

T&D Europe high-level statement on PFAS

September 2023

KEY MESSAGES

The energy transition goes together with environmental & health protection

T&D Europe welcomes the fundamental efforts to use perfluorinated and polyfluorinated alkyl compounds (PFAS) in a sustainable manner to better protect human health as well as the environment. Our members are committed to developing a low-carbon electricity grid across the Union to ensure the energy transition is achieved for the climate and environment. **Ensuring the safe continuity of renewables-based decarbonisation using vital grid technologies doesn't mean levelling down on protecting human health and the environment. Both are essential.**

The draft proposal by five Member States authorities to restrict PFAS should have a good working balance between these parallel sets of public policy interest. **Today, our society faces major challenges to meet the Union's energy & climate objectives and guarantee electricity supply security, which goes hand in hand with environmental and health protection.** Without climate protection, human health and the environment cannot be preserved. To support a low carbon, secure energy supply, our members offer a wide range of essential technologies (e.g. high- and medium voltage switchgears, transformers, converters) that are part of Europe's critical grid infrastructure.

PFAS used in electricity transmission & distribution equipment

In these grid technologies, PFAS are intentionally added¹ when reliable operation is required in harsh conditions, such as extreme temperatures, an aggressive environment, and mechanical endurance. Our electricity sector uses PFAS because of their capacity to resist these harsh conditions, in addition to other applications such as electrical insulation and sealing.

Electricity grid technology manufacturers are engaged in ensuring that the use of PFAS does not lead to irreversible environmental exposure and accumulation, working with the wider supply chain to phase out PFAS substances identified as posing risks for the environment and human health. According to the European Chemicals Agency (ECHA), there are over 10,000 PFAS substances widely used in the EU and in a broad range of applications. Combined with the complex value chain of the electricity grid infrastructure, which includes thousands of components and equipment, the identification of all electricity grid parts which contain PFAS is not technically feasible within the short consultation period provided².

Our members have started to collect data-base evidence on some specific uses that are known and considered vital for the safe and continuous operation of the installations and electricity supply, including information on available alternatives. We have not been able to finalise this exercise in the limited time available.

To achieve a safe and reliable supply, grid equipment goes through an extensive set of rigorous mandatory testing and standards in the European Union. When a PFAS-free alternative is available, the relevant equipment, part or component will undergo a long series of testing and piloting periods,

¹ There are no legal requirements to communicate information on PFAS in mixtures and articles along the supply chain, thus only intentionally added PFAS can be identified.

² We strongly support an extended deadline for the consultation. PFAS applications are often considered commercially sensitive and confidential, and thus will require a long-term collaboration for research to collate this level of information through multiple complex supplier relationships.

certification, and standardisation, before the new product can be introduced into the network operation. These testing periods ensure the safe operation of the electricity networks while using PFAS alternatives, and in most cases the required development work from identifying the alternative to introducing it to the network operation takes between 5 to 10 years. **This development timeframe far exceeds the 18-month transition period as proposed in the regulation.** There is neither guarantee that current performances will be reached, nor overall carbon footprint limited to acceptable levels. This brings high uncertainties in the achievement of EU's 2030 and 2050 decarbonisation targets.

It is important to have **appropriate & adequate transition periods** for specific PFAS substances used in T&D equipment, where an unacceptable risk posed to human health and the environment has been identified, with no sufficient control measures available, and existing alternatives are available from our suppliers. For PFAS-applications with no available alternative, **specific and adequate derogations** must be considered. Those periods should then be reflecting the typical development timelines for T&D equipment of 5 to 10 years. **Furthermore, there is a need to include a review clause for derogations in cases where no alternatives became available in the future.**

Impact of a blanket PFAS ban on electricity security

The current draft blanket ban would affect all PFAS, not only the toxic ones, including substances for which there is no alternative, and which are vital to specific and critical applications, such as in the clean technology sector. With the current PFAS proposal, the impact will be a **shortage of electrical equipment and a threat to electricity security**, vital to well-functioning modern societies and economies. The blanket ban will also **delay the achievement of target objectives in REPowerEU and the Net-Zero Industry Act** to scale up manufacturing of grids and other net-zero technologies in the Union.

As stated in the ECHA's PFAS restriction proposal, a non-adequately timed restriction would cause significant **"socioeconomic costs due to delayed power grid expansions, inadequate electricity transmission and increased risk of outages."**

Taking a targeted approach to risk and substances in line with REACH

The proposed blanket restriction of all PFAS, regardless of toxicity, risk profile, and respective use, is not consistent with the risk-based approach according to Article 68(1) REACH and substance-based approach according to Article 69 REACH.

A more differentiated regulatory approach has been [proposed](#) by the UK's Health and Safety Executive, adopting a pragmatic approach to limit the use of PFAS and control exposures to human health and the environment. The thousands of PFAS substances have very different physical, chemical, and biological properties, and not all PFAS remain in the environment with a practical degradation at the end of their lifecycle. **We support a similar approach to restrict PFAS substances, with a differentiated consideration of the risk for each substance in its specific use, while considering critical use for society, such as electricity security and supply.**

For example, fluoropolymers meeting the criteria for "polymers of low concern³⁴" and industrial applications in closed systems, equipment components and equipment generally do not cause relevant emissions to the environment when used as intended. Due to the high industrial importance, **an**

³ Henry, B. J.; Carlin, J. P.; Hammerschmidt, J. A.; Buck, R. C.; Buxton, L. W.; Fiedler, H.; Seed, J.; Hernandez, O. A Critical Review of the Application of Polymer of Low Concern and Regulatory Criteria to Fluoropolymers. *Integr. Environ. Assess. Manage.* 2018, 14 (3), 316-334.)

⁴ Korzeniowski SH, Buck RC, Newkold RM, Kassmi AE, Laganis E, Matsuoka Y, Dinelli B, Beauchet S, Adamsky F, Weilandt K, Soni VK, Kapoor D, Gunasekar P, Malvasi M, Brinati G, Musio S. A critical review of the application of polymer of low concern regulatory criteria to fluoropolymers II: Fluoroplastics and fluoroelastomers. *Integr Environ Assess Manag.* 2023 Mar;19(2):326-354. doi: 10.1002/ieam.4646. epub 2022 Aug 9. PMID: 35678199.

adequate derogation for fluoropolymers is needed as well as a reassessment framework, when no alternatives are identified at the sunset date of the derogation.

When PFAS substances are identified as posing an unacceptable risk to human health or the environment, a differentiated regulatory PFAS restriction should consider:

- **The risks associated with individual substances**, and their application within T&D equipment, including the consideration of vastly different risks of release during manufacturing, operation and maintenance compared to consumer uses.
- **The most appropriate measures to manage the risks posed by PFAS** used in T&D equipment, such as requirements for recycling and effective waste treatment from manufacturing to decommissioning after its lifetime, which usually is over 40 years.
- **The potential for PFAS replacement**, including consideration on whether the alternative already exists at a significant scale and has an appropriate technological readiness level while being cost-effective. This is in line with Article 68 of REACH regulation, which states that any new restriction ‘must take into account the socio-economic impact, including the availability of alternative solutions’. The lifetime of products with the alternatives shall also be compared with the lifetime of current products to avoid uncontrolled refurbishment or replacement rates.
- For any substances or applications where the only available means to manage the posed risk require actual phase-out and substitution, the timeframe for development and certification of substitutes shall be considered appropriately. **For those PFAS uses where restriction is the only available option, we recommend including a requirement to assess the availability of a suitable PFAS-free alternative before the end of any relevant transition period.** This requirement is in line with what ECHA’s Socio-Economic Analysis Committee (SEAC) [proposed](#) for the EU-wide PFAS ban in firefighting foams for substances covered by the Seveso Directive and for offshore installation in the oil and gas industry.
- **The criticality of PFAS use for society**, in the context of the energy transition, climate impacts, and environment & human health protection. This means a differentiation between PFAS used in essential closed-loop long-life products which are indispensable for society (e.g. critical infrastructure) and those widespread products which have a short lifetime with non-essential use & applications (e.g. cosmetics, consumer products).
- **Appropriate and adequate transition periods for PFAS substances used in T&D equipment**, where an unacceptable risk posed to human health and the environment has been identified, with no sufficient control measures available, and available existing alternatives. For PFAS-applications with no available alternative, **specific and adequate derogations** must be considered.
- **A spare parts exemption**, as many PFAS are used in existing equipment already installed with a minimum lifetime of 40-years, meaning that the operation, maintenance, and repair of existing equipment must be permitted until the end of their lifetime. Otherwise, existing equipment would need to be decommissioned early, seriously threatening the security of supply and circular economy or reparability principles.

With the necessity for substantial grid modernization and expansion to meet the Union’s climate and energy transition, it is crucial that a proportional, differentiated, and balanced regulatory approach is applied. **We urge regulators to act on securing an energy transition that goes hand in hand with protecting human health and the environment.**