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REQUEST FOR CONTRIBUTION

From: General Secretariat of the Council
To: Working Party on the Environment

Subject: Suivi de la réunion du groupe environnement du 20 mai 2022 : Présentation de la Commission et appel à commentaires

Les délégations trouveront ci-joint la présentation de la Commission présentée à la réunion du 20 mai 2022 du groupe environnement sur le projet de règlement relatif aux gaz à effet de serre fluorés et le projet de règlement relatif à des substances qui appauvrissent la couche d'ozone.

Les délégations sont invitées à envoyer des commentaires écrits sur les deux projets de règlement à la présidence (

avec copie au Secrétariat Général du Conseil
environnement@consilium.europa.eu) jusqu'à **vendredi 3 juin COB**.

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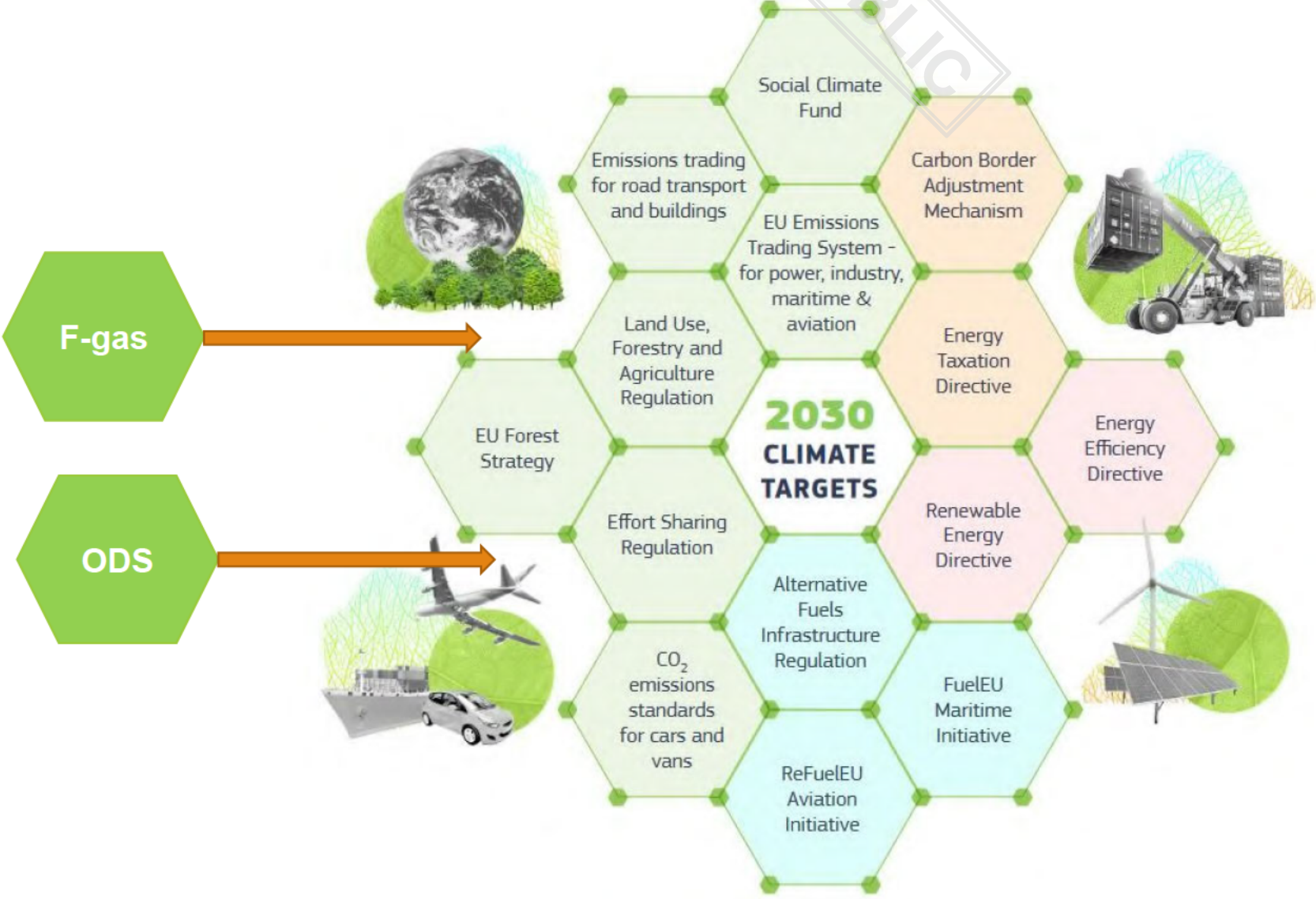


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DELIVERING THE EUROPEAN GREEN DEAL

*Review of Regulations (EC) 1005/2009 & (EU) 517/2014
ozone depleting substances & fluorinated greenhouse gases*

EU climate and energy polices



The international context

Montreal Protocol on substances that deplete the ozone layer [and HFCs]:

- Since 1989 phasing out ODS => Ozone hole recovery expected in second half of century
- Since 2019 phasing down HFCs (despite not ozone depleting)

Protocol's contribution to Paris Agreement (max increase 2°C ideally only 1.5°C)

- Global ODS phase-out avoiding at least 2°C increase in 2070 (needs to be sustained)
- Global HFC phase-down avoiding around 0.4°C increase by the end of the century (would be mostly additional warming due to increasing equipment use)

⇒ **Sustaining the Montreal Protocol → extremely important**

[Source: Ozone Facts and Figures 5-4.pdf \(unep.org\)](#)

Links between the ODS and F-gas proposals and climate targets

	Reducing F-gas emissions	Reducing ODS emissions
Paris Agreement temperature goal and long term strategies	√	√ Temperature goal, but not counted as GHG
EU 2030 target: at least 55% reduction	√	
MS' national GHG emission target under the Effort Sharing Regulation	√	

Main objectives of EU ODS and F-gas Policies

- **Prevent emissions where technically and economically feasible**
 - **Ensure full EU Montreal Protocol compliance**
(until 2016 F-gas objective: facilitate agreement on a global HFC phase-down)
- + promoting innovation, green growth, leading by example ...

Regulations almost fit for purpose

Evaluations showed the Regulations generally work quite well => **main structure in both Regulations should be kept.**

Review method:

1. Identify challenges and “Review objectives” for fine-tuning each Regulation
2. Identify possible measures that could contribute to review objectives
3. Bundle measures in **3 packages with different expected cost levels & all 3 options must safeguard Montreal Protocol compliance**
4. Analyse the impacts and choose the preferred option

Proposed F-gas Regulation

- Building on success
- Main challenges and review objectives
- Main changes
- Main impacts
- Main stakeholder views

Building on a success!

F-gas Regulation (EU) No 517/2014

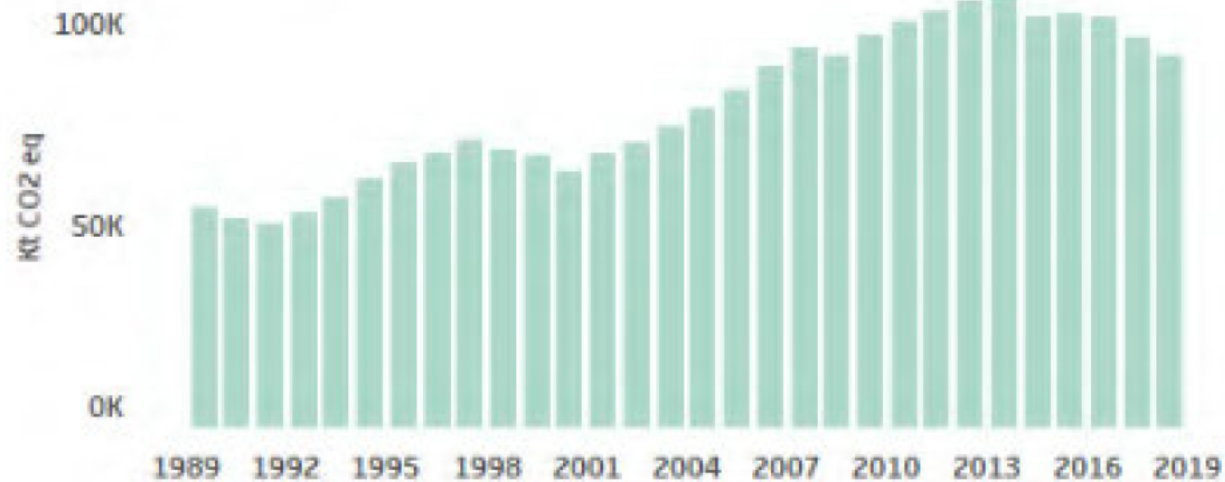
Some highlights

- Drop in EU demand (CO₂ e) of F-gases from 2015 to 2019 (-13%), for HFCs this is -47%!
- Global Warming Potential in imported equipment has dropped by 33%
- 62% emission reduction in the refrigeration sector
- More reclaimed gases and smaller leakage rates
- The F-gas Regulation has been an innovation driver:
 - companies using *natural* alternatives increased >60% from 2013 to 2016
 - >80% of refrigeration companies increased R&D from 2011 to 2016
 - 40,000 transcritical CO₂ systems installed in Europe, more than the rest of the world combined
 - 2,200 low-charge *ammonia* system in Europe, relative to a global total of 4,000
 - 700,000 cooling devices with *hydrocarbons*, e.g. display cases, in supermarkets

Building on a success! F-gas Regulation (EU) No 517/2014

Emissions in EU-27

Hover over the bars to see emissions



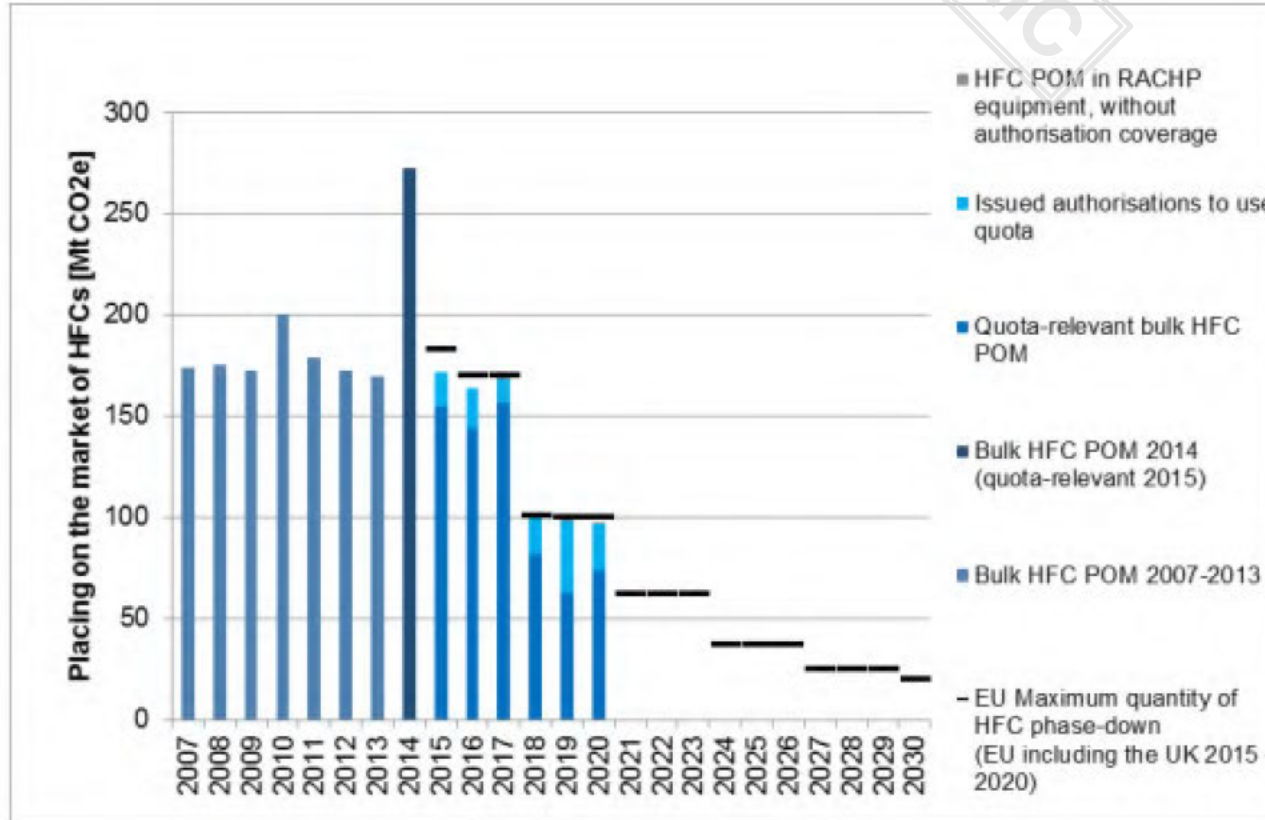
Source: EEA GHG data viewer



Kigali Amendment will cut the HFC production and consumption by more than 80 percent over the next 30 years.

Building on a success!

F-gas Regulation (EU) No 517/2014

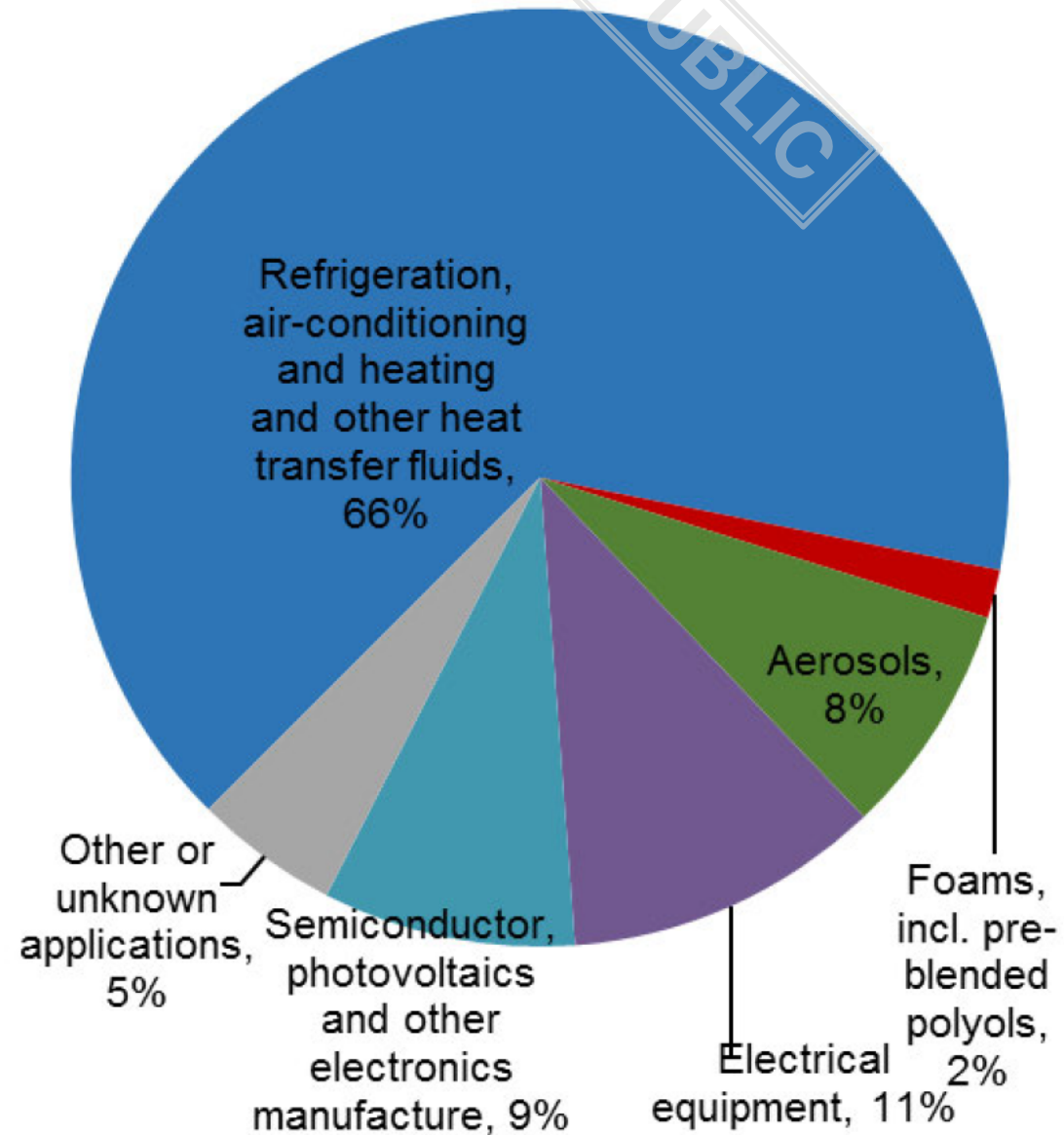


Placing on the market (POM) of HFCs in the EU

Source: EEA, Annual report on fluorinated greenhouse gases 2021

Where are F-gases used today?

Intended use for F-gases placed on the market (tCO₂e)



Remaining Challenges

- Envisaged 2030 emissions reductions will not be fully met by the Regulation
- New climate objectives (“Green Deal”) not yet considered in ambition level
- Little transition in some F-gas sectors (e.g. asthma sprays (HFCs), power lines (SF6), pest control(SO2F2), inhalation anaesthetics)
- The Regulation needs adjustment to fully ensure compliance with international rules in the long run
- Occurrence of illegal trade and activities, lack of training, monitoring and reporting gaps
- Lack of flexibility in case of undesirable effects of the quota system (unavailability of gas)
- Scope for some efficiency gains; lack of clarity and coherence of legal text

Main changes to the F-gas Regulation

- A. Align to the Green Deal climate ambition
- B. Streamline with Montreal Protocol (Kigali Amendment)
- C. Better implementation and enforcement
- D. Improve monitoring and reporting
- E. Coherence and clarifications

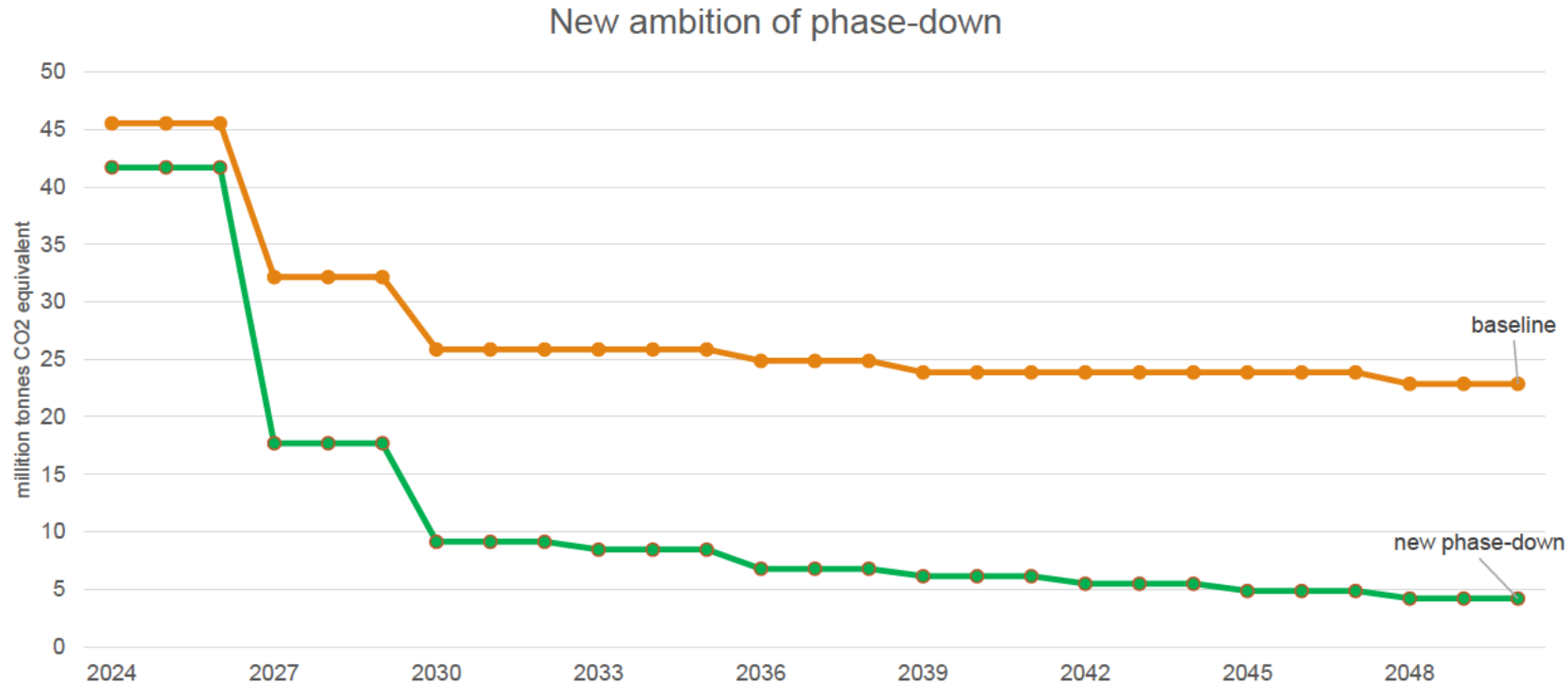
Main changes to the F-gas Regulation

A. Align to the Green Deal climate ambition

- Steeper HFC phase-down (Annex VII)
- Additional Placing on the market and use prohibitions (Art 11, Art 13, Annex IV)
- Extending containment measures to more activities and gases (Article 4 to 10: e.g. from gases in Annex I only to Annex I and II as well as Annex I, II and III)
- Recovery obligation for some insulation foams (Article 8) (analogy to ODS rules)

The HFC phase-down / quota system

Potential climate impact of new HFCs coming onto the EU market to be reduced by almost 95% in 2030 and 98% from 2015 to 2050



Approximation taking into account the inclusion of HFC equipment in 2017 and MDI HFC use from 2024.

Most important placing on the market (POM) & use prohibitions

- POM with gases GWP ≥ 10 [or ≥ 2000] in switchgear between 2026 to 2030 (Annex IV point 23)
- POM with gases GWP ≥ 150 or 750 in air conditioning and heat pumps between 2025 and 2027 (Annex IV points 17 and 18)
- POM with gases in personal care products and skin cooling equipment 2024 (Annex IV points 21 and 22)
- Use of gases GWP ≥ 2500 in smaller refrigeration equipment (charge size ≤ 40 tCO₂e) and use of desflurane as inhalation anaesthetic (Article 13)

Some existing prohibitions have been extended from HFCs to all F-gases as a preventive measure.

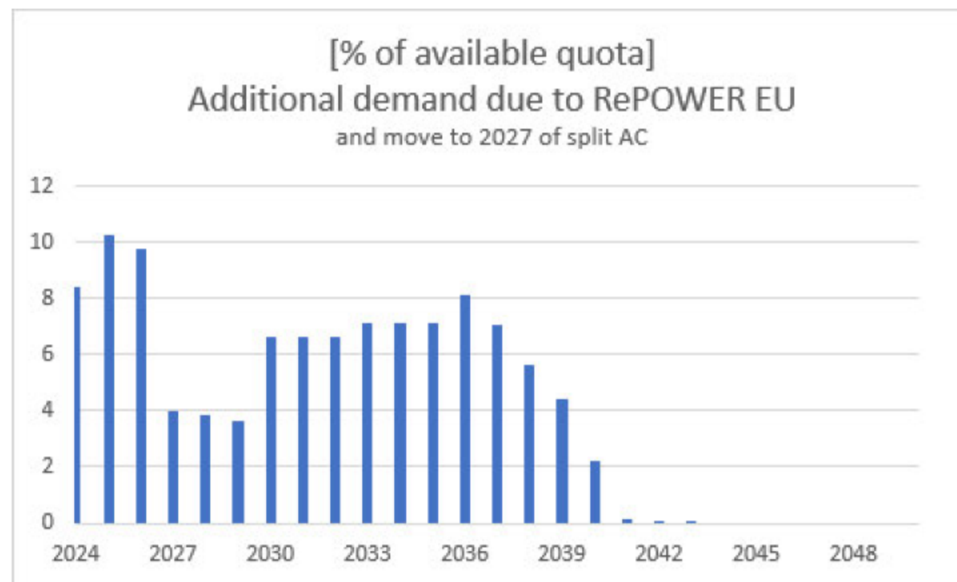
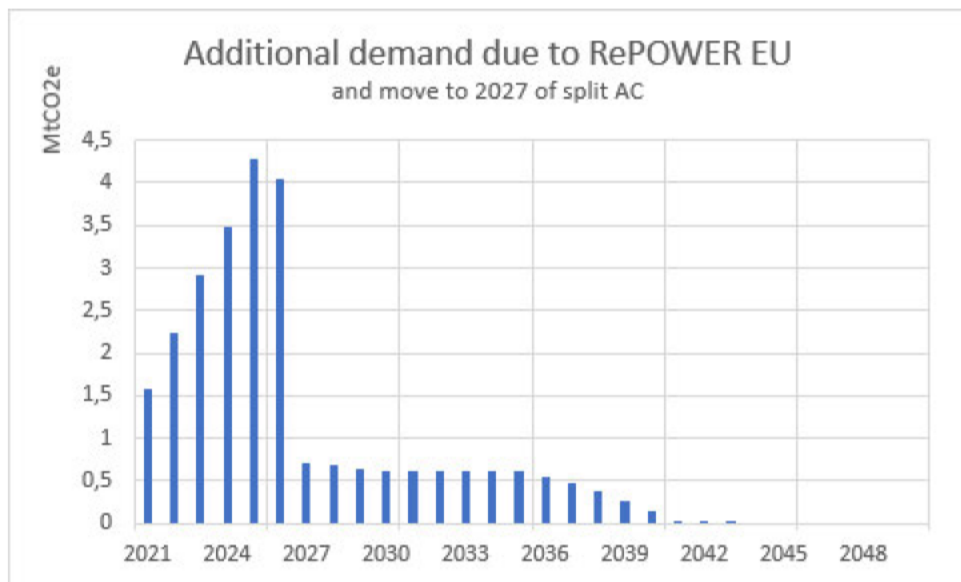
Consistency with REPowerEU

The proposal is taking high heat pump growth into account by:

- Setting prohibition dates that allow sufficient time for increasing and adapting the manufacturing capacity to solutions that already exist.
- Having an economy wide phase-down, with likely quota buffers, e.g. MDI buffer and a large “bank” of unused equipment “authorisations” => Sufficient HFCs to satisfy additional needed HFC for heat pumps.
- Overall costs to consumers will not increase. Rather, there will be energy savings to endusers, in particular in refrigeration and AC.
- Reducing HFC dependency is part of the strategy to increase EU independency.

Impacts of Repower EU

The additional HFC needed to accommodate assumed heatpump growth for Repower EU is < 10% of the available quota each year



The phase-down includes a number of buffers: ca 8 MtCO₂ in MDI allocation/MDI for export/Car AC for export per years, in addition to a total of 63.5 MtCO₂e in unused authorisations

→ The proposal is fully in line with heatpump growth assumed under Repower EU

Main changes to the F-gas Regulation

repealing (EU) 517/2014

B. Streamline with the MP Kigali Amendment

- Remove MDI exemption from phase-down (Art. 16)
- Remove minimum thresholds for HFCs (Art. 16 and 26)
- Separate HFC production phase-down and transfer rules (Article 14 and 15)
- Trade prohibition with non-parties to the Kigali Amendment (Article 25)

HFCs for MDIs under the phase-down

- MDIs relate to patients (i.e. sensitive). A new ball game compared to 2014 = alternatives are now available and no need for the patient to get used to other technologies that are also available (e.g. dry powder, fine mist). MDI producers expect to introduce alternatives in 2024/25 and achieve full conversion by 2030.
- The phase-down is based on modelled need for HFCs. Assumes relatively high need for MDIs:
 - Soft start: 2024-2026 quota to importers/producers will include 100% of their reported POM for MDIs in 2020+ => **initially assuming no reduction in HFC** need for MDIs. 2027 first step down (same degree as the rest of the HFC market) and another step in 2030.
 - **High MDI growth is assumed before the start of the conversion (until 2024/25) and a reduction of CO₂e to a third by 2030.**
 - A large share of MDIs are exported for which **quota need can be avoided** by importing HFCs under certain custom procedures. The modelled „needed quota“ includes HFCs for all exported MDIs.

→ ***Clear signal to the MDI sector but treated carefully to get a smooth transition. Modelled „quota need“ for MDIs is probably overestimated => “Surplus quota“ available for other sectors (buffer). Still crucial to be able to adjust in case of unforeseen market disruptions/serious problems. Better safe than sorry.***

Main changes to the F-gas Regulation

repealing (EU) 517/2014

C. Better implementation and enforcement

- Specific provisions for customs authorities and competent authorities and dedicated customs offices. (Art. 23, 28 and 29)
- Sufficient quota and quota exemption labelling at the time of POM (Art 16 and 12)
- Entry, subsequent supply and export ban on non-refillable containers. Subsequent supply of goods is prohibited 2 years after the POM ban date, unless there is evidence of lawful placing on the market (Art. 11)
- Quota price; quota holders must have a distinct physical address; and new entrants must be chemical traders, and may not authorise quota; triannual declarations only (Art. 17, 18 and 21)
- Whistle-blowing and penalty requirements (Art. 30 and 31)
- Certification and training programmes to cover energy efficiency and F-gas alternatives (Art. 10)

...

Quota allocation method (1)

- **Maximum quantities (total annual quotas) and 2015 base-value**, given as fixed tonnes CO₂e (Annex VII), rather than as formulas in the current Regulation => clarity **NEW!**
- Inclusion of HFCs for **MDIs under the phase-down** (i.e asthma sprays) **NEW!**
- **Two distinct reference values** based on historic placing on the market (POM) :
 - Based on average POM for MDI use from 2020 to most recent year **NEW!**
 - Based on average POM for all other HFC uses (non-MDI) from 2015 to most recent year
- **Companies can get quota** based on (i) Non-MDI reference value , (ii) MDI reference value, and (iii) declaration of additional need. [*Calculated quota amount*] **NEW!**
- **Additional need „reserve“**: Total annual quotas minus all quota calculated on the basis of reference values (ca 10-15%); distributed *pro rata* to applicants.
- **Declarations** every 3 years instead of yearly **NEW!**

Quota allocation method (2)

NEW!

Quota allocation price: purpose is to limit quota to serious gas traders (more likely to follow the rules) and prevent abuse (100 gas importers pre-2014 to 2500 in 2019)

Steps:

1. Request €3/tCO₂ for the *calculated quota amount* from each company;
2. Allocate the quota that was paid for to each company
3. Allocate the unpaid quota, free-of-charge, to those companies that paid their calculated quota amount in full (weighted by quota share)

Max annual revenue: 125 million € initially, 53 million € from 2027, 27 million € from 2030 ... **Amount will depend on the share of quota paid (step 1).**

Cover admin costs and residual returned to the EU budget, i.e. benefit MS in the form of reduced budget payments.

Main changes to the F-gas Regulation

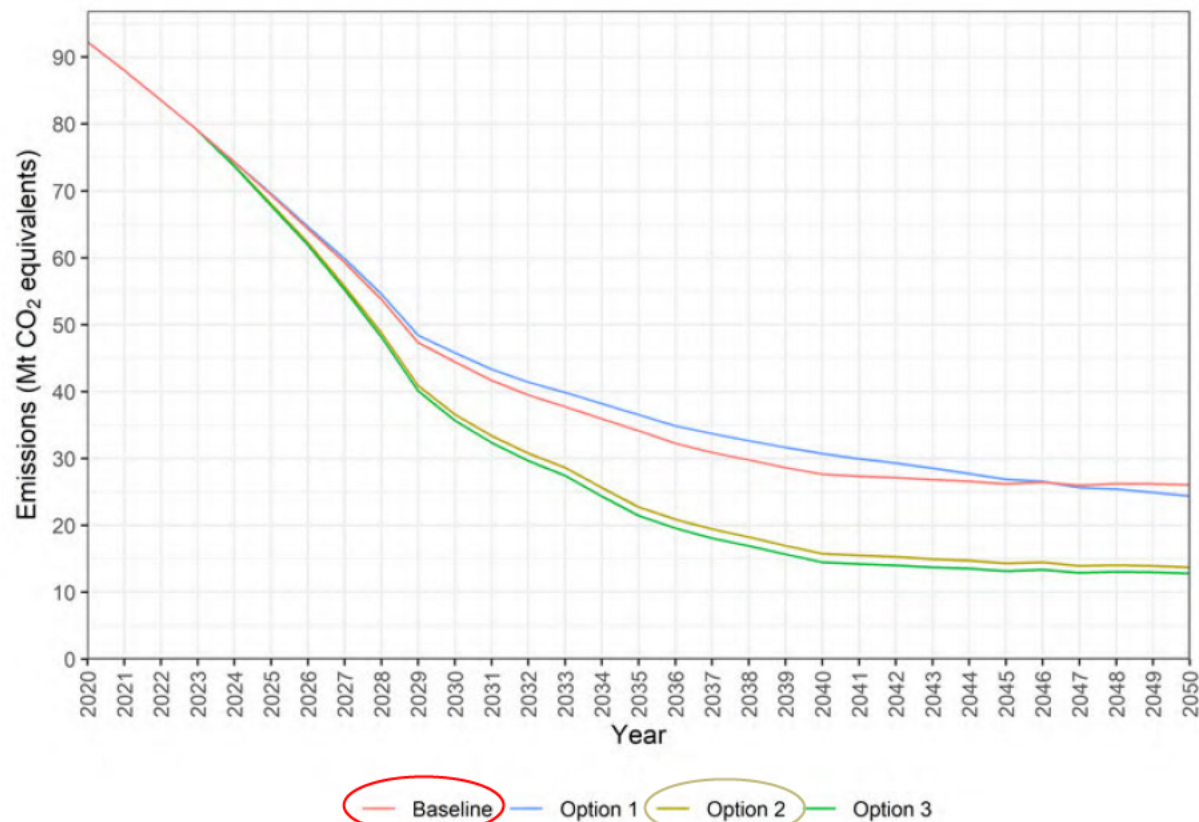
repealing (EU) 517/2014

D. Improve monitoring and reporting

- Reporting on additional substances and recipients, i.e. quota exempted gases and reclamation facilities (Annex I, II and III and Art. 26)
- Streamline reporting thresholds: Bulk HFCs 0, HFC equipment 100; Bulk 'other F-gases' 100 and 'other F-gas' equipment 500 (Art. 26)
- Streamline HFC verification thresholds: HFC bulk and equipment 1000 (Art. 26)
- Streamline reporting and verification dates: 31 March for reports and 30 April for verification (Art. 26)
- Must submit nil reports and verification reports (Art 26)
- Legal basis for electronic verification system (Art 26)
- Encourage Member States to use electronic reporting systems to collect emission data (Art. 27)

Achievable emission savings

= total annual
GHG emissions
BeNeLux



• Additional savings of ca 310 MtCO₂e compared to baseline (2050)

- Thereof: 253 MtCO₂e from phase-down/prohibitions
- Thereof: 55+ MtCO₂e from expanded emission prevention measures (Annex II) and foams

• Baseline (current Regulation) savings are 430 MtCO₂e (2050)

→ With revision, total potential savings from Fgas Regulation are 740 MtCO₂e

= total annual GHG
emissions
BeNeLux + France

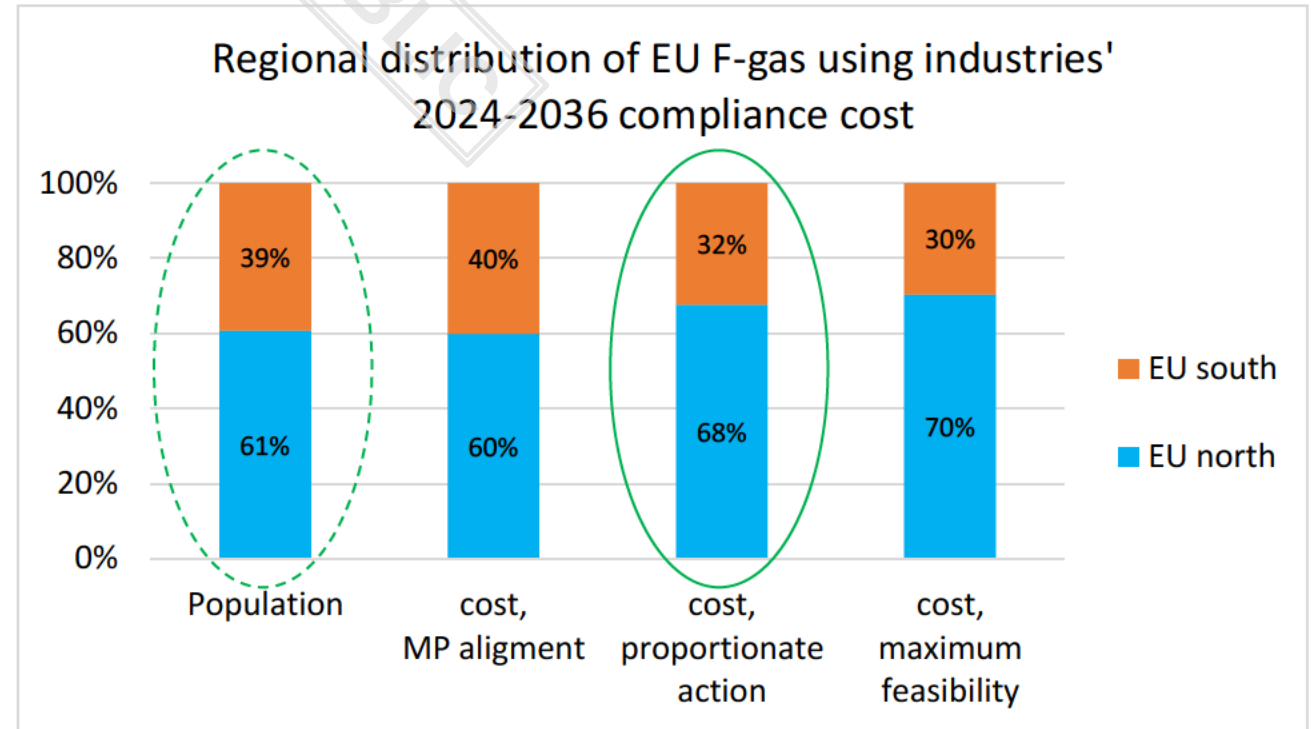
Other main impacts of the Fgas proposal

	Impact
Additional energy savings	0.07% in 2030 and 0.35% in 2050 of baseline electricity use
Overall climate abatement cost	-36€ per tonne CO ₂ e technology change costs (2024-2036 average)
Sectoral conversion costs	Up to €336 per tonne CO ₂ e in a few sectors (mobile AC, switchgear)
Economic effects	<ul style="list-style-type: none">- Slightly positive GDP, investment and employment effects- Stimulating effects especially in the equipment manufacturing sector & its supply industry- Innovation is promoted, European companies are first movers- No significant impacts on consumer prices or gender equality- Impact on SMEs moderate

Regional effects

No strong regional effects resulting from the proposed policies were found:

- F-gas equipment unequally distributed in EU
- Investment in replacement technologies and types of equipment shows some variations
- Relative to the population, costs rise slightly more in the North
- Energy savings for AC users in the South
- At macroeconomic level, these differences are too small to be noticeable



Expected administrative costs

	Business (million € per year)
Objective A: Higher Ambition	4.4
Objective B: Aligning with the Montreal Protocol	0.02
Objective C: Better implementation & enforcement	5.7
Objective D: Improve monitoring & reporting	-2.5
Total Cost	7.6

Total cost for 27 Member States:
Ca 8,400 person days per year recurrent;
Ca 250 person days one-off

At European level:
Ca 2,300 person days per year recurrent;
Ca 2,400 one-off (mostly allocation price)

1.9 million € (of 7.6 million €) are required by international rules or to reduce illegal activities

Why was this package of measures the preferred option?

- An option to **simply align with the Montreal Protocol** and include very low cost measures resulted in increased emissions compared to the baseline and is clearly insufficient in view of the Green Deal.
- An option to do **everything that would be (technically) feasible** resulted only in marginal additional environmental benefits, while the costs for the additional sub-sectors affected and authorities concerned would be very high.

The chosen option has the **most appropriate cost-benefit balance** as it

- achieves a very substantial amount of additional emission savings at a modest price tag;
- avoids hardship for any affected sectors;
- will stimulate green technologies further; and
- sets the scene for a better application of the rules and monitoring.

Stakeholder consultations

- There is very good support from all stakeholder types for proposed rules on enabling better enforcement and monitoring, especially rules related to illegal trade and enabling better training on the alternatives
- There is very good support for aligning the rules with the Protocol
- On ambition, industry is divided. More traditional companies using HFCs are reluctant to go further, while innovative companies are calling for strong signals on further reductions of HFCs
- The principle of prohibition/phase-down in new areas, e.g. switchgear and MDIs, is not questioned by the affected stakeholders, but there are some worries linked to understanding the new rules
- NGOs would like more ambition, including many new prohibitions in all sectors

F-gas Regulation

PUBLIC

Q&A

Proposed ODS Regulation

- Building on success
- Main challenges and review objectives
- Main changes
- Main impacts
- Main stakeholder views

Building on success!

Regulation (EC) No 1005/2009

Key to sustain and control general phase-out of ODS in the EU in an efficient way => **Locking in a 99% reduction of ODS consumption and production** compared to Montreal Protocol baselines. Emissions only from few exempted uses and very old products and equipment.

Emission levels 2019	Ozone depleting	Climate warming
Emissions from new production and exempted uses Annex I ODS	74 ODPt	0.3 Mt CO ₂ e
Emissions from new production and exempted uses Annex II ODS	ca. 22 ODPt	ca 0.01 Mt CO ₂ e
Emissions from banks Insulation foams	Ca. 6000 ODPt	Ca. 37 Mt CO ₂ e

Main emission
reduction
potential

Remaining Challenges

- Emissions from insulation foams reaching end-of-life
- Make the rules more efficient as phase-out essentially accomplished in EU, while maintaining a high level of control
- Enable digitization for better trade control, e.g. Single Window
- Some monitoring and reporting gaps
- Lack of clarity and coherence of legal text

Main review objectives for the ODS Regulation

- A. Align to the Green Deal
- B. Improve efficiency/simplification & enforcement
- C. Improve monitoring
- D. Improve coherence
- E. Clarifications

Main changes to the ODS Regulation

A. Align to the Green Deal = reduce emissions

- Must recover ODS from certain old foam panels & boards when the buildings are renovated or demolished (Art. 20).
 - Burden of proof on owner or contractor to prove infeasibility of no recovery
- No halon destruction to prevent (future) new production (Art. 20)

Main changes to the ODS Regulation

B. Improve efficiency/simplification & enforcement

- Higher level of control while simplifying the trade licensing system : Automatic and seamless customs control at shipment level through a link between the EU Single Window for customs and the ODS licencing system + shift for application for licences from 'per-shipment' to 'trader' (Article 16, 17 & 18)
- Abolition of annual quota system (Montreal Protocol phase-out completed)
- Abolition of laboratory registrations – record keeping instead (Article 8)
- Delay halon prohibition for normally unoccupied cargo compartments (Annex V)

Main changes to the ODS Regulation

C. Improve monitoring – Added reporting on ...

- Streamlining reporting on ODS for Annex I and II (Article 24 and Annex VI)
- Report on sales and purchases of ODS (Annex I) also for producers, destruction facilities and feedstock/process agent users
- Emissions related to producers and destruction (Annex VI)
- New(er) ODS (Annex II): $C_3H_2BrF_3$ 2-bromo-3,3,3-trifluoroprop-1-en (2-BTP); CH_2Cl_2 Dichloromethane (DCM); and C_2Cl_4 Tetrachloroethene (Perchloroethylene (PCE))
- Global warming potential for each ODS, if available, for information purposes (Annex I and II)
- Member States on imposition of penalties (Article 23)

Main changes to the ODS Regulation

D. Improve coherence

- Update process agent limits with MP (Annex III)
- Declare necessary information at customs to link to Single Window (Art. 17)
- Spell out obligations of customs, market surveillance and economic operators (Art. 17 and 18)
- Ensure dissuasive penalties also considering the Environmental Crimes Directive (Art. 27)
- Align with F-gas requirement to destroy HFC23 by production (Art. 15)

Main changes to the ODS Regulation

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E. Clarifications

- Clarify that ...

See list in Annex VII of the impact assessment that was based on input from stakeholders, Member States and COM experience

Main impacts of the ODS proposal

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	Impact
<u>Additional climate warming emission savings</u>	179 Mt CO ₂ e until 2050 [All GHG emissions in NL was 181 MtCO ₂ e in 2019]
<u>Additional ozone depleting emission savings</u>	32 000 ODPt until 2050
Climate abatement cost	< 20 € per tCO ₂ e abated where waste infrastructure available and in all cases significantly below costs required by other sectors to reach climate neutrality
Economic effects	Slightly positive GDP and employment effects in the waste treatment/recycling sector Same administrative costs savings for businesses and authorities

Why was this package of measures the preferred option?

An option to only include **measures that entailed very low or no costs** resulted in emission savings that were half of what could be achieved with the preferred option.

An option **to include all measures that were (technically) feasible** turned out to be too costly compared to the (uncertain) additional benefits it would generate.

The chosen option

- Achieves a substantial amount of additional emission savings at moderate abatement costs;
- Achieves better, more efficient control and monitoring.

Stakeholder consultations

- Essentially all stakeholders agreed on the need to safeguard the progress made
- Most also welcomed maintaining global leadership and many wanted a high level of ambition. On the latter, businesses were less in favour than other stakeholders.
- General support for changes to custom provisions and aligning with the Fgas Regulation.
- Some MS were reluctant on some of the efficiency measures proposed, but supported measures to improve monitoring and reporting.

ODS Regulation

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Q&A