



## Quality Assurance for Off-Grid Solar Powered Lights: A Brief Guide for Institutional Buyers

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### Why Quality is Important

The market for off-grid solar powered lights has expanded rapidly in recent years. Cumulative global sales over the past ten years exceed 40 million units. This continual growth has been driven by improvements in technology, reductions in manufacturing costs and the great demand for access to modern lighting. However, poor quality lights have also entered the off-grid lighting market and threaten to spoil customer trust of the technology.



VeraSol is working to support sustainable growth of the global off-grid lighting market. In order for customers to invest in solar lights, they must be confident that the product they purchase will perform as promised and last for a reasonable period of time. However, many customers find it difficult to discern between good and poor quality products.

### How Quality can be Assured

The quality verification program is a key component of VeraSol's effort to ensure consumer confidence and has become the international standard for off-grid product quality assurance. Through this program, solar powered lights and solar home system kits of up to 350 W in size are certified through independent testing. Currently, over 150 products from more than 50 manufacturers are certified, representing a significant portion of the "branded" products in the market. VeraSol's quality assurance framework is used widely by governments, distributors and microfinance institutions as a guide for procuring and supporting certified off-grid lighting products.

### What VeraSol Certified Means

VeraSol compares products to the Quality Standards<sup>1</sup>, a set of off-grid lighting benchmarks that set

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<sup>1</sup> VeraSol began referencing *IEC TS 62257-9-8* in place of the Lighting Global Quality Standards in 2020. See <https://verasol.org/updates/transition-to-iec-ts-62257-9-8> for detailed transition information.

a baseline level of quality, durability, and truth-in-advertising to protect consumers. Products are rigorously tested against these Standards according to the Quality Test Method in International Electrotechnical Commission (IEC) Technical Specification 62257-9-5. Product testing is conducted at third-party, approved test laboratories using randomly-procured samples, and products that are certified to meet the Standards are listed on the VeraSol website. Manufacturers are also required to provide a warranty for VeraSol-certified products.

## **The Role of Institutional Buyers**

Institutional (or bulk) buyers are responsible for purchasing large quantities of off-grid lighting products and have a considerable influence on the off-grid lighting market. Additionally, the end-consumers of bulk-purchased products do not have the option to choose the products purchased on their behalf. As such, it is particularly important for institutional buyers carrying out procurement of off-grid lighting products to select only quality products for their program beneficiaries. Procuring only VeraSol-certified products will also help to develop a common expectation for quality from manufacturers in the solar lighting market.

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## **A Guide for Procurement Officers**

How can you ensure that your organization buys only quality solar lighting products?

### **Step 1: Vendor Notification**

If your organization has previously purchased solar lights or other off-grid lighting devices, you may wish to release a public notice informing potential vendors of your decision to adopt the Lighting Global Quality Standards and/or IEC 62257-9-8.<sup>2</sup>

### **Step 2: Bidding Process**

Include meeting the Lighting Global Quality Standards/IEC 62257-9-8 as a Requirement/Specification in your RFP or RFQ.

### **Step 3: Check Claims**

Check bidders' claims of quality verification against the VeraSol-Certified list on the VeraSol website. You may wish to request a copy of each bidder's VeraSol Product Certificate for your documentation.

#### **Note:**

If you already have an existing supplier but their products have not been certified by VeraSol, they may arrange for their products to be tested by contacting VeraSol. The quality verification process takes several months. As such, it is advisable to publish notice of your decision to shift to VeraSol-certified products well in advance.

VeraSol's quality assurance framework covers solar lighting products of up to 350 W in size.

VeraSol may be contacted to assist with procurement through our website.

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<sup>2</sup> Note, to allow for a transition between requirements, we recommend accepting products that meet either the Lighting Global Quality Standards or IEC TS 62257-9-8 for any procurement prior to July 2023. After that date, we recommend only referencing IEC TS 62257-9-8.

**About VeraSol**

An evolution of Lighting Global Quality Assurance, the VeraSol program supports high-performing, durable off-grid products that expand access to modern energy services. VeraSol builds upon the strong foundation for quality assurance laid by the World Bank Group and expands its services to encompass off-grid appliances, productive use equipment, and component-based solar home systems. Like Lighting Global Quality Assurance, the VeraSol program is managed by CLASP in collaboration with the Schatz Energy Research Center at Humboldt State University. Foundational support is provided by the World Bank Group’s Lighting Global program, UKaid, IKEA Foundation, Good Energies Foundation, and others.

Please visit [VeraSol.org](http://VeraSol.org) for more information.