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Exposure Draft

IFRS[®] Sustainability Disclosure Standard

[Draft] IFRS S2 Climate-related Disclosures Appendix B Industry-based disclosure requirements

Volume B66—Marine Transportation

Comments to be received by 29 July 2022



This industry from Appendix B Industry-based disclosure requirements accompanies the Exposure Draft ED/2022/S2 *Climate-related Disclosures* (published March 2022; see separate booklet). It is published by the International Sustainability Standards Board (ISSB) for comment only. Comments need to be received by 29 July 2022 and should be submitted by email to commentletters@ifrs.org or online at <https://www.ifrs.org/projects/open-for-comment/>.

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Introduction

This volume is part of Appendix B of [draft] IFRS S2 Climate-related Disclosures and is an integral part of that [draft] Standard. It has the same authority as the other parts of that [draft] Standard.

This volume sets out the requirements for identifying, measuring and disclosing information related to an entity's significant climate-related risks and opportunities that are associated with specific business models, economic activities and other common features that characterise participation in this industry.

The industry-based disclosure requirements are derived from SASB Standards (see paragraphs B10–B12 of [Draft] IFRS S2 *Climate-related Disclosures*). Amendments to the SASB Standards, described in paragraph B11, are marked up for ease of reference. New text is underlined and deleted text is struck through. The metric codes used in SASB Standards have also been included, where applicable, for ease of reference. For additional context regarding the industry-based disclosure requirements contained in this volume, including structure and terminology, application and illustrative examples, refer to Appendix B paragraphs B3–B17.

Marine Transportation

Industry Description

The Marine Transportation industry consists of companies that provide deep-sea, coastal, and/or river-way freight shipping services. It is of strategic importance to international trade and its revenues are tied to macroeconomic cycles. Key activities include transportation of containerized and bulk freight, including consumer goods and a wide range of commodities, and transportation of chemicals and petroleum products in tankers. Due to the global scope of the industry, companies operate in many countries and under diverse legal and regulatory frameworks.

Sustainability Disclosure Topics & Metrics

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Greenhouse Gas Emissions	Gross global Scope 1 emissions	Quantitative	Metric tons (t) CO ₂ -e	TR-MT-110a.1
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	n/a	TR-MT-110a.2
	(1) Total energy consumed, (2) percentage heavy fuel oil, (3) percentage renewable	Quantitative	Gigajoules (GJ), Percentage (%)	TR-MT-110a.3
	Average Energy Efficiency Design Index (EEDI) for new ships	Quantitative	Grams of CO ₂ per ton-nautical mile	TR-MT-110a.4

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of shipboard employees ¹²²	Quantitative	Number	TR-MT-000.A
Total distance traveled by vessels	Quantitative	Nautical miles (nm)	TR-MT-000.B
Operating days ¹²³	Quantitative	Days	TR-MT-000.C

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¹²² Note to TR-MT-000.A – Shipboard employees are those employees who work aboard the entity's vessels (including direct and contract employees) during the reporting period.

¹²³ Note to TR-MT-000.C – Operating days are calculated as the number of available days in a reporting period minus the aggregate number of days that the vessels are off-hire due to unforeseen circumstances (i.e., a measure of days in a reporting period during which vessels actually generate revenue).

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ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Deadweight tonnage ¹²⁴	Quantitative	Thousand deadweight tons	TR-MT-000.D
Number of vessels in total shipping fleet	Quantitative	Number	TR-MT-000.E
Number of vessel port calls	Quantitative	Number	TR-MT-000.F
Twenty-foot equivalent unit (TEU) capacity	Quantitative	TEU	TR-MT-000.G

¹²⁴ Note to TR-MT-000.D – Deadweight tonnage is the sum, for all of the entity's vessels, of the difference in displacement in deadweight tons between the light displacement and the actual loaded displacement.

Greenhouse Gas Emissions

Topic Summary

Marine transportation companies generate emissions mainly from the combustion of diesel in ship engines. The industry's reliance on heavy fuel oil ("bunker fuel") is of material concern due to rising fuel costs and intensifying greenhouse gas (GHG) regulations. The industry is among the most fuel efficient of the major transportation modes in terms of fuel use per ton shipped. However, due to the size of the industry, its contribution to the global GHG inventory is still significant. Recent environmental regulations are driving the adoption of more fuel-efficient engines and the use of cleaner-burning fuels. Fuel constitutes a major expense for industry players, providing a further incentive for investing in upgrades or retrofits to boost fuel efficiency.

Metrics

TR-MT-110a.1. Gross global Scope 1 emissions

- 1 The entity shall disclose its gross global Scope 1 greenhouse gas (GHG) emissions to the atmosphere of the seven GHGs covered under the Kyoto Protocol—carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃).
 - 1.1 Emissions of all GHGs shall be consolidated and disclosed in metric tons of carbon dioxide equivalents (CO₂-e), and calculated in accordance with published 100-year time horizon global warming potential (GWP) values. To date, the preferred source for GWP values is the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (2014).
 - 1.2 Gross emissions are GHGs emitted into the atmosphere before accounting for offsets, credits, or other similar mechanisms that have reduced or compensated for emissions.
- 2 Scope 1 emissions are defined and shall be calculated according to the methodology contained in *The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard* (GHG Protocol), Revised Edition, March 2004, published by the World Resources Institute and the World Business Council on Sustainable Development (WRI/WBCSD).
 - 2.1 Acceptable calculation methodologies include those that conform to the GHG Protocol as the base reference, but provide additional guidance, such as industry- or region-specific guidance. Examples include, but are not limited to:
 - 2.1.1 *GHG Reporting Guidance for the Aerospace Industry* published by International Aerospace Environmental Group (IAEG)
 - 2.1.2 *Greenhouse Gas Inventory Guidance: Direct Emissions from Stationary Combustion Sources* published by the U.S. Environmental Protection Agency (EPA)
 - 2.1.3 India GHG Inventory Program
 - 2.1.4 ISO 14064-1

- 2.1.5 Petroleum Industry Guidelines for reporting GHG emissions, 2nd edition, 2011, published by IPIECA
- 2.1.6 Protocol for the quantification of greenhouse gas emissions from waste management activities published by Entreprises pour l'Environnement (EpE)
- 2.2 GHG emissions data shall be consolidated and disclosed according to the approach with which the entity consolidates its financial reporting data, which is generally aligned with the “financial control” approach defined by the GHG Protocol, and the approach published by the Climate Disclosure Standards Board (CDSB) described in REQ-07, “Organisational boundary,” of the *CDSB Framework for reporting environmental information, natural capital and associated business impacts* (April 2018).
- 3 The entity may discuss any change in its emissions from the previous reporting period, including whether the change was due to emissions reductions, divestment, acquisition, mergers, changes in output, and/or changes in calculation methodology.
- 4 In the case that current reporting of GHG emissions to the CDP or other entity (e.g., a national regulatory disclosure program) differs in terms of the scope and consolidation approach used, the entity may disclose those emissions. However, primary disclosure shall be according to the guidelines described above.
- 5 The entity may discuss the calculation methodology for its emissions disclosure, such as if data are from continuous emissions monitoring systems (CEMS), engineering calculations, or mass balance calculations.

TR-MT-110a.2. Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets

- 1 The entity shall discuss its long-term and short-term strategy or plan to manage its Scope 1 greenhouse gas (GHG) emissions.
 - 1.1 Scope 1 emissions are defined according to *The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard* (GHG Protocol), Revised Edition, March 2004, published by the World Resources Institute and the World Business Council on Sustainable Development (WRI/WBCSD).
 - 1.2 The scope of GHG emissions includes the seven GHGs covered under the Kyoto Protocol—carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃).
- 2 The entity shall discuss its emission reduction target(s) and analyze its performance against the target(s), including the following, where relevant:
 - 2.1 The scope of the emission reduction target (e.g., the percentage of total emissions to which the target is applicable);
 - 2.2 Whether the target is absolute- or intensity-based, and the metric denominator, if it is an intensity-based target;

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- 2.3 The percentage reduction against the base year, with the base year representing the first year against which emissions are evaluated toward the achievement of the target;
 - 2.4 The timelines for the reduction activity, including the start year, the target year, and the base year;
 - 2.5 The mechanism(s) for achieving the target; and
 - 2.6 Any circumstances in which the target or base year emissions have been, or may be, recalculated retrospectively or the target or base year has been reset.
- 3 The entity shall discuss the activities and investments required to achieve the plans and/or targets, and any risks or limiting factors that might affect achievement of the plans and/or targets.
- 3.1 Relevant activities and investments may include, but are not limited to, route optimization, use of alternative fuels and energy sources, system improvements, optimization of ship operation, improving efficiency through ship design and propulsion systems (including hull and propeller improvements), and upgrading the fleet with new ships.
- 4 The entity shall discuss the scope of its strategies, plans, and/or reduction targets, such as how they relate to different business units, geographies, or emissions sources.
- 5 The entity shall discuss whether its strategies, plans, and/or reduction targets are related to, or associated with, emissions limiting and/or emissions reporting-based programs or regulations (e.g., the EU Emissions Trading Scheme, Quebec Cap-and-Trade System, California Cap-and-Trade Program), including regional, national, international, or sectoral programs.
- 6 Disclosure of strategies, plans, and/or reduction targets shall be limited to activities that were ongoing (active) or reached completion during the reporting period.

TR-MT-110a.3. (1) Total energy consumed, (2) percentage heavy fuel oil, (3) percentage renewable

- 1 The entity shall disclose (1) the total amount of energy it consumed as an aggregate figure, in gigajoules (GJ).
 - 1.1 The scope of energy consumption includes energy from all sources, including energy purchased from sources external to the entity and energy produced by the entity itself (self-generated). For example, direct fuel usage, purchased electricity, and heating, cooling, and steam energy are all included within the scope of energy consumption.
 - 1.2 The scope of energy consumption includes only energy directly consumed by the entity during the reporting period.

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- 1.3 In calculating energy consumption from fuels and biofuels, the entity shall use higher heating values (HHV), also known as gross calorific values (GCV), which are directly measured or taken from the Intergovernmental Panel on Climate Change (IPCC), ~~the U.S. Department of Energy (DOE), or the U.S. Energy Information Administration (EIA).~~
- 2 The entity shall disclose (2) the percentage of energy it consumed that was supplied from heavy fuel oil.
 - 2.1 Heavy fuel oils are defined ~~per the U.S. Energy Information Administration~~ as heavier oils that remain after distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations, ~~and which conform to ASTM Specifications D 396 and D 975 and Federal Specification VV-F-815C, including:~~
 - 2.1.1 ~~No. 5 Residual fuel oil, a residual fuel oil of medium viscosity, also known as “Navy Special” and defined in Military Specification MIL-F-859E, including Amendment 2 (NATO Symbol F-770)~~
 - 2.1.2 ~~No. 6 Residual fuel oil, which includes Bunker C fuel oil~~
 - 2.2 The percentage shall be calculated as heavy fuel oil consumption divided by total energy consumption.
- 3 The entity shall disclose (3) the percentage of energy it consumed that is renewable energy.
 - 3.1 Renewable energy is defined as energy from sources that are replenished at a rate greater than or equal to their rate of depletion, such as geothermal, wind, solar, hydro, and biomass.
 - 3.2 The percentage shall be calculated as renewable energy consumption divided by total energy consumption.
 - 3.3 The scope of renewable energy includes renewable fuel the entity consumed, renewable energy the entity directly produced, and renewable energy the entity purchased, if purchased through a renewable power purchase agreement (PPA) that explicitly includes renewable energy certificates (RECs) or Guarantees of Origin (GOs), a Green-e Energy Certified utility or supplier program, or other green power products that explicitly include RECs or GOs, or for which Green-e Energy Certified RECs are paired with grid electricity.
 - 3.3.1 For any renewable electricity generated on-site, any RECs and GOs must be retained (i.e., not sold) and retired or cancelled on behalf of the entity in order for the entity to claim them as renewable energy.
 - 3.3.2 For renewable PPAs and green power products, the agreement must explicitly include and convey that RECs and GOs be retained or replaced and retired or cancelled on behalf of the entity in order for the entity to claim them as renewable energy.

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- 3.3.3 The renewable portion of the electricity grid mix that is outside of the control or influence of the entity is excluded from the scope of renewable energy.
- 3.4 For the purposes of this disclosure, the scope of renewable energy from ~~hydro~~ and biomass sources is limited to ~~the following~~:
 - 3.4.1 ~~Energy from hydro sources is limited to those that are certified by the Low Impact Hydropower Institute or that are eligible for a state Renewable Portfolio Standard;~~
 - 3.4.2 ~~Energy from biomass sources is limited to~~ materials certified to a third-party standard (e.g., Forest Stewardship Council, Sustainable Forest Initiative, Programme for the Endorsement of Forest Certification, or American Tree Farm System), materials considered eligible sources of supply according to the *Green-e Framework for Renewable Energy Certification, Version 1.0 (2017)* or Green-e regional standards, and/or materials that are eligible for an applicable state renewable portfolio standard.
- 4 The entity shall apply conversion factors consistently for all data reported under this disclosure, such as the use of HHVs for fuel usage (including biofuels) and conversion of kilowatt hours (kWh) to GJ (for energy data including electricity from solar or wind energy).

TR-MT-110a.4. Average Energy Efficiency Design Index (EEDI) for new ships

- 1 The entity shall disclose the average Energy Efficiency Design Index (EEDI) for new ships in grams of carbon dioxide per ton-nautical mile.
 - 1.1 An EEDI value is the product of power installed, specific fuel consumption, and carbon conversion, divided by the product of available capacity and vessel speed at design load.
 - 1.2 The entity shall calculate the average EEDI as a simple average of the EEDI value of all new ships added to the entity's fleet during the reporting period
 - 1.2.1 New ships are limited to those built after 2013 and for which the International Maritime Organization (IMO) has adopted EEDI as a metric.
 - 1.3 The entity shall follow calculation methodologies outlined in IMO MEPC 66/21/Add.1, Annex 5, 2014 Guidelines on the Method of Calculation of the Attained Energy Efficiency Design Index (EEDI) For New Ships.