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Sustainability

March 2022

# Exposure Draft

IFRS<sup>®</sup> Sustainability Disclosure Standard

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

Volume B4—E-Commerce

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](mailto:commentletters@ifrs.org) or online at <https://www.ifrs.org/projects/open-for-comment/>.

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## Introduction

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*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.

## E-Commerce

### Industry Description

The E-Commerce industry is composed of firms that provide an online marketplace for other firms or individuals to sell their goods and services, as well as retailers and wholesalers that provide an exclusively web-based platform for consumers to buy goods and services. Firms in this industry sell to consumers as well as to other businesses. Because of the accessibility of e-commerce sites, the industry is a global marketplace for buyers and sellers. Note: The industry scope exclusively applies to “pure-play” e-commerce operations and does not address the manufacturing or brick-and-mortar retail operations of companies. Many consumer goods manufacturers and retailers have incorporated, or are in the process of incorporating, an e-commerce component to their business. SASB has separate standards for the Multiline and Specialty Retailers & Distributors (CG-MR); Apparel, Accessories & Footwear (CG-AA); and Toys & Sporting Goods (CG-TS) industries. Depending on the specific activities and operations of firms in the aforementioned industries, disclosure topics and accounting metrics associated with the E-Commerce industry standard may also be relevant.

### Sustainability Disclosure Topics & Metrics

**Table 1. Sustainability Disclosure Topics & Metrics**

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Hardware Infrastructure Energy & Water Management	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable	Quantitative	Gigajoules (GJ), Percentage (%)	CG-EC-130a.1
	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m <sup>3</sup> ), Percentage (%)	CG-EC-130a.2
	Discussion of the integration of environmental considerations into strategic planning for data center needs	Discussion and Analysis	n/a	CG-EC-130a.3
Product Packaging & Distribution	Total greenhouse gas (GHG) footprint of product shipments	Quantitative	Metric tons (t) CO <sub>2</sub> -e	CG-EC-410a.1
	Discussion of strategies to reduce the environmental impact of product delivery	Discussion and Analysis	n/a	CG-EC-410a.2

**Table 2. Activity Metrics**

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Entity-defined measure of user activity <sup>6</sup>	Quantitative	Number	CG-EC-000.A

*continued...*

<sup>6</sup> Note to CG-EC-000.A – The entity shall define and disclose a basic measure of user activity suitable for its business activities. This measure may be sales transactions, purchase transactions, number of searches, monthly active users, page views, and/or unique URLs.

EXPOSURE DRAFT—MARCH 2022

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ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Data processing capacity, percentage outsourced <sup>7</sup>	Quantitative	See note	CG-EC-000.B
Number of shipments	Quantitative	Number	CG-EC-000.C

<sup>7</sup> Note to CG-EC-000B – Data processing capacity shall be reported in units of measure typically tracked by the entity or used as the basis for contracting its IT services needs, such as million service units (MSUs), million instructions per second (MIPS), mega floating-point operations per second (MFLOPS), compute cycles, or other units of measure. Alternatively, the entity may disclose owned and outsourced data processing needs in other units of measure, such as rack space or data center square footage. The percentage outsourced shall include co-location facilities and cloud services (e.g., Platform as a Service and Infrastructure as a Service).

## Hardware Infrastructure Energy & Water Management

### Topic Summary

A large part of the energy consumed by the E-Commerce industry is used to power critical hardware and IT infrastructure in data centers. Data centers need to be powered continuously, and disruptions to the energy supply can have a material impact on operations, depending on the magnitude and timing of the disruption. Companies also face a tradeoff when it comes to energy and water consumption for their data center cooling needs: Cooling data centers with water instead of chillers is a means of improving energy efficiency, but it can lead to dependence on significant local water resources. Companies that effectively manage this issue may benefit from cost savings and minimize reputational risks, as there is growing concern over energy and water use.

### Metrics

*CG-EC-130a.1. (1) Total energy consumed, (2) percentage grid electricity, (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.
  - 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 grid electricity.
  - 2.1 The percentage shall be calculated as purchased grid electricity 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.
  - 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).
- 5 The entity may disclose the trailing twelve-month (TTM) weighted average power usage effectiveness (PUE) for its data centers.
  - 5.1 PUE is defined as the ratio of the total amount of power used by a computer data center facility to the amount of power delivered to computing equipment.
  - 5.2 If disclosing PUE, the entity shall follow the guidance and calculation methodology described in *PUE™: A Comprehensive Examination of the Metric* (2014), published by ASHRAE and The Green Grid Association.

*CG-EC-130a.2. (1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress*

- 1 The entity shall disclose the amount of water, in thousands of cubic meters, that was withdrawn from all sources.
  - 1.1 Water sources include surface water (including water from wetlands, rivers, lakes, and oceans), groundwater, rainwater collected directly and stored by the entity, and water and wastewater obtained from municipal water supplies, water utilities, or other entities.
- 2 The entity may disclose portions of its supply by source if, for example, significant portions of withdrawals are from non-freshwater sources.
  - 2.1 Fresh water may be defined according to the local laws and regulations where the entity operates. Where there is no legal definition, fresh water shall be considered to be water that has less than 1,000 parts per million of dissolved solids ~~per the U.S. Geological Survey~~.
  - 2.2 Water obtained from a water utility in compliance with ~~U.S. National Primary Drinking Water Regulations~~ jurisdictional drinking water regulations can be assumed to meet the definition of fresh water.
- 3 The entity shall disclose the amount of water, in thousands of cubic meters, that was consumed in its operations.
  - 3.1 Water consumption is defined as:
    - 3.1.1 Water that evaporates during withdrawal, usage, and discharge;
    - 3.1.2 Water that is directly or indirectly incorporated into the entity's product or service;
    - 3.1.3 Water that does not otherwise return to the same catchment area from which it was withdrawn, such as water returned to another catchment area or the sea.
- 4 The entity shall analyze all of its operations for water risks and identify activities that withdraw and consume water in locations with High (40–80 percent) or Extremely High (>80 percent) Baseline Water Stress as classified by the World Resources Institute's (WRI) Water Risk Atlas tool, Aqueduct.
- 5 The entity shall disclose its water withdrawn in locations with High or Extremely High Baseline Water Stress as a percentage of the total water withdrawn.
- 6 The entity shall disclose its water consumed in locations with High or Extremely High Baseline Water Stress as a percentage of the total water consumed.

*CG-EC-130a.3. Discussion of the integration of environmental considerations into strategic planning for data center needs*

- 1 The entity shall discuss the environmental considerations that it integrates into siting, design, construction, refurbishment, and operational specifications for its data centers, including factors related to energy and water consumption.

EXPOSURE DRAFT—MARCH 2022

- 1.1 Environmental factors may include, but are not limited to, energy-efficiency standards; layout design, such as “hot aisle/cold aisle” layouts; and location-based factors, such as accounting for regional humidity, average temperature, water availability and groundwater stress, water permits, regional- or state-level carbon legislation or pricing, and the carbon intensity of electricity from the local grid.
- 2 The scope of disclosure shall include data centers currently owned and operated by the entity, data centers that have been planned or are under construction, and outsourced data center services.
- 3 The entity shall discuss how the environmental considerations it identifies were incorporated into decisions related to its data centers that were made during the reporting period, including if they influenced decisions to insource or outsource data center services, improve efficiency of existing data centers, and/or construct new data centers.

## Product Packaging & Distribution

### Topic Summary

A significant part of the E-Commerce industry's added value comes from firms' ability to move a wide array of goods efficiently to consumers who would otherwise have to personally travel to collect the goods from brick-and-mortar stores. As the volume of packaging shipments increases, the industry may become more exposed to environmental externalities, such as carbon pricing and subsequent rising fuel costs that present risks associated with the shipping of products. While firms that outsource shipping and logistics have less control over the specific processes of shipping operations, they can still select suppliers with more energy-efficient business practices. As this is a highly competitive and low-margin industry, the ability to shave off shipping costs through fuel reduction and more efficient routing can allow firms to pass those savings on to their customers. Additionally, e-commerce firms have an incentive to minimize the use of packaging. Efficient packaging can lead to cost savings from reducing the amount of material that needs to be purchased, as well as saving on logistics costs, as more products can fit into a single shipping load.

### Metrics

#### *CG-EC-410a.1. Total greenhouse gas (GHG) footprint of product shipments*

- 1 The entity shall disclose the complete tank-to-wheels greenhouse gas (GHG) footprint, in metric tons of CO<sub>2</sub>-e, associated with outbound shipment of the entity's products.
  - 1.1 Tank-to-wheels emissions relate to vehicle processes and exclude upstream emissions associated with primary energy production (i.e., well-to-tank emissions).
  - 1.2 The entity shall calculate its disclosure according to EN 16258:2012, Methodology for calculation and declaration of energy consumption and GHG emissions of transport services (freight and passengers).
    - 1.2.1 Calculations shall be consistent with the methodology used to calculate the "tank-to-wheels GHG emissions (Gt)" result that is described in EN 16258:2012.
    - 1.2.2 Determination of transportation system scope, boundaries, and any necessary allocations shall be consistent with the methodology described in EN 16258:2012.
- 2 The scope of disclosure includes emissions from all freight transportation and logistics activities associated with outbound shipment of the entity's products, including those from contract carriers and outsourced freight forwarding services and logistics providers (Scope 3) as well as those from the entity's own assets (Scope 1).
- 3 The scope of disclosure includes emissions from all modes of transportation, such as road freight, air freight, barge transport, marine transport, and rail transport.

- 4 Consistent with EN 16258:2012, disclosure may be based on calculations from a mix of categories of emissions values (i.e., specific measured values, transport operator vehicle-type- or route-type-specific values, transport operator fleet values, and default values).
- 5 Where relevant and necessary for interpretation of disclosure, the entity shall describe its allocation methods, emissions values, boundaries, mix of transport services used, and other information.

*CG-EC-410a.2. Discussion of strategies to reduce the environmental impact of product delivery*

- 1 The entity shall discuss its strategies to reduce the environmental impact of fulfillment and delivery of its products, including impacts associated with packaging materials and those associated with product transportation.
- 2 Relevant strategies to discuss include, but are not limited to:
  - 2.1 Discussion of logistics selection, mode selection, and management (e.g., rail transport vs. air freight transport) and/or operation for route efficiency
  - 2.2 Discussion of packaging choices, including, but not limited to, decisions to utilize recycled or renewable (e.g., bio-based plastic) packaging material, decisions to optimize the amount of packaging materials used (e.g., source reduction), use of refillable or reusable packaging, and design for efficient shipping and transport
  - 2.3 Discussion of fuel choices and vehicle choices for fleets owned and/or operated by the entity, such as decisions to use renewable and low-emission fuels and low-emission vehicles
  - 2.4 Other relevant strategies, such as efforts to reduce idling of vehicles owned and/or operated by the entity, innovations to improve the efficiency of “last-mile” delivery, and strategies to optimize delivery times to reduce traffic congestion