

# EU-ETS for Shipping

**ClassNK EU-ETS Seminar  
11 October 2023**

**Marine GHG Certification Department  
ClassNK**

## ■ **Fit for 55 (Comprehensive climate policy package)**

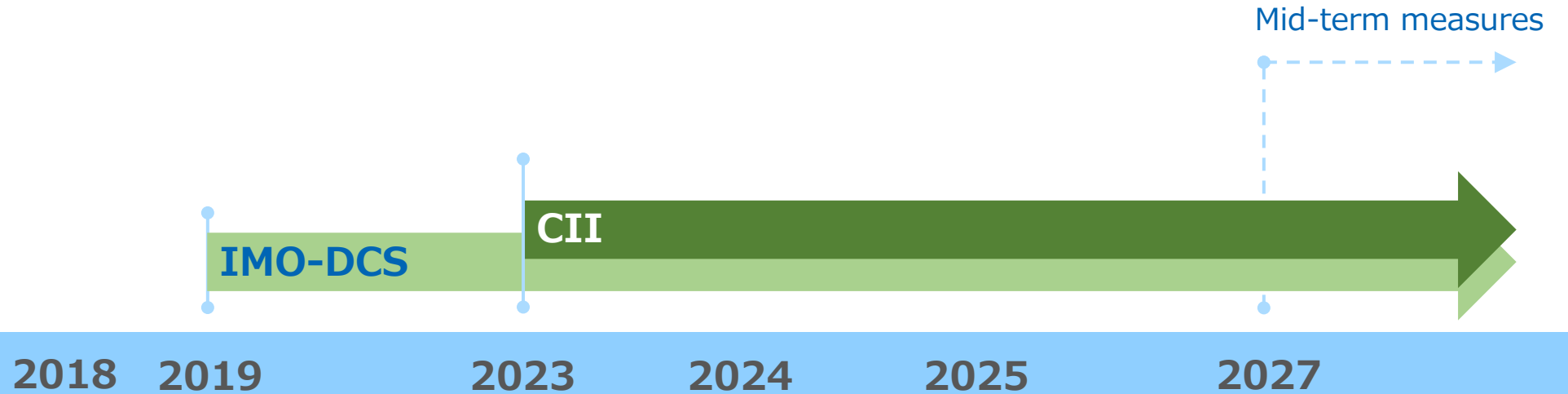


- December 2019 : **European Green Deal** by European Commission (EC)
  - ✓ EU's 2030 Climate Target:  
*Reduce net GHG emissions by at least 55% by 2030, compared to 1990 levels.*
- July 2021 : **Fit for 55** by EC
  - ✓ A comprehensive climate policy package to achieve EU's 2030 Climate Target

### < Proposals to affect the shipping sector in Fit for 55 >

- **Extension of Emissions Trading System (EU-ETS) to the shipping sector**  
Apply from **1 January 2024.**
- **FuelEU Maritime:** Accelerate the use of low carbon fuels in shipping
  - ✓ Limitation of lifecycle GHG intensity for fuel (2025~)
  - ✓ Obligation to use on-shore power supply (2030~, containerships and passenger ships only)Apply from **1 January 2025.**

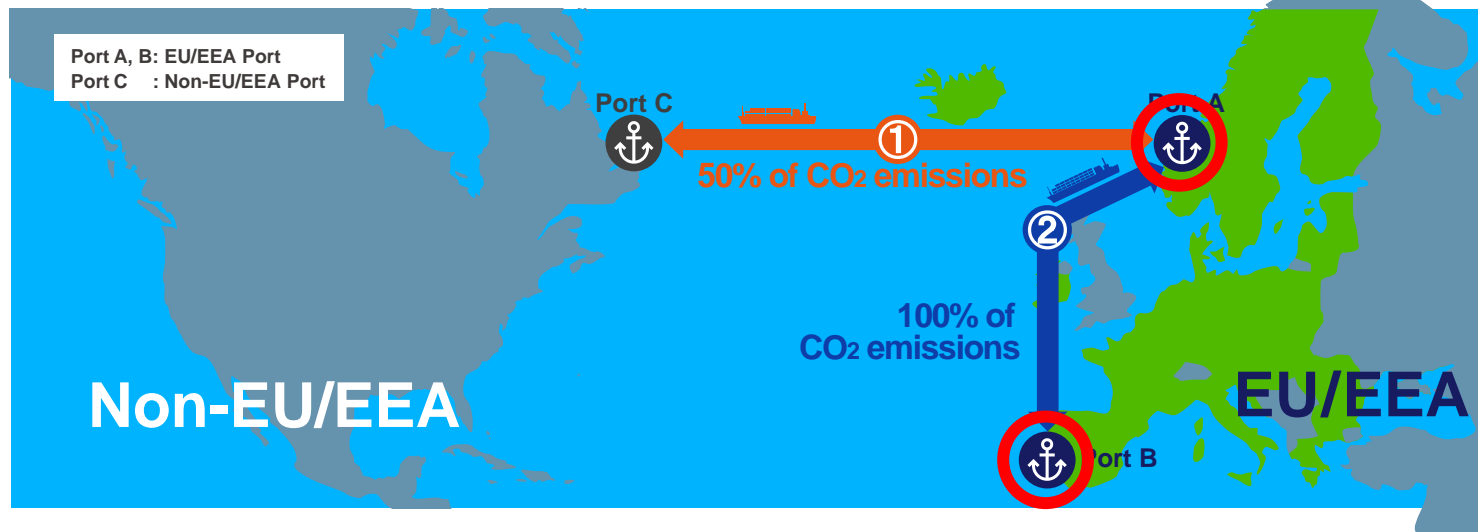
## ■ Visualization of emissions from ships/ timeline for implementation of regulations



# Overview of EU-ETS for shipping: Scope of regulations

## ■ Ships and Emissions in the scope

- Ships of 5,000GT and above
- CO<sub>2</sub> emissions during EU-related voyages and while at berth in EU ports



- 50% of CO<sub>2</sub> emissions from voyages between an EU/EEA port of call and a non-EU/EEA port of call
- 100% of CO<sub>2</sub> emissions from voyages between EU/EEA ports of call
- 100% of CO<sub>2</sub> emissions while at berth in EU/EEA ports of call

To be verified in accordance with EU-MRV regulations

- **European Union Allowances (EUA) that are equivalent to the annual CO<sub>2</sub> emissions should be obtained for surrender**

# Overview of EU-ETS for shipping: Port of call

- “port of call” is the port where a ship stops to load or unload cargo, to embark or disembark passengers, or where an offshore ship stops to relieve the crew.
- Stops for refuelling, obtaining supplies, dry-dock, etc. are excluded.
- **The following calling at ports are NOT regarded as a “port of call” under the EU-ETS.**
  - Stops of **containerships** in EU’s neighbouring container transshipment ports:
    - ✓ Located outside the EU but less than 300 nautical miles from a port of EU/EEA Member State ; and
    - ✓ Share of transshipment of containers (measured in TEU) exceeds 65% of the total container traffic of that port during the most recent 12-month period for which relevant data are available.
  - ➔ The voyages preceding and following these ports are considered as consecutive voyages.
- **A list of such container transshipment ports will be published by 31 December 2023.**

According to the draft EC document, these two ports are listed.

TANGER MED  
(Morocco)

EAST PORT SAID  
(Egypt)



## ■ **Responsibility: Shipping company**

- **Shipowner or any other organization or person who has assumed the responsibility for the operation of the ship (ship management company or bareboat charterer etc.)**
  - Surrender the allowances equivalent to the annual CO<sub>2</sub> emissions **by 30 September** of the subsequent year.
  - Surplus allowances can be carried over or sold.
- **Each shipping company is registered to an **administering authority** of an EU/EEA Member State.**
  - Criteria for the registration :
    - ① A shipping company registered to an EU/EEA Member State:  
The administering authority of the EU/EEA Member State in which the shipping company is registered to.
    - ② A shipping company **NOT** registered to an EU/EEA Member State:
      - (1) The administering authority of the EU/EEA Member State **with the greatest estimated **number of port calls from voyages performed by that shipping company in the last 4 monitoring years.****
      - (2) Without such voyage in the preceding 4 monitoring years, the administering authority of the EU/EEA Member State that the concerning ship of the shipping company has arrived or started its first voyage.
  - **A list of the administering authorities for each shipping company will be published before 1 February 2024.**

## ■ **Penalty: Fines**

- **In breach of requirements to surrender sufficient allowances:**

- Pay a fine of **EUR 100 for each tonne of CO<sub>2</sub> equivalent** emitted for which the shipping company has not surrendered allowances.

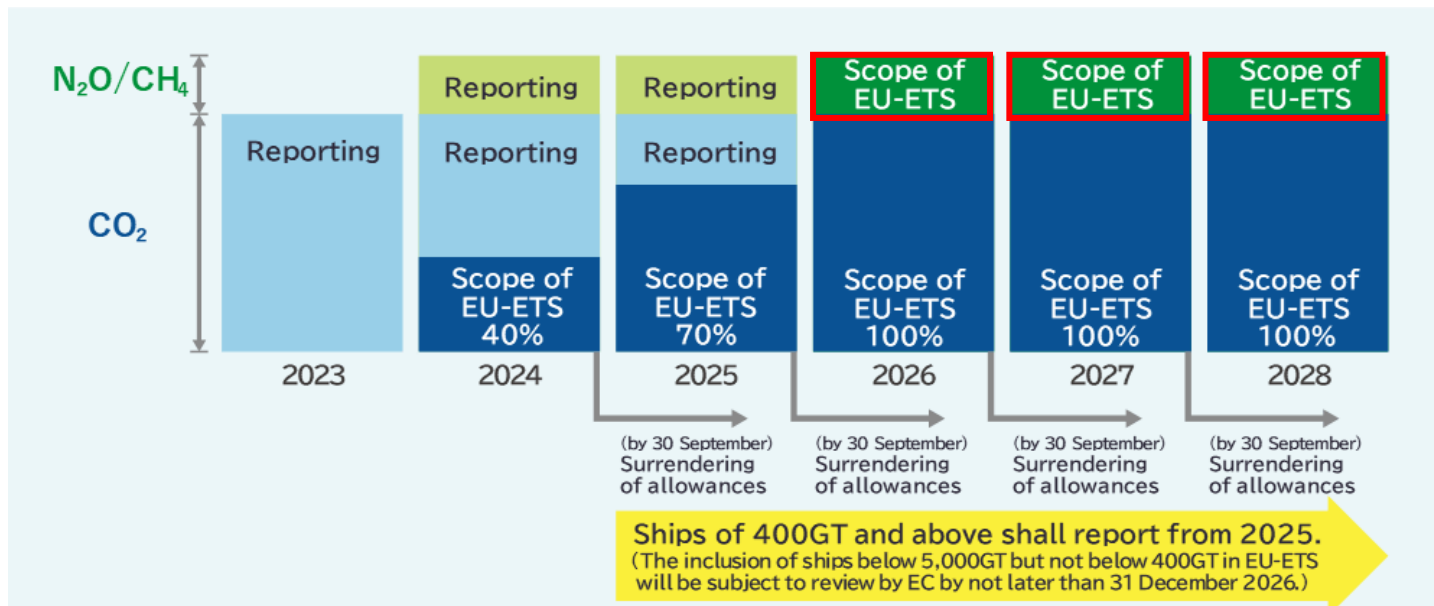
**+**

The obligation to surrender allowances equal to those excess emissions **in the following calendar year.**

- A shipping company that could not surrender sufficient allowance for 2 or more consecutive years , **the ships of the company** could be denied entering EU ports.

## ■ Introduction of EU-ETS for shipping

- Phase-in period for first 2 years and fully covered from 2026's emissions.
  - ✓ Emissions in 2024 : **40%** of emissions in the scope (to be surrendered in 2025)
  - ✓ Emissions in 2025 : **70%** of emissions in the scope (to be surrendered in 2026)
  - ✓ Emissions in 2026 : 100% of emissions in the scope (to be surrendered in 2027)
- From 2026, N<sub>2</sub>O and CH<sub>4</sub> will also be fallen in the scope of EU-ETS for shipping.
  - ➔ From 2024, EU-MRV regulations will be amended to include N<sub>2</sub>O and CH<sub>4</sub> as reporting items.



The detail of monitoring methods to be announced by 1 October 2023.



## ■ How N<sub>2</sub>O and CH<sub>4</sub> are calculated

1	2	3	4	5	6
Fuel Class	Type of Fuel	EF <sub>CO<sub>2</sub></sub> [gCO <sub>2</sub> ] [gFuel]	EF <sub>CH<sub>4</sub></sub> [gCH <sub>4</sub> ] [gFuel]	EF <sub>N<sub>2</sub>O</sub> [gN <sub>2</sub> O] [gFuel]	C <sub>j</sub> As % of the mass of the fuel used by the emissions source
Fossil	HFO ISO 8217 Grades RME to RMK	3,114	0,00005	0,00018	-
	MDO MGO ISO 8217 Grades DMX to DMB	3,206	0,00005	0,00018	-
	LNG	2,750	0	0,00011	3,1 for LNG Otto (dual fuel medium speed) 1,7 for LNG Otto (dual fuel slow speed)

Draft delegated regulation

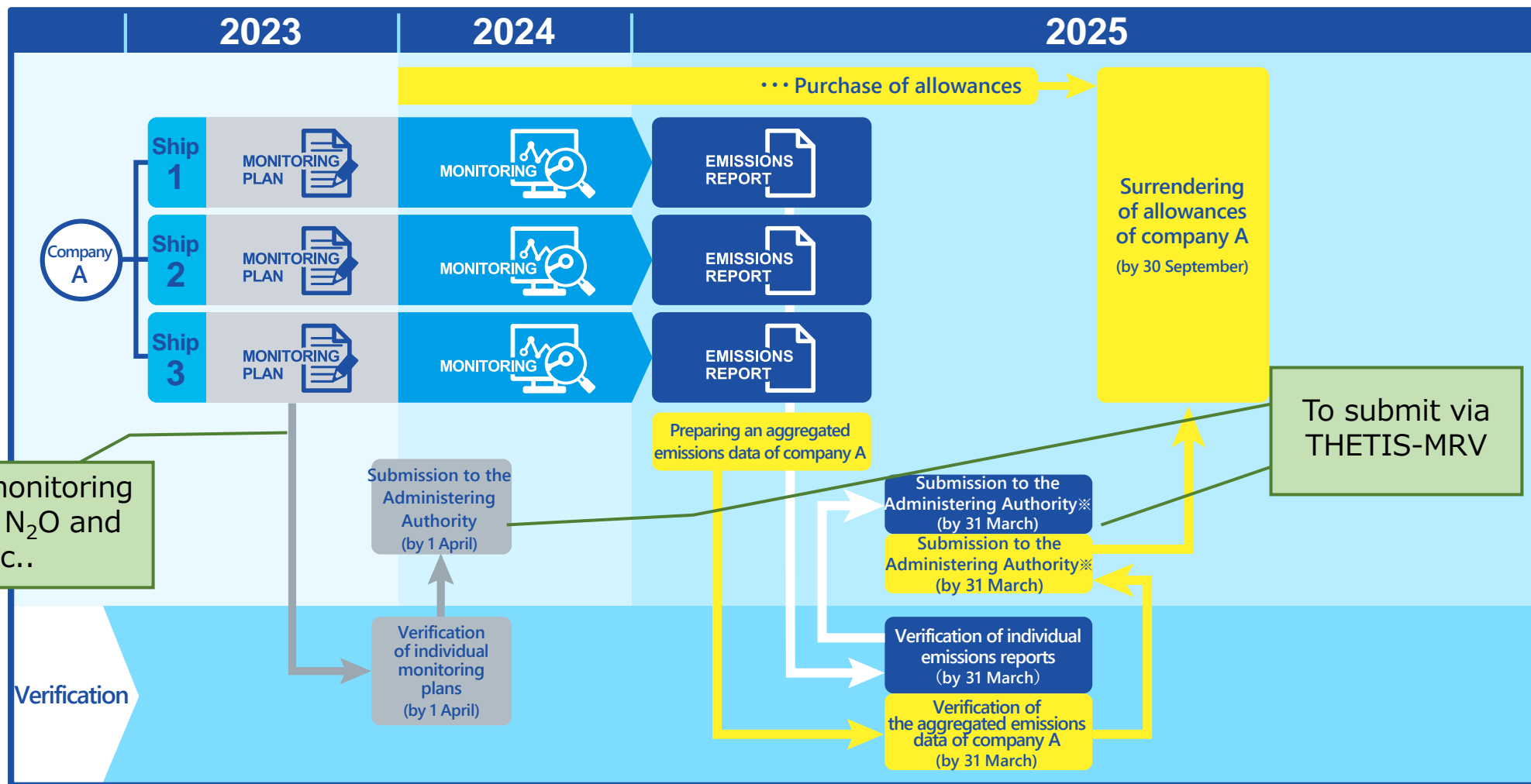
- **In Draft Delegated Regulation:**
  - Calculated by fuel oil consumption multiplied by the emission factors N<sub>2</sub>O and CH<sub>4</sub> and their Global Warming Potential, CH<sub>4</sub>:28, N<sub>2</sub>O:265
  - For LNG, “methane slip” is also to be considered in the calculation.

Global Warming Potential over 100 years

Acronym, common name or chemical name	Global warming potential
Carbon dioxide (CO <sub>2</sub> )	1
Methane (CH <sub>4</sub> )	28
Nitrous oxide (N <sub>2</sub> O)	265

# EU-ETS & EU-MRV: Timeline for compliance

## ■ Timeline for introduction of EU-ETS for shipping

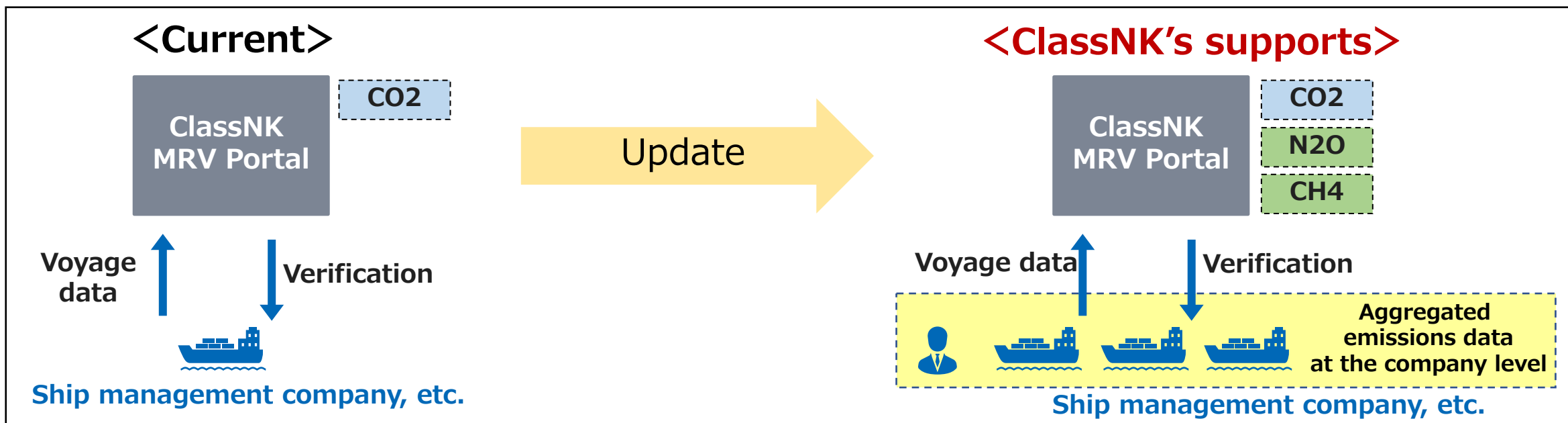


Include the monitoring methods for N<sub>2</sub>O and CH<sub>4</sub> etc..

※The administering authority may require companies to submit their emissions reports by 28 February.

## ■ Updates of ClassNK MRV-Portal

- The GHG emissions used in EU-ETS are **verified in accordance with EU-MRV regulations**.
- Support shipping companies' preparation through ClassNK MRV-Portal in a timely manner:
  - ✓ Updating the **monitoring plan** (After assessed by verifier, MP is to be submitted to THETIS)
  - ✓ Preparing the **aggregated emissions data** at the company level
  - ✓ Calculation of **N<sub>2</sub>O and CH<sub>4</sub> emissions** (Expected to be calculated by fuel consumption)



## ■ FAQs on the EU-ETS for Shipping (1st Edition) (March 2023)

- Q&A style explanation of the overview of the regulations and points to be addressed in relation to the introduction of EU-ETS for shipping.
- The FAQs will be updated as soon as new information becomes available.

FAQs on the EU-ETS  
for Shipping  
(1st Edition)



### FAQs on the EU-ETS for Shipping (1st Edition) Contents

Q1.	What is the EU-ETS ?
Q2.	What is an overview of the EU-ETS for shipping?
Q3.	How can I check the GHG emissions?
Q4.	What is the “port of call” under the EU-ETS for shipping?
Q5.	What should I do for the EU-ETS for shipping?
Q6.	Who will purchase allowances under the EU-ETS for shipping?
Q7.	When, where, and how can I purchase/surrender allowances?
Q8.	What are the penalties for non-conformities?
Q9.	How are the revenues from the EU-ETS for shipping used?

[https://www.classnk.or.jp/hp/pdf/authentication/eumrv/EUETS\\_faq\\_e.pdf](https://www.classnk.or.jp/hp/pdf/authentication/eumrv/EUETS_faq_e.pdf)

## ■ ClassNK Technical Information (May 2023)

### “Adoption of EU-ETS for shipping sector and amendments to EU-MRV”

[https://www.classnk.or.jp/hp/pdf/tech\\_info/tech\\_img/T1299e.pdf](https://www.classnk.or.jp/hp/pdf/tech_info/tech_img/T1299e.pdf)

<p>Subject</p> <p>Adoption of EU-ETS for shipping sector and amendments to EU-MRV</p>	<p><b>ClassNK</b> <i>Technical Information</i></p>
<p>To whom it may concern</p>	<p>No. TEC-1299 Date 24 May 2023</p>

Amendments to extend the scope of the EU Directive for EU Emissions Trading System to the shipping sector (hereinafter EU-ETS Directive) were adopted, with effect from 1 January 2024. Under these amendments, ships of 5,000 Gross tonnage and above, arriving at or departing from ports within the jurisdiction of any EEA member state<sup>1</sup>, regardless of the Flag state, will be required to purchase and surrender<sup>2</sup> allowances equivalent to EU ETS applicable GHG emissions on an annual basis. Failure to do so will result in penalties such as fines and a ban on entry into ports within the EEA territories. In connection with the application of the EU-ETS Directive, amendments to the EU-MRV Regulations have also been adopted.

The following is the summary of the EU-ETS Directive on the shipping sector and the amendments to the EU-MRV Regulations.

**1. Summary of the EU-ETS Directive on the shipping sector**

## ■ FAQs on the FuelEU Maritime (1st Edition) (August 2023)

- Q&A style explanation of the overview of the regulations and points to be addressed in relation to the introduction of FuelEU Maritime.
- The FAQs will be updated as soon as new information becomes available.

FAQs on  
the FuelEU Maritime  
(1st Edition)



FAQs on the FuelEU Maritime (1st Edition) Contents	
Q1.	What is the FuelEU Maritime ?
Q2.	What is an overview of the GHG intensity regulations ?
Q3.	How will the energy used and GHG intensity be confirmed?
Q4.	How to calculate GHG intensity when biofuels are used?
Q5.	What is the “port of call” under the FuelEU Maritime?
Q6.	What is Banking, Borrowing, Pooling?
Q7.	What should I do for the FuelEU Maritime?
Q8.	What is the FuelEU Monitoring Plan and the FuelEU Report ?
Q9.	How is the penalty calculated for GHG intensity provisions?
Q10.	Who pays the penalties in FuelEU Maritime?
Q11.	What are the consequences of failing to pay a penalty?
Q12.	What is an overview of the use of on-shore power supply?

## ■ ClassNK Technical Information (October 2023) “Adoption of the FuelEU Maritime Regulation”

[https://www.classnk.or.jp/hp/pdf/tech\\_info/tech\\_img/T1308e.pdf](https://www.classnk.or.jp/hp/pdf/tech_info/tech_img/T1308e.pdf)

<p>Subject</p> <p>Adoption of the FuelEU Maritime Regulation</p>	<p><b>ClassNK</b> <i>Technical Information</i></p>
	<p>No. TEC-1308 Date 3 October 2023</p>

To whom it may concern

The "Fuel EU Maritime" Regulation, an EU regulation aimed at promoting the decarbonization of fuels used on ships, has entered into force and will begin on 1 January 2025. This regulation requires ships with a gross tonnage above 5,000 GT calling at ports within the jurisdiction of EEA Member States<sup>1</sup> for transporting passengers or cargo for commercial purposes, regardless of their Flag state, to comply with the following provisions:

- (1) Provisions setting a limit on the GHG intensity for fuels used on ships
- (2) Provisions obligating the use of on-shore power supply (OPS) or zero-emission technologies in ports (Only container ships and passenger ships)

Summaries of the FuelEU Maritime Regulations are as follows:

1. Summary of the provisions setting a limit on the GHG intensity for fuels used on ships
  - (1) As from 1 January 2025, it shall apply to all ships of above 5,000 GT arriving at, staying within or departing from "ports of call"<sup>2</sup> under the jurisdiction of EEA Member States, regardless of their Flag for transporting passengers or cargo for commercial purposes.
  - (2) Applicable to fuel used on the following voyages and port stays:



**THANK YOU**

**for your kind attention**

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