

Chillventa Specialist Forums 2024

Chillventa Fachforen 2024

**CONNECTING
EXPERTS.**





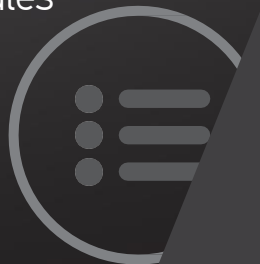
F-GAS / C.B.A.M.

Nuremberg - CHILLVENTA

8-10/10/2024

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Why this presentation

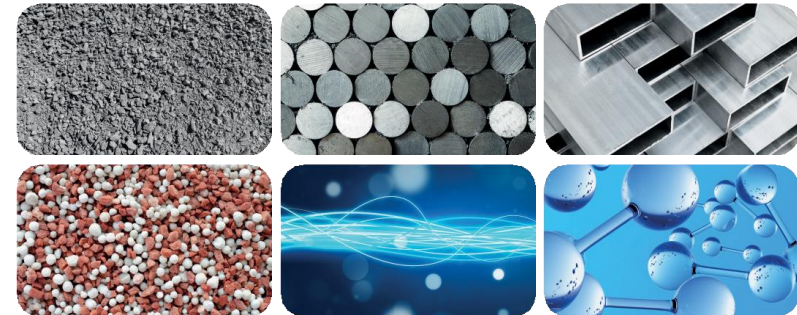
This presentation is offered by Navis International Trade & Consulting Ltd with the aim of guiding **HVAC-R /MDI/Solar OEMs** and **Refrigerant Manufacturers** through the complicated Regulatory environments and steep climb of the F-Gas and CBAM Legislations.

New F-Gas legislation:
how will it affect your business (*)?

- HVAC-R
- Chemicals
- Automotive
- Medical (Lasers/Aerosols and so forth)
- Fire suppression systems
- Aerospace
- Shipping
- Solar

CBAM: does it affect your business (**)?

- Cement
- Iron & Steel
- Aluminium
- Fertilisers
- Electricity
- Hydrogen



(*) REGULATION (EU) 573.2024 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

(**) REGULATION (EU) 2023/956 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL



EU/GB F-Gas Regulation

- Regulation (EU) 517/2014 introduced in 2015 established a Quota System in the EU to phase down the import of HFC (*) Refrigerants because of their environmental impact (Greenhouse Gases)
- In 2015 and 2016 only manufacturers and/or importers of HFCs needed EU Quota.
- Starting from 2017 also manufacturers and/or importers of equipment precharged with HFC needed EU Quota.
- In 2021 two separate and independent Quota systems came into force:
 - EU: EU27 + Northern Ireland
 - GB: England, Scotland and Wales
- Regulation (EU) 573/2024 entered into force on March the 11th 2024, introducing far more stringent restrictions and bans.
- Cooling system for battery racks using HFCs fall under this definition**

(*) HydroFluoroCarbons



EU
F-Gas legislation



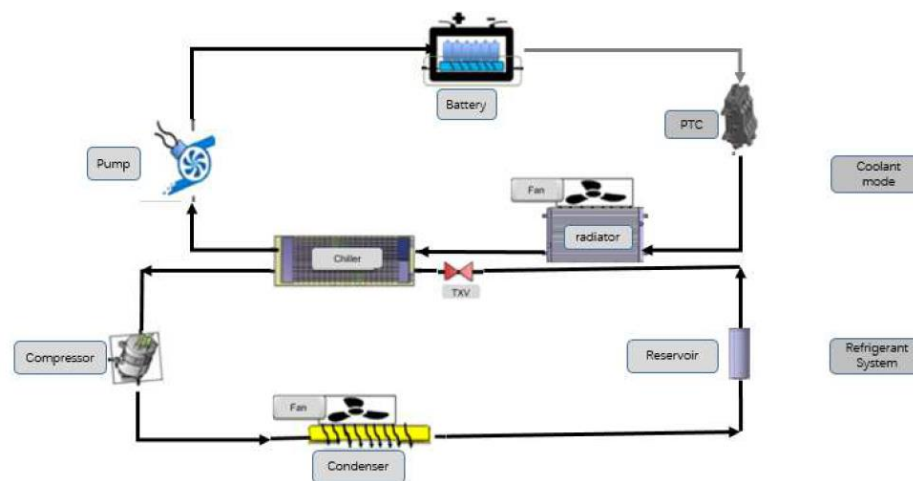
GB
F-Gas legislation





Cooling Systems for Battery Racks

- Battery Racks need cooling to prevent overheating
- This cooling function is usually provided by a “mini” chiller working with HFC s(*) Refrigerants (like R134A).
- Because of this, the importer of the battery racks containing this type of cooling equipment falls under the Article 14 of the F-Gas Regulation both in the EU and in GB (**):



(*) HydroFluoroCarbons

(**) Since January 2021 there are two separate Quota Systems:

1. GB – England, Scotland and Wales
2. EU – EU27 + Northern Ireland





Legal Requirements

- Companies importing pre-charged equipment (*) into EU and GB and reaching the respective thresholds in one year are required to obtain F-Gas Quota **BEFORE** placing the goods on the market:
 - EU threshold: 10 tCO₂eq/year
 - GB threshold: 100 tCO₂eq/year
- They need to be registered on the HFC Registry relevant for their imports (EU/GB/Both)
- Obtain the right type of Quota to cover the imports of their equipment (Authorizations/Delegations)
- Must prepare the F-GAS Declaration of Conformity marking option “A”
- Must report yearly activities by March the 31st of the following year
- Must be Audited by an independent certification body
- If a company failed to obtain quotas before the arrival of the goods, it is liable for a penalty of £200,000.00 in GB. Other EU Member states apply different penalties.

(*) **Battery Racks with cooling system using HFCs qualify as equipment pre-charged with HFCs**



The Quota Systems: EU and GB

SINCE JANUARY THE 1ST 2021 THERE ARE TWO SEPARATE QUOTA SYSTEMS COVERING THE FORMER EU28

EU27 + Northern Ireland

THE 27 EU MEMBER STATES AND NORTHERN IRELAND (PART OF THE UNITED KINGDOM, BUT WITHIN THE REMIT OF THE EU F-GAS REGULATION)

GREAT BRITAIN

ENGLAND, SCOTLAND AND WALES



These two F-GAS Quota systems are **totally separated** and independent from each other.

This means that HFCs (Bulk and/or precharged in equipment)

CAN NOT be moved between these two Regions without the proper local Quota (EU/GB).



EXPLAINED: Quota (Bulk) vs. Quota Authorisation & Delegation



HFC BULK ONLY



QUOTA

- Allocated for free → 3€/tCO₂eq 1-
- Year validity (01.01 – 31.12)
- Incumbent Quota can be transferred **ONCE**
- Can be authorised to third parties to import HFCs pre-charged equipment
- **Cannot** be used to import HFCs pre-charged equipment

HFC pre-charged equipment ONLY



AUTHORISATION



DELEGATION

- Must be obtained from a Quota Holder (chargeable)
- Authorisations/Delegations **DO NOT EXPIRE**
- An authorisation can be delegated **ONCE** to another company to import HFCs pre-charged equipment
- Delegation can only be consumed by the **BENEFICIARY** of the quota to import HFC's pre-charged equipment. This quota **cannot** be delegated/transferred to another company
- Authorisations and Delegations **cannot** be used to import bulk HFCs



INCUMBENTS

Organisations for which a Reference Value has been determined based on historical reported data of HFCs placed on the market.
-> Yearly Quota allocation based on historic market share + voluntary declaration [Quota + Quota Reserve].

NEW ENTRANTS

Organisations that do not have a reference value but intend to place bulk HFCs on the EU market in the coming years.
-> Yearly Quota allocation based on voluntary declaration [Quota Reserve only].

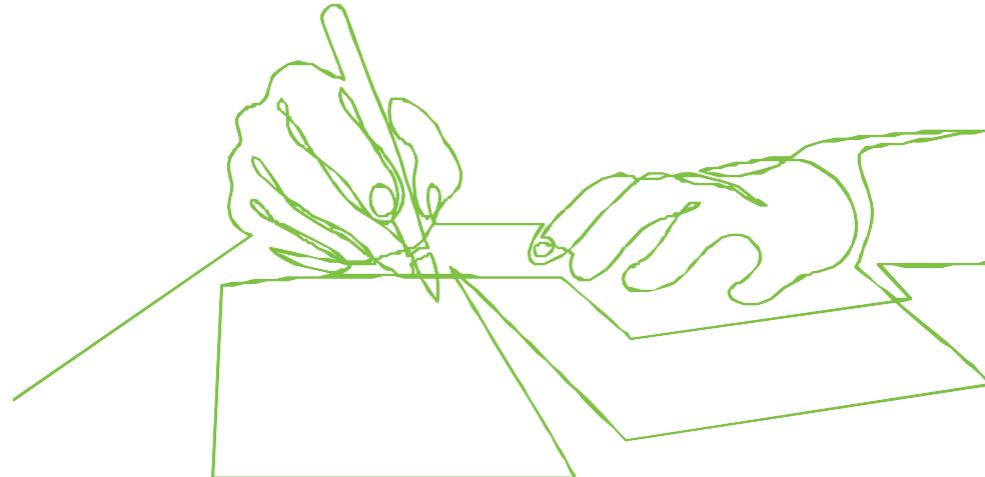
- EU: **NER QUOTA CAN NOT BE AUTHORISED TO IMPORTERS OF EQUIPMENT PRECHARGED WITH HFCs**
- GB: **NER QUOTA CAN BE AUTHORISED TO IMPORTERS OF EQUIPMENT PRECHARGED WITH HFCs, PROVIDED THAT A PHYSICAL SUPPLY OF EQUIVALENT HFC CAN BE PROVIDED**



Regulation (EU) No. 573/2024, Art 21:

In the EU New Entrant Quota Holders can no longer authorize their NER Quota to another Undertaking (to import HFCs pre-charged equipment) even provided that the corresponding quantities of **HFCs are physically supplied** to a third party.

- New Entrant Quota cannot be transferred.
- New Entrant Quota cannot be authorised



WHY URGENCY FOR GB QUOTA?



- Companies importing pre-charged equipment into GB are required to obtain GB F-Gas Quota **BEFORE PoM** (Placing the goods on the GB Market).
- If a company failed to obtain quotas before the arrival of the goods, it is liable for a penalty of £200,000.00 for the breach and 25.00€/tCO₂eq for the excess of Quota

Dear Sir/Madam

**The Fluorinated Greenhouse Gases Regulations 2015 (SI 2015 No.310)
(as amended) (the F Gas Regulations) - Regulation 31A**

NOTICE OF INTENT TO IMPOSE A CIVIL PENALTY

The Environment Agency is considering imposing a civil penalty on you under Regulation 31A of the F Gas Regulations for the following reasons:

██████ failed to obtain sufficient HFC quota authorisations before placing HFCs on the market within Great Britain (GB) as required by Article 14 (1) of EU Regulation 517/2014 on fluorinated greenhouse gases. Article 14 (1) requires that refrigeration, air conditioning and heat pump equipment charged with hydrofluorocarbons shall not be placed on the market unless hydrofluorocarbons charged into the equipment are accounted for within the GB quota system.

Breach of EU Regulation 517/2014 on fluorinated greenhouse gases:

Maximum civil penalty as outlined in Regulation 31A and paragraph 1(4) of Schedule 4 to the Fluorinated Greenhouse Gases Regulations 2015 (as amended):

Breach of Article 14(1)

£200,000

Quota authorisations needed in excess of those held in 2021

Costs avoided

██████

██████ X £25.00
calculated maximum
cost of 2021 quota
authorisation = ██████



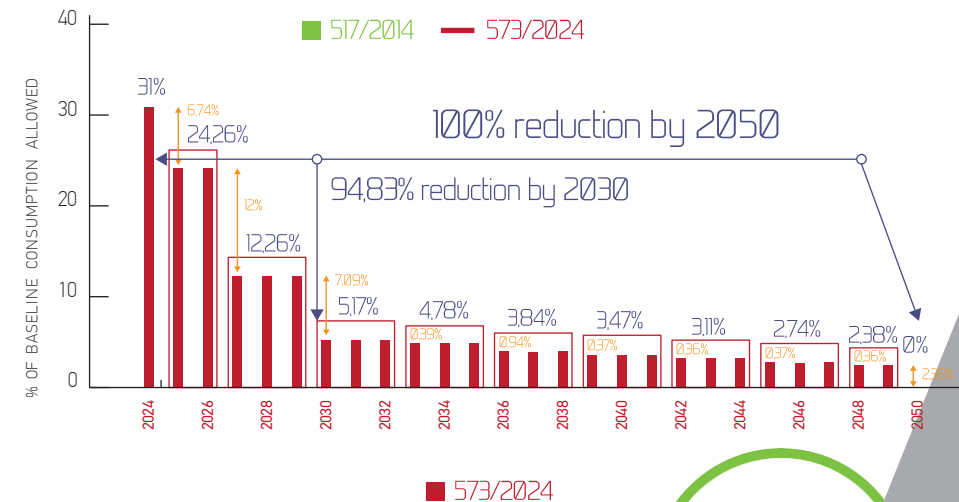
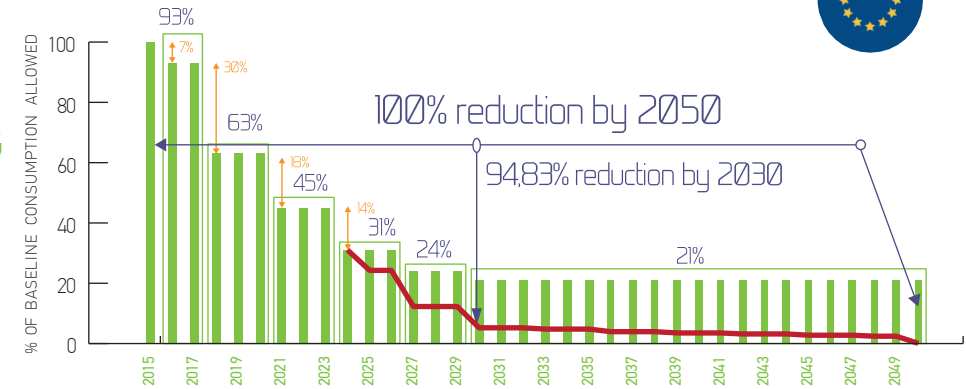
KEY CHANGES IN THE EU F-GAS REGULATION

THE EU IS CHANGING THE F-GAS REGULATION INTRODUCING MORE RESTRICTIVE CRITERIA

These are the key changes that will impact the price of EU/GB Quota significantly:

- **New categories added** (MDI – Metered-dosed Inhalers)
-> Less Quota available to import gas
- Quota reduction moved from **79% to 95%** by 2030, then phased out by 2050
- **Quota payment for bulk importers set to 3€/tCO₂eq**
-> this measure will push up the prices of Refrigerants and Quota Authorizations and Delegations
- **New bans/restrictions for equipment** based on the GWP of the Refrigerant used

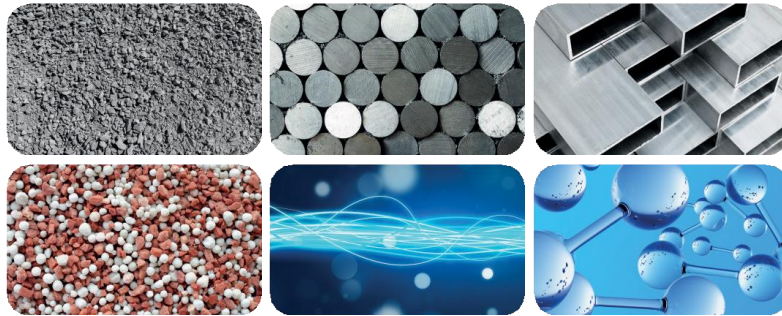
Useful Link: <https://eur-lex.europa.eu/eli/reg/2024/00573/oj>



CBAM: what is it?

CBAM (acronym for **C**arbon **B**order **A**justment **M**echanism) is a (new) Environmental Regulation impacting importers of certain categories of products in the EU:

- Cement
- **Iron** and **Steel**
- **Aluminium**
- Fertilizers
- Electricity
- Hydrogen



There are two phases:

- Transition Phase [Oct 2023 – Dec 2025]. During this phase Companies are requested to submit quarterly reports of their PoM [Placement on the EU Market] and make sure that the correct information is available (Customs, Vendors). Voluntary Audit for each Quarterly Report.
- Full force [Jan 2026 onward]. From Jan the 1st 2026 all affected Undertakings must have at least 70% of the Carbon Credits required by their business on their accounts. This is measured based on the previous years' reporting. Mandatory Audit for each Quarterly Report.

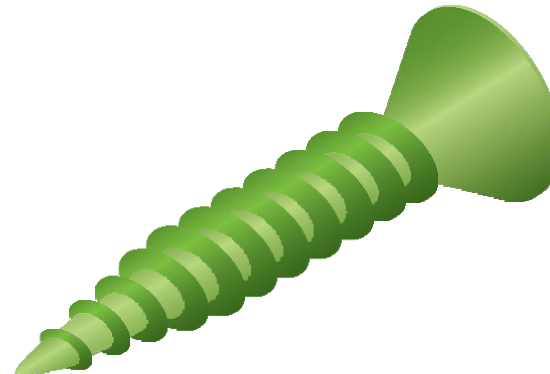




- Incorrect Customs Classification
(generic Tariffs instead of specific ones)
- Incorrect date used for the reporting
(GR instead of PoM)
- Incorrect Country of Origin
(“Shipper from” instead of “Made in”)
- Incorrect Manufacturer Information

WHAT IS IT?

- Part of Air
Conditioning Equipment?
- Part of Furniture?
- Item in scope of C.B.A.M.?



Description	TARIC	CBAM MAT?
WATER PIPE CYL.HEAD - THERMOSTAT HOUSING	7307998099	Yes
BRACKET, LEFT	7326909890	Yes
BRACKET, RIGHT	7326909890	Yes
SUPPORT EAT S2	7326909890	Yes
TUKI VASEN	7326909890	Yes
PLUG --	7326909890	Yes
centering wedge	7318290090	Yes
SPACER PCD335	7318290090	Yes
SUPPORT EAT S2	7326909890	Yes
HOLKKI TLO 502 PÄÄTYHOLKKI 3-NOP. PTO	7318290090	Yes
TANK EXPANSION	7310100000	Yes
TOP SHELF BRACKET MUD GUARD	7326909890	Yes
SHIELD SENSOR PTO	7326909890	Yes
BRACKET ECU CENTURION G2, G3 T4F	7326909890	Yes
CCV CLAMP SUPPORT BRACKET	7326909890	Yes
HALF SHIELD CONNECTING PIPE STG 5	7326909890	Yes
UPPER LIFT ROD PIN D22	7318240090	Yes
FIXING BRACKET HARNESS T4F - SISU	7326909890	Yes
GUARD ASSEMBLY SOLENOID VALVE	7326909890	Yes
CCV CLAMP BRACKET	7326909890	Yes
SPACER	7318290090	Yes
DOWN SHELF BRACKET MUD GUARD	7326909890	Yes
DOUBLE BUEGU CLAMP 12	7326909890	Yes
BRACKET COOLING FLANGE	7326909890	Yes
AC BRACKET COMPRESSOR	7326909890	Yes
BRACKET FUEL LINES	7326909890	Yes
CCV CLAMP BRACKET	7326909890	Yes
PIN SHOULDER	7318240090	Yes
HOLKKI TLO 502 PÄÄTYHOLKKI 3-NOP. PTO	7318290090	Yes
WHEEL NUT M20X1.5 DIN74361 ZNE/DACROMET	7318169990	Yes
UPRIGHT, RH ALO COMPONENT	7326909890	Yes
UPRIGHT, RH ALO COMPONENT	7326909890	Yes
UPRIGHT, RH ALO COMPONENT	7326909890	Yes
AIR COMPRESSOR INTAKE CONNECTOR	7307991090	Yes
SUPPORT COVER - R720 FRONT MUD GUARD	7326909890	Yes



REGULATION (EU) 2023/956 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

- 2023 May the 10th – Regulation published
- 2023 October the 1st - Entered into force
- 2024 Jan the 31st : Quarterly emission reporting requirements begins
- 2025 Jan the 1st: Only EU's new emission calculation formula to be accepted
- 2025 y/e: EU announces program expansion plans
- 2026 Jan the 1st: full implementation - Carbon Certificates must be acquired to match emissions
- 2026 March the 31st: 80% of emissions for Q1 26 must be held in retirement accounts
- 2027 May the 31st: 2026 compliance deadline – 100% of 2026 credits in retirement accounts



What happens if my Company does not Comply?



Draft Penalties are laid down in the Legislation framework,
to be implemented by EU Member States

During the Reporting Period:

- Fines can go up to 100.00€ / unreported ton of CO₂

During the actual implementation period (Jan 2026 onward):

- Fines can go up to 100.00€ / unreported and missing coverage (Carbon Credit) per ton of CO₂
- Licence to import listed substances/materials can be revoked.



Navis: Company background

What is “NAVIS”?

- A young Company established in May 2018 with the aim to provide clear and accessible support to Companies in need to comply with the F-GAS Regulation and HFCs (*)
- Very lean structure (3 directors, fast decision making process)
- Pool of experts coming from the Industries in scope (Automotive, Brown Goods, HVAC-R, Solar, Chemicals, Medical , Consulting and so forth). Key achievements:
 - 2015 January: embedding F-GAS controls into the ERP System (current MD)
 - 2017 February: Introduction of Tariff Codes for F-GAS Products (current MD)(**)
 - 2021 January: Introduction of the tCO₂eq as a Unit of Measure in the UCC (***)
 - 2024 February: Introduction of the tCO₂eq as a Unit of Measure in the UK (***)
- In-depth knowledge of the F-GAS Regulation and how it entwines with the EU Customs and Logistics Procedures

* Fluorinated Greenhouse Gases - hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride and other greenhouse gases that contain fluorine, or mixtures containing any of those substances (Annex I and II of REGULATION (EU) No 517/2014).

** Preparatory works in 2014 – 16 with DG Clima and DG Taxud carried out by the current MD of Navis

*** Same as above, proposed to the EU Member States, DG Clima and DG Taxud by the current MD of Navis



EU
F-Gas legislation



GB
F-Gas legislation





These are the key Services offered by Navis to its Clients:

- F-GAS related Services:
 - F-GAS Consulting (Strategy, Procedures, Controls and so forth)
 - EU/GB Quota
 - Supply of HFCs
 - Only Representation Services for non-Resident Companies (EU/GB/TK)
 - Reporting
 - Auditing via accredited Biz partners
 - Legal support for disputes with Government Authorities
 - Brexit impact on OEMs / Importers / Manufacturers of HFCs (bulk/precharged)
- C.B.A.M. Regulation:
 - Reporting
 - Vendors engagement
- Customs & Logistics services (LFR Included)
- IT Architecture design and implementation



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Supplementary Slides





2015 Entry into force of F-Gas Regulation (EU)
No. 517/2014, repealing Regulation (EC) No 842/2006:

- Quota System for Bulk HFCs
- Phase-Down for HFCs
- F-Gas Portal

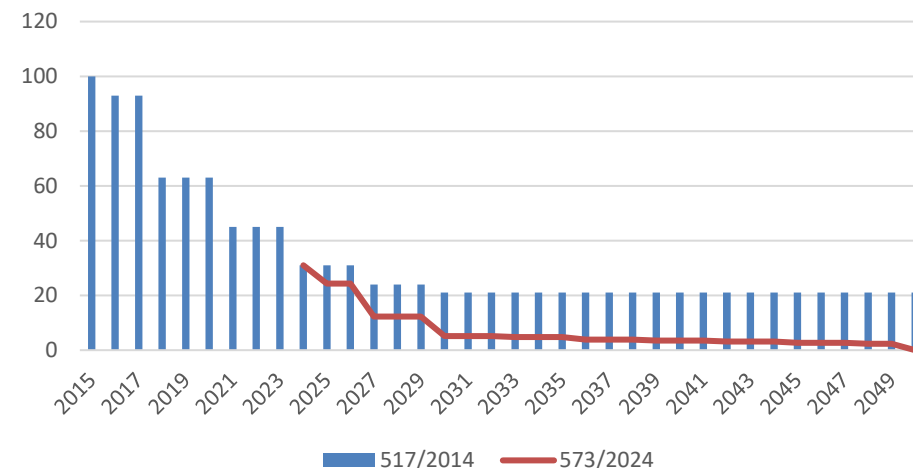
2017 **EU Quota System** for HFCs pre-charged equipment



2021 Entry into force of GB F-Gas Legislation:

- GB Quota System for all HFCs
- GB Phase-Down for all HFCs
- GB F-Gas IT System

New F-Gas Regulation



HFCs PHASE-DOWN

- HFCs placed on the market in the EU must be banned (or 'phased out') between 2015 and 2050.
- HFC amounts are calculated as tCO₂eq.
- The phase-out is carried out using an HFC quota system, as part of which producers and importers of bulk gases are given quotas that limit their right to place HFCs on the market.



GWP and tCO₂eq - What they do mean



- Both EU & GB F-gas laws use tCO₂eq (Tonnes of CO₂ equivalent) as unit of measure. It represents the environmental impact of Greenhouse Gases.
- F-gases are converted into tCO₂eq based on their **GWP** (Global Warming Potential) according to Annex I, II and III of Regulation (EU) 573/2024.
tCO₂eq = F-gas Tonnes x GWP
- The higher the GWP, the higher the environmental impact of the F-gases.
- The method of calculating the total GWP of a mixture is explained in Annex VI of Regulation (EU) 573/2024.

Substance			GWP (1)
Industrial designation	Chemical name (Common name)	Chemical formula	
Section 1: Hydrofluorocarbons (HFCs)			
HFC-23	trifluoromethane (fluoroform)	CHF3	14 800
HFC-32	difluoromethane	CH2F2	67.5
HFC-41	fluoromethane (methyl fluoride)	CH3F	92
HFC-125	pentafluoroethane	CHF2CF3	3 500
HFC-134	1,1,2,2-tetrafluoroethane	CHF2CHF2	1 100

Regulation (EU) No. 517/2014 - Annex I

$$\Sigma (\text{Substance X\%} \times \text{GWP}) + (\text{Substance Y\%} \times \text{GWP}) + \dots (\text{Substance N\%} \times \text{GWP})$$

Example: R410a (50% HFC-125 _ 50% HFC-32)

$$\text{GWP} = (50\% \times 3500) + (50\% \times 675) \Rightarrow \text{GWP} = 2088$$





REGISTRATION

- An undertaking must register its Organisation in the EU F-Gas Portal and HFC Licensing System (EU Account is needed).
 - Information requirements for registration in the Registry is set in REGULATION (EU) 2024/573. This includes:
 - VAT number ('OR' if non-EU)
 - EORI number ('OR' if non-EU)
 - Financial Identification ('OR' if non-EU)
- Beneficial Owner rules apply for the purpose of quota allocation.



This part of the HFC Registry is for importers and producers of bulk HFCs. It allows them to see their allocated reference values and quotas as well as make and receive quota transfers.

ACCESS MY QUOTAS

This part of the HFC Registry allows importers and producers of bulk HFCs to make their yearly declarations of quota need.

ACCESS MY DECLARATIONS

This part of the HFC Registry allows importers and producers of bulk HFCs to authorise the use of quota allocated to them to importers/ manufacturers of precharged refrigeration, air conditioning and heatpump equipment. Such an authorisation allows the importers of precharged equipment to account for gases imported inside the equipment under the quota system (Art. 14)

ACCESS MY AUTHORIZATIONS

- The declaration period is a one month' window (May 2024 for 2025-2027).





- 01st January 2021: EU F-Gas Regulation no longer applies to GB (but applies to NI).
- New GB F-Gas Regulation transfers most of the EU requirements into UK law.

UK S.I. 2019 No. 583

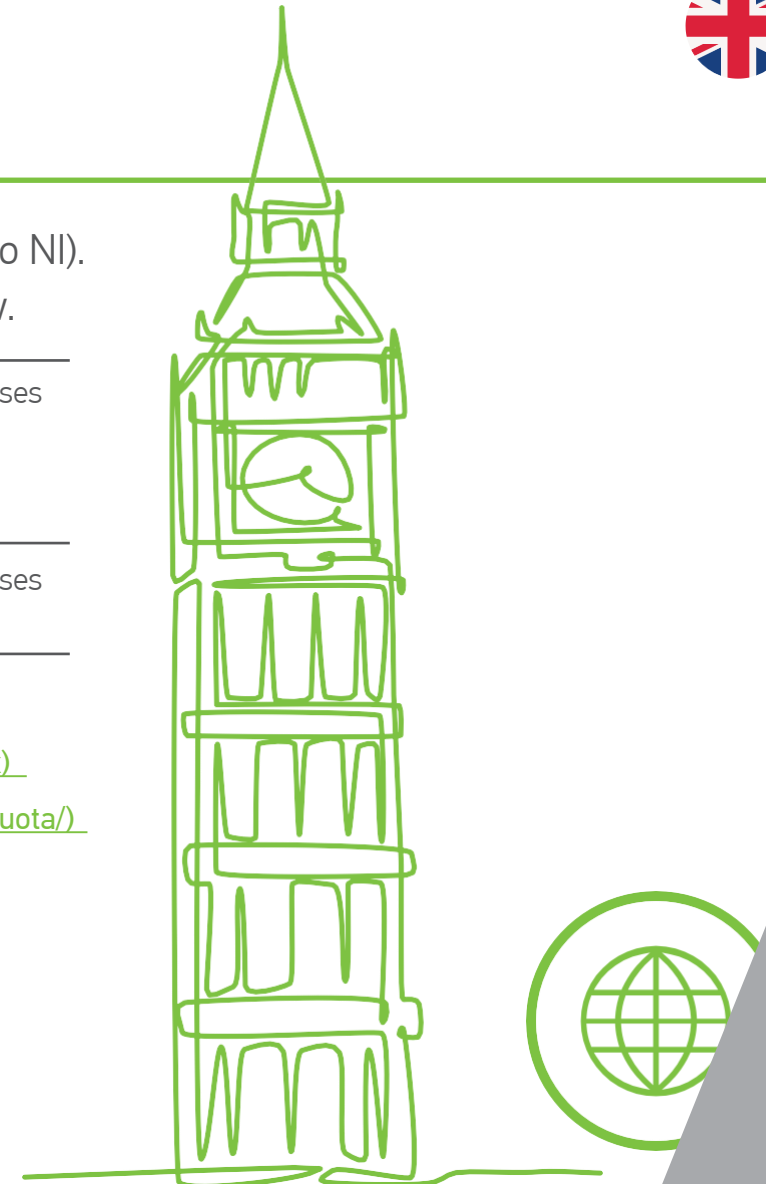
The Ozone-Depleting Substances and Fluorinated Greenhouse Gases (Amendment etc.) (EU Exit) Regulations 2019.

As amended by:

UK S.I. 2020 No. 1616

The Ozone-Depleting Substances and Fluorinated Greenhouse Gases (Amendment etc.) (EU Exit) Regulations 2020.

- The Environment Agency (EA) manages the GB F-Gas System, including:
 - Undertaking registration (<https://register.fluorinated-gas.service.gov.uk/register/index>)
 - GB HFC quota allocation (<https://apply-quota.fluorinated-gas.service.gov.uk/applyforquota/>)
 - GB HFC Quota management [transfer / authorisation / delegation] (<https://manage-quota.fluorinated-gas.service.gov.uk/managequota/index>)
- A GB F-Gas Portal is not accessible yet, so undertakings must keep records of all exchange of emails with EA as proof of their activities.





NAVIS IS ABLE TO GUIDE THE IMPORTERS OF OEM THROUGH ALL THE STEPS REQUIRED IN ORDER TO SUCCESSFULLY SET-UP THEIR GB BUSINESS, CONSISTING OF:

- Create an account on the GB HFC Registry
- Supply the right type of GB Quota to import Pre-charged equipment
- Quota must be held on the account **prior to import**. If this is not the case, the importer is in breach of the F-Gas Regulation. Solution: procure enough quota to cover past and future import as soon as possible, and within the import year

WE CAN MAKE SURE THAT THE IMPORTERS:

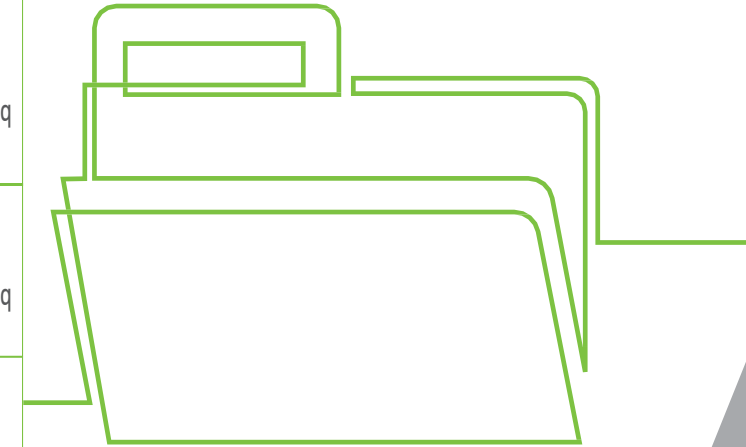
- Will be fully compliant with GB F-Gas Regulation
- Will always be informed about requirements, changes in the regulation and future requirements as we are in close contact with the lawmakers
- Reporting and Support for the Auditing is part of our services



EU & GB - Reporting and Auditing rules



	QUOTA SYSTEM	QUOTA SYSTEM	REPORTING	AUDITING
HFCs Bulk	EU	≥ 10 tCO ₂ eq Declaration of Conformity	By 31 st March	By 30 th April of following year Producers, Importers, Exporters of ≥ 10,000 tCO ₂ eq
	GB	≥ 100 tCO ₂ eq		By 30 th June of following year Producers, Importers, Exporters of ≥ 10,000 tCO ₂ eq
HFCs pre-charged in equipment	EU	≥ 10 tCO ₂ eq Declaration of Conformity	By 31 st March [GB keeps the threshold of ≥ 500 tCO ₂ eq]	By 31 st March of following year Importers of ≥ 10 tCO ₂ eq
	GB	≥ 100 tCO ₂ eq Declaration of Conformity		By 31 st March of following year Importers of ≥ 100 tCO ₂ eq



Quota Threshold



Both EU and GB have adopted a “de minimis” threshold for imports:

GB: less than 100 tCO₂eq/Year/Undertaking

EU: less than 10 tCO₂eq/Year/Undertaking

This applies to:

- importers of HFCs in Bulk
- importers of equipment precharged with HFCs

This approach allows small imports of HFCs (mainly in blend) which are essential for R&D. An example the special High GWP blends for Cryochillers used for vaccines and other special applications (Life Science).

It also reduces the administration:
no need to be registered on the HFC Registries.



THANK YOU

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