BRIEFING
EU Legislation in Progress

European Parliament

Review of the regulation on fluorinated greenhouse gases

'Fit for 55' package

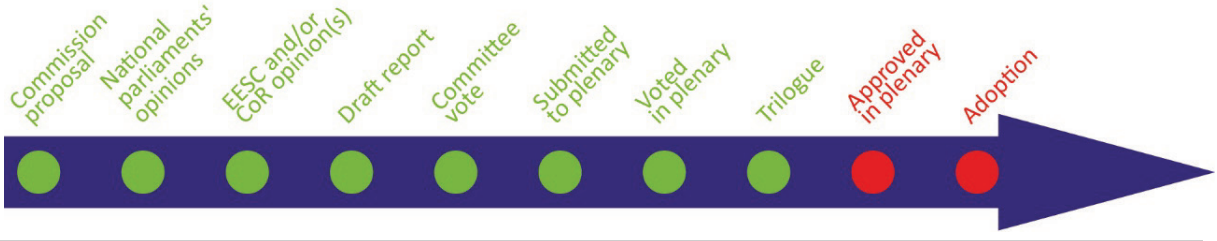
OVERVIEW

On 5 April 2022, the Commission presented a proposal for a regulation on fluorinated greenhouse gases that would repeal Regulation (EU) No 517/2014. The proposal is amongst the last from the 'fit for 55' package, aiming to align EU climate and energy laws with the EU Climate Law's 2030 target.

The proposal aims to further reduce emissions of fluorinated greenhouse gases (F-gases). It would change the existing quota system, gradually reducing the supply of hydrofluorocarbons (HFC) to the EU market to 2.4 % of 2015 levels by 2048. It would also ban F-gases in specific applications and update the rules on implementing best practices, leak checking, record keeping, training, waste treatment and penalties. The current licensing system and labelling obligations would be strengthened in order to improve enforcement of trade restrictions. Finally, the proposal would align EU legislation with the requirements of the Montreal Protocol to reduce production of HFCs.

Parliament referred the file to its Committee on Environment, Public Health and Food Safety (ENVI), which adopted a report on 1 March 2023. On 30 March 2023, MEPs adopted the Parliament's position, with few changes to the committee's report. The Council adopted its position on 5 April 2023. Parliament and Council reached a provisional agreement on 5 October 2023, since endorsed by both Coreper and the ENVI committee, which needs now to be formally adopted.

Proposal for a regulation of the European Parliament and of the Council on fluorinated greenhouse gases, amending Directive (EU) 2019/1937 and repealing Regulation (EU) No 517/2014		
Committee responsible:	Environment, Public Health and Food Safety (ENVI)	COM(2022) 150 5.4.2022
Rapporteur:	Bas Eickhout (Greens/EFA, the Netherlands)	2022/0099(COD)
Shadow rapporteurs:	Stelios Kympouropoulos (EPP, Greece) Günther Sidl (S&D, Austria) Ondřej Knotek (Renew, Czechia) Alexandr Vondra (ECR, Czechia) Danilo Oscar Lancini (ID, Italy) Nikolaj Villumsen (The Left, Denmark)	Ordinary legislative procedure (COD) (Parliament and Council on equal footing – formerly 'co-decision')
Next steps expected:	Final first-reading vote	



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Introduction

The Paris Agreement covers greenhouse gases (GHGs) such as carbon dioxide (CO_2), methane, nitrous oxide and **fluorinated greenhouse gases (F-gases)**. The latter ones include hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF_6) and nitrogen trifluoride (NF_3). These are powerful GHGs, some of which can persist in the atmosphere for thousands of years, with a global warming potential (GWP) of up to 25 000 times higher than CO_2. F-gases are present in a wide range of products and equipment, such as cooling appliances (refrigeration and air conditioning, including heat pumps), insulation foams, electric equipment, aerosols and fire protection materials. Emissions of these gases occur mainly during use – aerosol or solvents, during leaks in the use phase or through inappropriate disposal.

In 2006, the European Union (EU) adopted its first F-gas Regulation, focusing mainly on leakage prevention during the use phase and in end-of-life of stationary equipment, as well as introducing F-gas bans on a small number of application areas. The current F-gas Regulation entered into force in 2015, repealing and broadening the scope of the 2006 regulation.

Between 1990 and 2014, F-gas emissions in the EU grew by 70 %, representing around 3 % of all emitted GHGs in 2014. This sharp increase was attributed to the substitution of ozone-depleting hydrochlorofluorocarbons (HCFCs) with HFCs in the cooling sector paired with a growth of this sector. In 2019, HFCs accounted for 90 % of all F-gases emitted in the EU. F-gas emissions have been decreasing since 2015, with a 5 % reduction registered in 2019 alone, compared to 2018. Currently, F-gas emissions represent 2.5 % of the total GHG emissions in the EU.

Existing situation

The current F-gas Regulation (EU) 517/2014 applies since 1 January 2015. Key provisions in it include: a ban on F-gases with high climate impact in stationary refrigeration systems from 2022 and in stationary air conditioning from 2025; a 'phase-down' schedule to gradually reduce the supply of HFCs in the EU by 2030 to 21 % of the annual average of the total quantity placed on the EU market from 2009 to 2012; and a review clause obliging the Commission to assess the method for allocating quotas. In respect of F-gases in the air conditioning of cars and vans, these are regulated under the Mobile Air Conditioning Directive 2006/40/EC, which prohibits the use of F-gases with a GWP of more than 150 in new cars and vans.

The regulation prohibits the intentional release of F-gases to the atmosphere (unless technically necessary) and requires operators and manufacturers of equipment and installations to take all necessary precautions to avoid unintentional releases. Leak checks are covered in a detailed manner, yet no specific rules for particular gases are set. The regulation defines the types of equipment that need to have a leakage detection system installed.

Member States are obliged to create certification programmes, including evaluation systems, or adapt their existing ones. The regulation defines the target groups of such programmes and their scope, which covers aspects such as emission prevention, recovery of F-gases, and safe handling of

The Montreal Protocol on Substances that Deplete the Ozone Layer

The Montreal Protocol, adopted in 1987, is a United Nations agreement aimed at regulating the production and consumption of close to 100 synthetic ozone-depleting chemical substances, including HCFCs, which were again addressed through the 2007 adjustments to the Montreal Protocol so as to accelerate their phase-out. Developed countries had until 2020 for a complete phase-out, while developing countries are still in the process of phasing out, with 2030 as the final year. As mentioned, HFCs are not ozone depleting but have high GWP, from 5 to 14 600. On 15 October 2016 in Kigali, Rwanda, the parties to the Montreal Protocol agreed to add HFCs to the list of controlled substances and to steadily reduce their production and consumption by 80-85 % by late 2040s starting in 2019 for developed countries; developing countries would freeze their HFCs consumption in 2024 and other nations would do the same in 2028. The Kigali Amendment entered into force on 1 January 2019.

equipment. Furthermore, it requires natural persons and undertakings to obtain certification in order to be eligible to carry out specific tasks such as leak checks, F-gas recovery, as well as the installation, servicing, maintenance, repair or decommissioning of equipment.

The regulation establishes a free allocation quota system for placing HFCs on the EU market and defines a diminishing percentage trend to calculate the maximum quantity of HFCs to be placed on the market. To this end, it provides the corresponding quotas (100 % in 2015, 93 % in 2016-2017, 63 % in 2018-2020, 45 % in 2021-2023, 31 % in 2024-2026, 24 % in 2027-2029 and 21 % in 2030). Moreover, it establishes a quota registry and describes the conditions that importers or producers need to comply with in order to register and receive quota allocations. Quotas are transferrable. In the case where a producer/importer authorises the use of their quota by another undertaking, the respective quantities of HFCs would be regarded as placed on the market by the latter, at the moment of authorisation. Exports are exempted from quota requirements. In respect of the reduction of the quantity of HFCs placed on the market, the regulation sets the requirements that operators/importers need to follow and lists exemptions (e.g. producers/importers of less than 100 t CO_2e per year are exempted from quota requirements).

The regulation mentions which equipment operators are subject to the requirements for recovery, with subsequent recycling, reclamation or destruction of F-gases contained in stationary equipment or in refrigeration units of refrigerated trucks and trailers. Member States are responsible for encouraging the creation of producer responsibility schemes for operations involving F-gases (see box).

Definitions of operations involving F-gases

Recovery: process of collecting and storing F-gases from products and equipment during maintenance/servicing or prior to the equipment's disposal.

Recycling: process of performing a basic cleaning, including filtering and drying, of a recovered F-gas.

Reclamation: process through which a recovered F-gas is made equivalent, performance-wise, to a virgin substance.

Destruction: process of transforming or decomposing F-gases into one or more stable substances that are no longer fluorinated greenhouse gases

The regulation restricts the placing on the market and the sale of certain products/equipment containing F-gases. Furthermore, it sets dates from when the placing on the market of certain products/equipment would be prohibited (Annex III). The prohibition would not apply to highly energy-efficient equipment that has lower lifecycle GHG emissions than equivalent equipment without HCFs. Non-hermetically sealed equipment charged with F-gases may only be sold to end users if a certified undertaking performs the installation. In respect to labelling requirements, the regulation defines the information that should be contained in the label and prohibits the placing on the market of non-labelled equipment.

The regulation prohibits the use of SF_6 in magnesium die-casting and recycling on the one hand, and for filling of vehicle tyres on the other. From 2020, F-gases with a GWP of 2 500 or above are prohibited in the servicing/maintenance of refrigeration equipment with a charge size of 40 t CO_2e.

The regulation establishes the requirements for record-keeping and yearly reporting by undertakings. Differences in the reporting requirements are linked to F-gases quantities and equipment type. The responsibility for data collection lies with the Member States, as they are the ones that must establish the reporting systems. Member States have to set effective, proportionate and dissuasive penalties for infringements of the regulation, and notify these to the Commission.

Parliament's starting position

The resolution of 28 November 2019 on the 2019 UN Climate Change Conference welcomes the entry into force of the Kigali Amendment to the Montreal Protocol and highlights that the amendment could give the EU the needed boost to revise the F-gas Regulation. In the 15 January 2020 resolution on the European Green Deal, the Parliament called on the Commission to support the EU's climate ambition for 2030 and 2050 through the potential of the F-gas

Regulation. The Parliament's resolution of 21 October 2021 on the 2021 UN Climate Change Conference called on the Commission to revise the F-gas Regulation by the end of 2021, to allow for the acceleration of the phase-out of HFCs. Furthermore, it mentions that further actions should be taken to deter the use of SF_6.

Preparation of the proposal

The Commission's inception impact assessment for a review of EU rules on fluorinated greenhouse gases had a feedback period from 29 June 2020 to 7 September 2020. There were 76 responses, 34 of which originated from company/business organisations. A public consultation was held from 15 September 2020 to 29 December 2020. The Commission received 241 responses, with 51 % of feedback coming from company/business organisations. On 5 April 2022, the Commission presented the proposal and an impact assessment, including an ex-post evaluation.

The evaluation concluded that the current Regulation has led to significant reductions in the supply and emissions of F-gases and assisted the HFCs phase-down under the Montreal Protocol. Furthermore, it has achieved significant emissions savings at a very low abatement cost thanks to technological developments. Moreover, it has brought additional environmental improvements and helped establish a more efficient and less burdensome regulatory environment for the EU F-gas industry. On a final positive note, the regulation has not negatively affected the overall economy.

Nevertheless, the regulation has performed less well in certain areas. For instance, it has been ineffective in promoting a transition to climate-friendly alternatives for quota-exempted uses, in contributing to achieving the planned 2030 emissions reductions and to harmonising the penalties set by Member States. Yet again, the regulation has not been effective in preventing the increased impact of illegal trade and bulk importers on the implementation of the phase-down, has not afforded sufficient flexibility regarding external challenges in relation to the quota system, and its rules have proved inadequate in addressing illegal activities and the multiplication of traders. Finally, the evaluation mentions that the regulation's objective of mitigating F-gas emissions to prevent climate change remains relevant, as the problem persists, and therefore advocates more ambitious action. In addition, the regulation would need to undergo multiple adaptations to fully comply with the Montreal Protocol beyond 2030.

The impact assessment considered three options aligned with the set objectives: contribute to the ambitious climate objectives; ensure compliance with rules under the Montreal Protocol; and allow for good enforcement. The preferred option 'Achieve proportionate emission reductions and implementation improvements' suggests i) further emissions reduction 'but only to the point where a sub-sector would not have to pay more than marginal sectoral abatement costs expected for the economy overall to reach carbon neutrality in 2050'; ii) more restrictive HFC quota levels; specific GWP limits and dates in respect to additional F-gas prohibitions; iii) prescriptive requirements for penalties at Member State level; iv) closing monitoring and reporting gaps; v) improved control and implementation through additional measures at moderate costs; and vi) alignment measures advancing to 2028 the trade prohibition with Parties that have not ratified the Kigali Amendment.

Following the presentation of the proposal, the Commission notes the cost-efficiency of F-gas emissions reduction under the current Regulation, standing at just over 6 €/t CO_2e. Furthermore, it points out that the proposed measures would increase upfront costs for end users, but at the same time reduce the operational costs in the medium term. In addition, the Commission expects that by 2030, the cost of reducing F-gas emissions would be negative.

The European Parliamentary Research Service has published an implementation appraisal on the F-gas Regulation and more recently an initial appraisal of the impact assessment accompanying the present proposal. A period for feedback on the proposal opened on 8 April 2022 and closed on 29 June 2022. The Commission received 155 comments, with nearly 40 % of them coming from companies/business organisations.

The changes the proposal would bring

The proposal sets itself the goal to align EU legislation with the Montreal Protocol and to contribute to the EU's target of 55 % net GHG emissions reduction by 2030 and carbon neutrality by 2050. Furthermore, it aims to improve the existing F-gases monitoring and reporting requirements, and further enhance implementation and enforcement. If adopted, the Commission expects it to reduce F-gas emissions by approximately 40 Mt CO_2e by 2030 and 310 Mt CO_2e by 2050 on top of the reductions resulting from the current regulation. In addition, the proposal aims to have a significant impact on the reduction of illegal activities mainly through changes to the existing quota system. Finally, the proposal provides for more comprehensive F-gas monitoring.

The proposed regulation addresses the containment, use, recovery and destruction of F-gases. It applies to the F-gases listed in Annexes I to III of the proposal, either on their own or as a mix. In addition, equipment or products that contain F-gases or need them to operate are also within the scope of the regulation. The proposal would **repeal** the current F-gas Regulation.

In respect of **leak checks**, the proposal adds to the existing regulation by introducing stricter controls for specific F-gases. Leak checks would be mandatory, with only a few exceptions, in respect of F-gases in Annexes I and II of Section 1.

The proposed regulation would **ban the use of recovered F-gases** to fill or refill equipment unless the gas has been recycled or reclaimed. In **building renovations, refurbishments or demolition**, from 1 January 2024, the owners and contractors would need to ensure that F-gas emissions (Annexes I and II, Section 1) from foams in metal-faced panels and laminated boards would be avoided through the recovery for reuse or through the destruction of the foams and their gases. For the **destruction of F-gases** (Annex I, Section 1) and equipment containing such gases, it would only be possible to use technologies approved under the Montreal Protocol or environmentally equivalent technologies that comply with both EU and national legislation on waste and any other requirements under such legislation. Member States must promote recovery, recycling, reclamation and destruction of F-gases (Annexes I and II, Section 1).

On **certification programmes and training**, the proposal adds an energy efficiency dimension to what the existing Regulation already specifies and introduces, as a specific objective, the promotion of training on F-gas alternatives.

The proposal would add new entries to the list of products/equipment that are banned from being placed on the market (Annex IV), as is the case for the use, supply or making available within the EU, or export, of **non-refillable containers** of F-gases (Annexes I and II, Section 1). The Commission, through implementing acts, would allocate **production rights** to HFC producers in accordance with Annex V of the proposal. The allocation would be gradually reduced relative to the annual average production levels between 2011 and 2013. The allocations percentage would be as follows, allowing for alignment with the Kigali Amendment phase-down requirements: 2024 to 2028: 60 %; 2029 to 2033: 30 %; 2034 to 2035: 20 %; from 1 January 2036 onwards: 15 %. The proposal addresses the **reduction of the quantity of HFCs placed on the market**, mentioning that HFCs would only be allowed, with exceptions, to be placed on the market if producers and importers have been allocated quotas, and these are respected. Although this already exists in the current Regulation, the difference lies in the fact that the 100 t CO_2e per year threshold would no longer be in place. In addition, and in alignment with the Montreal Protocol requirements, the existing exemption given to metered dose inhalers for pharmaceutical use would no longer apply, as these are not exempted under the Montreal Protocol. Furthermore, it would prohibit products/equipment unlawfully placed on the market from being used, supplied or made available within the Union or exported.

In respect of the determination of the reference values[1] used by producers and importers when placing HFCs on the market, the future regulation (Annex VII) proposes to sharply reduce the existing available quantities in a diminishing trend as follows (in t CO_2e available on a yearly basis): 23.6 % of the 2015 base value from 2024 to 2026; 10 % from 2027 to 2029; 5.2 % from 2030 to 2032;

4.8 % from 2033 to 2035; 3.8 % from 2036 to 2038; 3.5 % from 2039 to 2041; 3.1 % from 2042 to 2044; 2.7 % from 2045 to 2047; 2.4 % from 2048 onwards. The 2015 base-value for the maximum quantity would be set at 176 700 479 t CO_2e.

Producers/importers may, by 1 April of the year of application of the proposed regulation and every three years thereafter, produce a declaration to receive quotas from the reserve[2] specified in Annex VIII. By 31 December of the year of application of the proposed regulation and every year thereafter, the Commission would allocate quotas for every importer/producer to place HFCs on the market. The proposal would introduce a price of three euros per quota, equivalent to 1 tonne of carbon dioxide. A part of the revenue from the sale of quotas would be directed to the LIFE programme and another part to cover the costs associated with implementing and enforcing the regulation and the Montreal Protocol, with any surplus directed to the general budget of the EU.

The proposal would strengthen the **conditions for registration and receiving quota allocations** with the objective of preventing illegal trading activities. Only companies with a physical address and three consecutive years of proven experience in trading of chemicals, prior to the quota allocation, may submit an allocation request declaration and receive such quota allocations. Multiple undertakings with the same beneficial owner would be treated as a single undertaking.

The transfer of quota allocations would still be possible but with changes to the number of times that they could occur. Quotas between importers/producers could only be transferred once. The same is valid for quota use authorisation from producers/importers to undertakings. It would be possible for producers, for the purpose of industrial rationalisation within a Member State, to **transfer** in total or partially their production rights within the Member State, as long as the production limits set by the Montreal Protocol are respected. The proposal would allow for such transfer also between Member States. It defines the requirements for a Member State producer to combine their production with a third-country producer.

The proposal describes the establishment and operation of the **F-gas portal**, an electronic system to manage the quota system, the licensing of imports and exports and the reporting. If necessary, the Commission may adopt implementing acts, to ensure the smooth functioning of the portal.

The proposal would require that a valid licence, obtained through the F-gas portal, be presented to customs authorities in relation to the **import and export** of F-gases and products/equipment containing such gases or that need the gases to function, with the exception of temporary storage. In order to exercise **control on trade**, customs authorities and market surveillance authorities would have to enforce the prohibitions and other restrictions provided for in the proposal. The proposal describes the entities and the information that need to figure in the customs declaration for each purpose, i.e. import, export, free circulation. The customs authority would have to check that the importers either have quotas or authorisations before releasing the goods, especially in cases of release for free circulation. The proposal defines **measures to monitor illegal trade**. It empowers the Commission to adopt delegated acts for the purpose of establishing additional monitoring measures other than the ones already present in the proposal, and to add to the customs procedures actions such as 'customs warehousing', 'free zone procedure' and 'in transit through the customs territory of the Union' supported by an evaluation of the potential risks of illegal trade.

It would be prohibited, from 1 January 2028, to import and export HFCs and products/equipment that contain these gases or that need them to operate, from and to states or regional economic integration organisations that are not bound by the provisions of the Montreal Protocol. Under defined conditions and through delegated and implementing acts, the Commission could allow such trade to take place.

In respect of **reporting by undertakings**, the proposal would lower the threshold for reporting obligations, meaning that operations dealing with lower quantities, in comparison to the current Regulation, would need to comply with the reporting requirements.

Member States' authorities would have to cooperate with each other, with the corresponding bodies in other Member States and with those of third countries, when needed, with respect to the **exchange of information**, including infringements. Competent authorities of Member States would be required to **carry out checks** in order to assert the compliance of undertakings with the regulation, by means of a risk-based approach, on-site visits and verification of relevant documentation and equipment. The Commission would facilitate an adequate exchange of information and cooperation between the Member States' competent authorities and between the latter and the Commission. The **reporting of breaches and protection of reporting persons** would be covered by the Whistleblower Directive (EU) 2019/1937, which would be amended to include a reference to the F-gas Regulation.

The proposal adds to the current Regulation in respect of **penalties**, by providing for a greater level of detail. It defines the criteria based on which the Member States should design the penalties and the penalties that the competent authorities should at least be able to impose (i.e. fines, confiscations, suspensions or revocations). The proposal would instruct Member States to apply maximum administrative fines at least five times the market value of the F-gases/equipment/ products that are used, placed on the market, produced, imported or exported unlawfully. These fines would rise to at least eight times the market value for repeated violations. In respect of infringements of the prohibition on the intentional release of F-gases, the proposal states that administrative fines would be determined by taking into consideration the carbon price, thus reflecting the potential impact of the emissions on the climate.

Advisory committees

The European Economic and Social Committee (EESC) adopted its opinion on 15 June 2022. It welcomes the proposal yet points to the possibility for higher ambition, highlighting specifically the opportunity of promoting low-GWP natural refrigerants. The EESC is in favour of combining the REPowerEU ambition with the F-gas phase-out and of introducing a mechanism to increase income from quota sales. The European Committee of the Regions decided not to draw up an opinion.

National parliaments

The deadline for national parliaments to raise concerns over subsidiarity expired on 1 July 2022. The National Assembly of Bulgaria issued a reasoned opinion stating that the proposal breaches the subsidiarity principle by violating the requirements of Article 290 of the Treaty on the Functioning of the European Union on delegated acts, by distorting competition and the internal market, and by not presenting sufficient quantitative and qualitative indicators that would allow for assessing the proposal's impacts.

Stakeholder views[3]

SMEunited – association of crafts and SMEs in Europe – supports the proposed regulation mostly from an environmental standpoint. Nevertheless, it expresses concern over the additional burdens that might occur due to the proposed changes, and points out that an F-gas quota shortage could have a negative impact on the EU's overall strategic goals. SMEunited proposes that quota levels not be altered until 2036 and that from this year forward the EU make efforts to comply with the Kigali Amendment phase-down requirements. The European Heat Pump Association (EHPA), in its position paper, expressed its concern in respect to the relation between a massive deployment of heat pumps (as encouraged by the REPowerEU Plan) and the F-gas phase-down introduced by the proposal. The EHPA warns that the proposed phase-down schedule and bans are inconsistent with other EU policy requirements. In addition, it considers that the proposal does not take fully into consideration the 'energy efficiency first principle'. In EHPA's opinion, the benefits of a massive heat-pump deployment outweigh the potential benefits that could come from the proposal's requirements to reduce F-gas emissions. APPLiA – the EU trade association representing manufacturers of home appliances, including ventilation, air conditioning and heat pump

equipment – criticises the proposal for impeding innovation through an unrealistic phase-down path as well as bans of heat pumps containing F-gases with GWP above 150. The European Environmental Bureau welcomed the proposed regulation mentioning that it aligns the refrigerant sector with the EU climate goals. Nevertheless, it alerted that the proposed text sets requirements that fall behind the already best performing heat pumps on the market that work with natural refrigerants with GWP below five. Furthermore, the EEB mentions that the proposal does not introduce adequate training plans for installers in the heat pump market.

Legislative process

In the European Parliament, the proposal was referred to the Committee on the Environment, Public Health and Food Safety (ENVI), which appointed Bas Eickhout (Greens/EFA, the Netherlands) as rapporteur. On 1 March 2023, the ENVI committee adopted its report by 64 votes to 8, with 7 abstentions. On 30 March 2023, MEPs adopted the Parliament's position by 426 votes to 109, with 52 abstentions, with few changes to the Committee's report.

The adopted text introduces changes to the Commission's proposal. In respect of the **prevention of emissions**, the report obliges operators, once fumigation procedures occur, to capture and recover the sulfuryl fluoride, and that in order for the gases to be recycled, reclaimed or destroyed, the recovery of these needs to be carried out by qualified natural persons. The scope of operators and equipment for which **leak checks** are required is broadened, as operators of vans and ships are added, while at the same time a threshold for exempting electrical switchgear from being checked for leaks is deleted, i.e. those containing less than 6 kg of fluorinated greenhouse gases. Also included are the operators of 'air-conditioning equipment in metros, trains, ships, planes and in road transport vehicles with the exception of those within the scope of Directive 2006/40/EC' relating to emissions from air-conditioning systems in motor vehicles. In addition, there is a requirement regarding the sensitivity of **leakage detection systems**, which need to have a 'higher sensitivity than a pressure- or density-monitoring device'.

With respect to the **recovery and destruction** of fluorinated greenhouse gases, the text broadens the proposed scope from only including the 'gases' part of Annex I and Annex II, Section I to all that are present in both Annexes and all sections; this is justified, with high GWP F-gases being present in the excluded sections. **Extended producer responsibility schemes** for the recovery, recycling, reclamation or destruction of fluorinated greenhouse gases listed in Annexes I and II would become mandatory and it would be a responsibility of the Member States to require these by 31 December 2027. The Commission would have to set the minimum requirements for such schemes, by means of delegated acts, by 31 December 2025. Producers and importers would bear the costs of such schemes, and the Member States would have to ensure compliance.

On **certification and training**, the text expands on the Commission's proposal by including certification programmes and training on natural alternatives to F-gases. In light of this addition, the validity of existing certificates could be subject to additional requirements. It would be the responsibility of Member States to inform the Commission about the number of certified and trained persons, and in the cases where this number is below a minimum threshold – to be determined by the Commission by means of implementing acts – the communication needs to include a plan to increase certification and training programmes.

The text, with respect to **restrictions on placing F-gases on the market and sale**, further defines the requirements applicable to undertakings which place on the market refillable containers for F-gases, in order to prevent containers from being discarded and not refilled. Furthermore, it establishes the requirements with which undertakings that place on the market and sell bulk F-gases need to comply. The text prohibits the 'exports of products and equipment including parts thereof, listed in Annex IV, with an exception for military equipment' from the date specified in the same Annex. The Annex introduces stricter dates from which it will no longer be possible to place on the market certain F-gases or products and equipment containing such gases, including

domestic refrigerators and freezers containing F-gases, no matter their GWP. The adopted text, amends the proposal, adding a new recital to the committee's report, highlighting that the ban on the placing on the market of parts of equipment, considered within the scope of the regulation, should not apply to parts required for repairs of existing equipment that has already been installed.

The text introduces quotas for the **production rights for placing HFCs on the market**, after 2035. Production rights would be 15 % of the annual average production in 2011-2013 from 1 January 2036 to 31 December 2049, and zero from 1 January 2050.

Details on **labelling and product and equipment information** requirements are added. The prohibition on servicing or maintenance from 2024 is extended to include air conditioning and heat pump equipment, mobile and stationary refrigeration equipment and chillers. Furthermore, the text lowers the threshold for the use of F-gases listed in Annex I, from GWP 2500 to 150, in the servicing or maintenance of stationary refrigeration equipment. The text would prohibit from 2030 the servicing or maintenance of stationary refrigeration equipment, excluding chillers, by F-gases listed in Annex I, with a global warming potential of 150 or more. Exemptions already included military equipment or equipment intended for applications designed to cool products to temperatures below -50°C, but the text would restrict these by narrowing down the exemption to medicinal products or equipment for applications to cool nuclear power stations. It also lowers the threshold for which reclaimed F-gases would be exempted from the above prohibition, from a GWP of 2500 to 150. The exemption for reclaimed F-gases use for the maintenance or servicing of air conditioning and heat pump equipment, mobile refrigeration and chillers would have a threshold of 2500 GWP. Furthermore, the text prohibits, with exceptions, the use of sulfuryl fluoride for post-harvest fumigation and treatment of wood and wooden products against pest infestation, from 2030.

With respect to **reference values and allocation of quotas**, the text increases the payment required for each quota from €3 to €5 in the period from 2024 to 2026, to increase every three years, in order to ensure constant revenue and to follow the quota phase-down, culminating with no more available quotas from 2050. Furthermore, according to the text, the Commission will have to assess – within one year of the entry into force of the regulation and every year thereafter – the impact of the quota phase-down on the Union's heat pump market. If disruptions are found in the above assessment, the Commission, through delegated acts, must allow a limited amount of additional quotas, until 2029, for HFCs that will be used in heat pumps to be placed on the Union market. The text also gives more details on the use of the revenue generated from the quota allocations.

In order to achieve a more transparent **F-gas portal**, the text details which information needs to made publicly available. With respect to **controls of trade**, the text adds that destruction of confiscated or seized non-refillable containers which do not follow the regulation needs to be performed by customs authorities. Furthermore, it instructs the same authorities to seize and confiscate F-gases that are imported or exported in violation of the regulation. The Commission must publish a report, by 30 June 2025, where it evaluates the potential risks of **illegal trade** and identifies additional measures to reduce those risks linked to movements of F-gases and of products and equipment containing those gases or whose functioning relies upon those gases.

On requirements on **reports by undertakings**, the text eliminates all the quantity thresholds foreseen by the proposal in order to include all actions, i.e. production, import, export, destruction, placing on the market. The Commission would have, by 31 December 2024 in a delegated act, to establish a common general framework for Member States to use to design a centralised electronic system. This system would allow the recording of all the collected information in accordance with the regulation. The **obligation to carry out checks** is extended to online platforms selling F-gases in bulk, or products and equipment containing such gases. Furthermore, Member States will need to provide the Commission with an annual summary of the data collected from the logbooks, which keep all gathered data from checking procedures, and the Commission must publish an annual summary, and assessment, with the information received from the Member States.

The text differs from the proposal on **penalties**, as it instructs Member States, in cases of violation of the regulation, to 'set out minimum administrative fines of at least four times the market value of the gases or products concerned and equipment concerned and maximum administrative fines of at least six times the market value of the gases or products concerned and equipment concerned'. For repeated infringements, the minimum fines are at least seven times and the maximum fines at least 10 times, respectively, the value of the gases or products and equipment concerned.

The proposal envisages the establishment of a **consultation forum**; the text states this should have balanced participation; opens the forum to Member State representatives and other stakeholders; and envisages close cooperation with relevant EU agencies. On the **review** of the regulation, the text requires the Commission to monitor, continuously, technological and market developments relating to the use of F-gases and their natural alternatives in the Union and, following the adoption of the revised REACH Regulation, to assess if the F-gas Regulation is coherent with it. Furthermore, the Commission must report on the implementation of the regulation, by 1 January 2027.

The Council adopted its position on 5 April 2023. The position, among other changes, amends the proposal's phase-down schedule, lowers the HFC quota allocation prices from €3 to €2, postpones several bans compared with the Commission's proposal, mainly for heat pumps, and takes a less prescriptive approach on the provisions on penalties.

The first trilogue meeting took place on 25 April 2023, and on 5 October 2023 the Parliament and the Council reached a provisional agreement. The agreed text sets 2050 as the year when placing HFCs on the market would be completely phased-out, and 2036 as the year by when the production of HFCs (in relation to production rights allocated by the Commission) would be phased-down to a minimum (15 %). According to the text, from 2027 to 2032, small (<12 kW) monoblock heat pumps and air conditioning containing F-gases will be phased-out. The agreed text also contains provisions relating to the deployment target for heat pumps, as required under REPowerEU, in such a manner that would allow for the release of a limited number of additional quotas for heat pumps. The HFC quota allocation price would be set at €3, adjustable for inflation. From 1 January 2028 there would be a mandatory extended producer responsibility scheme for products and equipment, containing F-gases that fall under the categories of electrical and electronic equipment that are subject to Directive 2012/19/EU on waste electrical and electronic equipment.

Several new requirements are included in the agreed text, such as conditions for the release, and recapturing, of F-gases in situations when it would be technically necessary. In respect to leak checks, the agreed text adds that equipment, installed in residential buildings, containing less than 3 kg of F-gases would not be checked, as long as they are labelled as hermetically sealed, and that electrical switchgear containing less than 6 kg of F-gases would be exempt, as proposed by the Commission but contrary to the Parliament's negotiating position.

In respect of record keeping, operators of equipment would additionally be required to specify the quantity of gases recovered for each piece of equipment that is subject to leak checks. The agreed text, in respect of penalties, follows the Commission proposal and does not keep the Parliament's position of introducing minimum administrative fines; instead, cases of unlawful production, import, export, placing on the market, or use of F-gases or of products and equipment containing those gases, or relying on them, would be subject to maximum penalties of least five times the market value of the concerned gases or products/equipment concerned.

The provisional agreed text was endorsed by Coreper on 18 October 2023 and by the ENVI committee on 24 October 2023. It needs now to be formally adopted by the Parliament and Council before publication in the Official Journal of the European Union. The regulation will enter into force on the 20th day following its publication in the Official Journal.

EUROPEAN PARLIAMENT SUPPORTING ANALYSIS

Erbach G., Using the Montreal Protocol for climate action, EPRS, European Parliament, 2016.

Hahnkamper-Vandenbulcke N., Review of the Regulation on Fluorinated Gases, EPRS, European Parliament, May 2022.

Rakstelyte A., Fluorinated greenhouse gases, EPRS, European Parliament, September 2022.

OTHER SOURCES

Fluorinated gases regulation, Legislative Observatory (OEIL), European Parliament.

Fluorinated greenhouse gases 2022, European Environment Agency, November 2022.

ENDNOTES

1 Reference values are the basis for allocating quotas to historic importers/producers. The calculation of reference values is based on the quantities of HFCs that each importer/producer placed on the market in the 2009-2012 reference period.

2 A smaller part of the overall maximum quantity of available quotas would be placed in a reserve, accessible to producers and importers that have yet to place HFCs on the market or that hold a reference value but wish to increase their quota allocation, thus allowing undertakings to enter the market or to expand their activities.

3 This section aims to provide a flavour of the debate and is not intended to be an exhaustive account of all different views on the proposal. Additional information can be found in related publications listed under 'European Parliament supporting analysis'.

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