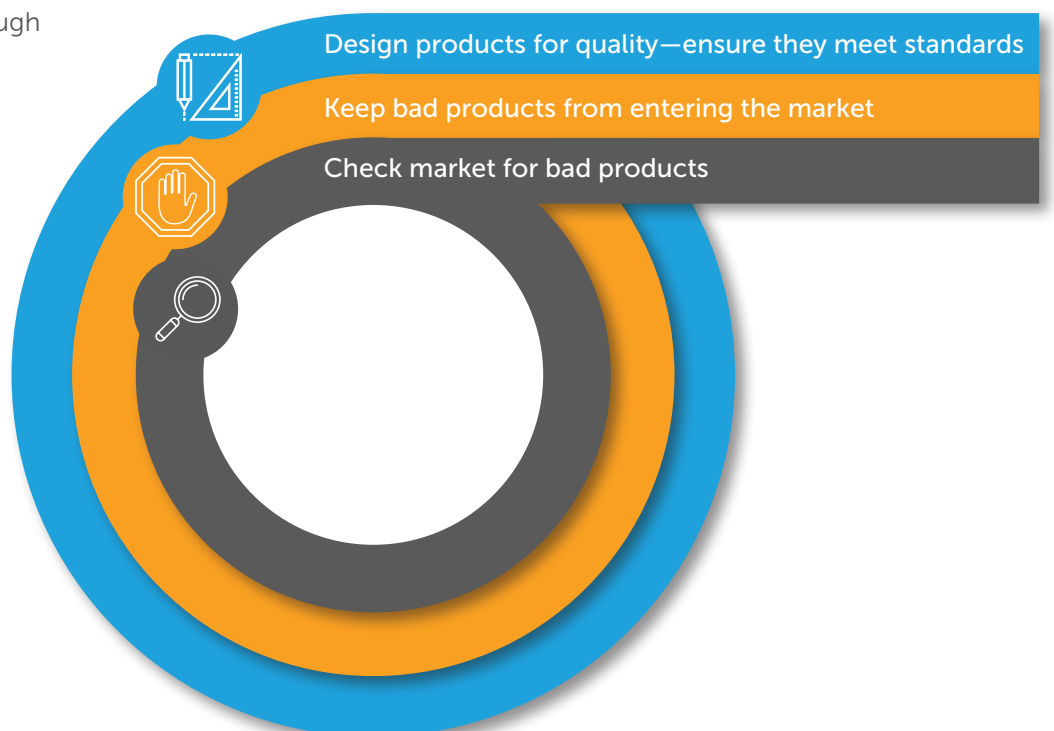
1. DESIGN –

Standards signal to manufacturers what is expected of off-grid solar products they produce. Reputable manufacturers will design their products and packaging to meet the standards.

2. MARKET ENTRY – Mandatory standards provide governments with a legal mechanism for keeping low-quality imports out of the country. If well implemented, standards allow compliant products to flow freely into the country, while non-compliant products are stopped at the border.

3. DISTRIBUTION AND SALE – Checking products in the marketplace is the last line of defense against low-quality products. Some non-compliant products will always make their way into the market, even with the best-designed system in place for stopping them at the border.

An effective standards program that works all along the supply chain will send a strong signal to manufacturers, importers, and distributors and ensure that standards-compliant products are the norm.



WHAT DOES SUCCESS LOOK LIKE?

An effective standards regime enables innovative new products to enter markets and keeps poor-quality products out of the market, which leads to greater consumer satisfaction. The diagram

shows how a new product progresses from initial concept and design, through market introduction, distribution, and sale, and potentially to renewal.



PRODUCT PLANNING The brand owner understands the Lighting Global Quality Standards and relevant national standards, and thus how to meet consumers' expectations for product quality and truth-in-advertising.



DESIGN AND MANUFACTURE The brand owner designs product and packaging to meet the Lighting Global standards, maximizing the number of markets in which it can be sold, realizing economies of scale, and driving down the cost to consumers.



TESTING The product is tested in an accredited lab close to where it is manufactured. The test report is recognized by national governments and Lighting Global alike.



CERTIFICATION If the product was tested under the supervision of the Lighting Global Quality Assurance Program, the QA Team reviews the test report. If the product meets the standards, LG posts a Verification Letter & Specification Sheet on www.lightingglobal.org.



CONFORMITY ASSESSMENT One or more containers of the product is prepared for shipment. The importer applies for a certificate of conformity (CoC) from a national government-authorized company. This confirms the product meets the national standards.



SHIPMENT The container(s) are inspected prior to shipment at the port of export. If they pass the inspection, the shipment proceeds.



INSPECTION AT PORT OF ENTRY A customs agent inspects the container at port of entry and confirms that its contents match the product identified on the certificate of conformity and that any applicable duties have been paid.



QUALITY LABEL The importer is issued national quality labels and affixes one sticker to each unit in the shipment.



DISTRIBUTION The units are distributed into the market.



SALES The units are sold and put into service by end consumers.



MARKET CHECKS The product may be selected at random for market check testing. If selected, 7 units are purchased from retail outlets, tested, and evaluated to verify that the product conforms with national standards. If so, it can continue to be sold in the market.



RENEWAL After two years, the validity of the test report expires and the product's status must be renewed. The brand owner may decide to submit the product to Lighting Global for renewal testing in advance of its expiration.

WHAT ARE THE KEY STEPS IN STANDARDS ADOPTION AND IMPLEMENTATION?

A holistic approach is required to achieve success. Adopting standards and building test lab capacity are just two parts of a greater whole. Governments must take a number of steps to implement an effective standards program. All relevant government agencies and private sector

actors must do their part. Advance planning and stakeholder consultation throughout is key to securing support from all involved and ensuring the effort receives sufficient funding and attention over the long term. The diagram provides a simple overview of the steps required to implement a standards program for off-grid solar products.

A HOLISTIC APPROACH TO STANDARDS ADOPTION AND IMPLEMENTATION

