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## SUPPORTING SUSTAINABLE AMBITION AND STRONGER ENFORCEMENT OF THE F-GAS REGULATION TO PROMOTE EUROPE'S TRANSITION TOWARDS DECARBONIZATION

The European FluoroCarbons Technical Committee (EFCTC)<sup>1</sup>, representing producers and suppliers of HFCs, HFOs and HCFOs, fully supports the objectives of the F-gas Regulation. Specifically, EFCTC recognises that the upcoming review of the current rules provides a real opportunity to strengthen the implementation and enforcement of the EU's approach to regulate F-gases and extend the refrigeration, air conditioning and heat pump (RACHP) containment, certification, recovery, etc. measures to all F-gases. This will build on the successful transition to lower global warming potential (GWP) solutions that the current Regulation is fostering, and support Europe's ambitious climate objectives.

The F-gas Regulation<sup>2</sup> is currently meeting its objectives. However, given the urgency to address the climate challenge and the EU's updated targets for decarbonization, more needs to be done in view of enforcement, containment, recovery and certification. Furthermore, whilst keeping EU adherence to the Kigali Amendment<sup>3</sup> to the Montreal Protocol, the F-gas Regulation needs to protect competitiveness of EU industry and facilitate international trade in lower GWP products and equipment.

This paper provides EFCTC's views on how the upcoming revision of the Regulation can best support this critical effort and deliver tangible emissions reductions. EFCTC would recommend the following:

- A. F-gases will play a key role in decarbonising critical European industries relying on heating and cooling technology. The future revised F-gas Regulation needs to work with and facilitate this interlinked objective. To apply the energy first principle, each technology sector/application must be reviewed on a case-by-case basis to allow it to deliver on the European Union's ambition to reach net zero by 2050.**
- B. Strengthen the Regulation through the tackling of illegal trade of F-gases with reinforced legal provisions facilitating improved border control, enforcement and the introduction of harmonised minimum penalties.**
- C. Effectively improve the control and verification of the HFC quota system, in particular for New Market Entrants.**
- D. Extend measures to prevent leakage from equipment and address end-of-life treatment to all F-gases including HFCs, HCFOs and HFOs.**

<sup>1</sup> [Home - Fluorocarbons](#)

<sup>2</sup> [Regulation \(EU\) No 517/2014 of the European Parliament and of the Council of 16 April 2014 on fluorinated greenhouse gases and repealing Regulation \(EC\) No 842/2006 Text with EEA relevance \(europa.eu\)](#)

<sup>3</sup> [The Kigali Amendment to the Montreal Protocol: HFC Phase-down | Ozonaction \(unep.org\)](#)

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Based on these four recommendations, EFCTC would underline the following points, by way of further detail:

- A. F-gases will play a key role in decarbonising critical European industries relying on heating and cooling technology. The future revised F-gases Regulation needs to work with, facilitate and not impede this interlinked objective. To apply the energy first principle, each technology sector/application must be reviewed on a case-by-case basis to allow it to deliver on the European Union’s ambition to reach net zero by 2050.**

A review and possible revision of the current phase down schedule has been identified as a necessity to meet Europe’s ambitious climate goals. At the same time, the Commission has acknowledged that to reach carbon neutrality the support of innovative technologies delivering energy savings in energy intensive sectors, mobility, and buildings must be fully harnessed. As part of this, high growth is expected in the residential heat pump markets and commercial/industrial applications in almost all sectors where the capture of heat from the air/ground/water or waste sources presents a real opportunity to decarbonise. F-gases therefore are a critical technology to reduce the EU’s dependency of fossil heating sources. According to EPEE estimates<sup>4</sup>, using high efficiency RACHP equipment can lead to savings of 20GW (Gigawatt) in 2030 – the equivalent of 20 nuclear power stations or 13,000 wind turbines.

Given the complexity of the RACHP markets to apply the energy first principle, including domestic, commercial, mobile and industrial uses, each sector/application requires its own specific and unique review to determine the most effective balance between energy efficiency characteristics, low GWP solutions and the safety requirements needed for each application. All while ensuring a continuous availability of solutions to the sectors/applications seeking to decarbonise their operations. For example, when it comes to industrial refrigeration – not all systems are large enough to suit use of alternatives such as ammonia or CO<sub>2</sub>.

The EU HFC phase down has proven to be a powerful driver for the industry to transition towards lower GWP solutions. The Regulation provides a predictable signal to the industries using F-gases and to those introducing and developing alternatives to F-gases with higher GWP. Since 2015, the European market has demonstrated that the structure of the F-gas Regulation provides the market flexibility to make appropriate refrigerant choices as well as driving the reduction of refrigerant related emissions. The full positive impact of the current F-gas Regulation has been confirmed by the latest report on fluorinated greenhouse gases by the European Environment Agency<sup>5</sup>.

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<sup>4</sup> [EPEE HFC outlook EU](#)

<sup>5</sup> A December 2021 report by the European Environment Agency on fluorinated greenhouse gases demonstrated progress made under the EU’s hydrofluorocarbon (HFC) quota system, as governed by the EU F-gas Regulation. The report recognised that in 2020 the quantity of HFCs placed on the EU market was 4% below the limit allowed under the EU HFC quota system, and thus, 52% below the maximum imposed by the Montreal Protocol’s Kigali Amendment.

**B. Strengthen the Regulation through the tackling of illegal trade of F-gases with reinforced legal provisions facilitating improved border control, enforcement and the introduction of harmonised minimum penalties.**

Following the adoption of the current F-gas Regulation, the implementation of the quota system led to significant price increases. The unintended consequences of the new system gave rise to a new, powerful underground market trading in illegal HFCs.

The quotas continue to be circumnavigated often by criminal organisations, who make vast profits on this black market including through e-commerce. As early as 2016, reports of illegal (non-quota) HFCs in European markets began to emerge and up to a potential maximum of 31 million tonnes CO<sub>2</sub> equivalent could have entered through EU borders illegally in 2019<sup>6</sup>. Several countries have made successful seizures of illegal shipments, such as during the Joint Inspection Week.<sup>7</sup> The review of the F-gas Regulation and the introduction of the Single Window Environment for Customs provide the perfect opportunities to tackle the challenge and take advantage of low hanging fruit that can further reduce the illegally traded HFCs on the European market. This can be achieved tangibly through many of the policy options already identified in the impact assessment<sup>8</sup> for amending the Regulation:

EFCTC supports the setting of minimum penalties for non-compliance in the revised Regulation. Member States currently vary in their approach to penalties and in many cases, they are too low to act as any sort of deterrent to illegal activities. This disparity is exacerbated by differing judicial approaches and legal mechanisms in Member States. As a consequence, a coordinated minimum approach across Europe, as was adopted in the EU Emissions Trading Directive, is very much needed to ensure the fight against illegal trade is properly advanced.

*Secondly*, action must be taken to stop the abuse of the T1 Transit process, which has been identified as an important route for illegal imports of HFCs. Member States should be required to establish procedures to monitor, report and verify transits of F-gases.

*Thirdly*, appropriate articles of the F-gas Regulation should cover the sales of non-compliant cylinders through e-commerce platforms. Specifically, the online and offline sales of containers already banned under the Regulation or products and equipment containing banned F-gases should be prohibited. Likewise, mandatory registration for importers of bulk HFCs should be introduced without the minimum threshold.

*Finally*, guidance should be provided for harmonised requirements for customs for the treatment of illegally traded containers and products and equipment illegally placed on the market.

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<sup>6</sup> [https://stopillegalcooling.eu/wp-content/uploads/EFCTC\\_Press-Release\\_EN-3.pdf](https://stopillegalcooling.eu/wp-content/uploads/EFCTC_Press-Release_EN-3.pdf)

<sup>7</sup> <https://www.europol.europa.eu/media-press/newsroom/news/f-gases-worth-more-%e2%82%ac-10-million-seized-in-week>

<sup>8</sup> Evaluation and impact assessment for amending Regulation (EU) No 517/2014 on fluorinated greenhouse gases: Briefing paper for the stakeholder workshop: Preliminary findings  
[https://ec.europa.eu/clima/system/files/2021-05/20210506\\_briefing\\_en.pdf](https://ec.europa.eu/clima/system/files/2021-05/20210506_briefing_en.pdf)

### C. Effectively improve the control and verification of the HFC quota system, in particular for New Market Entrants

The current Regulation controls placing on the market of HFCs through a quota system. This system allocates companies operating in the EU market quota to place a specific quantity of HFCs on the market each year, as well as providing quota to entrants to the market. The current system has inadvertently led to a significant fragmentation of the HFC market through the introduction of several thousands of new entrants to the EU markets. This has resulted in the disruption of compliant, well-established supply networks that made large investments in the handling and recovery of HFCs. It has also created major bureaucratic issues in controlling the import of HFCs in the EU. A revision is essential to improve its enforcement.

The review provides a possibility to consider whether allowing further new entrants will benefit the supply of F-gases to the EU market whilst the quantities permitted on the market are further reduced under the phase-down, as well as how to manage new applications.

*Secondly*, the review provides strong opportunities to strengthen the obligations for Member States to ensure that the accurate records are kept under the F-gas Regulation through inspections. Specifically, Member States should be required, through a tightening of Article 17 of the Regulation, to maintain a registry of undertakings handling F-gases, i.e. producers, importers or distributors. The use and inspection of operators' logbooks by Member States should be made mandatory.

*Thirdly*, thresholds by which producers and importers of less than 100 tonnes of carbon dioxide equivalent (CO<sub>2</sub>e) per year are exempted from the phase-down schedule [Article 15.2] and reporting requirements [Article 19] should be removed for imports of HFCs in containers. This exemption has been misused by players on the market who combine several imports below the threshold, thereby avoiding quota usage.

*Fourthly*, additional controls should be considered for Article 15.2 (a)-(f) exemptions not included under the Kigali Amendment to ensure that they do not present a risk to the Union's compliance with their international obligation. These controls should take into account the realistic future capability of the relevant industry sectors.

*Fifthly*, the verification obligations on undertakings (i.e. the historical reporting on production, import, export, feedstock use and destruction of F-gases) should also apply below the current 10 000 tonnes of CO<sub>2</sub> equivalent threshold [Article 19.6], especially since the next phases of the phase-down schedule will decrease allocated quota volumes.

*Finally*, the use of F-gases with a GWP  $\geq$  2500 to service or maintain refrigeration equipment should be phased out irrespective of the charge size. Currently a threshold is set at  $\geq$  40 tonnes of CO<sub>2</sub>e [Article 13].

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**D. Extend measures to prevent leakage from equipment and address end-of-life treatment to all F-gases, including HFCs, HCFOs and HFOs**

In order to improve the management of use and emissions of F-gases on the EU market, it is essential that there is a full understanding of the entire lifecycle of these products and equipment. This will enable measures to be taken to tackle the most critical areas of emissions. Improved information on the handling of F-gases through the mandatory use of electronic logbooks and on recovery, recycling and reclamation as well as reinforcing the provisions on the end-of-life of F-gases are critical pillars to address as part of the review to enhance such understanding. Measures such as those below are recommended:

Addressing F-gas leakage, recovery and re-use provide real opportunities to further reduce emissions of all F-gases including HFCs, HCFOs and HFOs. Promoting recovery and subsequent recycling or reclamation should be prioritised where technically feasible. It is essential that Member States encourage the development of producer responsibility schemes for the recovery of fluorinated greenhouse gases and their subsequent recycling, reclamation or destruction.

*Secondly* This can be enhanced by introducing a requirement for Member States to evaluate and monitor mandated logbooks in electronic format which would help identify leakage and emissions.

*Thirdly*, add a business specification in the F-gas Portal profile for undertakings performing reclamation of F-gases to enable reporting of their relevant activities.

## CONCLUSION

The members of EFCTC endorse the Commission's efforts to deliver a legislative proposal for the F-gas Regulation in tune with the political objective to reduce Europe's GHG emissions by 55% by 2030.

In summary, our industry remains committed to do its part to comply with the already ambitious phasedown schedule for HFCs but caution it must be carefully calibrated to ensure that it does not disrupt and delay the transition that European industries and consumers are already pursuing.

F-gases will play a key role in decarbonising critical European industries relying on heating and cooling technology. The future revised F-gas Regulation needs to facilitate this interlinked objective.

We encourage the European policymakers to take into account a holistic view and assessments by F-gas users, including energy efficiency and decarbonizing heating by heat pumps, in order to avoid counter-productive effects on the overall EU Green Deal targets. Sustainable ambition will be achieved by balancing the interlinked objectives and legislation provisions on direct and indirect emissions.

Equally importantly, the revision of the F-gas Regulation provides the opportunity to address the illegal trade in HFCs and to fix the existing loopholes that are currently exploited by unscrupulous market operators to circumvent the quotas.

The effective vetting of all companies (incl. new entrants) that are placing HFCs on the EU market, regardless of quantity, including those from outside of the EU, as well as verification and auditing of their annual F-gas reporting, could be a perfect first step. Given the urgency to address the climate challenge, all players in the F-gas market, irrespective of their size, must play their part.

Finally, addressing the end-of-life of all F-gases, including HFCs, HCFOs and HFOs is another critical aspect to maximise the impact of the regulation. Recovery and reclamation systems should be better integrated and prioritised in the market.

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### About EFCTC

The European FluoroCarbons Technical Committee is a Cefic Sector Group that monitors legislation related to HFCs (hydrofluorocarbons), and HFOs (hydrofluoro-olefins) in the EU and at global level.

Fluorocarbons are used as feedstock, as refrigerants, as solvents and as blowing agents for insulation plastic foams.

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*Disclaimer: The present position paper represents the views and opinion of the EFCTC Sector Group, not necessarily of Cefic as a whole.*

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## EFCTC'S 14 RECOMMENDATIONS FOR A SUCCESSFUL REVISION OF THE F-GAS REGULATION

### PHASE-DOWN

1. F-gases will play a key role in decarbonising critical European industries relying on heating and cooling technology. The future revised F-gas Regulation needs to facilitate this interlinked objective.
2. To apply the energy first principle, each technology sector/application must be reviewed on a case-by-case basis to determine the most effective balance between energy efficiency characteristics, material efficiency (cost) and lower GWP solutions alongside the safety requirements needed for each application.
3. A guarantee of the continuous availability of solutions to the sectors seeking to decarbonise their operations and to allow these industries to deliver on the European Union's ambition to reach net zero by 2050 is essential.

### ILLEGAL TRADE

4. Set of minimum penalties for non-compliance.
5. Address the abuse of the T1 transit process.
6. Introduce mandatory certification for undertakings selling bulk F-gases online.
7. Introduce harmonised minimum requirements for customs authorities to deal with confiscated product, containers and equipment being illegally imported into the EU.

### NEW ENTRANT MARKET RESERVE

8. Effective vetting of all companies that are placing HFCs on the EU market.
9. Remove the exemption from the phase-down schedule and reporting requirements for bulk HFC producers and importers of less than 100 tonnes of carbon dioxide equivalent (CO<sub>2</sub>e) per year [Article 19.].
10. Maintain a registry of undertakings handling F-gases, i.e. producers, importers or distributors by Member States.

11. Verification obligation for all undertakings (i.e. the historical reporting on production, import, export, feedstock use and destruction of F-gases) i.e. it should apply below the current 10000tCO<sub>2</sub>e threshold.
12. Ban the use of F-gases with a GWP >2500 to service or maintain refrigeration equipment, irrespective of the charge size.

### END-OF-LIFE

13. Introduce a requirement for Member States to evaluate mandatory logbooks to help identify leakage and emissions.
14. Member States to encourage the development of producer responsibility schemes for the recovery of fluorinated greenhouse gases and their recycling, reclamation or destruction.

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