

Statement on the planned revision of the EU F-Gases Regulation

F-gases are among the fastest growing greenhouse gases, mainly due to the increasing demand for refrigeration and air conditioning, especially in developing countries. F-gas emissions currently account for 2.5% of total EU greenhouse gas emissions and 5% of emissions covered by binding national emission targets, according to the EU Commission.

In the proposal for the revision of the EU F-Gases Regulation, an HFC quota system would severely limit the future supply of HFCs to the EU market, reaching 2.4% of 2015 levels in terms of their potential global warming impact in 2050, the EU Commission adds. The system would give all relevant sectors a strong economic incentive to use climate-friendly alternatives. In addition, F-gases would be completely eliminated in some sectors, which is not a problem, especially in new plants with the alternative processes available today. The proposal also updates a number of obligations for companies, such as checking for refrigerant leaks, keeping appropriate records, training of service personnel and proper treatment of refrigerant recovered from refrigeration, air conditioning and heat pump equipment. In particular, training of service personnel should be promoted through appropriate (financial) incentives. Improved leakage monitoring combined with strict sanctions would allow existing systems to continue to operate with climate-relevant F-gases for a longer period of time despite the shortage of skilled workers.

The EU Commission's proposal strengthens the permitting system and labelling requirements to improve enforcement of trade restrictions. In addition, the new regulation would strengthen existing monitoring and verification systems to ensure compliance with the Montreal Protocol and set standards for Member State sanctions to deter illegal trade in F-gases.

All these measures make sense and can be implemented without any problems. After all, there are technologies that have been tried and tested for decades that manage without F-gases. As early as 2008, the UBA research project on "Comparative Assessment of the Climate Relevance of Supermarket Refrigeration Systems and Equipment"¹ found that refrigeration systems with natural refrigerants can fully replace those with F-gases; at similar installation costs and often with lower energy consumption. Since 2008, the range of refrigeration, air conditioning and heat pump equipment using natural refrigerants has multiplied. Over the past decades, the undersigned companies have implemented countless refrigeration systems with natural refrigerants to the complete satisfaction of their respective customers. In the meantime, systems with natural refrigerants are state of the art and are offered by many more companies, as was impressively shown by the visit to Chillventa, which took place in Nuremberg in October 2022. All well-known manufacturers had presented systems with natural refrigerants. For example, chillers can be operated more efficiently with ammonia, propane or water as refrigerants than with F-gases. For heat pumps, hydrocarbons or CO₂ and, on an industrial scale, ammonia are also the environmentally friendly alternatives to F-gases.

In our view, F-gases include the so-called HFO (HFCs with a double bond between two carbon atoms) currently favoured by the chemical industry and some refrigeration, air conditioning or heat pump equipment manufacturers. HFOs have a low global warming potential because they decompose in the atmosphere within a few days. One of the atmospheric degradation products is trifluoroacetic acid (TFA), which is difficult to degrade and harmful to health, and is produced in much larger quantities than conventional HFCs. With the exception of 1233zd(E) and 1336mzz, HFOs are flammable and can decompose into very toxic substances. They can be replaced by natural refrigerants in all applications. These usually achieve better energy efficiencies than HFO.

¹ Research Report 206 44 300, UBA-FB 001180/e

We therefore expressly welcome the planned revision of the EU F-Gas Regulation and a regulation of HFO, e.g. within the framework of the EU REACH Regulation. The refrigeration, air-conditioning and heat pump industry has destroyed the ozone layer with CFCs, heated up the global climate with HFCs and is now contaminating the soil and drinking water with TFAs with HFOs. This aberration must be stopped by appropriate far-sighted regulations with consideration of the obligation to the precautionary principle.



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