

Green Ports, Maritime Decarbonisation, and Sustainable Logistics

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IMO Net-Zero Framework Defined

The Framework is a set of goal-based provisions for GHG emissions reduction (revisions to MARPOL Annex 6).



IMO Net-Zero Framework Defined



INTERNATIONAL
MARITIME
ORGANIZATION

A global fuel standard

that requires ships to gradually decarbonise ship fuels (i.e. how much greenhouse gas is emitted for each unit of energy used, across a fuel's life cycle); and

A pricing mechanism

with set prices on the GHG emissions, to encourage the industry to reduce emissions to comply with the global fuel standard.



IMO Net-Zero Framework Update



The five key 'levers' used to assess the Framework progress:

- **Technology and supply of scalable zero-emissions fuel,**
- **Demand,**
- **Finance,**
- **Policy, and**
- **Civil society.**



IMO Net-Zero Framework Update

April 2025 MEPC 83

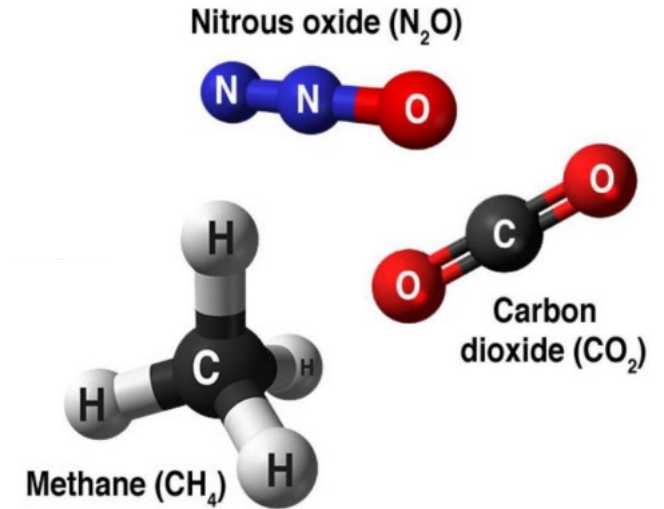
Adoption of amendments to the IMO Net Zero Framework approved by majority vote.

October 2025 MEPC Extraordinary Session 2

Working Groups developed a work plan for GHG emissions reduction-related activities, with the final discussions adjourned until **2026**.

April 2026 MEPC 84

The GHG Working Group prepared the IMO NZF draft Terms of Reference for a special session to be held in advance of *MEPC 85* (**November 2026**).



IMO Net-Zero Framework Update

The mid-term measures to be discussed in MEPC 85:

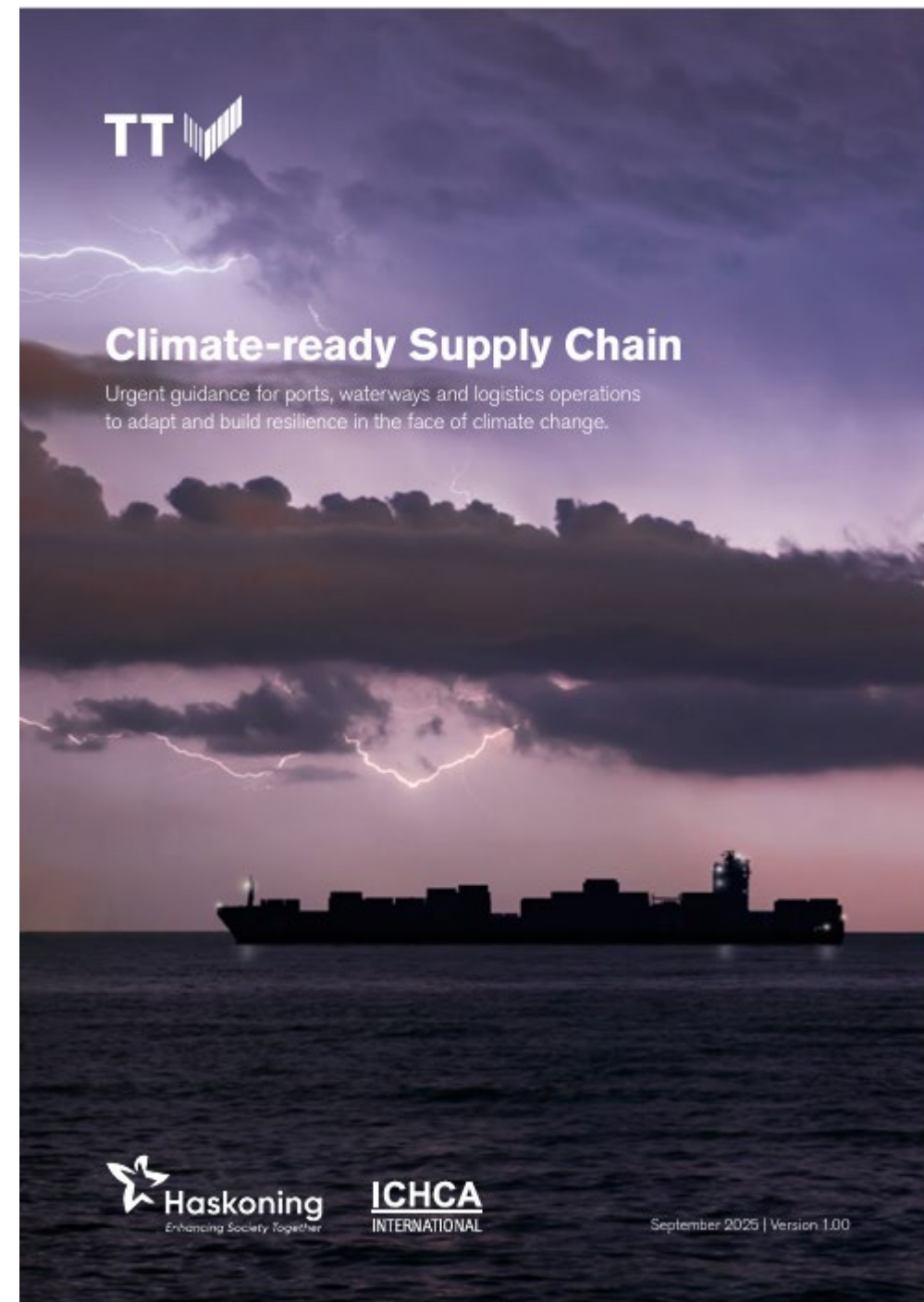
- Part 1:** GHG fuel intensity (GFI) calculation, reporting, verification and certification requirements;
- Part 2:** GFI reduction pathway;
- Part 3:** GFI compliance approaches;
- Part 4:** Establishment of a Fund/Facility; and
- Part 5:** Zero - Net Zero reward mechanism.



Sustainable Logistics Solutions

“A report by TT Club and Haskoning warns urgent action is needed to safeguard ports, waterways and global supply chains from climate threats”

London, 23 September 2025



Sustainable Logistics Solutions

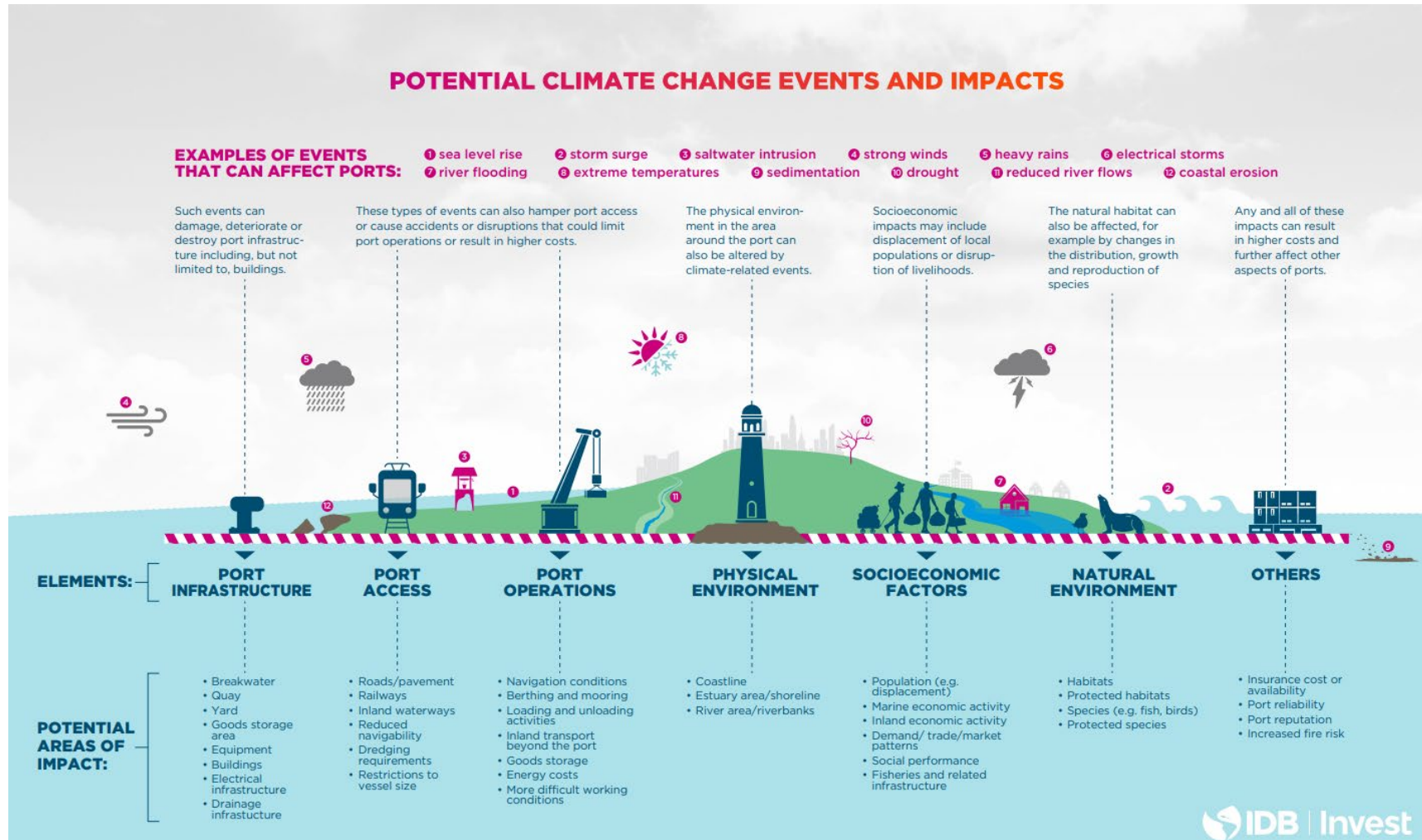


“Nearly 90% of the world’s 3,700 major ports are exposed to damaging climate hazards”

Japan’s 2011 tsunami resulted in USD \$12 billion in maritime damages due to inadequate climate resilience measures

Sustainable Logistics Solutions

“Nearly 90% of the world’s 3,700 major ports are exposed to damaging climate hazards”



Sustainable Logistics Solutions



PORT OF
OAKLAND

Port Infrastructure Improvement Plan

EPA Clean Ports Program Background:

The Inflation Reduction Act of 2022 provides Environmental Protection Agency (EPA) with \$3 billion to fund zero emission port equipment and infrastructure, as well as climate and air quality planning, at U.S. ports. This historic investment will improve air quality at ports and surrounding communities, help combat climate change, and support meaningful community engagement.

Clean Ports Program Goals:

- Build a foundation for the port sector to transition over time to fully zero-emissions operations, positioning ports to serve as a catalyst for transformational change across the freight sector.
- Reduce diesel pollution (criteria pollutants, GHGs, and air toxics) in near-port communities.
- Help ensure that meaningful community engagement and emissions reduction planning are port industry standard practices.



Sustainable Logistics Solutions



Japan's Ports and Harbours Bureau Carbon Neutral Port Certification Initiative

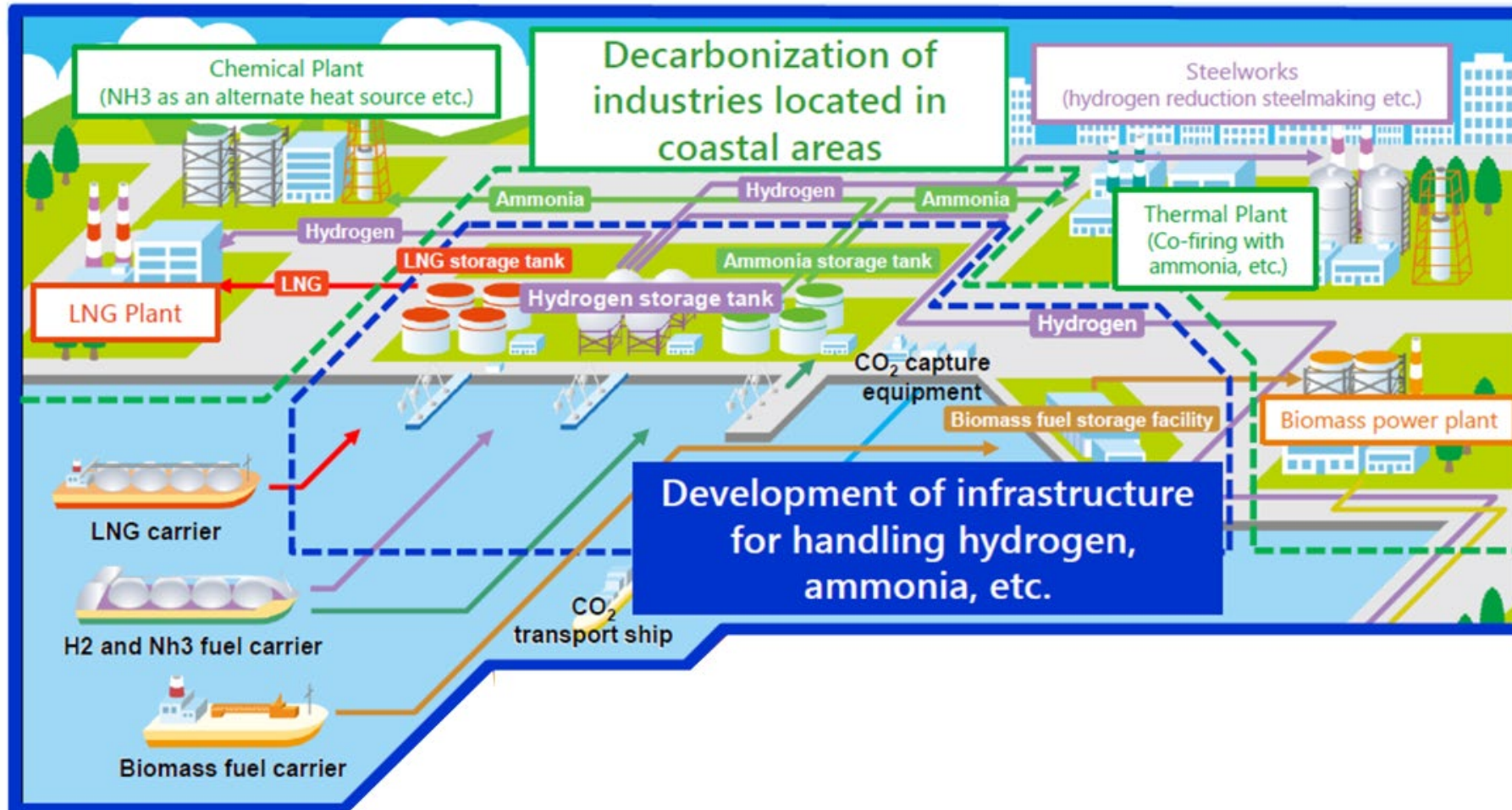


Japan aims to reduce its GHG emissions
by 46% in **2030**,
by 60% in **2035** and
by 73% in **2040** from 2013 levels
to achieve net zero by **2050**.

Green Ports Certification



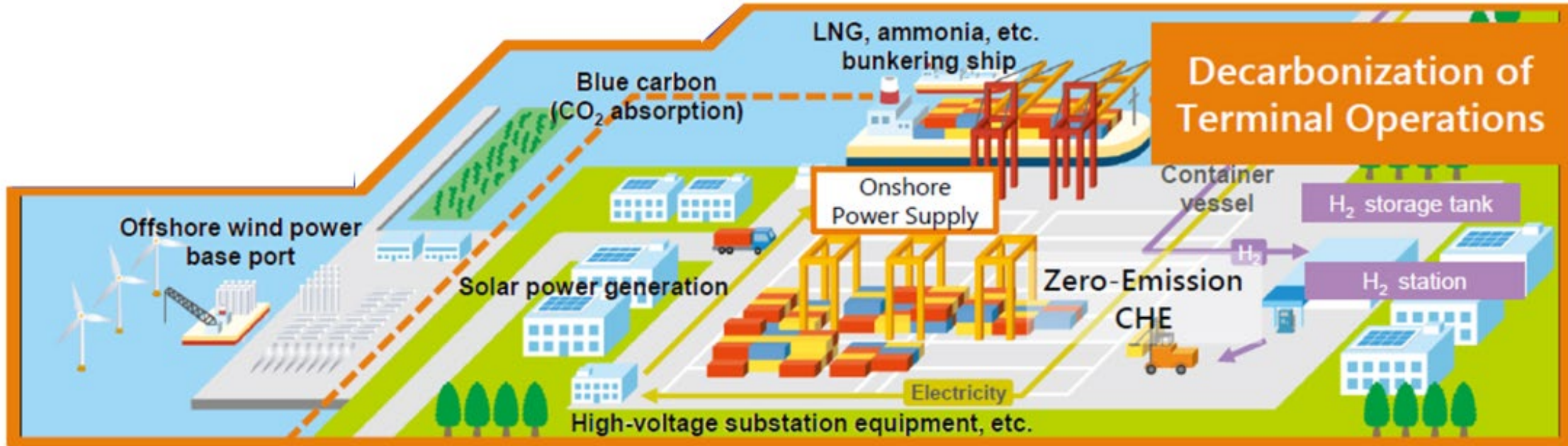
CNP Certification



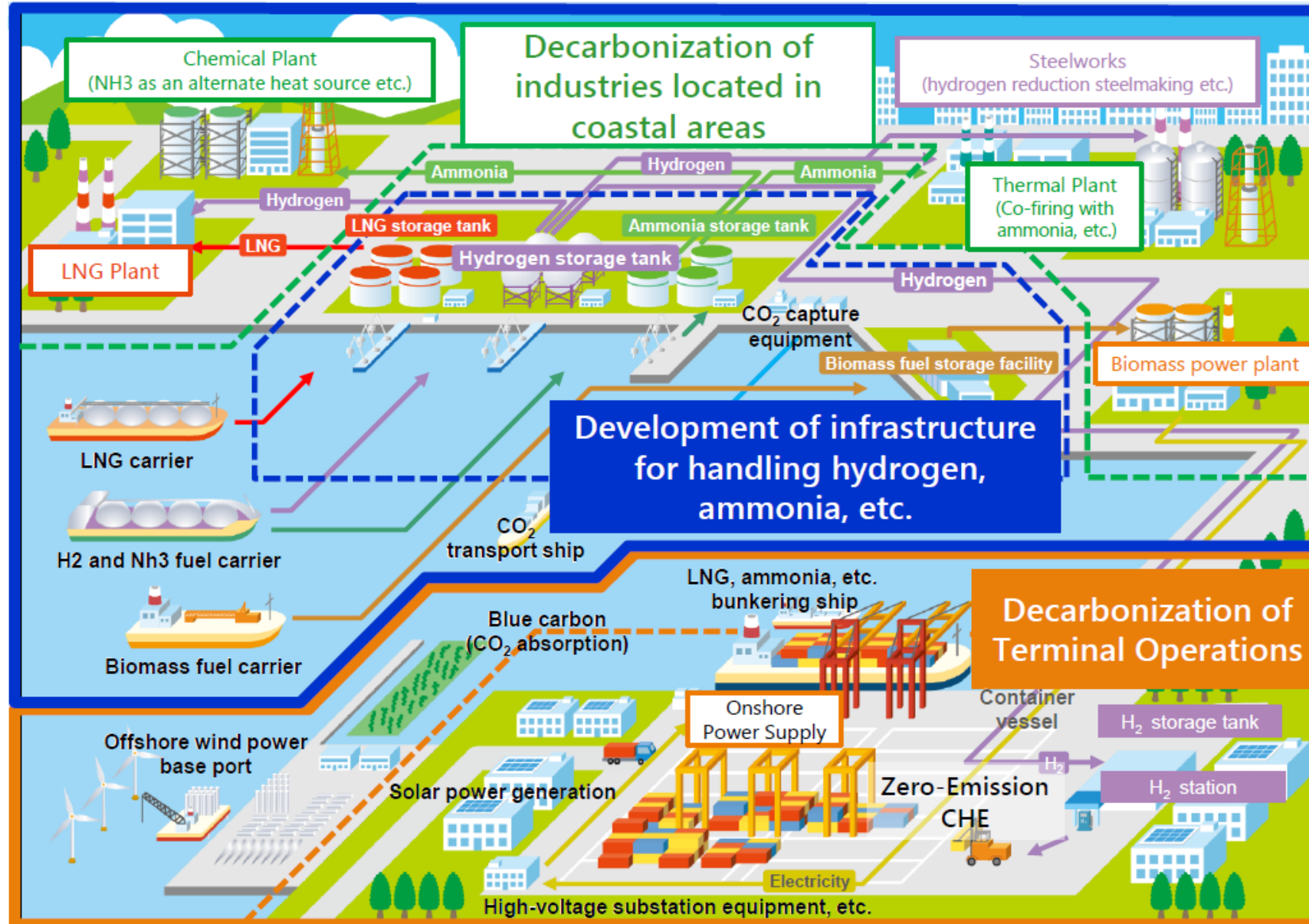
Green Ports Certification



CNP Certification



Green Ports Certification



Green Ports Certification



CNP Certification

Decarbonization efforts related to cargo handling at terminals

Efforts contribute to the decarbonization of vessel and vehicles



Examples of evaluation items for certification

Green Ports Certification

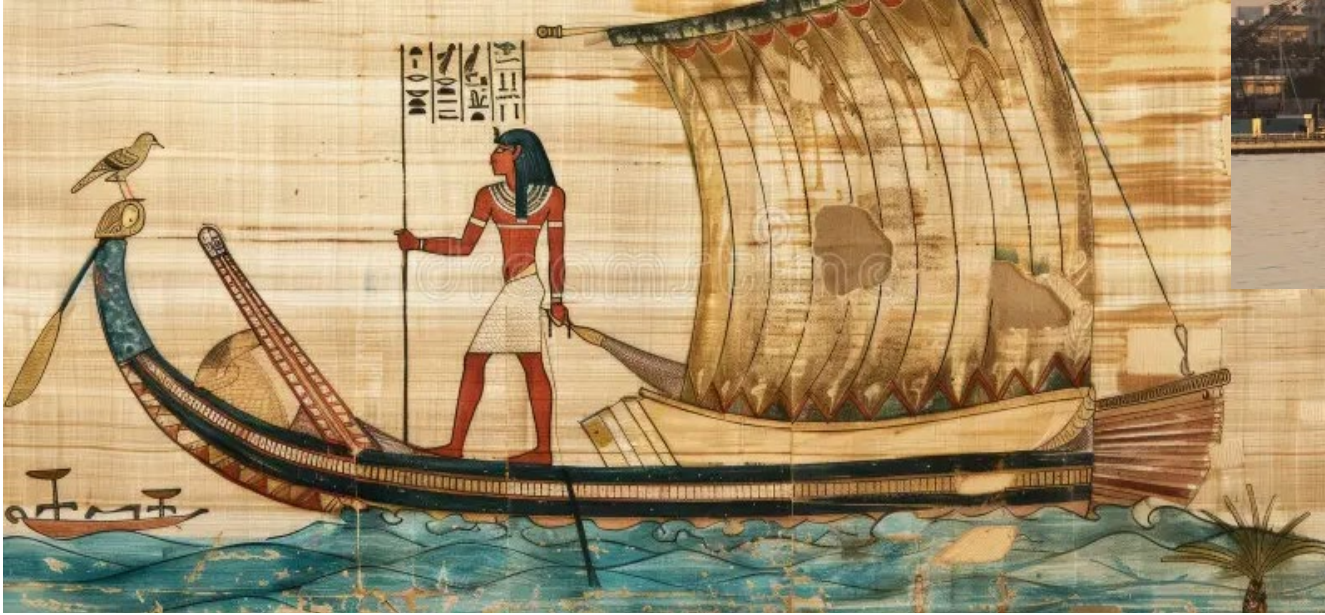


CNP Certification

✓ : Requirement + : Recommendation

Category		Evaluation Items	Evaluation Criteria	Certification Level				
				Level 1	Level 2	Level 3	Level 4	Level 5
(1) Efforts related to the decarbonization of cargo handling at the terminal	Common	- Decarbonization plan at the terminal - CO2 emissions per TEU at the terminal	- Developing a feasible plan for container terminal decarbonization - Publication of CO2 emissions per TEU at the terminal	✓	✓	✓	✓	✓
	Terminal	STS	Introduce STS with inverter system for energy saving, etc.	—	✓ 10% or more	✓ 50% or more	✓ 80% or more	✓ 100%
		RTG, RMG	Introduce low- or zero-emission equip., such as hybrid and electric machinery, or fuel savings through the introduction of automation.	—	✓ 10% or more	✓ 50% or more	✓ 80% or more	✓ 100%
		Straddle carrier	Introduce low- or zero-emission equip., such as hybrid and electric machinery	—	✓ 10% or more	✓ 50% or more	✓ 80% or more	✓ 100%
		Yard truck, AGV, and other cargo handling equip.	Introduce low- or zero-emission equip., such as hybrid and electric machinery, or fuel savings through the introduction of automation.	+	+	+	+	+
		Yard lighting	Introduce LED lighting	—	✓ 10% or more	✓ 50% or more	✓ 80% or more	✓ 100%
		Reefer facility and other facilities	Energy saving measures, such as limiting temperature rises through low reflective heat paving, installing roofs, etc.	+	+	+	+	+

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Thank you for your attention

شكرا على اهتمامك

ISWG-GHG 22/WP.1/Rev.1 (8 September 2026)

The terms of reference for the Working Group considered:

- .1 draft amendments to MARPOL Annex VI on the Net-Zero Framework, in line with the 2023 IMO GHG Strategy;
- .2 draft guidelines supporting the implementation of IMO's mid-term measures;
- .3 development of the IMO Life Cycle GHG Assessment (LCA) framework; and
- .4 submit a written report to MEPC 85.