TC111X_Sec00516_BP

BUSINESS PLAN

CENELEC/TC or SC	Secretariat	Date
TC 111X	Netherlands	2020-02-21

TC or SC title: **Environment**

A Background

After establishment at IEC level of IEC/TC 111 (October 2004), CLC/TC “Environmental standardization for electrical and electronic products and systems” was established to become the CLC/TC 111X “Environment”.

Similar to IEC/TC 111, the purpose of CLC/TC 111X is to deal with environmental standardization aspects, to develop horizontal standards on environmental aspects for electrical and electronic products and systems, considering also European Commission Mandates on environmental Directives.

To fulfill this task, CLC/TC 111X is the “mirror” of IEC/TC 111, with 3 additional items:

1) Advisory role to BT on environmental matters: To communicate with and to give advice to CENELEC BT and Technical Committees on questions related to work on environmental issues.
2) To be responsible for CENELEC of CENELEC answer for specific general EC Mandates related to environmental Directives related to electrotechnology (Ecodesign Directive, WEEE and RoHS Directives, ...)
3) Collaboration with CEN SABE to assure coordination and consistency within CENELEC and CEN environmental standardization
4) Collaborate with CEN/CENELEC JTC10 and CEN/CENELEC EcoCG to coordinate standardization activities related to the Ecodesign

B Business Environment

B.1 General

Environmental issues have become more and more important globally, especially regarding the impact on ecosystems, climate change, energy and natural resource depletion and impact on humans. With the advent of global legally binding agreements, such as the Paris agreement to limit global warming, industry has committed to meeting ambitious environmental targets. In the electrotechnical industry specifically, the exponential growth in the use of electronic devices by individuals and industry is another key factor in the need to address the environmental issues with these devices. The range of environmental issues has widened and now includes the whole life cycle of these products. Accordingly, purchasing of products based on environmental performance and preference of EEE products is a significant growing factor for government, institutional and consumer purchasing. In response to these trends, legislation as well as voluntary initiatives from business and other organizations have been developed globally.

In the electrical and electronic equipment sector, the focus is on control of chemical substances, circular economy (including product waste management), and environmentally conscious design of products and systems (including the reduction of adverse environmental impacts of a product throughout its entire life cycle, such as the efficient use of materials, energy, and other resources and controlling emissions).

Moreover, material efficiency aspects relating to the circular economy are becoming an increasingly important topic. The European Union’s Vision 2020 strategy is developing standards for a sustainable economy, with standardization around material efficiency and circular economy at its core. This will be an area to continue monitoring and assessing what the global response should be.

Reference to standards has been effective for assessing regulatory compliance and can also be equally effective in considering environmental aspects to applicable product life stages.

Under the above circumstances, it is strongly desired to provide all stakeholders including product committees (TCs/WGs) industry, and regulators with basic and horizontal environmental standards for electrical and electronic products and systems. Attention should be given to maintaining the deliverables as credible and as representative to intended and actual use cases and to avoid unintended or intended circumvention.

B.2 Market demand

Customers of the standards and other deliverables developed by TC 111X are:
• technical committees of IEC, including experts who develop standards and other deliverables;
• organizations that manufacture and use electrical and electronic products and systems;
• suppliers to the electrotechnical industry;
• test and certification bodies, dealing with product certification and compliance assessment and ecolabel operators;
• waste treatment operators and WEEE recyclers;
• governments and other equivalent organisations, dealing with conformity assessment and/or setting up product conformity;
• other organizations dealing with climate change, energy and natural resource depletion (for example, United Nations, NGOs and other non-profit organizations);

Avoiding inconsistency between standards on environmental specifications and guidelines is necessary for the market. This includes standards developed by product TCs/WGs. TC 111s provides TCs/WGs with basic and horizontal standards, including guidelines and technical reports in the environmental area.

B.3 Trends in technology

The progress of technologies, legal requirements and scientific data on environmental impacts have led to additional environmental requirements and opportunities. Examples include worldwide opportunities to establish harmonized international schemes to address
• energy saving effects made by energy-efficient products,
• life-cycle evaluation of GHG emission from products, and
• resource scarcity.

Trends in standardization include:
• A continuing shift of focus from a specific life cycle stage to the entire life cycle. This trend leads to supply-chain issues including information exchange, cooperation and management;
• Use of Life Cycle Assessment (LCA) methodologies and tools to evaluate the environmental impacts of products and processes across the entire life cycle;
• Environmental assessment scope is moving from a product to complete system solutions, such as addressing urbanization issues through infrastructures (e.g. Smart Cities).

B.4 Market trends

The market will require further effective guidelines and standards since it is anticipated that laws and regulations in the environmental field will continue to diversify and expand.

The UN Conventions on Climate Change and Biodiversity and the abundancy of regional regulations on recyclability and restriction of hazardous substance content in products demonstrate the growing demand for international standards in the environmental field.

TC 111X has worked proactively regarding the standardization needs on environmental topics by publishing standards on hazardous substances, ecodesign and other relevant environmental topics.

TC 111X has started new work in response to standardization needs in the areas of recyclability, climate change, and environmental performance assessment of products. It is anticipated that there could be future environmental standardization needs associated with resource efficiency and smart cities concepts.

TC 111X would respond to such new and prospective business needs by providing expertise in environmental aspects and impacts.

For economic growth, one must consider natural resource availability. This concept of “Resource Efficiency” is designed to maintain growth and promote improvement in quality of life globally in the face of resource depletion and cost increases. Governments are considering legislative frameworks to provide the economic conditions for an “environmentally-conscious economy”. These legislative frameworks include:
• Implementation of environmentally conscious design in products;
• Waste reduction and recycling requirements to boost a circular economy.

There are many emerging environmental performance programs (certifications, registries and logos) across different products and regions (e.g. EPEAT, ECOLOGO, Ecolabel, Eco Mark, Blue Angel). The creation of these programs is driven by a market and regulatory environment that is trying to interpret the complexity of environmental performance. Such simplification and standardization of environmental performance is needed by purchasers and other stakeholders that are not experts in the evaluation of environmental aspects. The environmental assessment programs have generally been regional and many of the environmental performance criteria for these programs are inconsistent. The lack of standardization results in duplication of work and confusion within the market. There is growing market demand and industry demand for global harmonization of these criteria.

The growing use of nanomaterials is a technology trend in electrical and electronic products and systems. The interest from several countries in tracking and regulating nanomaterials is expected to lead to new environmental regulatory requirements. .

B.5 Ecological environment

CLC/TC 111X is working in this area, please note the CLC/TC 111X scope.

B.6 Involvement of societal stakeholders

Fruitful collaboration is established with European Commission to contribute to CENELEC answer for specific general EC Mandates related to environmental Directives related to electrotechnology (Ecodesign Directive, WEEE and RoHS Directives, ...)

B.7 Involvement of SMEs

The National Committees are requested to encourage SMEs to be involved at national level in developing standards.

C System approach aspects

TC 111X is not considered a system committee. A systems approach is not applicable.

D Objectives and strategies (3 to 5 years)

Environmental issues to be tackled by CLC/TC 111X over the next 3-5 years include:

- IEC/TC 111 objectives and strategies and
- Develop specific standards related to EC Mandates for environmental Directives related to electro technology (Ecodesign Directive, WEEE and RoHS Directives, ..)

Considering:

1. Chemical substance issues related to RoHS Directive and other EU legislations
   - Testing methodology for concentration of certain substances in products
   - Material declaration for information exchange across the supply-chain
2. Ecodesign issues (related to Ecodesign Directive and related horizontal mandate)
   - Ecodesign process
   - Design for recycling and material efficiency (in conjunction with no.3 below)
3. Recovery/Recycling/Reuse issues
   - Recyclability evaluation
   - Treatment of waste electrical and electronic equipment
   - Communication in the whole supply chain, including between manufacturers and recycler
   - Materials and substances issues
4. Efficiency issues
   - Generic framework for evaluating energy efficiency for EE products
   - Eco efficiency
   - Resource efficiency

E Action plan

The following actions are scheduled for 2020-2023:

a) Completion of the started projects, included IEC/TC 111 projects
b) Related to WEEE Directive:

- to prepare standard for the general technical requirements for treatment of WEEE,
- general technical requirements for the sorting and transportation of WEEE,
- to prepare deliverable for general technical requirements for collection of WEEE,
- to discuss specific technical requirements way of proceed within WG 6, in collaboration with CLC/TCs, identified by WG6

c) Collaborate with CEN SABE describing resource efficiency standards landscape

F Useful links to CENELEC web site

TC home page giving access to Membership, TC/SC Officers, Scope, Publications, Work programme

https://www.cenelec.eu/dyn/www/f?p=104:7:492460457688101::::FSP_ORG_ID,FSP_LANG_ID:1258637,25

At IEC level, IEC/TC 111 dashboard giving access to the TC/SC Officers, scope, liaisons, WG/MT/PT structure, publications issued along with their Stability Dates and work program.
http://www.iec.ch/dyn/www/f?p=103:7:0::::FSP_ORG_ID:1314

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