CEN – European Committee for Standardization
CENELEC – European Committee for Electrotechnical Standardization

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POSITION PAPER

CEN and CENELEC response to the European Commission proposal for The Net-Zero Industry Act

June 2023

Executive Summary

CEN and CENELEC:

- Invite the Commission to ensure that ongoing work on related standardization requests are not overlooked. Any standardization requests foreseen under this proposal should consider the Annual Union Work Programme on Standardization 2023/2024 to prevent duplication of work and delays in standards production.
- Call on the Commission to tackle the challenges posed by an "All Electric Society" with CEN and CENELEC and invite them to join forces to meet the Green Deal Industrial Plan ambitious goals.
- Recommend that the Commission examines the potential to integrate training on standardization and the use of standards to support Europe's transition to net-zero emissions into the Net-Zero Skills academy.
- Ask that Net-Zero Europe platform considers the work of the EU High-Level Forum on Standardization to promote synergies between these forums and prevent duplication of work.

Introduction

On the 16th of March, the European Commission released its proposal for the Net-Zero Industry Act as a reaction to the US Inflation Reduction Act (IRA) as well as to support the objectives of the Green Deal Industrial Plan. CEN and CENELEC welcome the proposal aimed at strengthening European Green Industry.

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Emerging and existing clean technologies form an essential component of the twin transition, to which CEN and CENELEC are dedicated since standards play a key role in this endeavour. Standards are essential to achieving the Net-Zero Industry Act objectives and in fostering the European energy transition and innovation in clean technologies. CEN and CENELEC welcome that this proposal mentions standardization and look forward to collaborating with the Commission on its implementation.

However, CEN and CENELEC advocate for the proposal to become broader and more holistic in its scope. Specifically, that the proposal considers the importance of European and international standardization, the need for a comprehensive approach towards greening the electrical system, and the strengthening of linkages between Net-Zero initiatives and standardization initiatives by the European Commission.

Emphasising the importance of European Standards in the Net-Zero Industry Act

The proposed Net-Zero Industry Act sets out an ambitious target to increase net-zero technology production in Europe. CEN and CENELEC believe that standards will play a key role in meeting such ambition. European Standards (ENs) are a proven tool to support EU legislation, in such cases known as Harmonized Standards (hENs), and to promote innovation in all corners of the European Single Market. ENs are designed in a transparent, open, and expert-driven system that responds to the specific needs of industry while considering broader social and environmental goals. Standardization is utterly important in defining uncompromised methods to test and verify that the proposed solutions will fulfil regulatory requirements in a technology neutral way.

Harmonised Standards have a strong history in facilitating the compliance of industry to key EU legislation and have contributed to their successful implementation within the Single Market such as the Eco-Design Directive, RED Directive, Low-Voltage Directive, Machinery Directive, and the Toy Safety Directive. Therefore, CEN and CENELEC ask the Commission to ensure that standards are duly considered in this proposed act. There are some key areas related to clean technology that would benefit from a European standardization framework and identification/development of corresponding standards, such as in the area of 24/7 Carbon Free Energy (CFE).

Several Technical Committees (TCs) in the CEN and CENELEC systems already develop standards in key sectors critical to the production and use of clean technologies.

Examples of such TCs are as follows:

- CEN/CLC/JTC 6 Hydrogen in energy systems
- CEN/CLC/JTC 14 Energy management and energy efficiency in the framework of energy transition
- CEN/TC 113 Heat pumps and air conditioning units
- CEN/TC 268 Cryogenic vessels and specific hydrogen technologies applications
- CEN/TC 234 Gas infrastructure
- CLC/TC 21X Secondary cells and batteries

- CLC/SR 105 Fuel cell technologies
- CLC/TC 82 Solar photovoltaic energy systems
- CLC/TC 88 Wind turbines
- CLC/TC 8x – System aspects of electrical energy supply

It is essential that ongoing work on related standardization requests are not overlooked. Any standardization requests foreseen under the Net Zero Industry Act proposal should consider the Annual Union Work Programme on Standardization 2023/2024 to prevent duplication of work and delays in standards production.

Recognising the Role of International Standards

CEN and CENELEC are committed to idea of primacy of international standards to promote free trade and the competitiveness of European companies on the global market. All National Standards Bodies and National Committees who are members of CEN and CENELEC are also members of ISO and IEC. These national organisations work on many important international standardization projects at ISO and IEC level. This includes clean technology related projects such as:

- ISO/TC 238 Solid biofuels (secretariat held by chaired by CEN member SIS)
- IEC TC 117 Solar thermal electric plants (secretariat held by CEN and CENELEC member UNE)
- IEC TC 88 Wind energy generation systems (secretariat held by CEN and CENELEC member DS)
- IEC TC 105 Fuel cell technologies (secretariat held by CENELEC member DKE).

The membership of European national standards bodies at ISO and IEC is an invaluable asset to the European market. This ensures that European countries take a leading role in international standards development, both promoting European values and ensuring that European industry are competitive in the global market. While CEN and CENELEC understand the importance of integrating European values into the European market and beyond through European standards, this is best done through multilateral settings like ISO and IEC leveraging the Vienna and Frankfurt Agreements in place.

Furthermore, there are pushes for the establishment of global net zero targets and this is being discussed in international fora such as COP28. International standards can be a useful tool to ensure common methods of measurements of GHG emissions (for example the ISO 14064 series) across the world and thus allowing for global comparability of compliance to such targets.

Call for a more comprehensive approach towards the greening of the electricity system through the use of standards

CEN and CENELEC are firmly committed to the use of standards to further the green transition and contribute to a climate neutral Europe. Sustainably generated and CO2 free electricity is one of the most important goals being pursued by the European standardization system as well as by many of the CEN and CENELEC National

Members. The Net Zero Industry Act sets crucial steps in the right direction to achieve climate neutrality using renewable forms of energy, however there is a need to pursue a more holistic approach. As renewable energy is in essence electrical, there is a real need to look at the electrification process as a whole. As Europe pursues a fast and comprehensive electrification of all sectors, it has been falling short of tackling systemic issues in the electrical sector and this is of utmost importance if Europe wants to meet its objective for a Net Zero society. To be able to respond to the expected increase in electricity demand, there needs to be a clear vision for the resilience and decarbonization of the electricity value chain.

Different aspects are to be considered in the electrification journey:

- Greener Power Generation: Bulk and decentralized solar, wind, hydro power, etc)
- A More Flexible, Efficient & Resilient Grid: enabling bi-directional flows of electrons, with smart optimization and control of the electrical flow.
- A demand side evolution to become an active prosumer supporting the grid.

There is an urgency to further develop and link all the different elements together in an intelligent way for the success of a green electricity system. For example, sector coupling and better connecting the grid to ensure interoperability will be crucial. Two challenges for the connection to the grid can be pinpointed:

1. One to one connection: One element connecting to another one (e.g. wind farm connecting to the grid)

2. One to All: One element connecting to multiple infrastructure, so multiple frameworks and rules (e.g., EV connecting to a grid, but EV connecting to an electrical station, and EV connecting to a building to a grid etc.)

The responses to these challenges need to be tackled together between the regulators, the industry, and the standardizers to avoid fragmentation in the market. Standardization will ensure that new solutions developed in the realm of this electrification journey remain safe, functional, sustainable, and interoperable. CEN and CENELEC are preparing the grounds for standards for an "All Electric Society" and engaging with European stakeholders such as T&D Europe, Heat Pumps Alliance, EPIA SolarPowerEurope, ELA Lift Alliance, and Small Business Standards (SBS). CEN and CENELEC are coordinating efforts with our National Members who also committed to this topic at the national level (e.g. see DKE Commitment 2030 and upcoming NEK report on "Our Electric Future") and international level (e.g. coordinating efforts within the International Electrotechnical Commission (IEC) for a future-proof "All Electric and Connected Society").

CEN and CENELEC are calling on the Commission to tackle the challenges posed by an "All Electric Society" with CEN and CENELEC and invite them to join forces in this ambitious goal as the equally ambitious objectives of the Green Deal Industrial Plan cannot be met without it.

Clarifying the list of Strategic Net-Zero Technologies

The Commission has designated 8 Strategic Net-Zero Technologies. CEN and CENELEC have been involved in producing key standards deliverables for many of these technologies, as shown by the examples of relevant technical committees listed above.

The technologies listed cover a wide range of related technology and thus it would be important to receive clarification for what exactly would count as a Strategic Net-Zero technology. For example, DC Grids can offer advantages in energy efficiency and facilitating the uptake of renewable energy in regions all over Europe. Grid technologies are listed but clarifying exactly what is considered under this category is needed for strategic planning, especially in the case for the newer and less established technologies that fall under quite a wide category. Unclear classification may lead to less established technologies being neglected in favour of the more established technologies under that same category as they may be considered less riskier for investment.

While electrolysers and fuel cells have been included in the list of strategic net-zero technology, CEN and CENELEC believe that hydrogen is an essential energy carrier needed to achieve net-zero. The Net-Zero Industry Act could better elaborate how hydrogen can act as a strategic enabler of the transition to net-zero and clarify how this proposal links to existing hydrogen related proposals/communications like the proposal for a hydrogen bank and the roadmap on hydrogen standardization.

It is also important to consider that due to the complexity of the fundamental transition in energy systems needed to reach net-zero, there is a strong need to develop energy management systems that can facilitate the interactions between different strategic net-zero technologies to power Europe. The Net-Zero Industry Act should also consider how to incentivise the development, deployment, and increased understanding of said systems. One such way is by using European Standards like EN ISO 50001:2018 Energy management systems - Requirements with guidance for use.

Creating Opportunities for Standardization Education within the Net-Zero Academies

CEN and CENELEC welcomes the creation of Net-Zero Industry Academies. As a part of the European Standardisation Strategy, the European Commission has committed to increasing knowledge of standardization to attract the next generation of standards-makers. To ensure the strength of the European Standardization System, it is essential that younger generations are equipped with the necessary skills and expertise that are needed to create quality European standards for the future. The Net-Zero Skills Academy can provide an opportunity to equip Europe with the skills needed for the twin transition, including skills relevant to standardization.

CEN and CENELEC recommends that Commission examines the potential to integrate training on standardization and the use of standards to support Europe's transition to net-zero emissions into the Net-Zero Skills academy.

Creating Synergies between the Net-Zero Europe Platform and the High-Level Forum on Standardization

CEN and CENELEC welcomes the creation of a Net-Zero Europe Platform to coordinate work between Member States on the implementation of the proposed act. CEN and CENELEC are especially interested in the ability of the Net-Zero Europe platform to create subgroups and invite external experts.

CEN and CENELEC would like to highlight the work of the recently created High-Level Forum on Standardization which brings together a wide range of relevant stakeholders to identify priorities for standardization in relation to EU policies and discuss horizontal issues in the standardization system. One of the main goals of the High-Level Forum is to identify how standards can support a green, digital and resilient Single Market. This goal aligns with the goals of the proposed Net-Zero Europe Act and the High-Level Forum has already began discussing areas related to clean technology.

In general, it is important that the Commission ensures sound coordination of the various initiatives related to clean technology to avoid the duplication of work through different workflows and coordination with existing bodies like the High-Level Forum would help avoid this duplication.

Considering the relevance of standardization to clean technology innovation, CEN and CENELEC would ask that Net-Zero Europe platform considers the work of the EU High-Level Forum on Standardization to promote synergies between these forums and prevent the duplication of work. This could be achieved by a creation of a subgroup on standardization or the set-up of a coordination mechanism between the two forums.

About CEN and CENELEC

CEN (European Committee for Standardization) and CENELEC (European Committee for Electrotechnical Standardization) are recognized by the European Union (EU) and the European Free Trade Association (EFTA) as European Standardization Organizations responsible for developing standards at European level, as per European Regulation 1025/2012. The members are the National Standards Bodies (CEN) and National Electrotechnical Committees (CENELEC) from 34 European countries. European Standards (ENs) and other standardization deliverables are adopted by CEN and CENELEC, are accepted and recognized in all of these countries. These standards contribute to enhancing safety, improving quality, facilitating cross-border trade and strengthening of the European Single Market. They are developed through a process of collaboration among experts nominated by business and industry, research institutions, consumer and environmental organizations, trade unions and other societal stakeholders. CEN and CENELEC work to promote the international alignment of standards in the framework of technical cooperation agreements with ISO (International Organization for Standardization) and the IEC (International Electrotechnical Commission).