



Progress Report 2026

NYK Group Decarbonization Story

Decarbonization Group
Sustainability & Transformation Headquarters
NYK Line

October 2026

Decarbonization Remains a Long-Term Driver of Competitiveness and Growth.

Three years have passed since the publication of the NYK Group Decarbonization Story. Over this period, the climate agenda has evolved from a primary focus on ambitious target-setting to an increased focus on credible transition plans, implementation, and measurable progress.

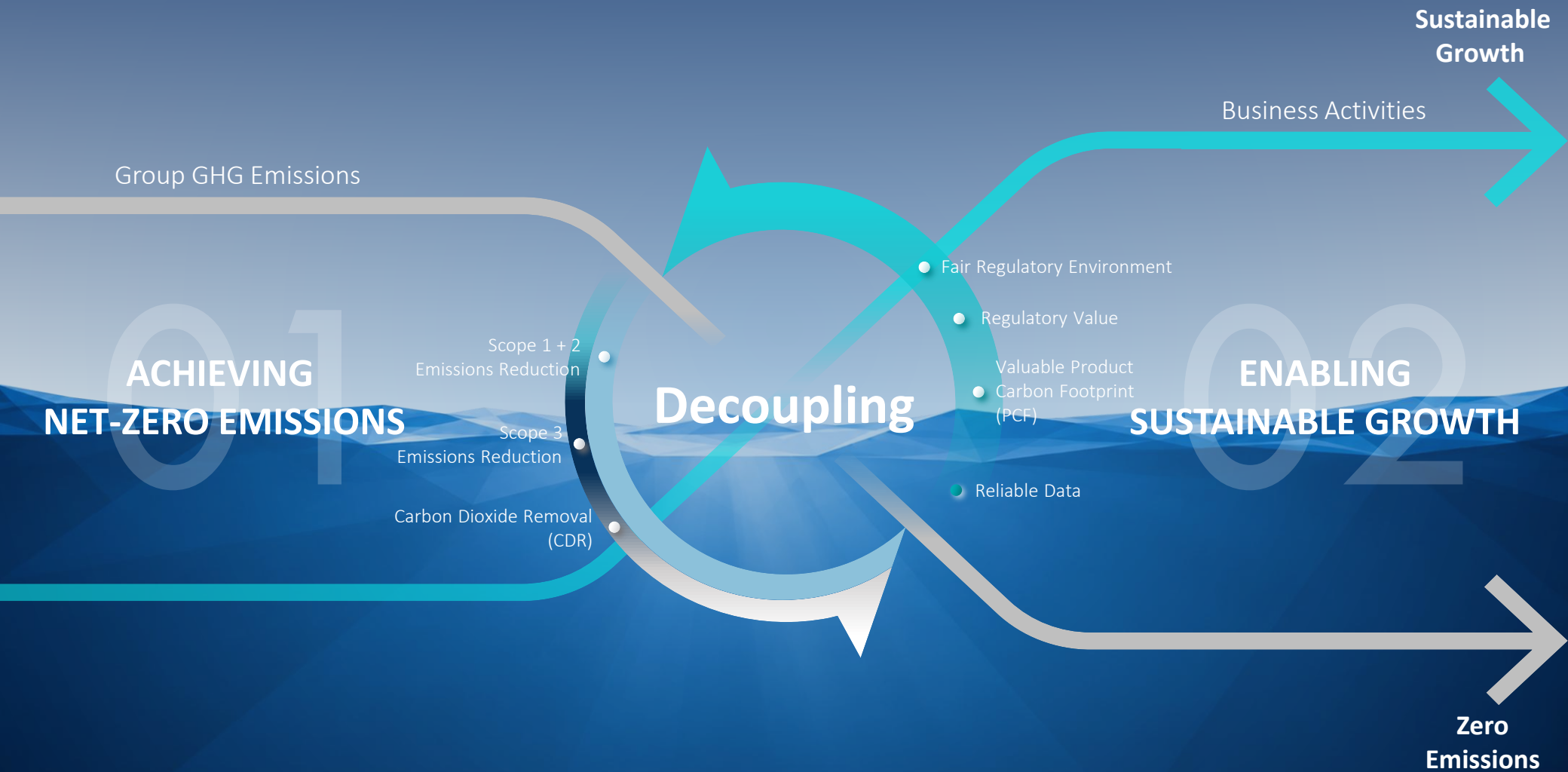
Over the past three years, the NYK Group has advanced energy efficiency initiatives, fuel transition measures, and investments in future-ready assets. At the same time, Book-and-Claim and FuelEU Maritime have begun to enable the transfer and monetization of the environmental value of low-GHG transport.

Although demand for low-GHG transportation has grown more slowly than initially expected amid geopolitical uncertainty and growing concerns over energy security, the underlying drivers of decarbonization have not disappeared.

Companies that prepare for this transition today will be better positioned to create value tomorrow. Looking beyond short-term uncertainty, the NYK Group continues to strengthen future-ready assets, expand low-GHG transportation services, and develop new businesses that contribute to a decarbonized society. We believe these efforts will enhance our competitiveness and support long-term corporate value creation.



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ACHIEVING NET-ZERO EMISSIONS

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2030

2050

GHG Emissions Reduction Progress – FY2025 Results –

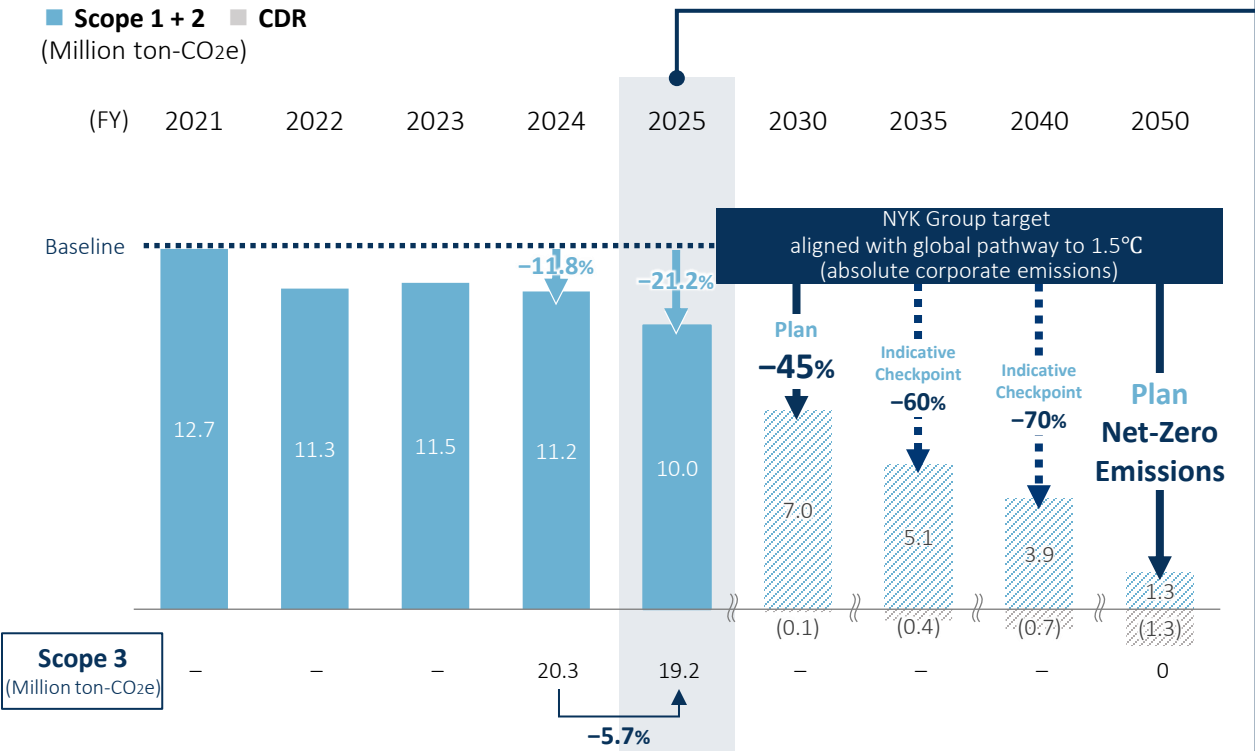
✔ **Achieved Approximately 21% Reduction Since FY2021 (Scope 1 + 2)**

Scope 1 and 2 emissions in FY2025 were approximately 21% lower than in FY2021.

Emissions decreased by approximately 1.2 million ton-CO₂e compared with FY2024.

Around 0.6 million ton-CO₂e of this reduction was attributable to decarbonization initiatives, including the expanded use of low-GHG fuels, the deployment of dual-fuel vessels, and continued improvements in vessel performance and operational efficiency. (The remaining reduction primarily reflected changes in the Group’s business portfolio.)

GHG Emissions Trajectory Toward FY2050



KPI Progress

Cumulative Investment Decisions Applying ICP

203 ➔ **301** Cases
FY2024 FY2025

Cumulative Energy Efficiency Retrofits

65 ➔ **100** Cases
FY2024 FY2025

Low-GHG Fuel Usage Rate

9.5 ➔ **12.2** %
FY2024 FY2025

Alternative-Fuel Vessels (Group)

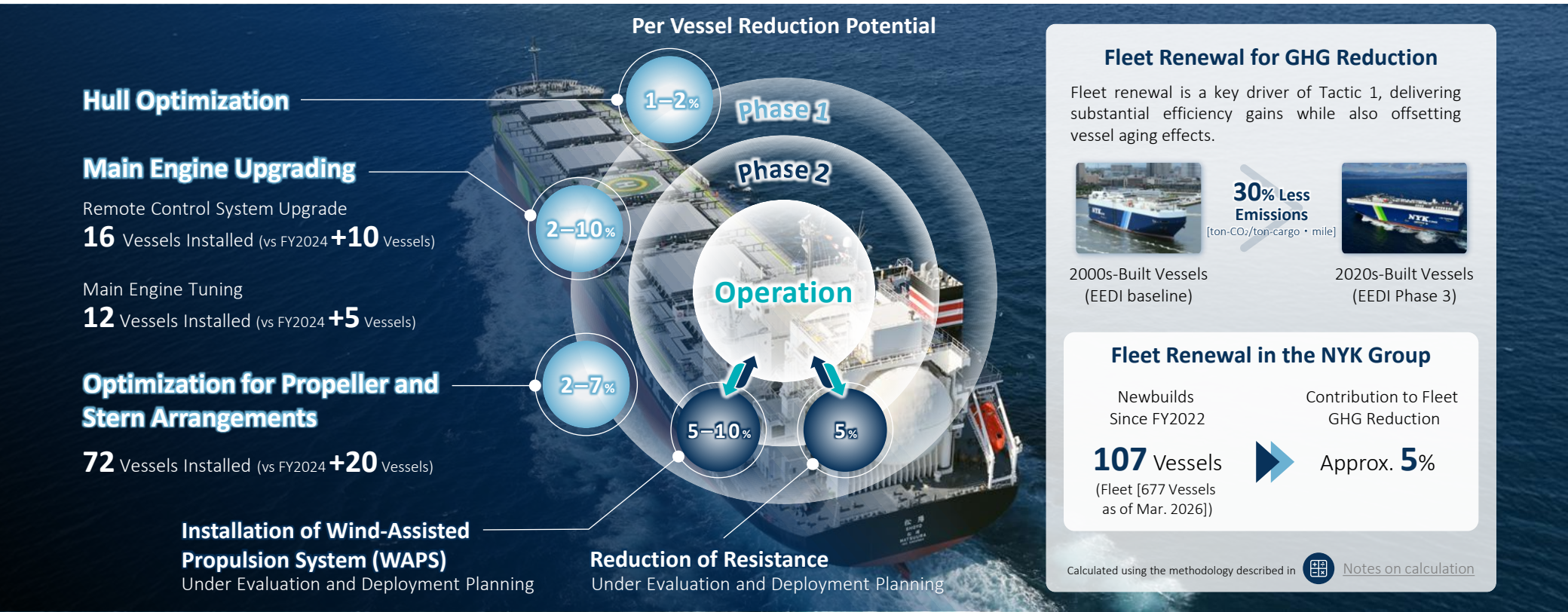
26 ➔ **35** Vessels
FY2024 FY2025

Scope 1 + 2 Tactic 1 Asset-Based Efficiency Improvements

- ✓ Accelerated Deployment of Phase 1 Energy Efficiency Measures (GAC* ≤ USD 120) Across the Fleet Toward Full Implementation in FY2026
- ✓ Advanced Evaluation and Validation of Selected Phase 2 Technologies

Specification

* GAC: GHG Abatement Cost
For more details, please refer to the NYK Group Decarbonization Story.
<https://www.nyk.com/sustainability/pdf/environment003.pdf>



Scope 1 + 2 Tactic 1 Operational Efficiency Improvements

✔ **Expanding Operational Excellence Across Shore and Ship**

For more than a decade, the NYK Group has continuously advanced operational efficiency through the IBIS* framework, which is now deeply embedded in daily operations. By combining digital technologies, data-driven decision-making, and optimized operational practices, we continue to improve vessel efficiency and reduce GHG emissions.

Building on these efforts, we launched behavioral-change initiatives for seafarers in FY2026, extending operational excellence from shore-based operations to onboard activities.

* IBIS: Innovative Bunker & Idle-time Saving
Originally launched as a fuel-efficiency improvement initiative, IBIS has evolved into NYK Group's operational excellence framework, integrating operational efficiency and GHG reduction initiatives to support continuous improvement, data-driven decision-making, and enhanced vessel efficiency.

Operation

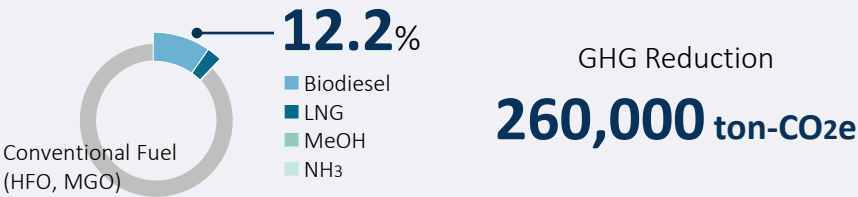


Scope 1 + 2 Tactic 2 Fuel Flexibility and Alternative / Low-GHG Fuel Utilization

Preparing for Future Fuels, Delivering Emissions Reductions Today

The NYK Group is expanding its dual-fuel fleet to enhance fuel flexibility and maintain competitiveness throughout the fuel transition. While preparing for future regulatory and customer requirements, we are also increasing the use of biofuels and alternative fuels available today to achieve immediate GHG emissions reductions.

Low-GHG / Alternative Fuel Utilization in FY2025



Fuel Flexibility Through Dual-Fuel Vessels

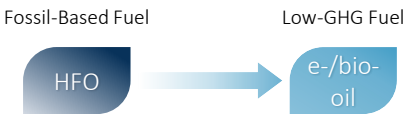
Options for Mono-Fuel Vessels

Options for Dual-Fuel Vessels

Benefits of Dual-Fuel Vessels

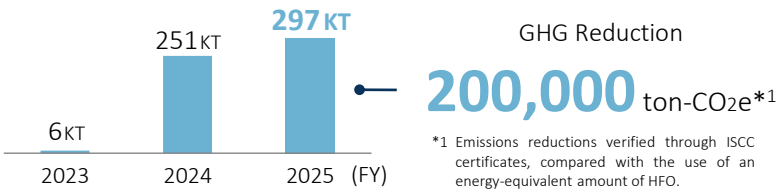
- Enhance Fuel Resilience
- Enable Gradual GHG Emissions Reduction
- Maintain Operational Flexibility

Fuel Oil

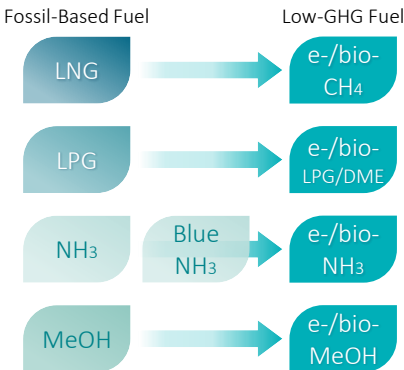


Delivering Emissions Reductions Today

Biofuel Consumption

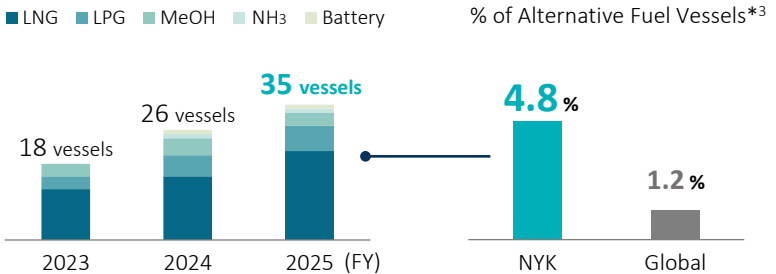


Alternative Fuel



Preparing for Future Fuels

Dual-Fuel Vessels (Consolidated)*²

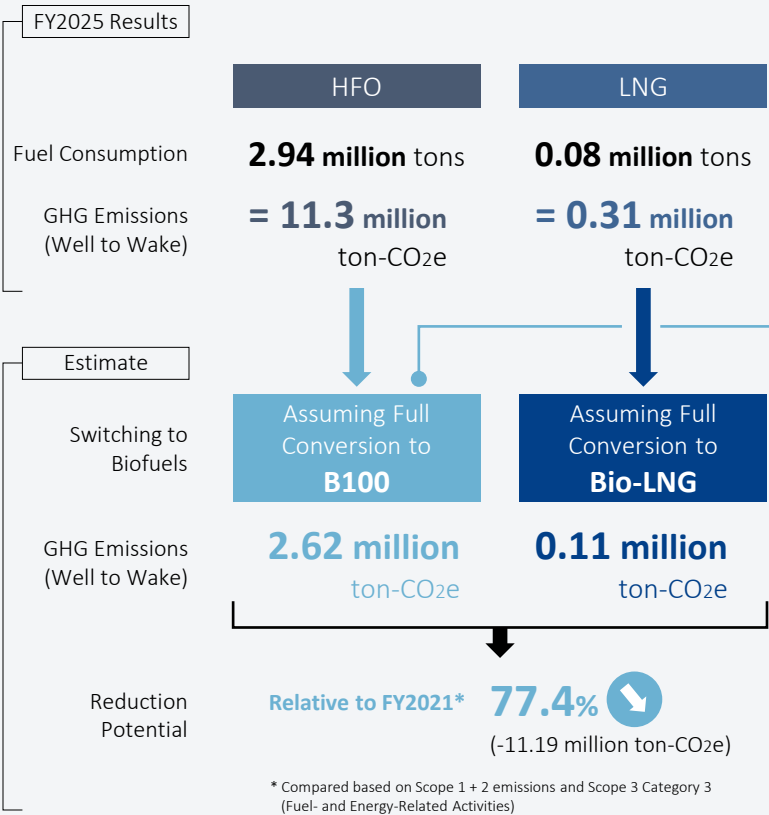


*² Excludes LNG carriers and LNG-ready vessels. Only vessels with additionality in terms of GHG emissions reduction are included.
*³ Source: NYK figures include NYK Line and consolidated subsidiaries only, excluding LNG carriers. Global figures are based on DNV Alternative Fuels Insight.

Scope 1 + 2 **Tactic 2** Building Readiness for Next-Generation Fuels

- ✔ **Market Demand, Regulation, and Fuel Supply Chains Are Still Developing.**
- ✔ **Building Readiness for Large-Scale Fuel Transition**

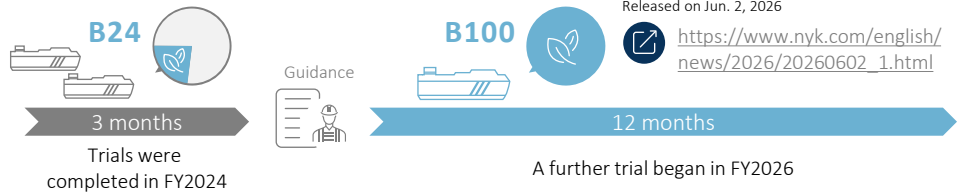
GHG Reduction Potential from Fuel Switching
—Based on FY2025 Fleet Assets and Fuel Consumption



Actions to Enable Fuel Transition

Long-Term B100 Biofuel Trial on PCC

- Launched a 12-month B100 trial with used cooking oil-derived biofuel as the primary fuel source, starting in May 2026. The trial aims to evaluate impacts of continuous use of high-purity biofuel on engine performance and establish safe operational guidelines.



- In addition to the B100 trial, NYK is advancing the evaluation and verification of Cashew Nut Shell Liquid (CNSL) as part of efforts to expand the range of sustainable biofuel options.

B24 Biofuel Deployment in Domestic Shipping

- Biofuel demonstration voyage conducted in June 2026
- Supporting the development of a domestic supply chain in Japan



Advancing Hydrogen Fuel Utilization

- New dining cruise ship “AMANE” with hydrogen fuel cell system and battery hybrid system set to enter service in spring 2027.

Released on Jul. 6, 2026
https://www.nyk.com/english/news/2026/20260706_01.html



SHOWCASE

Progress in Ammonia-Fueled Vessel Deployment

NYK is building readiness to strengthen its competitiveness in the transition to low-GHG transportation by establishing safe operational expertise through the early deployment of ammonia-fueled vessels. At the same time, the NYK Group is expanding value chain collaboration to scale ammonia-fueled low-GHG transportation and respond to emerging customer demand.



2024

Sakigake, Ammonia-Fueled Tugboat*

- Two years of operational experience in ammonia mode aboard the world's first commercially operated ammonia-fueled tugboat
- Up to approximately 95% GHG emissions reduction



2026

Ammonia-Fueled Medium Gas Carrier (AFMGC), to Be Delivered*

- Establishing safety measures for large oceangoing vessels
- Completed the world's first ship-to-ship ammonia bunkering to an ammonia-fueled vessel

Showcasing Industry-Leading Efforts Toward Ammonia-Fueled Vessel Deployment at IMO

- Shared safety philosophy, crew-training programs, and operational and technical knowledge gained through the Sakigake and AFMGC projects

Released on Sep. 25, 2026

 https://www.nyk.com/english/news/2026/20260925_2.html



Building on Accumulated Knowledge and Experience

2030

Ammonia-Fueled Car Carrier and Ammonia Bunker Vessel, to Be Delivered

- Establishing the world's first integrated commercial ammonia fuel supply and transport model



Artist's rendering for illustrative purposes only

Released on Oct. 27, 2026

 https://www.nyk.com/english/news/2026/20261027_01.html

* These initiatives are being implemented under the Green Innovation Fund (GI Fund) by Japan's New Energy and Industrial Technology Development Organization (NEDO).

SHOWCASE

International Car Operators N.V. (ICO)—

Scope 1 and 2 Emissions Reduction Initiatives at Automotive Terminal Operations

ICO, NYK's wholly owned automobile terminal operator in Europe, is advancing port decarbonization and digitalization under its "Sustainability through Innovation" strategy. Through clean energy self-sufficiency and advanced automation technologies, ICO aims to achieve 100% renewable energy usage by 2030.

Expected Annual
Renewable Power Generation

110 GWh

Estimated Annual CO₂ Emissions Avoided

50,000 ton-CO₂*

Operational EV Charging Stations

350+

Renewable Energy Self-Sufficiency — Terminal Scope 1 and 2 Emissions —

Currently, 11 wind turbines and 12,600 m² of solar panels are currently in operation, supplying renewable electricity for terminal operations. In addition, 5 additional wind turbines are under construction at the Zeebrugge (NIT) site to further expand renewable energy capacity.



Southern Inlet Terminal

Onshore Power Supply (OPS) — Vessel Scope 1 Emissions —

Preparations are underway for the full-scale launch of OPS in 2026. Supplying clean electricity to berthed vessels will reduce emissions from vessel operations and support port decarbonization.



Shore power being supplied to an
NYK-operated LNG-fueled vehicle carrier

* The figures shown represent project-level estimates for the ICO Windpark NV joint venture, including electricity supplied to terminal operations and surplus renewable power exported to the grid. They are not limited to the NYK Group's ownership share or Scope 1 and 2 emissions reductions.

Scope 3 Advancing Scope 3 Management Across the Value Chain

Continued Refinement of Scope 3 Accounting

Since FY2024, the NYK Group has expanded Scope 3 emissions accounting across major consolidated subsidiaries and emission categories. In FY2025, activity data and calculation methodologies were further refined.

In parallel with efforts addressing major emission categories, initiatives are also being expanded across smaller Scope 3 categories throughout the Group.

Scope 3 Emissions Performance (Thousand ton-CO2e)

Category	Upstream Emissions								Downstream Emissions						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Purchased goods and services	Capital goods	Fuel- and energy-related activities	Upstream transportation and distribution	Waste generated in operations	Business travel	Employee commuting	Upstream leased assets	Downstream transportation and distribution	Processing of sold products	Use of sold products	End-of-life treatment of sold products	Downstream leased assets	Franchises	Investments
FY2025	3,608	859	2,125	1,475	30	49	10	—	0	—	591	—	4,990	—	5,448
FY2024	5,265	386	2,259	1,321	30	86	2	—	0	—	793	—	4,799	—	5,404

Colored categories represent major Scope 3 emission categories.
For initiatives related to these categories, please refer to Progress Report 2025.

<https://www.nyk.com/english/sustainability/pdf/environment019en.pdf>

Examples of Group-Wide Expansion of Scope 3 Initiatives

Category

1

Purchased goods and services



NYK Line Initiatives

- As part of the continued refinement of the Category 1 accounting methodology, procurement data were comprehensively reviewed against GHG Protocol guidance, resulting in a significant reduction in reported emissions.

Category

5

Waste generated in operations



Yusen Logistics Initiatives

- Reduced plastic packaging and increased use of recycled materials.
- Established a global waste policy and training program.
- Standardized waste data collection to improve data quality (effective FY2026).

For more details, please refer to Yusen Logistics Group Sustainability Report 2025.

<https://www.yusen-logistics.com/about-us/sustainability>

Category

11

Use of sold products



NYK Trading Initiatives

- Obtained ISCC EU/PLUS certification and expanded sales of biodiesel, LNG, and ammonia fuels.
- Developed supply chains for low-GHG fuels, including the following:
 - Established a used cooking oil supply chain.
 - Participated in the MATSURI bio-algae project.

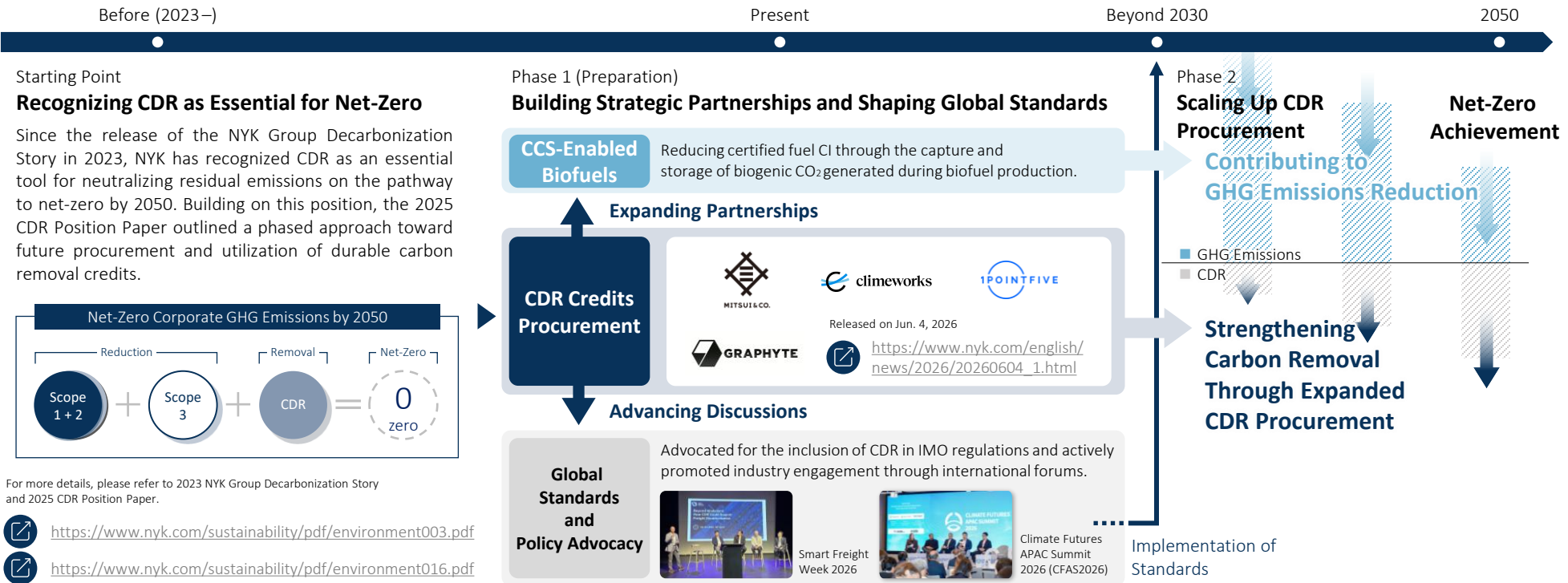
CDR Expanding CDR Pathways and Shaping Global Standards

Expanding the Role of CDR in Decarbonization

While NYK continues to position Carbon Dioxide Removal (CDR) as an important solution for addressing residual emissions, we are also expanding opportunities to create and utilize CDR value within the shipping value chain.

Creating Demand for CDR and Advancing Global Standards

NYK is expanding its CDR portfolio beyond carbon removal credits to include captured and stored CO₂ (CCS)-enabled biofuels, where biogenic CO₂ is captured and permanently stored to reduce certified fuel carbon intensity (CI). Because this value can already be recognized within existing fuel certification schemes, it may help create near-term demand for CDR. At the same time, NYK continues to advocate for the inclusion of CDR in international regulations and market frameworks to support broader adoption and maintain competitiveness throughout the transition.



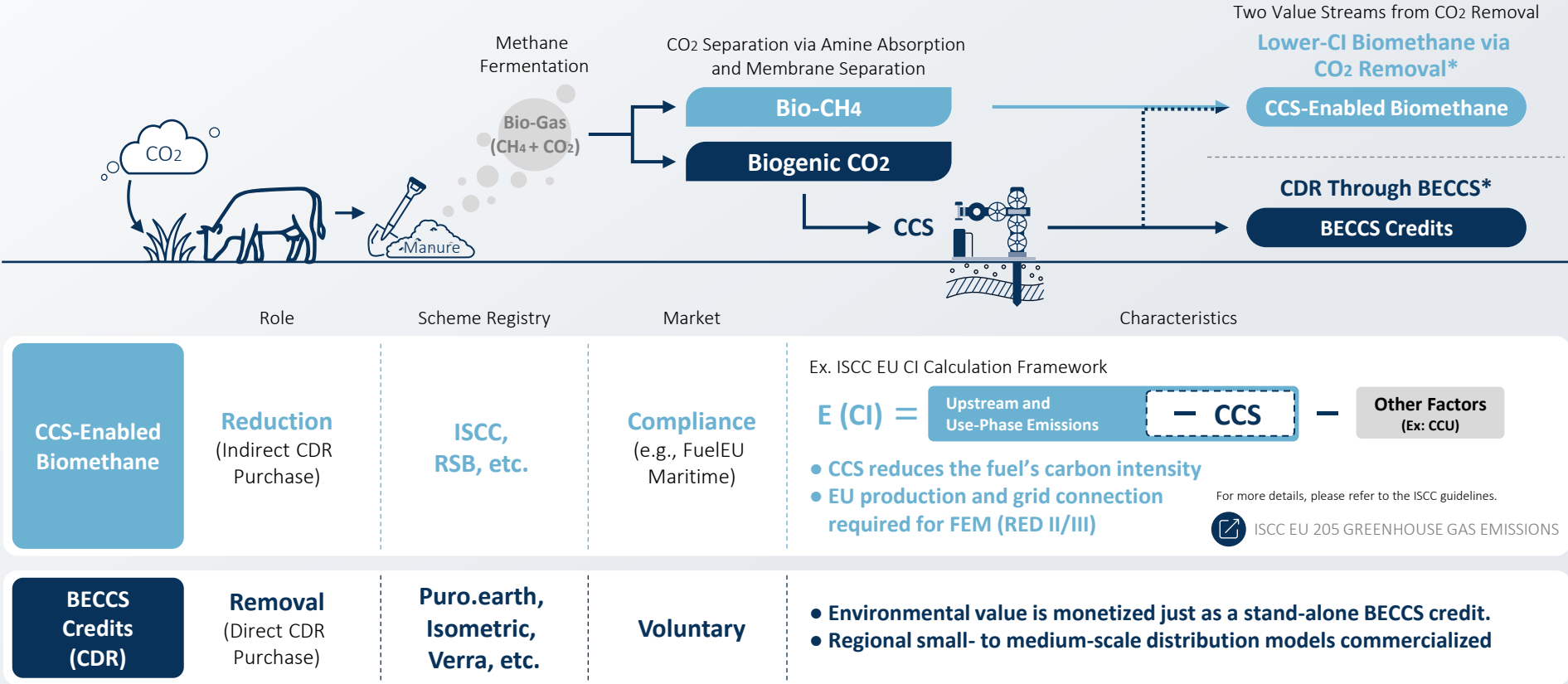
COLUMN

Supporting BECCS Scale-Up Through Fuel Procurement

Under ISCC EU, CCS is reflected in the life cycle GHG emissions of fuels. As a result, capturing and permanently storing biogenic CO₂ generated during biomethane production reduces the fuel's CI.

The same capture and storage process can create value either as lower-CI fuel under ISCC EU or as BECCS credits in voluntary carbon markets.

Therefore, procuring CCS-enabled biomethane (Bio-LNG), which already provides compliance value through lower certified fuel CI, can also support the growth of the CDR market.



* The same environmental attribute cannot be claimed simultaneously under both fuel certification and carbon-credit schemes. Treatment depends on the applicable methodology, system boundary, and chain-of-custody requirements.

**Sustainable Growth
Through the Decoupling
of GHG Emissions and
Revenue**

Fair Regulatory Environment

17 Advocacy for Effective and Fair Decarbonization Rules

Regulatory Value

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from Decarbonization

Valuable Product Carbon Footprint (PCF)

15 Creating and Delivering Customer Value
from Low-GHG Transport

Reliable
Data

02

Chapter

ENABLING SUSTAINABLE GROWTH

Valuable Product Carbon Footprint (PCF) Creating and Delivering Customer Value from Low-GHG Transport

✔ **Creating a Common GHG Standard for Roll-on / Roll-off (RO-RO) Shipping**

As a founding member of the Global Ro-Ro Community (GRC), NYK has worked with 11 industry peers representing approximately 80% of the global Ro-Ro fleet to establish a common methodology for calculating cargo-based GHG emission intensity. This creates a foundation for comparing and rewarding low-GHG transport.

2024 Apr.

●

GRC Established

Industry-wide decarbonization & GHG accounting standardization discussions initiated.

2025 Mar.

●

Standardization of GHG Accounting Methodologies

Published a standardized GHG intensity methodology aligned with the GLEC Framework.

2025 Nov.

●

Ensuring Data Transparency

Initiated the calculation and disclosure of route-specific GRC average GHG emission intensities.

2026 Jun.

●

Establishing Fair and Transparent Governance

Established a governance framework and decision-making process.

✔ **Delivering and Commercializing Environmental Attributes**

The NYK Group delivers certified environmental attributes associated with the use of biofuels to customers through multiple channels, including Yusen Logistics, creating a scalable business model for low-GHG transport. Initial commercial transactions have already taken place, and interest from sectors such as automotive and retail continues to demonstrate growing demand.

Customer-Focused Value Allocation

In addition to allocating environmental attributes associated with the use of biofuels directly to customers, NYK has enabled their delivery through Group company Yusen Logistics, supporting seamless emissions reductions across the supply chain.

Globally Aligned

Environmental attributes are managed in strict accordance with the Smart Freight Centre (SFC) Market-Based Measures (MBM) Framework. Grounded in internationally recognized guidance, our approach ensures uncompromising integrity in their issuance and allocation.

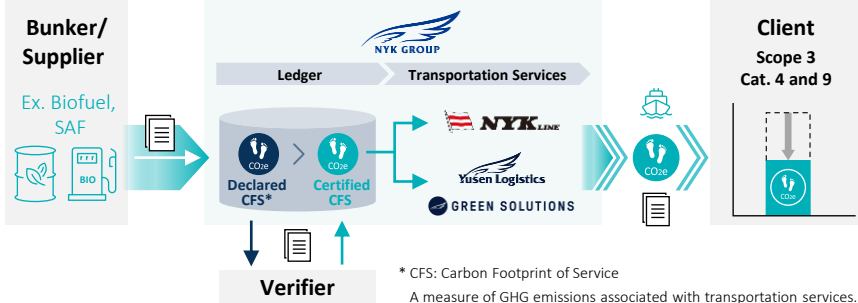
Transparent & Traceable

Environmental attributes are managed on the 123Carbon platform, a widely trusted industry standard that prevents double counting across issuance, transfer, and retirement—ensuring exceptional transparency and traceability.

Building the Foundation for Comparable GHG Data



2026 Apr.: Smart Freight Week (SFC General Assembly)

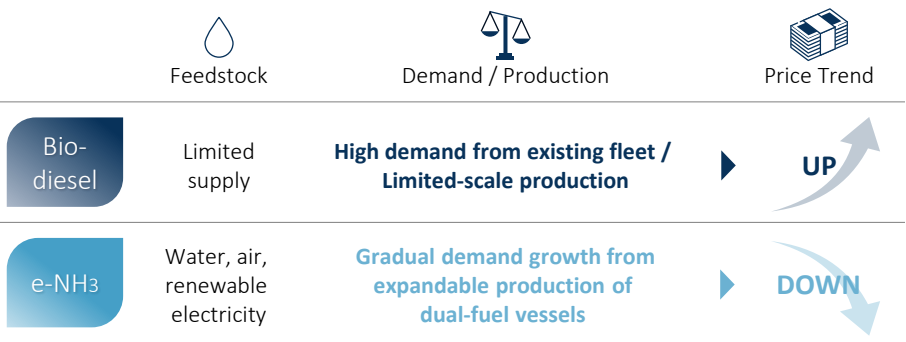


Regulatory Value Creating and Capturing Regulatory Value from Decarbonization

🎯 Outlook for Regulations and Fuel Prices

FuelEU Maritime and the IMO Net-Zero Framework reward emissions reductions beyond regulatory requirements.

As demand for biodiesel grows, supply constraints may increase costs. Meanwhile, next-generation fuels such as ammonia are expected to become more affordable as production expands and energy costs decline.



🎯 Creating Regulatory Value at Lower Cost

Creating Low-Cost Environmental Value

Creating regulatory value through cost-effective compliance and additional GHG reductions using next-generation fuels such as ammonia, methanol, and bio-LNG.

Expanding the Dual-Fuel Fleet

- Expanding the fleet capable of using dual fuels
- Establishing safe, reliable utilization technologies
- Maintaining fuel flexibility and readiness

 [Fuel Flexibility and Alternative / Low-GHG Fuel Utilization](#)

Advocating for Fair Regulations

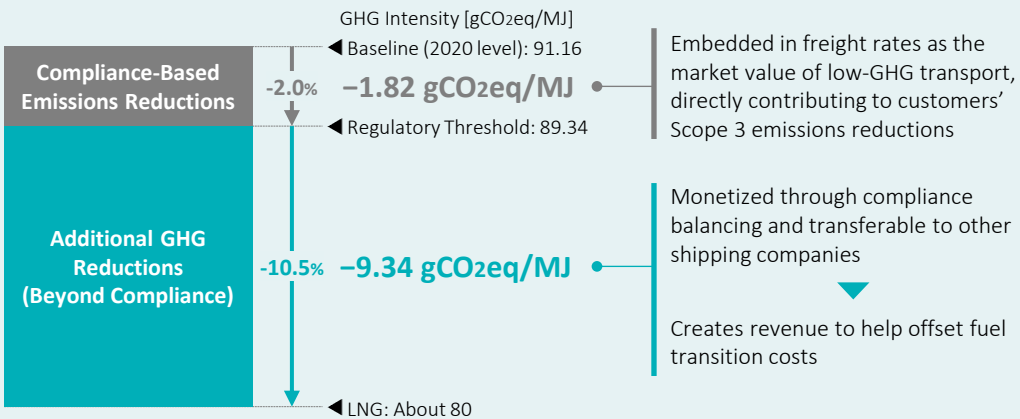
Advocating for establishing fair global regulations to enable decarbonization and competitiveness at the same time.

 [Advocacy for Effective and Fair Decarbonization Rules](#)

Current Regulation

FuelEU Maritime

- Fuel GHG intensity regulation implemented in Europe in January 2025.
- Surplus compliance can be allocated to other vessels through the pooling mechanism.



Next Regulation to Be Added

IMO Net-Zero Framework

Global Fuel GHG Intensity Regulation

For more details, please refer to page 5 of Progress Report 2025.

 <https://www.nyk.com/english/sustainability/pdf/environment/019en.pdf>

Fair Regulatory Environment Advocacy for Effective and Fair Decarbonization Rules

NYK aims to shape a market and regulatory environment where decarbonization investments are properly recognized and environmental value contributes to competitiveness and growth. Through active engagement in global shipping regulations, sustainability disclosure standards, and GHG accounting, NYK advances practical and effective rules that support decarbonization and long-term value creation.

Statement

Our advocacy is focused on promoting a realistic pathway to decarbonizing international shipping. We commit not to engage in any activities that contradict climate regulations or undermine climate science, and we do not provide financial support for such activities.

IMO MEPC 84 / ISWG-GHG 22

Participating in GFI discussions as part of the Japanese delegation and advocating fair and effective global rules.

Left:
Takaya Koizumi
Executive Officer
Right:
Yasuhiro Fukuda
General Manager, Decarbonization Group
Chairman of the GHG Task Force at the
Japanese Shipowners' Association (JSA)



EU / UK

Advocating alignment with IMO regulations.

- EU-ETS
- FuelEU Maritime
- EU-SRR
- UK-ETS

Promoting alignment between Japanese and European sustainability disclosures.

- ESRS-40a
(CSRD Extraterritorial Application)

EU Headquarters, Brussels



SBTi Maritime Guidance

Participating in the SBTi Maritime Working Group alongside SFC to help develop certification criteria that enable multi-segment shipping companies to obtain net-zero target validation.

Hosted SBTi CEO David Kennedy for discussions with NYK Executive Vice President Akira Kono and Senior Managing Executive Officer Yuko Tsutsui



SBTi CNZS v2 Pilot Test

Selected to participate in Phases 1 and 2 of the SBTi Corporate Net-Zero Standard V2 pilot, contributing shipping-sector perspectives and validation feedback.

WBCSD (Climate Imperative)

Contributing shipping-sector perspectives to GHG Protocol revision discussions, including:

- Mass Balance and Book-and-Claim Approaches
- Accounting Treatment of Biomass and CDR Credits
- Scope 3 Accounting Including Vessel Life Cycle Assessments (LCAs)

Facilitating a roundtable discussion at the WBCSD annual meeting
Haruna Yoshida, NYK Bulkship (Atlantic) N.V.





Additional Information on the Approximately 5% GHG Reduction Contribution from Fleet Renewal

Performance of EEDI Phase 3 Vessels

For vessels above a certain size, the IMO's Energy Efficiency Design Index (EEDI) regulations require newly built vessels to achieve a specified improvement in energy efficiency compared with reference vessels of similar cargo-carrying capacity built between 1999 and 2008.

The minimum required improvement rates* are as follows, based on the shipbuilding contract date.

From January 1, 2020:

- At least 20% for bulk carriers and tankers
- At least 15% for car carriers

From January 1, 2025:

- At least 30%

* The required improvement rate varies depending on vessel size (deadweight tonnage or gross tonnage). The rates listed on the left represent the requirements applicable to the major vessel types operated by the NYK Group.

These values represent minimum regulatory requirements. Actual performance varies by vessel, and some vessels introduced by the NYK Group exceed these minimum efficiency improvement levels.

Assumed GHG Reduction per Vessel Replacement

Based on studies conducted by the NYK Group with a ship design partner regarding the performance improvements achieved when replacing vessels built approximately 15–20 years ago, together with the efficiency levels required under the EEDI framework, an average GHG reduction of 30% per vessel replacement was assumed as the calculation basis across all vessel categories.

Approximately 5% Emissions Reduction Estimate

The estimate covers 677 large vessels owned (including jointly owned vessels) or chartered by the NYK Group and its consolidated subsidiaries, excluding work vessels and certain other vessel categories.

As of March 2026, 107 of these vessels had been renewed since FY2022. For calculation purposes, all renewed vessels were assumed to achieve a uniform 30% performance improvement relative to the vessels they replaced, based on the methodology described above.

The resulting figure represents a theoretical estimate that fleet renewal contributes approximately 5% to the reduction of GHG emissions across the covered fleet.



Yunic800Eco: Fuel Savings of 1.0–1.5%, Annual GHG Emissions Reduction of 44,000 ton-CO₂e

Estimated fuel savings vary depending on fuel quality and sludge generation. Higher savings may be achieved with fuels that generate larger amounts of sludge. The annual GHG emissions reduction is calculated using the lower end of the estimated fuel-saving range (1.0%), based on actual FY2025 fuel consumption and Yunic800Eco purchase volumes.



Signal: GHG Emissions Reduction per Year 1,700 ton-CO₂e

Annual GHG emission reductions are estimated based on a verified reduction of 4.6 ton-CO₂e per vessel per month achieved in 2026, assuming continued application across approximately 30 vessels for one year.

Our Pursuit goes on —

Bringing value to life.



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Factors which could cause inconsistency between such forward-looking statements in this document and our actual results include, but are not limited to, material changes in the shipping markets, fluctuation of currency exchange rates, interest rates, and bunker oil prices. For more details, please refer to the securities reports, which are available on EDINET (<https://disclosure2.edinet-fsa.go.jp/WEEK0010.aspx>).

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