



Every two months, Prof. Dr. Thorsten Arnhold, IECEx Chairman 2014-2019, provides an update on developments within the organisation.

**The global call for environmentally friendly production methods is now unmistakable. Manufacturers of all sizes are required to introduce such production technologies, to use them permanently and to prove this to the public.**

This also results in numerous demands on international standardisation organisations to comply with these developments by providing suitable standards and conformity assessment procedures based on them.

A well-known category in this context is a product's carbon footprint. This describes the entire balance of all greenhouse gas emissions over the entire life cycle of a product. When determining a product's carbon footprint, the entire life cycle, which is made up of the following sub-steps, should be taken into account:

- Manufacture, extraction, processing, storage and transport of raw materials and preliminary products
- Production, storage, transport and distribution
- The product's use and subsequent use
- Disposal and recycling at the end of life

Greenhouse gas balances are being drawn up by industrial companies to an increasing extent. For now, this is still largely voluntary,

but it is foreseeable that there will also be legal requirements for this in the future.

Calculating the carbon footprint of an industry, product or service is a complex task. One carbon footprint measurement tool used in industry is the Life Cycle Analysis (LCA). The international standardisation organisation ISO already had the corresponding ISO standard 14040 in 2006, which specifies the framework for conducting an LCA study. The ISO 14060 family of standards also contains detailed and specific requirements for the quantification, monitoring, reporting and validation or verification of greenhouse gas emissions and ways of avoiding them or removing them safely.

Based on the many years of close cooperation between the international standardisation organisations ISO and IEC, there has recently been considerable progress in the development of a conformity assessment program for the electrical industry, the International IECQ Product Carbon Footprint Verification Service, which can also be used in other branches of industry.

The verification service is operating as part of the IECQ Approved Process Scheme as it is the Process by an organisation to arrive at a Carbon Footprint Value that is being verified as complying with ISO 14067, not the actual value being claimed.

This is a verification service and not a full certification scheme and is being operated in accordance with the general requirements for a Verification and Validation scheme according to ISO/IEC 17029.

IECQ Approved Certification Bodies will offer an "International IECQ Verification Statement" as the certificate, which will be included on the IECQ On-Line Certificate system, meaning that these IECQ Verification statements will be freely

available to the public to check.

The expected assessment process that the IECQ CBs will undertake in the issuing of the IECQ Verification Statements is that they will assess the process used to determine if ISO 14067 has been followed by the Organisation to arrive at their Product Carbon Footprint Claim. As such it is expected that most if not all of the assessment may be able to be undertaken without the need for a site visit, providing all information and access to key staff is made accessible to the IECQ CB.

Once the IECQ Verification Statement is issued, there is no annual surveillance required as the IECQ Verification Statement certificate relates to a specific claim and the documentation, information and process used at a given point in time.

The International IECQ Verification Statements will be valid for a three year period with the option of revalidating.

The current status of this service is as follows:

- Initial drafts prepared by WG14 at their November 2022 meeting were issued to the full IECQ Member Bodies of the Management committee for their comment.
- Comment received was collated in MC/532/CC with the comments being considered by the WG14 Convener and IECQ Chair and Secretary and incorporated into updated A Versions of the documents, which are now being issued for formal approval by the IECQ Management Committee to proceed to publish. The closing date for the approval vote via correspondence is 6 April 2023. After this date the documents will be published and the service will commence once published. ■

**More information can be obtained by visiting [www.iecq.org](http://www.iecq.org)**

## Environmental certification via IECQ