

Brussels, 31 March 2021

EPEE Position Paper

EPEE, representing the refrigeration, air-conditioning and heat pump industry (RACHP) in Europe, would like to share its strong concerns about a recent proposal made by Denmark, Germany, Sweden, The Netherlands and Norway analysing restriction options under REACH for the PFAS group of substances, which could affect certain F-Gases (including HFOs). The proposal is being made with the premise of limiting risks to the environment and human health from the manufacture, placing on the market and use of all per- and polyfluoroalkyl substances (PFASs) in the EU market.

Executive Summary

EPEE strongly calls on Member States' national experts and on the European Commission to support regulating F-Gases, including HFOs, under the EU F-Gas Regulation. To avoid double regulation, EPEE encourages the five Member State Competent Authorities (MSCAs) submitting the REACH restriction proposal for PFAS to exclude those F-Gases, from the Registry of Intentions (ROI), which is expected to be published in the first half of 2021.

- The review of the F-Gas Regulation provides a golden opportunity to further fine-tune and adapt this already highly successful regulatory framework to the current political, industrial and environmental context with tailor-made, sector and product specific provisions for F-Gases.
- To ensure a circular economy of refrigerants throughout their lifecycle, EPEE strongly recommends extending recovery, recycling and reclamation (RRR) requirements to all F-Gases, including HFOs, as well as to non-fluorinated gases.
- Restricting F-Gases via REACH could prevent and slow down substantially the decarbonisation of multiple sectors. HFCs and HFOs in particular are essential for the safe, energy efficient operation of heat pumps which need to be broadly deployed to achieve the 2030 targets and climate neutrality by 2050.
- Restricting F-Gases via REACH would lead to overlapping legislation and would create an inconsistent, legally uncertain and disproportionate legal framework in the EU market.

Introduction

The EU has a strong, internationally renowned regulatory framework for fluorinated greenhouses gases in the shape of the 2014 F-Gas Regulation. Since the first 2006 F-Gas Regulation and MAC Directive, the market for fluorinated greenhouse gases has been shifting towards gases with lower global warming potential (GWP), thus contributing to the EU's decarbonisation objectives. Already today, the F-Gas Regulation combined with the MAC Directive has delivered the highest CO₂-eq emission reduction of all non-CO₂ greenhouse gases as compared to 2014 levels. By 2030, the EU Commission expects to further reduce F-Gas emissions by two thirds as compared to 2014 levels. This makes the F-Gas framework

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probably one of the most successful climate related policy measures in Europe, contributing strongly to the at least 55% greenhouse gas emission reduction target in 2030 and to climate neutrality by 2050. The success of the F-Gas Regulation means that it does not make sense to double regulate F-Gases under REACH. Rather, it would be counterproductive, potentially undermining the success of the F-Gas Regulation, raising uncertainties among operators, causing asymmetries within the EU market and discouraging innovation. Consequences could even be further reaching: It could jeopardise the major expected benefits of the Kigali Amendment to the Montreal Protocol at a critical juncture. Over 100 countries have already ratified the Kigali Amendment, among them many developing nations. The latter are addressing two challenges in parallel: the phase-out of ozone-depleting substances and the phase-down of HFCs. Regulatory certainty and the broad availability of all types of low GWP refrigerants are essential to successfully address these challenges. Moreover, F-Gases (both HFCs and HFOs) are crucial for the decarbonisation of heating. F-Gases in refrigeration also play a vital role for the cold chain, for example related to the low temperature storage of vaccines or to the reduction of food losses (EU Farm to Fork Strategy). Restricting them via REACH would seriously put at risk achieving carbon neutrality by 2050.

Even though the current F-Gas Regulation works well and ensures effective control of F-Gases throughout their lifecycle, it is currently under review as stipulated under Article 21 of the regulation. This review offers an excellent opportunity to further fine-tune and adapt the regulation as the situation has evolved since its entry into force in 2014.

In the following, EPEE will further substantiate its strong recommendation, to control emissions of all fluorinated gases under the F-Gas Regulation, through the phase down mechanism and targeted restrictions, which has already proven successful and remains the most suitable and effective framework to do so. Therefore, in EPEE's opinion, there is no need for another overlapping regulatory framework, such as a REACH restriction.

The review of the F-Gas Regulation: a golden opportunity to further fine-tune and adapt an already highly successful regulatory framework

The F-Gas Regulation provides a robust framework to address F-Gases. It is geared towards preventing emissions, reducing the consumption of F-Gases and restricting them in specific applications whenever feasible from a technical, economical, health and environmental perspective. **In essence, it aims to ensure that F-Gases remain fully controlled throughout their lifecycle.**

In its Inception Impact Assessment for the current review, the European Commission states that the baseline for the review is to maintain the current Regulation without changes. This is a strong signal that the F-Gas Regulation is effective and successful as a framework for controlling F-Gases. As such it constitutes a ready-made legislative framework to regulate F-Gases, without the need for an additional burdensome REACH restriction.

Furthermore, the ongoing review of the F-Gas Regulation presents a clear and expedient legislative opportunity to further adapt it to the current political, industrial, and environmental context with tailor-made, sector and product specific provisions for F-Gases based on an implementation and compliance culture which is well established in Europe. Please contact us to receive further information on previous position papers.

Closing the loop: Extending the circular economy to all refrigerants

The spirit of the first 2006 and the revised 2014 F-Gas Regulation has always been to prevent emissions of F-Gases, thus limiting the risk to environment and human health.

With the 2014 F-Gas Regulation, recovery, recycling and reclamation (RRR) schemes have become increasingly important as the HFC phase-down exerts increasing pressure on the availability of HFCs. Further strengthening RRR requirements following the requirements under the waste hierarchy of the Waste Framework Directive, would be fully in line with the principles of the circular economy and would ensure a more coherent approach to EPR - management and emission control for all refrigerants.

For the time being, RRR requirements only apply to HFCs. Therefore, it would contribute significantly to the control of F-Gases across their entire lifecycle, to extend RRR requirements to all types of refrigerants, fluorinated or non-fluorinated. Extending the RRR requirements in such way would allow to better regulate the manufacturing, use and disposal of these F-Gases while helping industry to adapt to the new requirements, rather than adopting a broad REACH restriction that generically applies to all sectors.

Moreover, the F-Gas revision represents an excellent opportunity for the lawmakers to ensure a more consistent approach for all refrigerants (F-Gases, HFCs and HFOs, and non-fluorinated gases alike) and further reduce the administrative burden associated with a double regulation of the same substances and business uncertainty for companies using or placing on the market F-Gases. This is a particular concern for SMEs, which would be less able to accommodate the greater compliance/administrative costs associated with a REACH restriction.

Currently, there is no or only very little data available related to RRR of HFCs. A better understanding of RRR, for example via extended reporting schemes for all actors in the value chain, would be a first and essential step to assess avenues to boost RRR.

Restricting F-Gases via REACH could increase risks for environment and health

Concerns over the environmental impact of PFASs are currently being explored by five EU Member State Competent Authorities (MSCAs) for a potential restriction under REACH. As it stands, all F-Gases are being considered for potential inclusion in the Registry of Intentions (ROI). However, the proposal overlooks the

importance of F-Gases, and in particular of HFOs, to achieve the EU's greenhouse gas (GHG) emission reduction target of at least 55% by 2030 and climate neutrality by 2050. Heat pumps and highly efficient systems have a key role to play in that respect. In other words, restricting F-Gases under REACH would significantly increase the risk of not meeting these targets. It would undeniably and very negatively impact the environment and therefore human health and as such be completely counter-productive to the stated goals of the restriction.

Safety first

F-Gases were originally introduced due to their excellent safety features which made them more reliable and safer to use as refrigerants when compared to highly flammable, highly toxic or high-pressure alternatives. While the situation is continuously evolving, there are still safety, efficiency and charge limitations associated with the use of many non-fluorinated gases. For that reason, F-Gases remain essential for the safe and reliable operation of RACHP equipment – and, *in extenso*, for achieving EU decarbonisation targets, and limiting risks to the environment and to human health.

Case in Point: Heat Pumps

CO₂ emissions related to energy production and consumption represent roughly 80% of the EU's total GHG emissions. Heating and cooling accounts for half of the EU's total final energy consumption, meaning that it plays an extremely important role to achieve the desired total GHG emission reduction goals. The decarbonisation of heating – which is still mainly based on burning fossil fuels – is a top priority in that sense. To address this challenge, electrification of heating via heat pumps is considered as essential under the EU's Energy System Integration Strategy.

Heat pumps need F-Gases for their safe, reliable and energy efficient operation. With the on-going phase-down of HFCs, HFOs will be more essential than ever since non-fluorinated alternatives for that sort of application are typically characterised by higher flammability. Therefore, besides raising significant safety concerns, restricting F-Gases via REACH would almost certainly impact cost and slow down the crucial deployment of heat pumps. In addition to the impact on GHG emissions, slowing down the decarbonisation of heating would also impact air quality – and hence directly human health. It is indeed a well-known fact that burning fossil fuels leads to air pollution (PM2.5, NO_x, SO₂). For example, according to the European Environmental Agency (EEA) air pollution has the most significant impact on health, leading to 400,000 premature deaths annually only in the EU¹.

EPEE's modelling work

In this regard, EPEE has extended its modelling work with Gluckman Consulting on refrigerants to include emissions related to energy use when operating heating and cooling systems. Results have not been finalised yet and are therefore not available at this point in time to third parties.

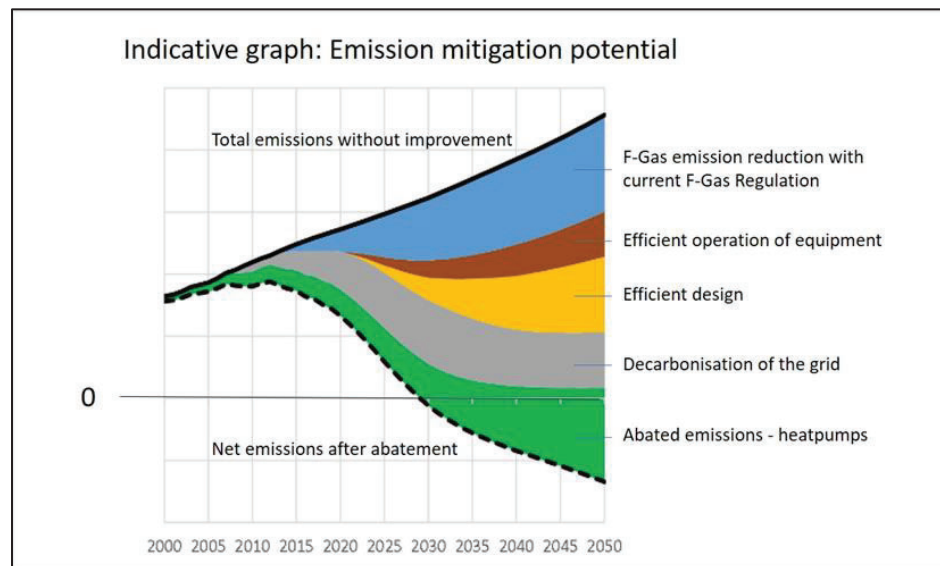
¹ EEA Report No 21/2019.

However, EPEE would like to share a graph derived from the ongoing modelling work, which gives an indication of the trend as well as of the importance to reduce energy related emissions and the key role of heat pump technology to achieve carbon neutrality by 2050.

Key messages:

- Carbon neutrality can only be achieved with a combination of measures, including the reduction of direct F-Gas emissions via the F-Gas Regulation, improved operation, regular inspection and maintenance, improved efficiency of new equipment, reduced cooling demand and decarbonisation of the grid.
- Heating is currently still mainly based on fossil fuels. Heat pumps play a crucial role to decarbonise heating, potentially creating a large “negative emission offset”.
- To ensure the broad deployment of heat pumps, all types of refrigerants will be needed, including lower GWP HFCs and HFOs to provide safe, reliable, and cost-efficient solutions adapted to application and local circumstances.

The wedges of the graph indicate the relative emission mitigation potential by abatement measure, including emissions related to refrigerants and emissions related to energy production and consumption. The solid upper line indicates how total emissions would evolve without the 2014 F-Gas Regulation and without efficiency improvements and grid decarbonisation. The dotted lower line shows the total abatement potential. The negative emission offset (green wedge) is generated by heat pumps as they will facilitate a move away from fossil fuel-based heating technologies.



Restricting F-Gases via REACH will lead to overlapping legislation

Restricting F-Gases via REACH would lead to a *de facto* ban of those substances. It would undermine the better regulation principle and raise uncertainties among the operators about the applicable measures under many pieces of legislation, cause asymmetries within the EU market and discourage innovation in Europe. Moreover, it would double the risk assessments conducted under the two pieces of legislation and create an inconsistent, legally uncertain, and disproportionate legal framework in the EU market.

Moreover, a PFAS REACH restriction on F-Gases cannot be supported by the legal basis for a Union action established under Article 69, paragraph 4, of REACH, where the risks are already sufficiently addressed by the other EU legislation (e.g. the EU F-Gas Regulation) and the measures already in place within the EU market.

Therefore, EPEE emphasises that it is not possible for REACH and the F-Gas Regulation to both apply to F-Gases, without causing prejudice to each other. It is EPEE's firm conviction that the F-Gas Regulation remains the best fit as the home for regulating F-Gases.

About EPEE

The European Partnership for Energy and the Environment (EPEE) represents the refrigeration, air conditioning and heat pump industry in Europe. Founded in the year 2000, EPEE's membership is composed of over 50 member companies as well as national and international associations from three continents (Europe, North America, Asia). With manufacturing sites and research and development facilities across the EU, which innovate for the global market, EPEE member companies realise a turnover of over 30 billion Euros, employ more than 200,000 people in Europe and also create indirect employment through a vast network of small and medium-sized enterprises such as contractors who install, service and maintain equipment. Please visit our website www.epeeglobal.org and www.counoncooling.eu for information about our sustainable cooling campaign.