Testing Similar Products Policy

Version 2.1
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The information in this policy is relevant for products evaluated to IEC 62257-9-5 (Edition 4) and IEC 62257-9-8 (Edition 1). For information relevant to IEC 62257-9-5 (Edition 5) and IEC 62257-9-8 (Edition 2) please refer to the Testing Similar Products Policy version 3.0.

Manufacturers often offer product models that are essentially the same product with some variations. In such cases, VeraSol offers manufacturers the option to use the full test results for at least one product, and targeted testing for the variant products. This option is provided as a service to manufacturers to help reduce testing costs; without this option, every product would need to be tested in its entirety.

In this policy, the product that is fully tested is referred to as "product A" and the variant as "product B." Since it is possible to have more than one variant product, and each variant is unique, the VeraSol team will work with manufacturers on a case-by-case basis to minimize the scope (and cost) of testing the variant products.

Procedural Guidelines on the Handling of Product Variations

1. The primary product ("A") must undergo full testing.

2. Test results for the primary product ("A") may be applied to a variant product ("B") in cases where the design and specifications of the system with respect to the relevant performance parameter are identical. For example, if products "A" and "B" use the same solar PV module, then test results for the PV module for product "A" may be applied to product "B."

3. New tests are required for product "B" to address differences in design or component specification between products "A" and "B." Here, it is important to consider differences in component specification as well as system level effects. For example, if product "B" has a different battery than product "A", then new tests for battery capacity (component level test) and full-battery run time, solar run time, and lighting service (system level tests) would be required. Depending on the specifics of the product design, additional new tests may also be required.

4. In all cases, test results must be generated that allow for full characterization of the quality and performance of each product. Results for product "B" may be drawn from a combination of results for product "A" (where applicable) and new tests of product "B" if needed to fill in a Standardized

Specifications Sheet and determine whether product "B" meets the Lighting Global Quality Standards or IEC 62257-9-8.

5. In all cases, if future testing (market check testing, renewal testing or other testing) indicates that either the primary product or variant product no longer meet the quality standards for an aspect that was determined to be identical and for which results were referenced, **both product "A" and product "B" will lose their quality verified status** until corrective actions are taken according to the Policy for Renewing Test Results and Market Check Testing Policy.

6. In the case that product "A" and product "B" are sold by different companies, product "B" may reference test results from product "A" provided that company "A" gives written permission for company "B" to reference test results from product "A" and gives company "B" access to test results from product "A". Additionally, both companies must acknowledge in writing they have read and understand point 5 (above).

Determining the Scope of Testing for Variations on a Similar Product

1. **Manufacturers must submit a request for Lighting Global to consider a reduced scope of testing for particular product(s).** The request should include a table of product attributes that indicates the degree of similarity (e.g., "identical," "same supplier but 2x larger," etc.) for each aspect of the products in question. Table 1 (page 3) is an example of the template for reporting similarities and differences. Companies should also include clearly labeled photographic images of the primary product and each of the variants. The photographs should include all product/system components that can be shown without disassembling the respective products.

2. **The VeraSol team will determine which test results are required to produce valid results for multiple product variations.** VeraSol will provide a proposed testing plan for the variations. VeraSol will also specify a sampling plan for the primary and variant products (i.e., VeraSol will specify the number of samples that must be collected for each product and—where applicable—each product component).

3. **Sample collection and testing commence after the manufacturer signs the VeraSol Product Certification Agreement.**

4. **Test results for each product will be provided.** Typically, the main product will receive a full test report and the variations will receive partial reports. VeraSol will issue one or more cover letters that clearly describe which results apply to each product.

a. If the primary product ("A") meets the Lighting Global Quality Standards or IEC 62257-9-8, then the variant products ("B") may also be in a position to pass (if all new test results for product "B" also meet or exceed the relevant requirements).

b. If the claims made by the manufacturer regarding product similarity are confirmed by testing and other relevant criteria are met, VeraSol will offer program support (Standardized Specification Sheet and VeraSol Certificate) for each of the products that meet the Lighting Global Quality Standards or IEC 62257-9-8.

c. If the claims regarding similarity are dubious, the manufacturer will receive the test reports, but further sampling and testing may be required to allow for complete

characterizations for each of the variant products. The VeraSol team will issue a cover letter that includes a description of the required additional testing.

5. In cases where similar products are not tested at the same time, but instead one product references results from an older test, similar procedures will be used to determine the appropriate test plans. The expiration date of the VeraSol Standardized Specification Sheet and Certificate for the new product may be dependent on the expiration date of the older product. Please see the Product Support Expiration Policy for details.

Table 1. Product variation details template

Element	Primary Product	Variation 1	Variation 2	Variation 3	Variation 4
	[insert name]	*[insert name]*	*[insert name]*	*[insert name]*	*[insert name]*
Performance					
Number of light output levels					
Luminous flux for each light output level					
Full-battery run time for each light output level					
Solar run time for each light output level					
Any other differences in the performance?					
Light source					
Type (e.g. high/low power LED, through-hole/surface mount LED, CFL, etc.)					
Number of light sources (e.g. number of LEDs per lamp)					
Number of light points (e.g. numer of lamps)					
Light point housing size and lens cover type					
Current to the LEDs					
Additional details (e.g. optics, etc.)					
Any other differences in the light source?					
Energy Source					
PV Module					
Type (e.g. mono-si, poly-si, amorphous, etc.)					
Rate Specifications (Wp, Isc, Voc at STC)					
PV Module Manufacturer					
Strain Relief type (indicate any changes)					
PV module cable manufacturer and markings					
Any other differences in the PV module?					
Other Energy Source					
Type (e.g. mechanical dynamo, AC grid, etc.)					
Additional details					
Other Energy Source					
Type (e.g. mechanical dynamo, AC grid, etc.)					
Additional details					
Battery					
Chemistry (e.g. SLA, Li-ion, NiMh, etc.)					
Capacity (mAh)					
Nominal voltage (V)					
Battery Manufacturer					
Additional details					
Any other differences in the battery?					
Electronic Circuits					
Charge controller (description)					
Lamp driver (type)					
High/Low voltage disconnect					
Mobile phone charging					
Any other differences in the electronics?					
Balance of system components					
Switches(number, type and detail any changes)					
Cables (number, length, type and detail any changes)					
Connectors (number, type and detail any changes)					
Ports (number, type and any changes)					
Any other differences in system components?					
Housing					
Material					
Size (dimensions)					
Handle(s) (description)					
Ingress protection (e.g. gaskets, double flange, etc.)					
Any other differences in the housing?					
Consumer Facing Ratings					
Brightness settings advertised on the packaging/user manual / website					
Ingress protection advertised on the packaging/user manual/website(e.g. IPXX, waterproof, dustproof, water resistant etc.)					
Run time combinations advertised on the packaging/user manual/website (e.g. lighting run time in combination with cell phone charging, torch use or radio use)					
Any other packaging differences?					
Additional features / accessories / appliances					
PayG Function (Yes/ No)					
[insert element]					
[insert element]					
Contact Information					
Any change to company name, contact person, email, phone number or address (Renewal Only)					

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 Cal Poly Humboldt. 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 for more information.