

Pre-Shipment Conformity Assessment for Pico-PV Products

INTRODUCTION

In an effort to protect consumers from low quality products, governments can adopt mandatory quality standards. As part of the standards enforcement process, many governments have put in place pre-shipment conformity assessment (PSCA) programs as a safeguard against the importation of unsafe, sub-standard, and counterfeit goods. Exports to these countries require a certificate of conformity (CoC), which is obtained by assessing products in the country of supply to ensure that they meet the regulations and quality requirements of the destination country.

The Lighting Global Quality Assurance (QA) Program recommends that for shipments of pico-PV products to countries with mandatory quality standards, PSCA programs require a valid Lighting Global Type Approval¹ document and accompanying test report as evidence that products conform to quality requirements. By requiring exporters to provide this documentation to receive a CoC, standards programs can ensure that products entering their countries have been tested to be quality-verified by an ISO 17025 accredited test laboratory using the IEC TS 62257-9-5 test methods. Confidence in the quality of the products is further increased due to Lighting Global's laboratory oversight, market surveillance activities and enforcement of the quality verification.

CERTIFICATE OF CONFORMITY

A certificate of conformity is a mandatory document for customs clearance of exports to many countries around the globe. The CoC, issued prior to a shipment leaving the port of export, shows that the goods comply with the relevant regulations and national, regional or international standards. A CoC is granted to a product that meets a minimum set of regulatory, technical and safety requirements. Prior to issuing a CoC the PSCA program evaluates documents to establish compliance; shipments are commonly subjected to physical inspections prior to receiving a CoC.

PRE-SHIPMENT CONFORMITY ASSESSMENT

The World Trade Organization agreement on Technical Barriers to Trade allows for pre-shipment conformity assessment (also referred to as pre-shipment verification of conformity, or PVoC, in some countries) when conducted in a non-discriminatory and transparent manner. PSCA, including issuance of certificates of conformity, is typically performed by independent third-party organizations that are accredited by national governments. Figure 1, below, shows the typical process of PSCA for pico-PV products, which is followed by additional details for steps in the process.

1 Products that meet the Lighting Global Quality Standards are listed on the Lighting Global website (www.lightingglobal.org/products/). Every quality verified product has a Verification Letter, which is a type approval document that can be used as evidence that the product meets the Quality Standards, and that it has been tested at an ISO 17025 accredited laboratory according to IEC TS 62257-9-5. Verification Letters can be quickly and easily validated via the Lighting Global website.

BENEFITS OF PRE-SHIPMENT CONFORMITY ASSESSMENT

When implemented as part of a broader standards regime, PSCA programs have been proven to successfully promote international trade while supporting national interests. Requiring goods to undergo conformity assessment prior to leaving the port of export is not only beneficial for governments and consumers, but is also advantageous for import/export companies and manufacturers. Following are some notable benefits of PSCA for key stakeholder groups.

Governments

- Effectively keep out sub-standard products by ensuring that goods meet mandatory safety, quality and security requirements prior to shipment.
- Protect the environment and public health by reducing the likelihood of dumping inferior and damaging goods into the country.
- Facilitate international trade through a streamlined and transparent import procedure.
- Reduce demand on government resources by outsourcing pre-shipment CA to accredited third-party organizations.

- Conserve government funds by requiring exporters to bear the cost of pre-shipment CA.
- Promote energy access by assuring that imported renewable energy equipment, such as pico-PV products, meet internationally recognized quality standards.
- Expand the economy by boosting consumer confidence in imported goods.

Consumers

- Increased availability of safe, high quality goods in the market.
- The price of goods is reduced due to lower transaction costs associated with product import/export procedures.

Exporters & Importers

- Reduce potential losses from the import of non-compliant products.
- Avoid costly delays in customs.
- Eliminate the additional time and cost of consignment testing upon arrival or multiple testing requirements.

Manufacturers

- International standards are selected wherever possible, which allows reputable manufacturers to comply with relatively little effort.

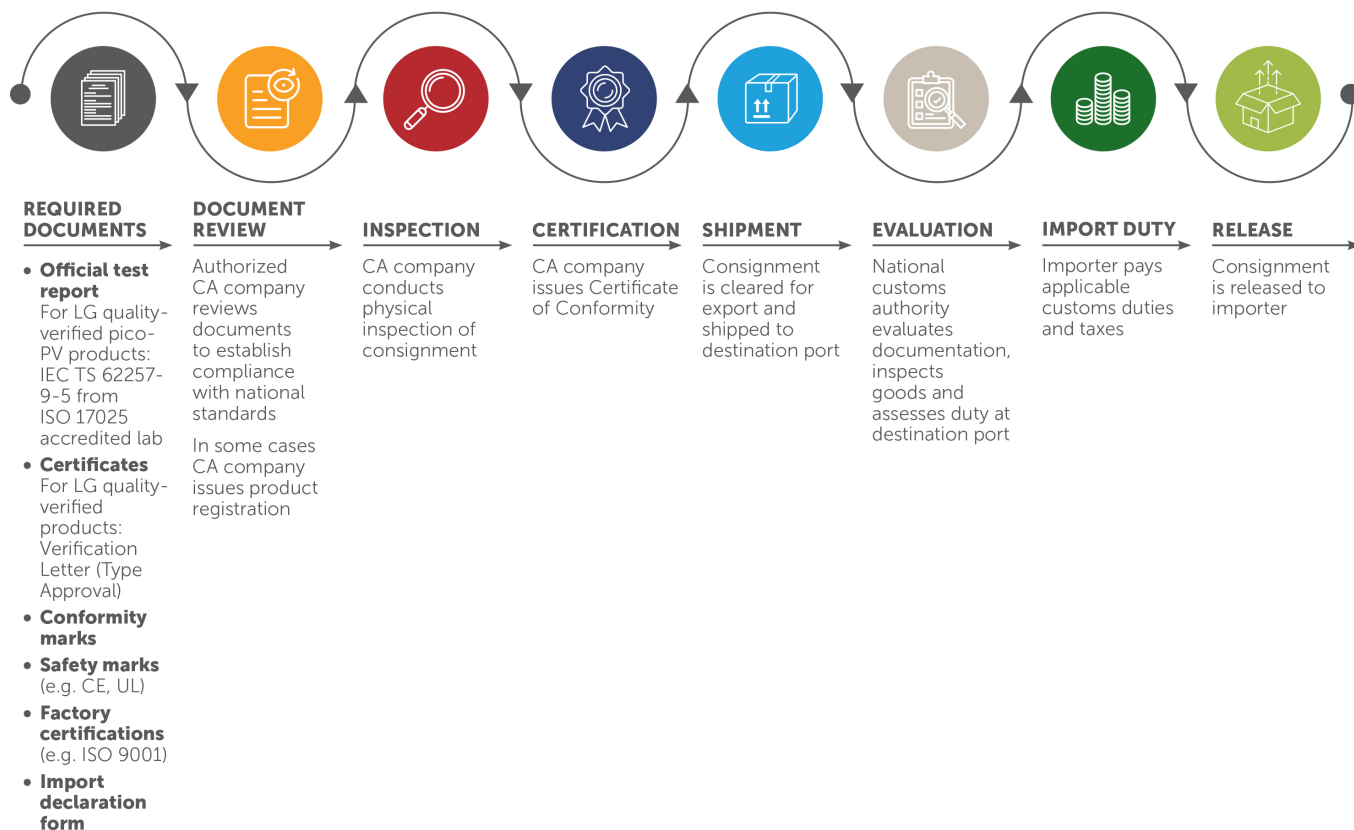


FIGURE 1: Typical process for pre-shipment conformity assessment (PSCA) of pico-PV products



Sampling, testing and analysis at accredited laboratories

Manufacturers and/or exporters need to determine which tests, certificates, and safety and conformity marks are required for importation into specific countries. Some countries may also require factory certifications such as ISO 9001, as well as country-specific import declaration forms. Manufacturers and/or exporters must then contract testing services to accredited laboratories that test products according to the applicable standards. For importation of pico-PV products into countries with internationally harmonized standards, product testing should be conducted by labs in the Lighting Global lab network², which are ISO 17025 accredited to test according to IEC TS 62257-9-5.



Evaluation by authorized pre-shipment conformity assessment organization

Exporters are in most cases allowed to select an inspection company from a list of government-approved organizations. Some of the widely used private inspection companies include Bureau Veritas, Cotecna, Intertek and SGS. The authorized PSCA organization evaluates the submitted documentation to establish compliance with applicable standards. Prior to being dispatched, each shipment is typically subjected to a physical inspection by an approved PSCA agent in the country of supply to confirm that products in the shipment match the submitted documentation. In some cases, product sampling for testing purposes may also be performed during physical inspection, although this is unlikely for pico-PV products that are Lighting Global quality verified.



Issuance of certification of conformity

A certificate of conformity is issued once the appointed PSCA company has confirmed that the submitted documentation complies with national requirements and that the contents of the shipment are acceptable. If discrepancies are identified, the PSCA organization does not issue a CoC, and provides guidance to the exporter for implementing the necessary corrections to achieve compliance. PSCA organizations commonly maintain a record of documentation for each shipment in an electronic format in order to facilitate customs clearance at the destination port.



Shipment and destination evaluation

The exporter ships the goods once a CoC has been issued. Upon arrival at the destination port, the shipment is inspected by the national customs authority. Destination inspection generally includes visual examination of the goods and assessment of the accompanying documentation, including the CoC. Additional documents such as an import declaration form and pro forma invoice may also be required by some countries. The national customs authority determines the duty to be paid for importation of the goods into the country. Any duties must be paid by the importer prior to releasing the shipment. Regulations in several countries require that importers enlist the services of a third-party clearing agent to process a shipment through customs upon arrival at the port of entry.



² Lighting Global coordinates a network of sampling agents and laboratories to test off-grid lighting products across the supply chain. Laboratories in the network are approved to conduct tests for Lighting Global by meeting stringent technical, organizational and accreditation requirements. Additional information about the Lighting Global lab network is available at www.lightingglobal.org/quality-assurance-program/test-laboratory-network/.

FREQUENTLY ASKED QUESTIONS

▶ **How can Lighting Global Quality Assurance support implementation of a pre-shipment conformity assessment program?**

Lighting Global QA engages with stakeholders throughout the supply chain, including third-party pre-shipment conformity assessment companies, test laboratories, standards agencies and customs authorities. Lighting Global QA provides guidance to government agencies that adopt and enforce quality standards for pico-PV products. The Program also works with the private sector to facilitate and streamline the import/export process of pico-PV products through the use of Lighting Global Verification Letters.

▶ **How can Lighting Global Quality Assurance help companies import/export pico-PV products?**

Lighting Global QA coordinates a network of accredited test laboratories that provide test results that can be used as evidence that products meet the Quality Standards. The Lighting Global website provides easy access to type approval documents (Verification Letters)

for all products that meet the Standards.

Manufacturers and import/export companies working with Lighting Global quality-verified products can receive certificates of conformity for shipment to several countries with relatively little effort.

▶ **What if products are shipped without a certificate of conformity (CoC)?**

Responsibility of compliance lies with the exporter, and the exporter is liable for any legal or economic consequences arising for goods shipped without the cover of a CoC. A consignment that arrives at a port of entry without an original copy of the CoC are typically subjected to a destination inspection and a penalty fee.

▶ **What is the cost of a certificate of conformity?**

The cost of obtaining a CoC for a shipment depends on the PSCA company, the type of goods, and the route for certification that is followed. In general, PSCA companies charge a fee of up to 0.5% of the free on board (FOB) value of the goods, with a maximum fee per shipment of approximately US\$3000.