

14 March 2023

EPEE Assessment of the Czech and Swedish compromise proposals with industry amendment proposals

The European Commission's F-Gas Regulation Revision proposal was published on 5 April 2022. EPEE, representing the Refrigeration, Air Conditioning and Heat Pump (RACHP) Industry in Europe, has already actively commented on this proposal and presented [feedback](#) to the European Commission. EPEE also made a number of concrete amendment proposals to the Commission proposal.

This document aims to compare the Swedish and Czech compromises with the EPEE amendment proposals.

EPEE's views on the CZ & SE proposals are highlighted in the column on the right of the proposal.

This document has been updated with the latest position of a broad base of industries on the product bans on Refrigeration and Air-Conditioning & Heat pump equipment from Annex IV.

Green	EPEE supports the proposal
Yellow	EPEE believes the proposal is going in the good direction but does not yet address sufficiently the concerns
Red	EPEE opposes the proposal
Grey	EPEE is neutral on the proposal

I. Priority Amendments

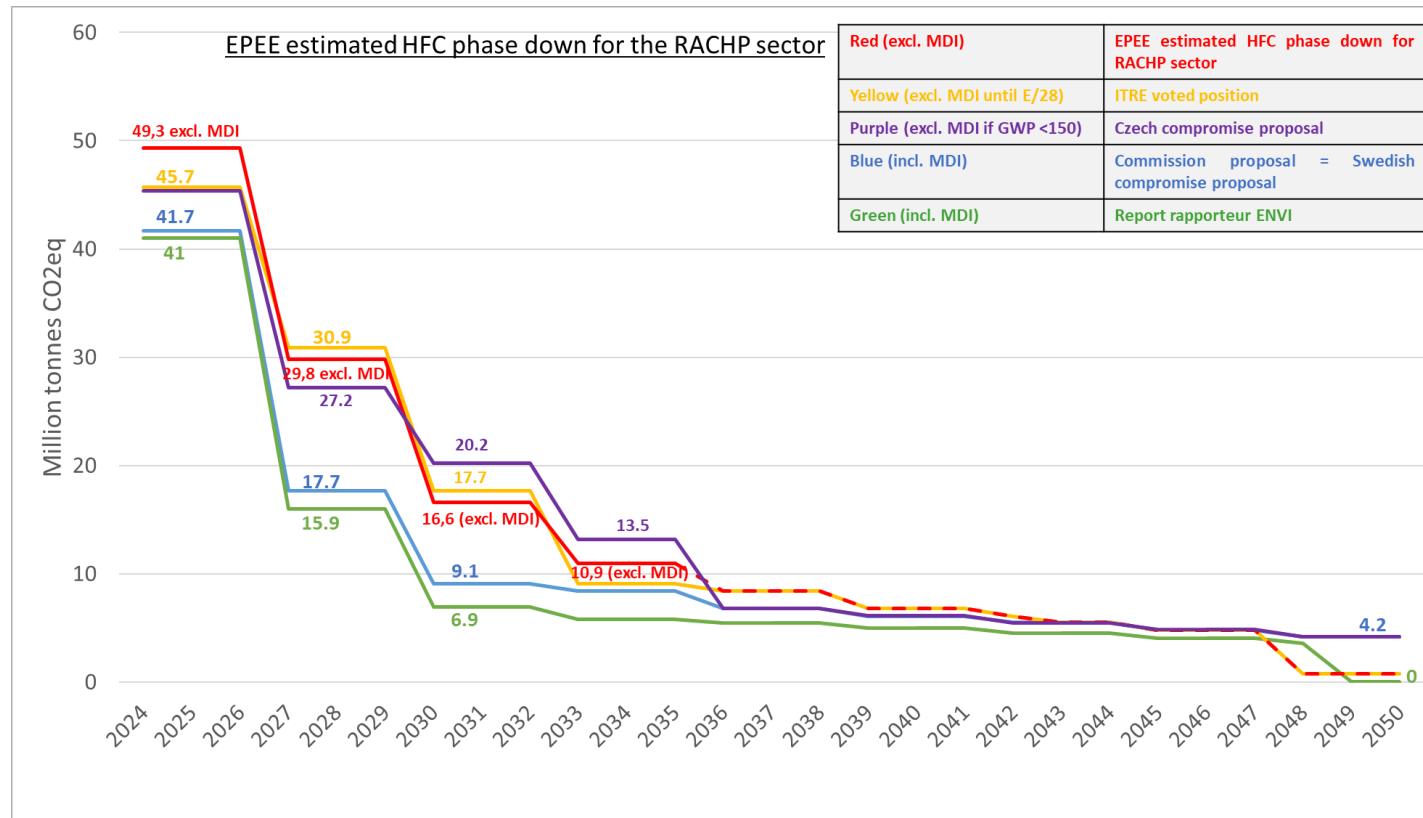
a. HFC Phase Down (Annex VII)

Amendments to Annex VII - maximum quantities and calculation of reference values and quotas for placing hydrofluorocarbons on the market referred to in Art. 17					
Czech Proposal		Swedish proposal		EPEE proposal for amendment	
(1) The maximum amount of HFCs allowed to be placed on the Union market in a given year is set to be the following:		(1) The maximum amount of HFCs allowed to be placed on the Union market in a given year is set to be the following:		(1) The maximum amount of HFCs allowed to be placed on the Union market in a given year is set to be the following:	
Years	Maximum Quantity in tonnes CO2 equivalent	Years	Maximum Quantity in tonnes CO2 equivalent	Years	Maximum Quantity in tonnes CO2 equivalent
2024 – 2026	41 701 077 45 370 539	2024 – 2026	41 701 077	2024 – 2026	41 701 077 49 340 000 + allocation for other sectors
2027 – 2029	17 688 360 27 179 180	2027 – 2029	17 688 360	2027 – 2029	17 688 360 29 810 000 + allocation for other sectors
2030 – 2032	9 132 097 20 251 049	2030 – 2032	9 132 097	2030 – 2032	9 132 097 16 580 000 + allocation for other sectors
2033 – 2035	8 445 713 13 516 657	2033 – 2035	8 445 713	2033 – 2035	8 445 713 10 950 000 + allocation for other sectors
2036 – 2038	6 782 265	2036 – 2038	6 782 265	2036 – 2038	6 782 265 8 400 000+ allocation for other sectors
2039 – 2041	6 136 732	2039 – 2041	6 136 732	2039 – 2041	6 136 732 6 800 000 + allocation for other sectors
2042 – 2044	5 491 199	2042 – 2044	5 491 199	2042 – 2044	5 491 199 6 100 000 + allocation for other sectors
2045 – 2047	4 845 666	2045 – 2047	4 845 666	2045 – 2047	4 845 666 4 800 000 + allocation for other sectors
2048 onwards	4 200 133	2048 onwards	4 200 133	2048 onwards	4 200 133 800 000 + allocation for other sectors

Justification: THE REFRIGERATION, AIR-CONDITIONING AND HEAT-PUMP INDUSTRY IN EUROPE

The European Commission's proposed HFC phase-down (blue line in below graph) would de facto be a phase-out of HFCs in all new heat pump equipment as of 2027, as the remaining quota would need to be used to operate and maintain existing RACHP equipment. EPEE fully supports the long term ambition of the EU Commission and the carbon neutrality targets by 2050, but underlines the need for giving to the industry enough quota in the first decade enabling a successful transition towards lower GWP technologies.

In its HFC Outlook EU, EPEE has modelled the HFC needs of the RACHP sector, considering an ambitious transition to lower GWP refrigerants but also taking into account the significant acceleration of heat pump growth in the coming years, which can already be observed on the market.



EPEE therefore strongly recommends supporting the phase-down path for the RACHP sector as shown by the red line in above graph, which takes into account some inherent modelling uncertainties as well as political uncertainties -such as the upcoming REACH restriction on PFAS-allowing for sufficient supply in the coming crucial decade for the European green energy transition in heating and cooling.

EPEE has estimated the following needs for the RACHP sector:

- **2024-2026: 49.3 MT CO₂eq**
- **2027-2029: 29.8 MT CO₂eq**
- **2030-2032: 16.6 MT CO₂eq**

This is more than what the European Commission proposes because:

1. The EU Commission did not take into account the full heat pump sector

The air-to-air heat pumps have not been properly considered in the Impact Assessment. The air-to-air heat pumps cannot move entirely to propane due to safety restrictions, thus much more TCO₂ will be needed.

At least 40% of the residential heat pump sector is air-to-air and, in some countries, up to 80% (Finland). The air-to-air heat pump sector is expected to grow in central European countries as it is the most affordable and energy efficient solution to get rid of Russian gas dependency.

The Commission foresees a full transition of the residential hydronic heat pump market (up to 12kW) to monobloc type while these are not applicable for all types of buildings and thus split hydronic heat pumps will still be needed to meet renovation needs in Europe, thus more TCO₂eq will be needed.

- 2. We have to make sure that these heat pumps can be produced in the EU (cf Green Deal Industrial Plan). The buffer of the quota authorization cannot be used for production in the EU but only for the import to the EU. This buffer is already shrinking (cf data from 2021 EEA report) and is expected to leave almost no buffer by 2027.**
- 3. Our transition cannot be dependent on the transition of the MDI sector.**

b. RACHP-related product bans (Annex IV)

i. Refrigeration product bans

Amendments to Annex IV - Placing on the market prohibitions referred to in Article 11(1)		
<i>Czech Proposal</i>	<i>Swedish proposal</i>	<i>Industry Alliance proposal for amendment</i>
(12) Any stationary self-contained refrigeration equipment that contains fluorinated greenhouse gases with GWP of 150 or more, except when required to meet safety standards Date of prohibition: 1 January 2027	(12) Any stationary self-contained refrigeration equipment that contains fluorinated greenhouse gases with GWP of 150 or more, except when required to meet safety standards Date of prohibition: 1 January 2027	(12) (a) self-contained equipment for stationary refrigeration with a rated capacity up to 6 kW that contains fluorinated greenhouse gases with GWP of 150 or more. Date of prohibition: 1 January 2025 (b) Other self-contained equipment for stationary refrigeration except process chillers that contains fluorinated greenhouse gases with GWP of 150 or more. Date of prohibition: 1 January 2028

Amendments to Annex IV - Placing on the market prohibitions referred to in Article 11(1)		
<i>Czech Proposal</i>	<i>Swedish proposal</i>	<i>Industry Alliance proposal for amendment</i>
(13) Stationary refrigeration equipment that contains, or whose functioning relies upon, except equipment intended for applications designed to cool products to temperatures below – 50 °C. - HFCs with GWP of 2 500 or more. 1 January 2020 - other fluorinated greenhouse gases listed in Annex I, II and III with GWP of 2 500 or more. 1 January 2024	(13) Stationary refrigeration equipment that contains, or whose functioning relies upon, except equipment intended for applications designed to cool products to temperatures below – 50 °C. - HFCs with GWP of 2 500 or more. 1 January 2020 - other fluorinated greenhouse gases listed in Annex I, II and III with GWP of 2 500 or more. 1 January 2024	(14) Stationary refrigeration equipment other than equipment covered in provisions 12 and 15 and except process chillers, that contains, or whose functioning relies upon, fluorinated greenhouse gases with GWP of 150 or more. Date of prohibition: 1 January 2024 2028

Amendments to Annex IV - Placing on the market prohibitions referred to in Article 11(1)

<i>Czech Proposal</i>	<i>Swedish proposal</i>	<i>Industry Alliance proposal for amendment</i>
(15) Multipack centralized refrigeration systems for commercial use with a rated capacity of 40 kW or more that contain, or whose functioning relies upon, fluorinated greenhouse gases listed in Annex I with GWP of 150 or more, except in the primary refrigerant circuit of cascade systems where fluorinated greenhouse gases with a GWP of less than 1 500 may be used. Date of prohibition: 1 January 2022	(15) Multipack centralized refrigeration systems for commercial use with a rated capacity of 40 kW or more that contain, or whose functioning relies upon, fluorinated greenhouse gases listed in Annex I with GWP of 150 or more, except in the primary refrigerant circuit of cascade systems where fluorinated greenhouse gases with a GWP of less than 1 500 may be used. Date of prohibition: 1 January 2022	(15)(b) Multipack centralised refrigeration systems for commercial use with a rated capacity of 40 kW or more that contain, or whose functioning relies upon, fluorinated greenhouse gases, with GWP of 150 or more, except chillers, except in the primary refrigerant circuit of cascade systems where fluorinated greenhouse gases with a GWP of less than 1500 may be used. Date of prohibition: 1 January 2022 2025 (c) Multipack centralised refrigeration systems that contain or whose functioning relies upon, fluorinated greenhouse gases with GWP of 150 or more except chillers. Date of prohibition: 1 January 2028

ii. Air-Conditioning and Heat Pumps product bans

Amendments to Annex IV - Placing on the market prohibitions referred to in Article 11(1)		
<i>Czech Proposal</i>	<i>Swedish proposal</i>	<i>Industry Alliance proposal for amendment</i>
(16) Self-contained room air-conditioning and heat pump equipment • Plug-in room air-conditioning equipment (self-contained equipment) which is movable between rooms by the end user that contain HFCs with GWP of 150 or more. 1 January 2020 • Plug-in room and other self-contained air-conditioning and heat pump equipment (including all heat pumps in monobloc construction) with a maximum rated capacity of 50 kW that contain fluorinated greenhouse gases with GWP of 150 or more except when needed to meet safety requirements. When safety requirements would not allow using fluorinated greenhouse gases with GWP of 150 or less, the GWP limit is 750. 1 January 2027	(16) Self-contained room air-conditioning and heat pump equipment • Plug-in room air-conditioning equipment (self-contained equipment) which is movable between rooms by the end user that contain HFCs with GWP of 150 or more. 1 January 2020 • Plug-in room and other self-contained air-conditioning and heat pump equipment (including all heat pumps in monobloc construction) with a maximum rated capacity of 50 kW that contain fluorinated greenhouse gases with GWP of 150 or more except when needed required to meet safety requirements. When safety requirements would not allow using fluorinated greenhouse gases with GWP of 150 or less, the GWP limit is 750. 1 January 2027	(17) Stationary self-contained air conditioning and heat pump equipment: (a) Plug in self-contained air conditioning & heat pump equipment moveable between rooms by the end user that contain fluorinated greenhouse gases with GWP of 150 or more-; Date of prohibition: 1 January 2025 (b) Stationary self-contained hydronic air conditioning and stationary self-contained hydronic heat pump equipment designed for outdoor installations below or equal to 12 kW* that contain fluorinated greenhouse gases with GWP of 150 or more except when needed to meet safety requirements; Date of prohibition: 1 January 2029 * rated capacity as defined in the relevant ecodesign regulations (c) Other stationary self-contained air conditioning and heat pump equipment that contain fluorinated greenhouse gases

• Other self-contained air-conditioning and heat pump equipment 1 January 2030	• Other self-contained air-conditioning and heat pump equipment that contain fluorinated greenhouse gases with GWP of 150 or more except when required to meet safety requirements. When safety standards would not allow using fluorinated greenhouse gases with GWP of 150 or less, the GWP limit is 750. 1 January 2030	with GWP of 750 or more, except when needed to meet safety requirements. Date of prohibition: 1 January 2030
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Amendments to Annex IV - Placing on the market prohibitions referred to in Article 11(1)

<i>Czech Proposal</i>	<i>Swedish proposal</i>	<i>Industry Alliance proposal for amendment</i>
(18) Stationary split air-conditioning and split heat pump equipment: (a) Single split systems containing less than 3 kg of fluorinated greenhouse gases listed in Annex I, that contain, or whose functioning relies upon, fluorinated greenhouse gases listed in Annex I with GWP of 750 or more; 1 January 2025 (b) Split systems of a rated capacity of up to and including 12 kW containing, or whose functioning relies upon, fluorinated greenhouse gases listed in Annex I with GWP of 150 or more, except when required to meet safety standards; 1 January 202730 (c) Split systems of a rated capacity of more than 12 kW containing, or whose functioning relies upon, fluorinated greenhouse gases listed in Annex I with GWP of 750 or more, except when required to meet safety standards 1 January 202730	(18) Stationary split air-conditioning and split heat pump equipment: (a) Single split systems containing less than 3 kg of fluorinated greenhouse gases listed in Annex I, that contain, or whose functioning relies upon, fluorinated greenhouse gases listed in Annex I with GWP of 750 or more; 1 January 2025 (b) Split systems of a rated capacity of up to and including 12 kW containing, or whose functioning relies upon, fluorinated greenhouse gases listed in Annex I with GWP of 150 or more, except when required to meet safety standards; 1 January 2027 2027 (c) Split systems of a rated capacity of more than 12 kW containing, or whose functioning relies upon, fluorinated greenhouse gases listed in Annex I with GWP of 750 or more, except when required to meet safety standards. 1 January 2027 2027	(18) Stationary split air-conditioning and split heat pump equipment: (a) Stationary single split air to air systems and fixed double duct appliances containing less than 3kg of fluorinated greenhouse gases listed in Annex I, that contains, or whose functioning relies upon, fluorinated greenhouse gases listed in Annex I with GWP of 750 or more. Date of prohibition: 1 January 2025 (b) Stationary single split air to air systems of a rated capacity up to and including 12 6 kW* and fixed double duct appliances of a rated capacity up to and including 3.5 kW* containing, or whose functioning relies upon, fluorinated greenhouse gases with GWP of 150 or more, except when needed to meet safety standards requirements; Date of prohibition: 1 January 2027 2030 * <i>rated capacity as defined in the relevant ecodesign regulations</i> (c) Other stationary split systems of a rated capacity of more than 12 kW containing, or whose functioning relies upon, fluorinated

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greenhouse gases with GWP of 750 or more,
except when needed to meet safety
~~standards~~ **requirements.**

Date of prohibition: 1 January ~~2027~~ **2029**

c. Definitions

Amendments to Article 3 – Definitions (<i>general</i>)			
<i>CZ proposal</i>		<i>SE Proposal</i>	
(6) 'placing on the market' means the customs release for free circulation in the Union or the supplying or making available to another person within the Union, for the first time, for payment or free of charge, the customs release for free circulation in the Union, and/or the use of substances produced or the use of products or equipment manufactured for own use;		(6) 'placing on the market' means the customs release for free circulation in the Union or the supplying or making available to another person within the Union, for the first time, for payment or free of charge, the customs release for free circulation in the Union, and/or the use of substances produced or the use of products or equipment manufactured for own use;	
(9) 'hermetically sealed equipment' means equipment in which all fluorinated greenhouse gas containing parts are made tight during its manufacturing process at the premises of the manufacturer by welding, brazing or a similar permanent connection, which may include capped valves or capped service ports that allow proper repair or disposal, and its connected parts have a tested leakage rate of less than 3 grams per year under a pressure of at least a quarter of the maximum allowable pressure;		(9) 'hermetically sealed equipment' means equipment in which all fluorinated greenhouse gas containing parts are made tight during its manufacturing process at the premises of the manufacturer by welding, brazing or a similar permanent connection, which may include capped valves or capped service ports that allow proper repair or disposal, and its connected parts have a tested leakage rate of less than 3 grams per year under a pressure of at least a quarter of the maximum allowable pressure;	
(17) 'installation' means the process of joining two or more pieces of equipment or circuits containing or designed to contain fluorinated greenhouse gases, with a view to assembling a system in the location where it will be operated, that entails joining together gas carrying conductors of a system to complete a circuit irrespective of the need to charge the system after assembly;		(17) 'installation' means the process of joining two or more pieces of equipment or circuits containing or designed to contain fluorinated greenhouse gases, with a view to assembling a system in the location where it will be operated, that entails joining together gas carrying conductors of a system to complete a circuit irrespective of the need to charge the system after assembly;	
			<i>EPEE Proposal for amendment</i>
			(6) 'placing on the market' means the supplying or making available to another party person within the Union, for the first time, for payment or free of charge, or using for its own account in the case of a producer, and includes customs release for free circulation in the Union, the customs release for free circulation in the Union, and the use of substances produced or the use of products or equipment manufactured for own use;
			(9) 'hermetically sealed equipment' means equipment in which all refrigerant fluorinated greenhouse gas containing parts are made tight during its manufacturing process at the premises of the manufacturer by welding, brazing or a similar permanent connection, which may include capped valves or capped service ports that allow proper repair or disposal. These capped valves and service ports shall have a tested leakage rate of less than 3 grams per year under a pressure of at least a quarter of the maximum allowable pressure;
			(17) 'installation' means joining two or more pieces of equipment or circuits containing or designed to contain refrigerants fluorinated greenhouse gases , with a view to assembling a system in the location where it will be operated, that entails joining together gas carrying conductors of a system to complete a circuit irrespective of the need to charge the system after assembly;

Amendments to Article 3 – Definitions (<i>general</i>)			
<i>CZ proposal</i>		<i>SE Proposal</i>	<i>EPEE Proposal for amendment</i>
'self-contained' means complete factory-made system in a suitable frame and/or encasing that is fabricated and transported complete and in which no gas-containing parts are connected on site, but which may contain isolation valves;		'self-contained' means complete factory-made system in a suitable frame and/or encasing that is fabricated and transported complete or in two or more sections and in which no gas-containing parts are connected on site, but which may contain isolation valves;	(x) 'Self-contained' means complete factory-made refrigerant-containing equipment in a suitable frame and/or enclosure that is fabricated and transported complete and in which no refrigerant-containing parts are connected on site; <i>[This proposal on "self-contained" is supported by the whole Industry Alliance]</i>
			(x) 'Plug-In' means a product that only needs to be connected to a domestic electrical socket to operate and does not require the intervention of a professional installer.
'split system' means a system consisting of a number of refrigerant piped units that form a separate but interconnected unit, requiring the installation and connection of refrigerant circuit components at the point of use;		'split system' means a system consisting of a number of refrigerant piped units that form a separate but interconnected unit, requiring the installation and connection of refrigerant circuit components at the point of use;	
'air-conditioning' means the process of treating air to meet the requirements of a conditioned space by controlling its temperature, humidity, cleanliness or distribution;		'air-conditioning' means the process of treating air to meet the requirements of a conditioned space by controlling its temperature, humidity, cleanliness or distribution;	
'heat pump' means an air-conditioning device capable of using ambient heat and/or waste heat from air, water or		'heat pump' means an air-conditioning device capable of using ambient heat and/or waste heat from air, water or	

ground sources to produce heat and is based on the interconnection of one or more components forming a closed cooling circuit in which a refrigerant circulates to extract and release heat;		ground sources to provide produce heat or cooling and is based on the interconnection of one or more components forming a closed cooling circuit in which a refrigerant circulates to extract and release heat;		
(40) 'non-refillable container' means a containers which cannot be refilled without being adapted for that purpose; and containers that could be refilled but are imported or placed on the market without provisions having been made for their return for refilling;		(40) 'non-refillable container' means a containers which cannot be refilled without being adapted for that purpose; and containers that could be refilled but are imported or placed on the market without provisions having been made for their return for refilling;		
(41) 'refrigeration' means the process of cooling a product, substance, system or other items to lower or maintain its temperature;		(41) 'refrigeration' means the process of maintaining or lowering the temperature of cooling a product, substance, system or other items to lower or maintain its below ambient temperature;		

II. Other Amendments

Amendments to Annex IV - Placing on the market prohibitions referred to in Article 11(1)			
<i>Czech Proposal</i>		<i>Swedish proposal</i>	<i>EPEE proposal for amendment</i>
(11) Refrigerators and freezers for commercial use (self-contained equipment) - that contain HFCs with GWP of 2 500 or more. 1 January 2020 - that contain HFCs with GWP of 150 or more. 1 January 2022 - that contain other fluorinated greenhouse gases with GWP of 150 or more. 1 January 2024		(11) Refrigerators and freezers for commercial use (self-contained equipment) - that contain HFCs with GWP of 2 500 or more. 1 January 2020 - that contain HFCs with GWP of 150 or more. 1 January 2022 - that contain other fluorinated greenhouse gases with GWP of 150 or more. 1 January 2024	(11) Stationary Refrigerators and freezers for commercial use (self-contained equipment) (hermetically sealed equipment) - that contain HFCs with GWP of 2 500 or more - 2020 - that contain HFCs with GWP of 150 or more - 2022 - that contain other fluorinated greenhouse gases with GWP of 150 or more (self-contained equipment) – 1 January 2025

Amendments to Article 1 – Subject-matter (<i>general</i>)			
<i>CZ proposal</i>		<i>SE Proposal</i>	
This Regulation: (a) lays down rules on containment, use, recovery and destruction of fluorinated greenhouse gases, and on related ancillary measures, and facilitates on the safe and efficient use of alternative substances, including natural refrigerants;		This Regulation: (a) lays down rules on containment, use, recovery and destruction of fluorinated greenhouse gases, and on related ancillary measures, and facilitates on the safe and efficient use of alternative substances, including and on training and certification for tasks involving natural refrigerants;	

Amendments to Article 5 – Leak checks		
<i>CZ proposal</i>	<i>SE Proposal</i>	<i>EPEE Proposal for amendment</i>
Operators of equipment that contains 5 tonnes of CO₂ equivalent or more of fluorinated greenhouse gases listed in Annex I or 1 kilogram a charge size of 3 kilograms or more of containing fluorinated greenhouse gases listed in Annex II, Section 41, not contained in foams, shall ensure that the equipment is checked for leaks. Hermetically sealed equipment that contains less than 10 tonnes of CO₂ equivalent of fluorinated greenhouse gases listed in Annex I or 2 kilograms a charge size of 6 kilograms of fluorinated greenhouse gases listed in Annex II, Section 41, shall not be checked for leaks, provided the equipment is labelled as hermetically sealed. and its connected parts have a tested leakage rate of less than 3 grams per year under a pressure of at least a quarter of the maximum allowable pressure.	Operators of equipment that contains 5 tonnes of CO₂ equivalent or more of fluorinated greenhouse gases listed in Annex I or 1 kilogram 1 kilogram a charge size of 3 kilograms or more of containing fluorinated greenhouse gases listed in Annex II, Section 41, not contained in foams, shall ensure that the equipment is checked for leaks. Hermetically sealed equipment that contains less than 10 tonnes of CO₂ equivalent of fluorinated greenhouse gases listed in Annex I or 2 kilograms 2 kilograms a charge size of 6 kilograms of fluorinated greenhouse gases listed in Annex II, Section 41, shall not be checked for leaks, provided the equipment is labelled as hermetically sealed. and its connected parts have a tested leakage rate of less than 3 grams per year under a pressure of at least a quarter of the maximum allowable pressure.	1. Operators of equipment that contains, either 5 tonnes of CO₂ equivalent or more of fluorinated greenhouse gases listed in Annex I, or mixtures containing any of those substances with or without other substances, or 13 kilograms or more of fluorinated greenhouse gases listed in Annex II, Section I, not contained in foams, or 3 kilograms or more of other relevant alternatives to fluorinated greenhouse gases shall ensure that the equipment is checked for leaks. Hermetically sealed equipment that contains, either less than 10 tonnes of CO₂ equivalent of fluorinated greenhouse gases listed in Annex I or mixtures containing any of those substances with or without other substances or 6 2—kilograms of fluorinated greenhouse gases listed in Annex II, Section I, or less than 6 kilograms of other relevant alternatives to fluorinated greenhouse gases, shall not be checked for leaks, provided the equipment is labelled as hermetically sealed and its connected parts have a tested leakage rate of less

THE VOICE OF THE REFRIGERATION, AIR-CONDITIONING AND HEAT-PUMP INDUSTRY IN EUROPE		more than 3 grams per year under a pressure of at least a quarter of the maximum allowable pressure. [...]
Paragraph 1 applies to operators of the following equipment that contains fluorinated greenhouse gases listed in Annex I or in Annex II, Section 1:		Paragraph 1 applies to operators of the following equipment that contains fluorinated greenhouse gases listed in Annex I or in Annex II, Section 1:
		Paragraph 1 applies to operators of the following equipment that contains fluorinated greenhouse gases listed in Annex I or in Annex II, Section I, or other relevant alternatives to fluorinated greenhouse gases: [...]

Amendments to Article 7 – Record keeping		
<i>CZ proposal</i>	<i>SE Proposal</i>	<i>EPEE Proposal for amendment</i>
2. Unless the records referred to in paragraph 1 are stored in a database set up by the competent authorities of the Member States the following rules apply: (a) the operators referred to in paragraph 1 shall keep the records referred to in that paragraph for at least five years; (b) undertakings carrying out the activities referred to in paragraph 1, point (e), for operators shall keep copies of the records referred to in paragraph 1 for at least five years.	2. Unless the records referred to in paragraph 1 are stored in a database set up by the competent authorities of the Member States the following rules apply: (a) the operators referred to in paragraph 1 shall keep the records referred to in that paragraph for at least five years; (b) undertakings carrying out the activities referred to in paragraph 1, point (e), for operators shall keep copies of the records referred to in paragraph 1 for at least five years.	2. Unless The records referred to in paragraph 1 are shall be stored in a database set up by the competent authorities of the Member States, and the following rules apply: (a) the operators referred to in paragraph 1 shall keep the records referred to in that paragraph for at least five years; (b) undertakings carrying out the activities referred to in paragraph 1, point (e), for operators shall keep copies of the records referred to in paragraph 1 for at least five years

Amendments to Article 8 – Recovery and destruction		
<i>CZ proposal</i>	<i>SE Proposal</i>	<i>EPEE Proposal for amendment</i>
1. Operators of stationary equipment or of refrigeration units of refrigerated trucks and trailers that contain fluorinated greenhouse gases listed in Annex I and in Annex II, Section 1, not contained in foams, shall ensure that the recovery of those gases is carried out by natural persons that hold the relevant certificates provided for in Article 10, so and that those gases are recycled, reclaimed or destroyed.	1. Operators of stationary equipment or of refrigeration units of refrigerated trucks and trailers that contain fluorinated greenhouse gases listed in Annex I, and in Annex II, Section 1 and in Annex III , not contained in foams, shall ensure that the recovery of those gases is carried out by natural persons that hold the relevant certificates provided for in Article 10, so and that those gases are recycled, reclaimed or destroyed.	1. Operators of stationary equipment or of refrigeration units of refrigerated trucks and trailers that contain fluorinated greenhouse gases listed in Annex I and Annex II, Section 1, not contained in foams , shall ensure that the refrigerant recovery of those gases is carried out by natural persons that hold the relevant certificates provided for in Article 10, so and that those gases are recycled, reclaimed or destroyed.

Amendments to Article 9 – Recovery and destruction			
<i>CZ proposal</i>		<i>SE Proposal</i>	<i>EPEE Proposal for amendment</i>
Without prejudice to existing Union legislation, Member States shall take measures to promote encourage the development of producer responsibility schemes for the recovery of fluorinated greenhouse gases listed in Annexes I and II Annex I and in Annex II, Section 1 and for their recycling, reclamation or destruction.		Without prejudice to existing Union legislation, Member States shall encourage the development of producer responsibility schemes for the recovery of fluorinated greenhouse gases listed in Annexes I and II Annex I and in Annex II, Section 1 and for their recycling, reclamation or destruction.	Without prejudice to existing Union legislation, Member States shall encourage the development of ensure the existence of producer responsibility schemes for the recovery of fluorinated greenhouse gases listed in Annexes I and II and their recycling, reclamation or destruction, taking into account already applicable producer responsibility schemes.

Amendments to Article 10 – Certification and training		
<i>CZ proposal</i>	<i>SE Proposal</i>	<i>EPEE Proposal for amendment</i>
Member States shall, on the basis of the minimum requirements referred to in paragraph 5, establish or adapt certification programmes, including evaluation processes, and ensure that training on practical skills and theoretical knowledge is available for natural persons carrying out the following tasks involving fluorinated greenhouse gases listed in Annex I and in Annex II, Section 1 and other relevant alternatives to fluorinated greenhouse gases including natural refrigerants: [...]	Member States shall, on the basis of the minimum requirements referred to in paragraph 5, establish or adapt certification programmes, including evaluation processes, and ensure that training on practical skills and theoretical knowledge is available for natural persons carrying out the following tasks involving fluorinated greenhouse gases listed in Annex I, and in Annex II, Section 1, in Annex III when used in electrical switchgears and other relevant alternatives to fluorinated greenhouse gases including natural refrigerants: [...]	1. Member States shall, on the basis of the minimum requirements referred to in paragraph 5, establish or adapt certification programmes on refrigerants , including evaluation processes, and ensure that training on practical skills and theoretical knowledge is available for natural persons carrying out the following tasks involving fluorinated greenhouse gases listed in Annex I and Annex II, Section 1 and other relevant alternatives to fluorinated greenhouse gases: [...]
3. The certification programmes and training provided for in paragraphs 1 and 2 shall cover the following, (a) applicable regulations and technical standards; (b) emission prevention; (c) recovery of fluorinated greenhouse gases listed in Annex I and in Annex II, Section 1 ; (d) safe handling of equipment of the type and size covered by the certificate;	3. The certification programmes and training provided for in paragraphs 1 and 2 shall cover the following, (a) applicable regulations and technical standards; (b) emission prevention; (c) recovery of fluorinated greenhouse gases listed in Annex I and in Annex II, Section 1 ; (d) safe handling of equipment of the type and size covered by the certificate; (da) and safe handling of equipment with flammable or toxic gases or operating under high-pressure;	3. The certification programmes and training provided for in paragraphs 1 and 2 shall cover the following: (a) applicable regulations and technical standards; (b) emission prevention; (c) recovery of refrigerants fluorinated greenhouse gases listed in Annex I and Annex II, Section 1

(da) and safe handling of equipment with flammable or toxic gases or operating under high-pressure; (e) energy efficiency aspects the measures of improving or maintaining the energy efficiency of equipment during installation or maintenance.	(e) energy efficiency aspects the measures of improving or maintaining the energy efficiency of equipment during installation or maintenance.	
6. Member States shall establish or adapt certification programmes on the basis of the minimum requirements referred to in paragraph 5 for undertakings carrying out installation, servicing, maintenance, repair or decommissioning of the equipment listed in Article 5(2), points (a) to (gf), containing fluorinated greenhouse gases listed in Annex I and in Annex II, Section 1, and other relevant alternatives to fluorinated greenhouse gases including natural refrigerants for other parties.	6. Member States shall establish or adapt certification programmes on the basis of the minimum requirements referred to in paragraph 5 for undertakings carrying out installation, servicing, maintenance, repair or decommissioning of the equipment listed in Article 5(2), points (a) to (gf), containing fluorinated greenhouse gases listed in Annex I and in Annex II, Section 1, and other relevant alternatives to fluorinated greenhouse gases including natural refrigerants for other parties.	
7. Existing certificates and training attestations issued in accordance with Regulation (EU) No 517/2014 shall remain valid, in accordance with the conditions under which they were originally issued. By [OP, please insert the date = three years following the entry into force of this	7. Existing certificates and training attestations issued in accordance with Regulation (EU) No 517/2014 shall remain valid, in accordance with the conditions under which they were originally issued. By [OP, please insert the date = three years following the entry into force of this Regulation] Member States shall ensure	

Regulation] Member States shall ensure that certified natural persons are required to participate to refreshment training courses or complete an evaluation process referred to in paragraph 3, at least every five years.		that certified natural persons are required to participate to refreshment training courses or complete an evaluation process referred to in paragraph 3, at least every five years.		EUROPE
				7a. [NEW] The Member States shall establish or adapt certification schemes and training programmes pursuant to paragraphs 1, 2, 3 and 6 within six months from entry into force of this regulation.

Amendments to Article 11 – Restrictions on placing on the market		
<i>CZ proposal</i>	<i>SE Proposal</i>	<i>Industry Alliance Proposal for amendment</i>
1. The placing on the market of products and equipment, including parts thereof, listed in Annex IV, with an exemption for military equipment, shall be prohibited from the date specified in that Annex, differentiating, where applicable, according to the type or global warming potential of the gas contained. The placing on the market of parts of products and equipment required for repairs and servicing of existing equipment is allowed provided that the repair or servicing does not result in an increase of the refrigeration capacity, or of the refrigerant charge, and there is no change of the type of refrigerant.	1. The placing on the market of products and equipment, including parts thereof, listed in Annex IV, with an exemption for military equipment, shall be prohibited from the date specified in that Annex, differentiating, where applicable, according to the type or global warming potential of the gas contained. The placing on the market of parts of products and equipment required for repairs and servicing of existing equipment is allowed provided that the repair or servicing does not result in an increase of the refrigeration capacity of the product or equipment, the amount of fluorinated gas contained in the product or equipment or of the refrigerant charge, and there is no change of the type of fluorinated gas used refrigerant.	1. The placing on the market of products and equipment, including parts thereof, listed in Annex IV, with an exemption for military equipment, shall be prohibited from the date specified in that Annex, differentiating, where applicable, according to the type or global warming potential of the gas contained.

Products and equipment unlawfully placed on the market after the date referred to in the first subparagraph, shall not be subsequently used or supplied, or made available to other persons within the Union for payment or free of charge or exported. **Re-export of such products and equipment is allowed in such cases when the non-compliance with the rules set out in this Regulation has been established prior to customs clearance in accordance with the measures referred to in Article 23(12).** Such products and equipment may only be stored or transported for subsequent disposal and for the recovery of the gas prior to the disposal pursuant to Article 8 **or for their re-export.**

Products and equipment unlawfully placed on the market after the date referred to in the first subparagraph, shall not be subsequently used or supplied, or made available to other persons within the Union for payment or free of charge **or exported** or exported. **Re-export of such products and equipment is allowed in such cases when the non-compliance with the rules set out in this Regulation has been established prior to customs clearance in accordance with the measures referred to in Article 23(12).** Such products and equipment may only be stored or transported for subsequent disposal and for the recovery of the gas prior to the disposal pursuant to Article 8 **or for their re-export.**

Products and equipment unlawfully placed on the market after the date referred to in the first subparagraph, shall not be subsequently used or supplied, or made available to other persons within the Union for payment or free of charge or exported. Such products and equipment may only be stored or transported for subsequent **return to the origin country or** for disposal and for the recovery of the gas prior to the disposal pursuant to Article 8.

Amendments to Article 23 – Controls of trade

<i>CZ proposal</i>	<i>SE Proposal</i>	<i>EPEE Proposal for amendment</i>
12. Customs authorities shall confiscate or seize non-refillable containers prohibited by this Regulation for disposal in accordance with Articles 197 and 198 of Regulation (EU) 952/2013. or shall inform the competent authorities for ensuring the confiscation and seizure of such containers. Market surveillance authorities shall also withdraw or recall from the market such containers in accordance with Article 16 of Regulation (EU) No 2019/1020 of the European Parliament and the Council²³. In other cases, not referred to in the first subparagraph, of unlawful import, further supply, or export, in particular in cases of fluorinated greenhouse gases listed in Annex 1 Section 1 placed on the market in bulk or charged in products and equipment in violation of the quota and authorisation requirements set out in this Regulation, customs authorities or market surveillance authorities may take alternatives measures. Such measures may include auctioning provided that it is in line with this Regulation. For other substances and products and equipment covered by this Regulation,	12. Customs authorities shall confiscate or seize non-refillable containers prohibited by this Regulation for disposal in accordance with Articles 197 and 198 of Regulation (EU) 952/2013. or shall inform the competent authorities for ensuring the confiscation and seizure of such containers. Market surveillance authorities shall also withdraw or recall from the market such containers in accordance with Article 16 of Regulation (EU) No 2019/1020 of the European Parliament and the Council²³. In other cases, not referred to in the first subparagraph, of unlawful import, further supply, or export, in particular in cases of fluorinated greenhouse gases listed in Annex 1 Section 1 placed on the market in bulk or charged in products and equipment in violation of the quota and authorisation requirements set out in this Regulation, customs authorities or market surveillance authorities may take alternatives measures. Such measures may include auctioning provided that it is in line with this Regulation.	12. Customs authorities shall confiscate or seize non-refillable containers prohibited by this Regulation for disposal in accordance with Articles 197 and 198 of Regulation (EU) 952/2013. Market surveillance authorities shall also withdraw or recall from the market such containers in accordance with Article 16 of Regulation (EU) No 2019/1020 of the European Parliament and the Council. For other substances and products and equipment covered by this Regulation, alternative measures may be taken to prevent unlawful import, further supply, or export, in particular in cases of hydrofluorocarbons placed on the market in bulk or charged in products and equipment in violation of the quota and authorisation requirements set out in this Regulation.

alternative measures may be taken to prevent unlawful import, further supply, or export, in particular in cases of hydrofluorocarbons placed on the market in bulk or charged in products and equipment in violation of the quota and authorisation requirements set out in this Regulation.	For other substances and products and equipment covered by this Regulation, alternative measures may be taken to prevent unlawful import, further supply, or export, in particular in cases of hydrofluorocarbons placed on the market in bulk or charged in products and equipment in violation of the quota and authorisation requirements set out in this Regulation.	THE VOICE OF THE REFRIGERATION, AIR-CONDITIONING AND HEAT PUMP INDUSTRY IN EUROPE
The re-export of fluorinated greenhouse gases listed in Annex 1 Section 1 unlawfully placed on the market gases and products and equipment that do not comply with this Regulation is prohibited.	The re-export of fluorinated greenhouse gases listed in Annex 1 Section 1 unlawfully placed on the market gases and products and equipment that do not comply with this Regulation is prohibited.	The re-export of gases and products and equipment that do not comply with this Regulation is prohibited.