IFRS® Sustainability

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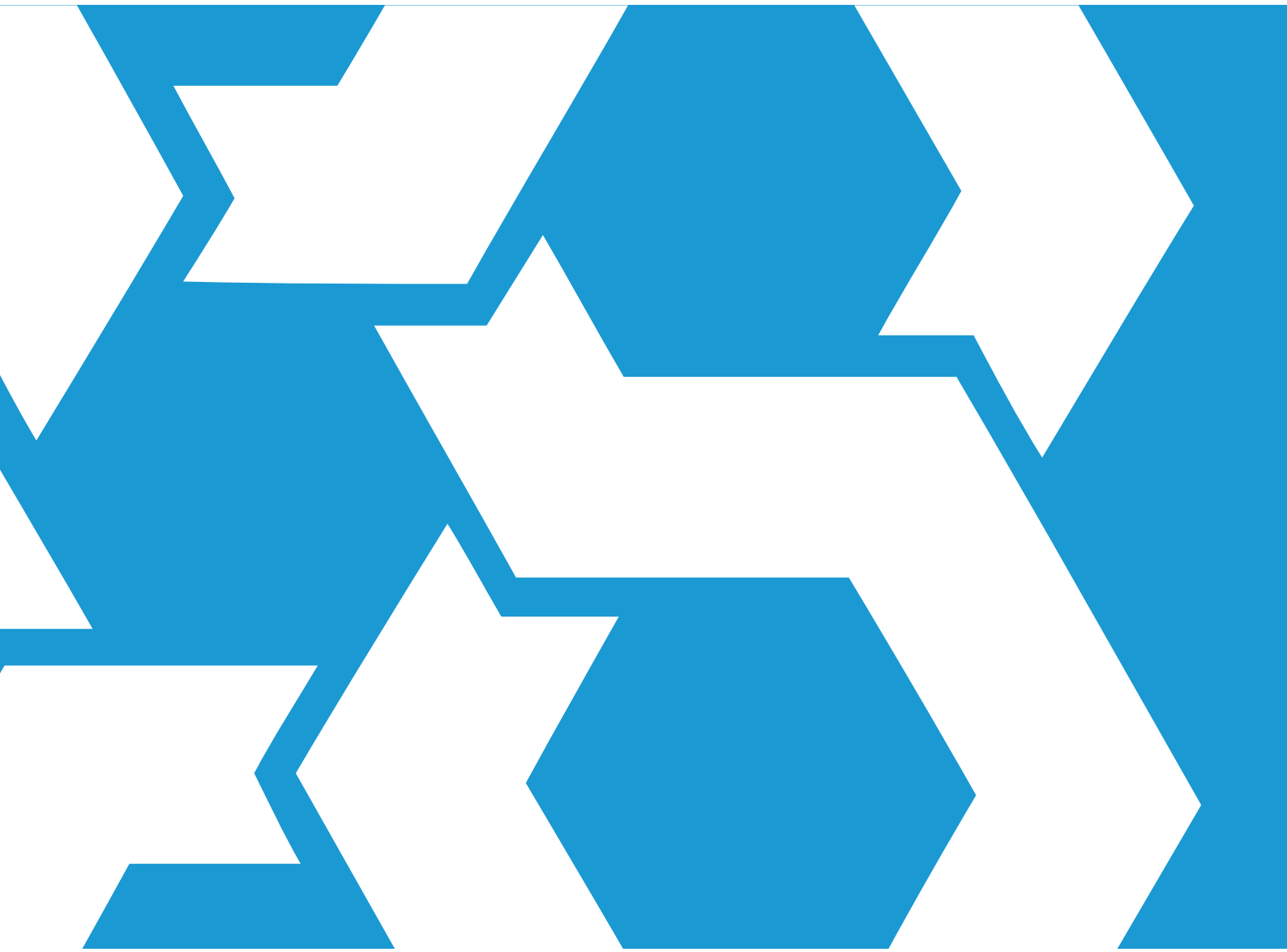
IFRS S2

IFRS® Sustainability Disclosure Standard

Industry-based Guidance on implementing Climate-related Disclosures

Volume 12—Oil & Gas – Midstream



International Sustainability Standards Board

This Industry-based Guidance accompanies IFRS S2 *Climate related Disclosures* (published June 2023; see separate booklet) and is issued by the International Sustainability Standards Board (ISSB).

Introduction

This volume is part of the Industry-based Guidance on Implementing IFRS S2 Climate-related Disclosures. *This guidance suggests possible ways to apply some of the disclosure requirements in IFRS S2 but does not create additional requirements.*

This volume suggests possible ways to identify, measure and disclose information about climate-related risks and opportunities that are associated with particular business models, economic activities and other common features that characterise participation in this industry.

This industry-based guidance has been derived from Sustainability Accounting Standards Board (SASB) Standards, which are maintained by the International Sustainability Standards Board (ISSB). The metric codes used in SASB Standards have been included for ease of reference. For additional context regarding the industry-based guidance contained in this volume, including structure and terminology, application and illustrative examples, refer to Section III of the Accompanying Guidance to IFRS S2.

Volume 12—Oil & Gas – Midstream

Industry Description

Oil & Gas - Midstream industry entities transport or store natural gas, crude oil and refined petroleum products. Midstream natural gas activities involve gathering, transporting and processing natural gas from the wellhead, such as the removal of impurities, production of natural gas liquids, storage, pipeline transport and shipping, liquefaction, or regasification of liquefied natural gas. Midstream oil activities mainly involve transporting crude oil and refined products using pipeline networks, truck and rail, and marine transport on tankers or barges. Entities that operate storage and distribution terminals, as well as those that manufacture and install storage tanks and pipelines, are also part of this industry.

Note: The standards discussed below are for 'pure-play' midstream activities or independent midstream entities. Integrated oil and gas entities may own or operate midstream operations, but they also are involved in the upstream operations of the oil and gas value chain and in the refining or marketing of products. Separate standards exist for the Oil and Gas Exploration & Production (EM-EP) and Refining & Marketing (EM-RM) industries. As such, integrated entities also should consider the disclosure topics and metrics from these standards.

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, percentage methane, percentage covered under emissions-limiting regulations	Quantitative	Metric tons (t) CO_2-e, Percentage (%)	EM-MD-110a.1
	Discussion of long- 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	EM-MD-110a.2

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Total metric ton-kilometres of: (1) natural gas, (2) crude oil, and (3) refined petroleum products transported, by mode of transport [13]	Quantitative	Metric ton (t) kilometres	EM-MD-000.A

[13] Note to **EM-MD-000.A** – Relevant modes of transport include: pipeline, tanker, truck, etc.

Greenhouse Gas Emissions

Topic Summary

The midstream industry generates significant greenhouse gases and other air emissions from compressor engine exhausts, oil and condensate tank vents, natural gas processing, and fugitive emissions, in addition to emissions from mobile sources. GHG emissions contribute to climate change and create incremental regulatory compliance costs and risks for midstream entities. At the same time, the management of methane fugitive emissions has emerged as a significant operational, reputational and regulatory risk. Financial effects on entities will vary depending on the specific location of operations and prevailing emissions regulations, and they include increased operating or capital expenditures and regulatory or legal penalties. Entities that capture and monetise emissions, or cost-effectively reduce emissions by implementing innovative monitoring and mitigation efforts and fuel efficiency measures, may enjoy substantial financial benefits. Entities can reduce regulatory risks and realise operational efficiencies as regulatory and public concerns about air quality and climate change increase.

Metrics

EM-MD-110a.1. Gross global Scope 1 emissions, percentage methane, percentage covered under emissions-limiting regulations

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 (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF_6), and nitrogen trifluoride (NF_3).

1.1 Emissions of all GHGs shall be consolidated and disclosed in metric tons of carbon dioxide equivalent (CO_2-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 These emissions include direct emissions of GHGs from stationary or mobile sources; these sources include: equipment at well sites, production facilities, refineries, chemical plants, terminals, fixed site drilling rigs, office buildings, marine vessels transporting products, tank truck fleets, mobile drilling rigs, and moveable equipment at drilling and production facilities.

2.2 Acceptable calculation methodologies include those that conform with the GHG Protocol as the base reference, but provide additional guidance, such as industry- or region-specific guidance. Examples include:

2.2.1 *GHG Reporting Guidance for the Aerospace Industry* provided by the International Aerospace Environmental Group (IAEG)

2.2.2 *Greenhouse Gas Inventory Guidance: Direct Emissions from Stationary Combustion Sources* published by the US Environmental Protection Agency (EPA)

2.2.3 India GHG Inventory Program

2.2.4 ISO 14064-1

2.2.5 *Petroleum Industry Guidelines for reporting GHG emissions*, 2nd edition, 2011, published by IPIECA

2.2.6 *Protocol for the quantification of greenhouse gas emissions from waste management activities* provided by Entreprises pour l'Environnement (EpE)

2.3 GHG emission data shall be consolidated according to the approach with which the entity consolidates its financial reporting data, which generally is aligned with the 'financial control' approach defined by the *GHG Protocol* as well as:

2.3.1 The financial approach detailed in Chapter 3 of the IPIECA/API/OGP *Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions*, 2nd Edition, 2011 (hereafter, the "IPIECA GHG Guidelines")

2.3.2 The approach provided by the Climate Disclosure Standards Board (CDSB) that is described in REQ-07, 'Organisational boundary', of the *CDSB Framework for reporting environmental and social information*

3 The entity shall disclose the percentage of gross global Scope 1 emissions from methane emissions.

3.1 The percentage of gross global Scope 1 GHG emissions from methane emissions shall be calculated as the methane emissions in metric tons of carbon dioxide equivalents (CO_2-e) divided by the gross global Scope 1 GHG emissions in metric tons of carbon dioxide equivalents (CO_2-e).

4 The entity shall disclose the percentage of its gross global Scope 1 GHG emissions covered under an emissions-limiting regulation or programme intended to limit or reduce emissions directly, such as cap-and-trade schemes, carbon tax/fee systems, and other emissions control (for example, command-and-control approach) and permit-based mechanisms.

4.1 Examples of emissions-limiting regulations include:

4.1.1 California Cap-and-Trade (California Global Warming Solutions Act)

4.1.2 European Union Emissions Trading Scheme (EU ETS)

4.1.3 Quebec Cap-and-Trade (Quebec Environment Quality Act)

4.2 The percentage shall be calculated as the total amount of gross global Scope 1 GHG emissions (CO_2-e) covered under emissions-limiting regulations divided by the total amount of gross global Scope 1 GHG emissions (CO_2-e).

4.2.1 For emissions subject to more than one emissions-limiting regulation, the entity shall not account for those emissions more than once.

4.3 The scope of emissions-limiting regulations excludes emissions covered under voluntary emissions-limiting regulations (for example, voluntary trading systems), as well as reporting-based regulations.

5 The entity may discuss any change in its emissions from the previous reporting period, including whether the change was because of emissions reductions, divestment, acquisition, mergers, changes in output or changes in calculation methodology.

6 In the case that current reporting of GHG emissions to the CDP or other entity (for example, a national regulatory disclosure programme) 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.

7 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.

EM-MD-110a.2. Discussion of long- 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- and short-term strategy or plan to manage its Scope 1 greenhouse gas (GHG) emissions.

1.1 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).

1.2 The scope of GHG emissions includes the seven GHGs covered under the Kyoto Protocol—carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF_6), and nitrogen trifluoride (NF_3).

2 The entity shall discuss its emission reduction target(s) and analyse its performance against the target(s), including, if relevant:

2.1 The scope of the emission reduction target (for example, 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;

2.3 The percentage reduction against the base year, with the base year representing the first year against which emissions are evaluated towards the achievement of the target;

2.4 The time lines 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, which may include energy efficiency efforts, energy source diversification, carbon capture and storage, or the implementation of leak detection and repair processes.

3 The entity shall discuss the activities and investments required to achieve the plans or targets, and any risks or limiting factors that might affect achievement of the plans or targets.

4 The entity shall discuss the scope of its strategies, plans or reduction targets, such as whether they pertain differently to different business units, geographies or emissions sources.

4.1 Categories of emissions may include:

4.1.1 Flared hydrocarbons, including all emissions emitted from flares and associated with the management and disposal of unrecoverable natural gas via combustion of hydrocarbon products from routine operations, upsets or emergencies

4.1.2 Other combusted emissions, which may include: (1) emissions from stationary devices, which may include boilers, heaters, furnaces, reciprocating internal combustion engines and turbines, incinerators, and thermal/catalytic oxidisers, (2) emissions from mobile sources, which may include barges, ships, railcars and trucks for material transport; planes/helicopters and other entity vehicles for staff transport; forklifts, all-terrain vehicles, construction equipment and other off-road mobile equipment, and (3) other combusted emissions shall exclude those emissions disclosed as flared hydrocarbons

4.1.3 Process emissions, which include those emissions not combusted and are intentional or designed into the process or technology to occur during normal operations and result from some form of chemical transformation or processing step. Such emissions may include those from hydrogen plants, amine units, glycol dehydrators, fluid catalytic cracking unit and reformer generation, and flexi-coker coke burn

4.1.4 Vented emissions, including those emissions not combusted and are intentional or designed into the process or technology to occur during normal operations, and which may include: (1) venting from crude oil, condensate or natural gas product storage tanks, gas-driven pneumatic devices, gas samplers, chemical injection pumps,

exploratory drilling, loading/ballasting/transit, and loading racks, (2) venting resulting from maintenance/turn-arounds, which may include decoking of furnace tubes, well unloading, vessel and gas compressor depressurising, compressor starts, gas sampling, and pipeline blowdowns, and (3) venting from non-routine activities, which may include pressure relief valves, pressure control valves, fuel supply unloading valves and emergency shut-down devices

4.1.5 Fugitive emissions, including those emissions which can be individually found and ''fixed'' to make emissions 'near zero' and which may include emissions from valves, flanges, connectors, pumps, compressor seal leaks, Cata-Dyne® heaters, and wastewater treatment and surface impoundments

5 The entity shall discuss whether its strategies, plans, or reduction targets are related to, or associated with, emissions limiting or emissions reporting-based programmes or regulations (for example, the EU Emissions Trading Scheme, Quebec Cap-and-Trade System, California Cap-and-Trade Program), including regional, national, international or sectoral programmes.

6 Disclosure of strategies, plans or reduction targets shall be limited to activities that were ongoing (active) or reached completion during the reporting period.

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