

Ambitious emission reduction goals need a realistic approach

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On 5 April 2022, the European Commission proposed a revision of the Fluorinated Gas (F-Gas) Regulation. The European Network of Transmission System Operators for Electricity (**ENTSO-E**) and its TSO Members – representing 35 countries – **fully embrace the overarching objective** of the legislative proposal **to reduce f-gases emissions** and are strongly committed to contributing to achieving climate neutrality.

TSOs play a crucial role in accelerating the energy transition and integration of RES in the energy system, while safeguarding the stability of the grid and the supply of electricity to consumers. In order to fulfill this mission, all 39 European **TSOs need secure access to reliable equipment**. In this regard, ENTSO-E and its Members wish to bring to the attention of the co-legislators the following concerns that set considerable risks both to the secure operation and to the decarbonization plans of electrical transmission in high (52-170 kV) and extra-high (above 245 kV) voltage, should the ambitious sustainable targets not be matched by a realistic implementation approach.

TSOs for electricity use sulphur hexafluoride (SF₆) in several applications, such as switchgear, transformers, gas insulated substations (GIS) and gas-insulated transmission lines (GIL). **Any barrier to the procurement process or any delay in the expansion or repair of such equipment pose critical risks to the stability of the grid to ensure secure electricity supply and risks jeopardizing decarbonisation targets.**

For this reason, ENTSO-E and all European TSOs urge that the Regulation includes **explicit exemptions for spare parts and for the extension of existing assets. Exemptions should be unambiguously applicable and allowed until the end of the technical life span of the equipment**. Provisions that limit or, worse, ban the use of fluorinated gases for spare parts and extension of existing assets will inevitably result in the production of waste, delays in the grid development needed for the energy transition, and disproportionate costs, due to the premature replacement of electrical equipment.

For years, TSOs have been supporting the development of SF₆-free technological alternatives (i.e. using fluorinitrile mixtures or dry air) which are promising for the reduction of the global carbon impact of high and extra-high voltage electrical equipment. However, **it is of paramount importance that TSOs can continue to rely on multiple independent suppliers and suitable and mature technological solutions (i.e. minimum TRL 8)**. An enhanced market availability of technologies is needed and the risk of dependency on one solution not yet fully tested for high voltage applications should be avoided. It is imperative that ambitious GWP reduction targets do not undermine EU's competitive and efficient market, create bottlenecks in the security of supply of electrical equipment, lengthen TSOs' procurement processes, or prevent the timely implementation of renewable energy projects.

Lastly, ENTSO-E wishes to highlight the complexity of grid projects, which not only require advance coordinated planning among TSOs and other network operators, but whose implementation phase lasts for several years. To enable the necessary planning, **the phase out dates indicated in the Regulation should refer to the contractually assured delivery date or to the order date of the electrical equipment**.

As the institutional negotiations move forward, we ask the co-legislators to consider ENTSO-E and the TSOs' concerns which are based on technical grounds, the ambition to continuously ensure the stability of the electrical system and on the determination to achieve EU's energy transition targets on time (*ENTSO-E feedback to the F-Gas Revision proposal is [available here](#)*).

