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EHPA Position Paper on the revision of the F-gas Regulation (517/2014)

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Introduction

On 5 April 2022, the European Commission (EC) made a legislative proposal to update the F-gas Regulation (*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*). The proposal is now being negotiated by the European Parliament and the Council, in the framework of an ordinary legislative procedure.

The European Heat Pump Association (EHPA), representing the heat-pump technologies value chain in Europe (heat pump and component manufacturers, research institutes, universities, testing labs and energy agencies) is a **strong supporter of the current F-gas Regulation** which – following a realistic schedule – has contributed to the significant decrease of emissions from fluorinated gases in Europe and has set the right tone to do so effectively in the future.

EHPA is also fully committed to the implementation of the European Commission's **REPowerEU plan** supporting the targets requiring **around 20 million heat pumps to be installed in the EU by 2026 and nearly 60 million by 2030**. It also calls for increased efforts to meet the objectives of the European Green Deal and the "Fit for 55" package as soon as possible, especially in the heating and cooling sector.

Against this background, EHPA is alarmed that the EC F-gas Regulation proposal contains provisions that lower EU's ambition level to achieve its decarbonisation and energy security goals, by considerably obstructing the required accelerated massive growth of heat-pumps.

This position paper provides EHPA's views on:
- how the F-gas Regulation proposal lowers EU's ambition level on decarbonisation and energy security;
- how to make the F-gas Regulation more ambitious.

1. How the F-gas Regulation proposal lowers EU's ambition level on decarbonisation and energy security

EHPA welcomes many provisions in the F-gas Regulation proposal which extend requirements on leak checks, containment, reporting and certification, and training. However, we fear that the new provisions on bans for certain heat pumps (Annex IV (17 and 18)), as well as on the new maximum amount of hydrofluorocarbons (HFCs) allowed to be placed on the Union market (Annex VII) will slow down EU's efforts towards better climate change mitigation and more energy security.

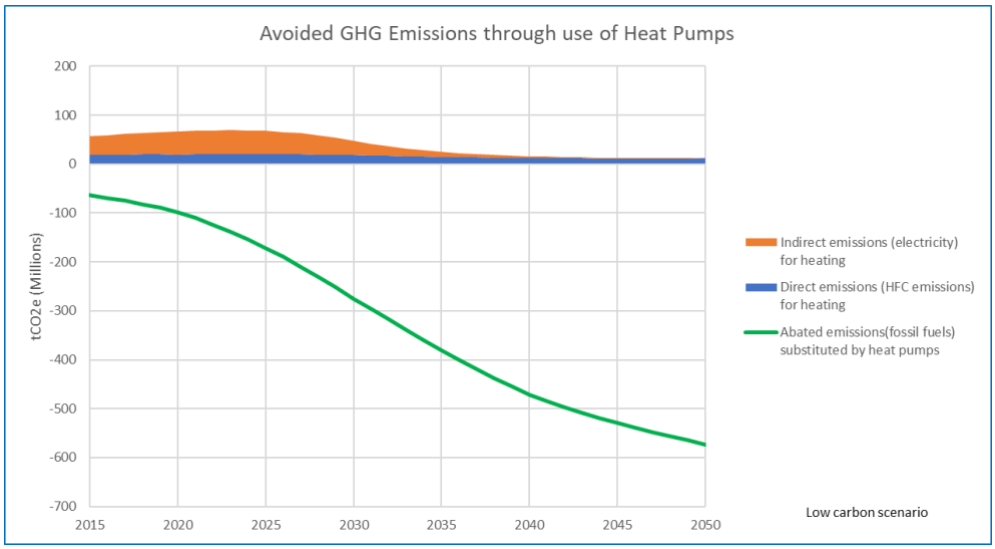
1.1. The proposal is not consistent with the "Energy Efficiency First" principle (and the broader scope of the "Fit for 55" package)

In its Energy Efficiency First Guidelines, the Commission state that *"[…] the [Energy Efficiency First] principle requires consideration of potential negative impacts on energy efficiency of specific decisions […] that could prevent energy efficiency in the long run."*[1] This test has not been properly carried out in the impact assessment of the F-gas Regulation proposal[2].

[1] ANNEX to the COMMISSION RECOMMENDATION on Energy Efficiency First: from principles to practice. Guidelines and examples for its implementation in decision-making in the energy sector and beyond (C(2021) 714 final), p. 7.

[2] In the Explanatory Memorandum of the F-gas Regulation proposal it is stated that *"[s]pecial attention has also been paid to the fact that the decarbonisation of the energy system will require high growth rates for heat pumps that currently are marketed with F-gases in the Union"* and that *"the proposed review of the quota system, following the preferred option of the impact assessment, has sufficient buffer to allow for such growth in heat pump deployment"*. However, the impact assessment

The modelling carried out by European Partnership for Energy and the Environment (EPEE)[3] shows that *"that abated CO2 in 2050 from heat pumps systems will be 47 times greater than their direct (i.e. refrigerant) and indirect (i.e. electricity) greenhouse gas emissions:"*



The consequence of an incomplete assessment of the "Energy Efficiency First" principle is that the proposal fails to take into account that **the decarbonisation impact of a massive heat-pump deployment considerably outweighs any potential benefits from further reducing emissions from refrigerants**. Given the importance of the heating and cooling sector (responsible for 50% of EU final energy demand, with most of the heat currently generated by burning fossil fuels), **the "silo approach" on HFC reduction in the proposed F-gas Regulation actually reduces EU's ambition level on decarbonisation as it risks obstructing the needed massive deployment of heat pumps**.

Beyond energy efficiency and decarbonisation, **the proposed F-gas Regulation also puts at risk other parts of the European Green Deal and the "Fit for 55" package** published by the EC in 2021, as a slow-down in heat pump deployment also means that EU's targets on renewable energy, circularity, smartness and air quality (to which heat pumps significantly contribute) will be more difficult to achieve[4].

1.2. The proposal is not consistent with the "REPowerEU" plan

The European Commission's REPowerEU plan published on 18 May 2022 calls for an accelerated heat-pump deployment to help the EU reduce its dependency on Russian gas for heating in homes, buildings and industry. This entails the need to double annual heat-pump sales, add 10 million hydronic heat pumps by 2026, and a total of 30 million hydronic heat pumps by 2023. As all heat pump technologies contribute to EU's energy security, EHPA calculates that this means around 20 million heat pumps by 2026 and nearly 60 million heat pumps installed in the EU by 2030.

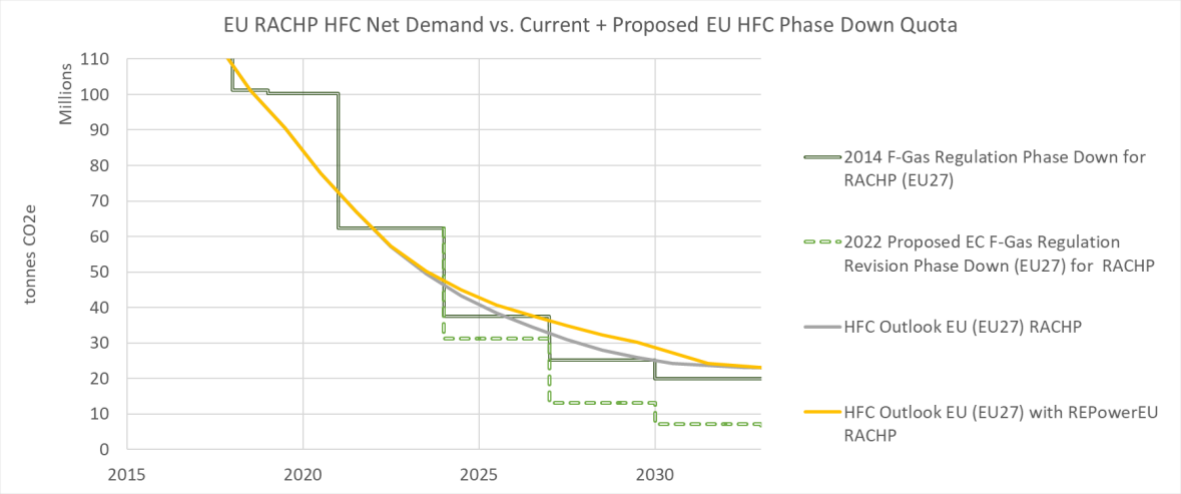
The proposed F-gas Regulation timidly refers to the "REPowerEU" plan and makes the case for even tougher policies on the use of F-gases by heat pumps. Considering the REPowerEU initiative as a mere parameter to be taken into account by the F-gas Regulation sets a wrong interplay between those initiatives. **The "Energy Efficiency First Principle" (see above) and the new geopolitical priorities of the EU require an unprecedented level of support for massive and accelerated heat-pump deployment. This objective has not been included in the F-gas Regulation proposal**, as the timing did not allow to take into account the most recent political developments.

On the contrary, as also shown in the modelling carried out EPEE[5], **the F-gas Regulation proposal leaves no HFC quotas available from 2027 for new RACHP equipment (let alone exports), leaving the industry with reduced technological possibilities for the challenges ahead.**

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fails to properly weight the consequences of a potential slow-down of heat-pump deployment against expected gains from HFC emission reductions, nor does it even consider potential gains arising from an accelerated heat-pump deployment due to reduced constraints on refrigerants.

[4] It is important to note that heat pumps provide decarbonised, efficient, renewable and smart solutions needed for residential, commercial and industrial applications across all sectors of Europe's economy.



As far as the use of refrigerants is concerned, it is also to be noted that **the "REPowerEU" effect and the support it entails for massive heat pump deployment naturally leads to an increased switch to refrigerants with lower GWP under the phase-down laid down in the current F-gas Regulation** (since the same amount of quotas becomes available for an increased number of heat pumps).

1.3. The proposal is not consistent with "EU Industrial Strategy" and ignores the industry's needs

The 2020 EU Industrial Strategy announced actions to support the green and digital transitions of the EU, among which providing a coherent regulatory framework to achieve the "Fit for 55" ambitions.[6]

The F-gas Regulation proposal puts EU's industrial policy at risk by suggesting a timeline for the HFC phase-down and new bans on products in an incoherent way, which creates a high level of uncertainty for the green industry. The heat-pump industry may face potential new restrictions on the use of refrigerants under the REACH/PFAS framework (that will not be known before 2026)[7] and is expected to comply with new standard IEC60335-2-40 (that was published after F-gas Regulation and still needs to be made compliant with the Low Voltage Directive[8][9]. Furthermore, heat pumps will need to meet the new efficiency criteria under Ecodesign lots 1,2,10 and 21[10] and some of their components will have to be redesigned following the upcoming implementation of the Sustainable product initiative[11], as well as the revisions of the REACH Regulation and RoHS directive[12]. **This state of things prevents the industry from carrying out any meaningful R&D activities to support the accelerated achievement of EU climate and energy goals**.

The F-gas Regulation proposal also creates **more uncertainty by providing an unclear scope for the suggested bans and using unclear concepts.**

Overall, the F-gas Regulation proposal seems (without providing sufficient clarity) to take the bet that steering the industry towards the exclusive use of non-fluorinated refrigerants as soon as possible could offer useful guidance. Based on Eurovent and Keymark data, this would require that more than 30,000 different types of heat pumps would need to be redesigned (about 10 years are usually needed to redesign a whole product portfolio). **A rushed approach would not be in line with realistic product development timeframes for the industry and could only lead to a deceleration of heat-pump deployment instead of accelerating it.**

2. How to make the F-gas Regulation more ambitious

[10] Ecodesign lot 10 is expected to kick in from 2025 with possibly new test methods from 2027. Lots 1 and 2 will have new energy effiency thresholds and test methods by 2025, and lot 21 probably by 2030.

As mentioned above, EHPA is a **strong supporter of the F-gas Regulation framework** which – in the law currently in force – has contributed to a significant decrease of emissions from fluorinated gases in Europe and the deployment of refrigerants with lower GWP, while ensuring a steady growth of the heat-pump market. EHPA also supports many of the new provisions in the F-gas Regulation proposal on enforcement, leak checks, containment, reporting and certification, and training.

However, as explained above, the new provisions on bans for certain heat pumps (Annex IV (17 and 18)), as well as on the new maximum amount of hydrofluorocarbons (HFCs) allowed to be placed on the Union market (Annex VII) will lower EU's ambition level on decarbonisation and energy security. Consequently, EHPA makes the following suggestion to make the new F-gas Regulation more ambitious.

2.1. Delete or considerably amend points 17 and 18 in Annex IV

The bans on heat pumps suggested in the F-gas Regulation proposal are unclear, inconsistent and unrealistic.

For this reason, EHPA proposes:

- **Principally, to delete the provisions (and re-examine potential new bans in the subsequent revision of the F-gas Regulation).**

- **In a subsidiary way, to amend the Regulation to ensure that all the following conditions are met:**
  - the scope (capacities and type of equipment) and definitions must be made crystal clear in the provisions;
  - clarity has also to be provided in the Regulation on how the bans will operate in practice and how the functioning of the single market can be ensured with these bans;
  - the "Energy Efficiency First" principle must apply and consistency with the REPower EU Action Plan and the Renewable energy directive must be ensured, meaning that potential bans on renewable technologies such as heat pumps may not take effect before the deadline of "no more fossil fuel-only boiler sales" (currently set for 2029 under the REPower EU Action Plan);
  - the bans must take into account the interplay with potential restrictions arising from other policies (such as the REACH/PFAS framework, the IEC60335-2-40 standard, the Ecodesign lots 1,2,10 and 21, the Sustainable product initiative, the RoHS directive, as well as national building codes and legislation) ensuring that the "legislative energy cocktail" will under no circumstance hinder the required massive and accelerated deployment of heat pumps;
  - the bans must take into account that the industry needs about 10 years after the entry into force of a legislation to redesign its whole product portfolio.

2.2. Keep the phase-down trajectory under the current F-gas Regulation or safeguard heat pumps

The phase-down trajectory suggested in the F-gas Regulation proposal is incompatible with an accelerated massive deployment of heat pumps.

For this reason, EHPA proposes:

- **Principally, to keep the current phase-down trajectory until 2034 (and re-examine the trajectory in the subsequent revision of the F-gas Regulation).**

- **In a subsidiary way, in case the suggested phase-down trajectory goes beyond the strict implementation of the Montreal Protocole, to amend the Regulation to ensure that all the following conditions are met:**
  - the phase-down trajectory must take into account the interplay with potential restrictions arising from other policies (such as arising from REACH/PFAS framework, the IEC60335-2-40 standard, the Ecodesign lots 1,2,10 and 21, the Sustainable product initiative, RoHS directive, as well as national building codes and legislation) ensuring that the "legislative cocktail" will under no circumstance hinder the required massive and accelerated deployment of heat pumps;
  - the phase-down trajectory must take into account that the industry needs about 10 years after the entry into force of a legislation to redesign its whole product portfolio;
  - an explicit reference to REPower EU Action Plan must be added, requiring the EC to assess the impact of the F-gas Regulation on the deployment of heat-pumps;
  - a "heat-pump safeguard" mechanism must be added in the F-gas Regulation (exemption, specific allocation of quotas or other) to ensure upfront that the REPowerEU Action and the "Energy Efficiency First" principles shall be implemented, and that no obstruction will be brought to the required accelerated heat-pump growth.