



E.DSO statement on F-gas Regulation

E.DSO fully embraces the European Commission's overarching objective to reduce F-Gas emissions and is strongly committed to contributing to achieving climate neutrality. The Distribution System Operators' (DSOs) 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 customers.

Within the EU's political debates, the upcoming Regulation on fluorinated greenhouse gases (so called "F-gas Regulation") that also addresses the use of sulphur hexafluoride (SF₆) will have an immense impact on the European energy network. We argue that a balance must be found between the needs of fast- growing electricity networks that ensure the transport of the electricity from renewable energy sources on the one side and more general climate protection targets on the other.

E.DSO members are users of sulphur hexafluoride (SF₆), a gas covered by the Regulation. The use of SF₆-free solution is preferred whenever a mature, reliable, and non-toxic alternative is available.

Although we agree that SF₆ and other F-gases should be phased-out due to their very high global warming potential, there are still some aspects that need to be considered so that the SF₆ phase-out proceeds in the most effective way without causing additional costs and obstacles for the energy transition, in general and for DSOs, in particular.

Especially with regards to already existing equipment (*like e.g., switchgear and substations as an integral part of today's electricity grid*), the DSOs must be allowed to maintain and repair assets that are already installed in the network. **We argue that it will be a major disadvantage to network users and operators alike and not to the benefit of the environment if such equipment will have to be replaced well before the end of its technical lifetime should maintenance not be possible and thus increasing the CO₂ footprint because existing installations should be entirely rebuilt.**

Thus, **we consider of utmost importance to allow the use, maintenance, and extension of existing electrical switchgear equipment until the end of their lifetime.** Rebuilding full-operational installations before the end of their useful technical lifetime would endanger the green and energy transitions from the grid development point of view, as this approach would put other needed investments at risk and harm the future deployment of renewables as fast and continuous expansion of electricity grids is needed to achieve the climate targets.

Therefore, **we believe that the phase-out of SF₆ must be gradual and realistic, and conditional on the maturity and availability of new technologies to guarantee the safety of the electrical network.** Additionally, we consider that there is need for diversity of alternatives and manufacturers to ensure that there will be enough availability of equipment in the market to cope with the energy transition needs in terms of investments efforts and time response.

1. E.DSO suggested amendments

Our major concerns relate to the following provisions: leak checks (Article 5), spare parts (Article 11), interdiction to use new SF6 to complement existing equipment after 2035 (Article 13), possibilities for extensions (Article 13) and restrictions for new equipment (Annex IV).

To ensure DSOs' industrial processes of connecting and reinforcing the grid is not undermined, E.DSO would like to propose the following amendments:

- **Article 5 on leak checks:** We would like it to stay as written in the Commission proposal. Deleting point c) in the first paragraph of Article 5 would require DSOs to put in place weighting systems able to detect a few grams in an equipment of almost 100 kg.
- **Article 11 on restrictions:** we would like to delete “including part thereof. we must exclude spare parts from the scope of Article 11 up until already installed equipment reach the end of their lifespan, so that we can continue to proceed with repair and maintenance. Otherwise, DSOs would have to replace existing equipment before the end of the lifetime.
- **Article 13** should allow under certain conditions to be defined, extensions (e.g. *addition of new circuit breakers cells that have to comply with the existing technology already installed*).
- **Annex IV point 23 for voltage level of up to 24 kV:** we believe that 2028 would be much more realistic than 2026 to allow manufacturers to develop a complete offer able to cover equipment needs. There should be a minimum of 3 manufacturers to ensure competitiveness. Finally, possibility to use SF6 on technical grounds when no appropriate solution is available should remain possible.

2. Voting recommendations

Subject	Article	Amendments	
		Support for	Rejection of
Spare parts	after recital 13	AM 159	
	Article 11, § 1, sub§ 1	AM 187	
	Article 11, § 1, after sub§ 1	AM 160	AM 73
	Annex IV after §2	AM 171/184	
Market availability and technology security of suitable alternatives	Annex IV point 23 point a	AMs 166, 179	
	Annex IV §2	AMs 170/183	AMs 146, 161



3. Supporting evidence from several DSOs

Enedis - Starting from 2021, Enedis' new medium voltage switchgears in primary substations are SF6-free. However, Enedis takes all the necessary measures to adopt suitable alternative solutions when they fulfil strict requirements. When SF6 alternative solutions are not mature enough for other appliances, Enedis has implemented righteous measures to limit GHG emissions.

Enedis would like also to underline that equipment still using SF6 gas will be needed for specific situations. The proposed regulation should ensure that an equipment can be used until the end of its life cycle to support the objectives of the Circular Economy Plan. The exception framework should be less restrictive for stakeholders and must allow for keeping in the market spare part solutions for repair, maintenance, and extension purposes. Exempted solutions must focus on more global considerations.

Caruna supports the intention to phase-out F-gases gradually as they are harming the climate and environment. Current equipment containing SF6 gas are handled carefully, and gas leaks are prevented and systematically monitored. As alternatives to SF6 equipment are needed quickly, there is a concern that there is a risk of insufficient availability of alternative equipment to replace SF6 in medium voltage switchgears. The availability of alternative equipment should not become a bottleneck for the green transition.

E.ON - DSOs rely on SF6-based technologies in the high voltage level and in the medium voltage level both in primary and secondary substations, e.g. in circuit breaker switches of substations, load interrupter switches in local network stations, etc. In line with E.ON's sustainability goals, the use of SF6-free technologies is preferred whenever the technical, planning, and procurement possibilities allow it. E.ON's DSOs are among the pioneers of implementing SF6-free solutions in the distribution grid operation. Wherever the use of SF6-free alternatives is not possible due to technical reasons or market availability, E.ON's DSOs adhere to strict handling procedures to limit emissions to a minimum.

i-DE (Iberdrola Group) is currently testing SF6-free equipment at MV (on secondary substations at 24 kV) and HV (on primary substations at 132 kV) in collaboration with different manufacturers with the purpose of developing and reaching market maturity for these products. MV trials use dry air requiring vacuum for breaking, while HV trials use an alternative fluorine gas. Available SF6-free technologies are currently being analysed, but up to now none of them have been found ready for a successful implementation on the network. On the other hand, I-DE has been committed to the verified end-of-life management of SF6 switchgear since the mid-90s, providing recycled SF6 that is used for maintenance. Recycled SF6 is a useful tool to manage the transition to future technologies as they are being developed, but the truth is that SF6 equipment will still be needed to maintain the existing facilities.