

## EPEE Response to Public Consultation on reducing fluorinated greenhouse gas emissions- further action at EU level

### A – General Information about you

A.1

The European Partnership for Energy and the Environment (EPEE, [www.epeeglobal.org](http://www.epeeglobal.org))

EPEE represents the heat-pump, air-conditioning, and refrigeration industry (HVACR) in Europe. Founded in the year 2000, our membership is composed of 40 member companies and national associations across Europe, realising a turnover of over 30 Billion Euros and employing more than 200,000 people in Europe.

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A.2 I am replying as/ on behalf of

Individual/citizen

Organised Stakeholder

A.3. Registration number in the Transparency Register

08158165539-04

A.4. Please specify the category that most closely describe your organisation (at most 1 answer)

Companies producing F-gases

Companies producing products or equipment normally relying upon f-gases

Companies producing relevant products or equipment normally employing alternative technologies

Companies using products or equipment normally relying upon f-gases or alternative technologies

Companies servicing products or equipment normally relying upon f-gases or alternative technologies

Other types of companies/professional associations

Trade unions

Non-governmental organisations/ associations of NGOs

Think-tanks

Academic organisations/ association of academic organisations

Law firms/public affairs consultancies

Public authority/ Public administrations

- Representative of religions, churches or faith communities
- Political party
- Other type of organisations

A.5. Please indicate your country, or where relevant, the geographical area you represent (at most 1 answer)

- EU wide

A.6 Please select the option best describing the use category relevant for you, if any (max 3 choices)

- Domestic refrigeration and freezers
- Commercial refrigeration and freezing equipment
- Industrial refrigeration and freezing equipment
- Transport refrigeration
- Room air-conditioning (factory-sealed movable and single-split systems)
- Air-conditioning in motor vehicles
- Air-conditioning in other modes of transport
- Air-conditioning excluding room a/c, and A/C in modes of transport
- Heat pumps
- Medical aerosols (other than medical)
- Fire protection
- Foams
- High-voltage switchgear
- Solvents
- Semi-conductors
- Magnesium casting
- Other or no specific use category

A.7. We may publish your response, together with your identity, on the Commission website, where it will be publicly available. Though, if you request it, publication will be anonymous. How would you prefer your contribution to be published, if at all?

- Under the name, indicated – I consent to publication all information in my contribution and declare that none of it is under copyright restrictions that prevent publication.

## B Questions on choice of policy action

B.1 The European Commission is looking to set out a plan to reduce EU emissions by 80-95% by 2050. In this context, how do you judge current EU policies greenhouse gas emissions from f-gases (e.g. the F-gas Regulation on certain f-gases and the MAC Directive) (at most 1 answer)

- Properly implemented and fully sufficient
- Fully sufficient if properly implemented
- Insufficient even if properly implemented
- No opinion

B.2. What are the main obstacles to switching to alternative technologies with lower impact on the climate (i.e. fluids with low GWP or other non-in-kind technologies) in the applications currently relying on f-gases? (max 3 choices)

- There are no real obstacles
- Alternative technologies will not be available in specific applications
- Alternative technologies will require higher initial investments
- Alternative technologies will be more costly to operate
- Alternative technologies will not meet the same performance standards (e.g. reliability, energy efficiency, insulation properties etc)
- Alternative technologies will require greater effort to meet the same safety standards
- Other

B.3 Please specify (maximum 1000 characters)

All boxes stated in B2 (except the first box stating that there are no real obstacles) could theoretically be ticked.

To ensure a safe, efficient and feasible switch to alternative technologies, different elements will influence whether a switch to another type of refrigerant can be made:

- **Operational costs:** costs of training and awareness raising
- **Safety:** can safety standards be met in this applications and how?
- **Energy efficiency:** will this technology meet energy efficiency requirements?
- **Affordability:** what will the cost of the switch be from initial investment to operating costs and recovery, re-use and destruction (end-of-life).
- **Environmental compliance:** will the alternative technology meet all other environmental requirements?
- **Availability:** are alternative technologies freely available in a competitive marketplace i.e. multiple supply options.

In general, overall emissions (TEWI approach or similar) and energy efficiency should be the basis for policy-making. If appropriate, a sector-based approach for switching towards alternative technologies should be taken up.

B.4 In the absence of global action to phase-down HFCs, which options would you consider the most appropriate, at EU level, to contribute to the established targets for reducing greenhouse gas emissions (max 3 choices).

Establishing maximum, gradually declining limits to the quantity of HFCs placed on the EU market (phase-down) expressed in terms of CO2 equivalent

Encouraging voluntary agreements for specific sectors where replacement is technically feasible and cost-effective

Introducing additional prohibitions on use and marketing for certain equipment and products, where cost-effective alternatives exist (e.g. a ban on application X containing hydrofluorocarbons as of date Y)

Strengthening, where possible, measures aiming at containment and proper recovery of f-gases (e.g. through stricter and/or broader application of existing measures in the F-gas Regulation)

Including emissions related to production and consumption of F-gases under the EU ETS

Establishing EU harmonised taxes on sale of F-gases

Setting up deposit and refund schemes for products involving F-gases

No further action

Other policy options at EU level

B.5 Please specify (maximum 1000 characters)

EPEE supports a global phase-down scenario, if alternative technologies are safe, energy-efficient and affordable, rather than a stand-alone EU phase-down.

The competitiveness of companies operating on the European market will be at danger, if companies outside the EU can produce and use any type of refrigerants.

Strengthening the existing measures in the F-Gas Regulation will already achieve a substantial reduction on emissions. Improvements include:

- A broadened scope to all transport refrigeration and air-conditioning.
- The continuation of information campaigns for operators.
- The extension of liability
- Proper certification of all companies and person on a refrigerant circuit
- Systematic controls by assigned market surveillance authorities
- The promotion of EU standards, including EN 378 (systems), EN 16084 (components and joints), EN 13313.
- Higher efficiency of recovery, reclaim and recycling of refrigerants by incentivising installers and operators and reducing administrative burden related to cross-border transportation of recovered refrigerants.
- A central electronic register for certified companies and staff.

B.6 If a global agreement to phase-down HFCs is eventually concluded, which policy options (if any) would be the most appropriate to complement, at EU level, the establishment of maximum, gradually declining, limits for the quantity of HFCs placed on the EU market expressed in terms of CO2 equivalent (maximum 3 choices).

Encouraging voluntary agreements for specific sectors where replacement is technically feasible and cost-effective

Introducing additional prohibitions on use and marketing for certain equipment and products, where cost-effective alternatives exist (e.g. a ban on application X containing hydrofluorocarbons as of date Y)

- Strengthening, where possible, measures aiming at containment and proper recovery of f-gases (e.g. through stricter and/or broader application of existing measures in the F-gas Regulation)
- Including emissions related to production and consumption of F-gases under the EU ETS
- Establishing EU harmonised taxes on sale of F-gases
- Setting up deposit and refund schemes for products involving F-gases
- No further action
- Other policy options at EU level

B.7 Please specify (maximum 1000 characters)

A global agreement to phase-down HFC Consumption is the most suitable solution to address the control and cap on HFCs. In this regard, international action on refrigerated marine containers and international refrigerated freight road and marine transport should also be promoted.

To ensure successful European and global approach, both should be complementary and not 'contradictory'. A complementary approach between EU and the global system, will give the right incentives to industry to innovate and will contribute to improving the European competitiveness. A differing approach between the EU and the global level will achieve the opposite.

Therefore, any EU measures related to f-gases should be in line with the global approach. As a supporting measure, the EU should consider to what extent globally harmonised standards are acceptable and feasible.

B.8 If you have a specific suggestion on how to reduce leaks and improve recovery of F-gases from products through stricter and/or broader application of the type of measures already present in the F-Gas Regulation, please briefly specify below: (maximum 1000 characters)

- Inclusion of all transport refrigeration and air-conditioning.
- Continuation of information campaigns targeted to operators.
- Extend liability to installers, distributors or wholesalers of refrigerants.
- Any company or person who assigns work to a 3rd party on a refrigerant circuit to make sure that 3rd party is properly certified.
- Systematic controls by assigned Market Surveillance Authorities in EU-27. The EU Commission should continue with its infringement procedures and should favour the further exchange of information and best practices on implementation and market surveillance by setting up a system similar to the Administrative Co-operation Groups.
- Promotion of EU standards by sharing best practices. Examples: Reduction of emission rates (EN 378 (systems) and EN 16084 (components and joints); Qualification of people handling refrigerant circuits (standard EN 13313).
- Incentives for installers and operators (deposit and fee schemes) and reduced administrative burden related to cross-border transportation of recovered refrigerants.
- The introduction of a central electronic register for certified companies and staff.

B.9 If you have a specific suggestions of technical adjustments to the current F-gas Regulation, e.g. to clarify its provisions, please briefly specify below: (maximum 1000 characters)

- **Art. 5(3)**  
⇒ Member States to ensure that companies/personnel who interfere with or break into the refrigerant

circuit are duly certified or, in case they are not, liable to penalties (similar to France and the Netherlands)

⇒ Stipulate mandatory registration of certified companies and personnel in order to facilitate controls, compliance and mutual recognition between Member States.

⇒ Extend responsibility to check certification status to those who subcontract work on a refrigerant circuit to contractors (companies/personnel).

• **Art.5(4)**

⇒ Make it clear that the required control by refrigerant suppliers: place responsibility on distributors/wholesalers who should only be allowed to sell fluorinated greenhouse gases to certified contractors entitled to break in to a circuit.

⇒ Make it clear that fluorinated gases can only be sold to certified companies if those interfere with the refrigerant circuit (to overcome the limitations to articles 3 and 4 activities, as currently provided by article 5(4)).

• Introduction of a **harmonised system for certification**, such as foreseen in EN 313 313, comparable to the EU driving licence system, with mutual recognition of certification.

## C – Questions on potential impacts

C.1 Who do you think will be most exposed to any negative impacts of a strengthened approach to F-gas emissions? (max 2 choices)

- Producers of F-gases
- Producers of products or equipment normally relying upon F-gases
- Commercial or industrial users of relevant products or equipment
- Individuals using relevant products or equipment
- Companies servicing relevant products or equipment
- Others

C.2 Please specify (maximum 1000 characters)

This question cannot be duly answered as there is no definition of “negative impacts”, “strengthened approach” or “commercial or industrial users. Therefore, it cannot be estimated what the consequences will be.

Owners and contractors will in any case feel the impact of any type of review.

C.3 Who do you think will benefit most from a strengthened approach to F-gas emissions? (max 2 choices)

- Producers of F-gases
- Producers of products or equipment normally relying upon F-gases
- Commercial or industrial users of relevant products or equipment
- Individuals using relevant products or equipment
- Companies servicing relevant products or equipment
- Others

C.4 Please specify (maximum 1000 characters)

This question cannot be duly answered as there is no definition of “benefits”, “strengthened approach” or “commercial or industrial users”. Therefore, it cannot be estimated what the consequences will be.

Owners and contractors will in any case feel the impact of any type of review.

C.5 What type of application (if any) do you think will be most positively affected by a phase-down of HFCs?  
(max 3 choices)

- Domestic refrigeration and freezers
- Commercial refrigeration and freezing equipment
- Industrial refrigeration and freezing equipment
- Transport refrigeration
- Room air-conditioning (factory-sealed movable and single-split systems)
- Air-conditioning in motor vehicles
- Air-conditioning in other modes of transport
- Air-conditioning excluding room a/c, and A/C in modes of transport
- Heat pumps
- Medical aerosols (other than medical)
- Fire protection
- Foams
- High-voltage switchgear
- Solvents
- Other or no specific use category
- No positive impact

C.6. What type of application (if any) do you think will be most negatively affected by a phase-down of HFCs?  
(max 3 choices)

- Domestic refrigeration and freezers
- Commercial refrigeration and freezing equipment
- Industrial refrigeration and freezing equipment
- Transport refrigeration

- Room air-conditioning (factory-sealed movable and single-split systems)
- Air-conditioning in motor vehicles
- Air-conditioning in other modes of transport
- Air-conditioning excluding room a/c, and A/C in modes of transport
- Heat pumps
- Medical aerosols (other than medical)
- Fire protection
- Foams
- High-voltage switchgear
- Solvents
- Other or no specific use category
- No negative impact

C.7. Which policy option do you expect to impose the greatest administrative burden? (at most 1 answer)

- Establishing maximum, gradually declining limits to the quantity of HFCs placed on the EU market (phase-down) expressed in terms of CO2 equivalent
- Introducing additional prohibitions on use and marketing for certain equipment and products, where cost-effective alternatives exist (e.g. a ban on application X containing hydrofluorocarbons as of date Y)
- Strengthening, where possible, measures aiming at containment and proper recovery of f-gases (e.g. through stricter and/or broader application of existing measures in the F-gas Regulation)
- Other

C.8 Please specify (maximum 1000 characters)

The above questions do not clarify on who the impact or burden will be: any legislative decision will have a different impact on industry, national authorities, the European Commission, third countries. Seen the fact that a “strengthened approach” can mean different policy options (a ban, a cap and phase-down, improvement of existing measures), the impact on the different applications will also differ.

In any case, the administrative burden should always be weighed against the cost and benefits for energy efficiency, environmental compliance, safety and affordability. It is not the burden that should drive a political decision, but the overall benefits.

C.9. How do you think a shift towards alternatives having a lower or no global warming potential will affect the competitiveness and market shares of European businesses (or the business you represent)? (at most 1 answer)

- No opinion
- Significantly beneficial for competitiveness
-

Beneficial for competitiveness

- No significant change
- Harmful for competitiveness (specify below)
- Significantly harmful for competitiveness (specify below)

C.10 Please specify your expectations regarding the order of magnitude, e.g. expected percentage increase in costs: (maximum 1000 characters)

The impact of competitiveness and market shares of European businesses will differ if a EU or a global approach is taken up.

If a coordinated global approach is developed, then this can mean gains for competitiveness: a global agreement can drive innovation and economic development of the European region.

If a European approach –isolated from the global developments- is developed, this could have a negative impact on European and non-European business as industry will need to adjust its activities to the local market only. As impacts will be different in each individual product group and market, the most important factor to take into account in policy decisions is in the timing and setting of deadlines. The EU policy has to take close account of the different applications, technical constraints and international trade obligations.

#### D – Additional comments

##### **EPEE additional comments on the Public Consultation on reducing fluorinated gas emissions and further action at EU level.**

Given the importance of the EU F-Gas Regulation and its review for its members, the European Partnership for Energy and the Environment (EPEE) is pleased to have the opportunity to contribute to the Commission's consultation and looks forward to having further opportunities to provide input to the European Commission.

However, EPEE is concerned that many questions in the public consultation are unclear and not well defined. This makes it very difficult to give comprehensive and objective answers. EPEE would therefore like to know how the European Commission intends to qualitatively and quantitatively assess the specific answers given by each of the respondents. For example, will the European Commission make a difference in the weight of the answer of an individual respondent versus the answer of a trade associations or a multinational company? EPEE also has concerns that the questionnaire focuses only on direct emission of GHGs. It is our belief that overall emissions (TEWI approach or similar) and energy efficiency should be the basis of policy-making.

Besides these concerns related to the format of the public consultation, below EPEE repeats its general position and recommendations for the upcoming revision of the Regulation on certain Fluorinated Gases, which formed the basis for our response to this public consultation.

##### **EPEE RECOMMENDATIONS FOR THE UPCOMING REVISION OF THE REGULATION ON CERTAIN FLUORINATED GASES (EU 842/2006)**

The European Partnership for Energy and the Environment is committed to contribute to achieving the EU target of a low-carbon economy by 2050.

The refrigeration, air conditioning and heat pump industry has reduced CO<sub>2</sub>eq emissions from refrigerants by 13% since 1990 and is set to continue on this path. To achieve further reductions up to 60%, EPEE supports a two staged approach, based on latest [data](#) published by the French research institutes ERIE and ARMINES:

1. Full implementation and further improvement of the F-Gas Regulation.
2. A balanced and realistic cap- and phase down scheme for the consumption of HFCs.

## 1. **FULL IMPLEMENTATION & FURTHER IMPROVEMENT OF THE F-GAS REGULATION**

- **At least 15% CO<sub>2</sub>eq refrigerant emission reduction potential**
- **At least 9% reduction of HFC refrigerant demand for new and existing equipment**

Full implementation of the F-Gas Regulation combined with the ODS regulation and current market trends towards lower GWP refrigerants can reduce CO<sub>2</sub>eq refrigerant emissions by at least 15% from 147 million tonnes in 2010 to 124 tonnes in 2030, for a refrigerant bank that will almost double in the same period of time. The CO<sub>2</sub>eq content of HFC refrigerant demand in the EU for new equipment and servicing existing equipment can potentially be reduced by at least 9% from 136 million tonnes in 2010 to 124 million tonnes in 2030.

Key factors which help to achieve this reduction are: **introduction of refrigerants with a lower Global Warming Potential (GWP) where appropriate; lower refrigerant charges; reduction of leakage rates and improved recovery efficiency at end of life.** Additional emission reductions can be achievable by applying the following recommendations:

### 1.1 **A broadened scope:**

All transport refrigeration and air-conditioning should be included.

### 1.2 **Measures targeted at operators:**

Continuation of information campaigns to make sure that operators understand their obligations.

### 1.3 **Measures targeted at installers, distributors or wholesalers of refrigerants:**

Extend liability to companies/personnel who interfere with or break into the refrigerant circuit: If they are not duly certified they shall be liable to penalties, as is already the case in some Member States. Distributors or wholesalers should only be allowed to sell refrigerants to certified companies entitled to break into a circuit.

### 1.4 **Measures targeted at companies who assign work on a refrigerant circuit to a contractor:**

Any company or person (not only operators) who assigns work to a third party on a refrigerant circuit shall make sure that this 3<sup>rd</sup> party is properly certified.

### 1.5 **Measures targeted at Member States**

Priority should be given to systematic controls by assigned market surveillance authorities in the Member States. The European Commission should continue with its infringement procedures for Member States which are not yet compliant with the F-Gas rules. The European Commission could do more to favour the exchange of information and best practices on implementation and market surveillance by setting up a system similar to the Administrative Co-operation Groups.

### 1.6 **Sharing best practices - promotion of EU standards:**

Standards play a useful role in sharing best practices in the HVAC industry to improve tightness of refrigerant circuits or qualification of people handling such circuits. For example: Reduction of emission rates (EN 378 (systems) and EN 16084 (components and joints); Qualification of people handling refrigerant circuits (standard EN 13313)).

### 1.7 **Ensure higher efficiency of end of life recovery:**

Recovery, reclaim and recycling of refrigerants need to be improved by incentivizing installers and operators (deposit and fee schemes) and reducing administrative burden related to cross-border transportation of recovered refrigerants. In this respect, the current revision of the WEEE directive,

including a possible open scope, will further strengthen the end of life treatment requirements.

**1.8 Introduce a central electronic register for certified companies and staff**

This will facilitate the proper implementation of the F-gas Regulation.

**2. A BALANCED AND REALISTIC CAP & PHASE-DOWN SCHEME FOR THE CONSUMPTION OF HFCS**

- **Up to 60% CO<sub>2</sub>eq emission reduction potential**
- **Up to 60% reduction of HFC refrigerant demand for new and existing equipment**

If further action is deemed necessary, a gradual and balanced cap- and phase down scheme – in line with international developments- is best placed to achieve further emission reductions without compromising overall system efficiency and placing excessive costs on the industry and end-consumers. A realistic scheme also needs to take into account the capacity of industry to invest in new lower GWP technologies and products, industrial planning timescales, and ensure that the international competitive position of European companies will not be disrupted.

By reducing the consumption of HFC refrigerants based on their CO<sub>2</sub>eq content, a cap and phase-down scheme promotes an accelerated introduction of lower GWP refrigerants and technological innovation, while allowing for industry to make application based refrigerant and system design choices that achieve environmental compliance without compromising on safety and energy efficiency.

Data<sup>1</sup> show a maximum achievable demand reduction of up to 60% resulting in refrigerant emission reductions up to 60% from 147 million tonnes CO<sub>2</sub>eq to 57 tonnes. This maximum scenario can be used as a basis for discussion to establish phase-down schedules taking into account three key parameters:

- The scenario includes “best non-available technologies” for which currently no feasibility studies have been carried out by product (OEM) manufacturers. Energy efficiency will need to be assessed.
- Safety implications will need to be re-assessed as several member states impose limitations for flammable refrigerants (some low GWP HFCs and R-32 are mildly flammable and hydrocarbons are even extremely flammable).
- The growing use of heat pumps – a technology which will considerably reduce global greenhouse gas emissions – will entail an increase in HFC consumption.

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**About EPEE**

The European Partnership for Energy and the Environment (EPEE) represents the refrigeration, air-conditioning and heat pump industry in Europe. Founded in the year 2000, EPEE's membership is composed of 40 member companies and national associations across Europe realising a turnover of over 30 billion Euros and employing more than 200,000 people in Europe. As an expert association, EPEE is supporting safe, environmentally and economically viable technologies with the objective of promoting a better understanding of the sector in the EU and contributing to the development of effective European policies. *For more information please visit: [www.epeeglobal.org](http://www.epeeglobal.org).*

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<sup>1</sup> The ERIE / ARMINES study. Please find the Executive Summary [here](#). The full study is available on request. Please send an e-mail to [secretariat@epeeglobal.org](mailto:secretariat@epeeglobal.org).