Staff paper

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Date	**February 2026**
Project	**Enhancing the SASB Standards**
Topic	**Draft for ISSB ratification: Exposure Draft of Proposed Amendments to the SASB Standards and IFRS S2 Industry-based Guidance**
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Exposure Draft of Proposed Amendments to the SASB Standards and the IFRS S2 Industry-based Guidance

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INTRODUCTION

Why is the ISSB publishing this Exposure Draft?

IN1 As part of its 2024–2026 work plan, the International Sustainability Standards Board (ISSB) is enhancing the SASB Standards to provide timely support to entities applying IFRS S1 *General Requirements for Disclosure of Sustainability-related Financial Information* (IFRS S1) and IFRS S2 *Climate-related Disclosures* (IFRS S2).

IN2 The SASB Standards are an optional source of guidance for entities applying IFRS S1 that help entities develop decision-useful and comparable disclosures in the absence of specific IFRS Sustainability Disclosure Standards.

IN3 The *Industry-based Guidance on Implementing IFRS S2* (IFRS S2 industry-based guidance) is derived from the SASB Standards. When the ISSB issued IFRS S2, it made amendments to the climate-related content in the SASB Standards to maintain alignment between the two sets of materials. The IFRS S2 industry-based guidance is therefore largely identical to the climate-related content in the SASB Standards.[1]

IN4 This Exposure Draft includes proposed amendments to climate-related content in the SASB Standards that is also included in the IFRS S2 industry-based guidance. The ISSB proposes making consequential amendments to the IFRS S2 industry-based guidance to maintain alignment between the IFRS S2 industry-based guidance and the SASB Standards.

Summary of the proposals in this Exposure Draft

IN5 This Exposure Draft sets out proposed amendments to three SASB Standards that have been prioritised by the ISSB for comprehensive review:

(a) the *Agricultural Products* SASB Standard;

(b) the *Meat, Poultry & Dairy* SASB Standard; and

(c) the *Electric Utilities & Power Generators* SASB Standard.

IN6 This Exposure Draft is part of the scope of work for the project to propose amendments to twelve prioritised SASB Standards decided upon by the ISSB in July 2024. In July 2025, the ISSB published the Exposure Draft *Proposed Amendments to the SASB Standards* (July 2025 Exposure Draft) setting out proposed amendments to nine other SASB Standards.[2] The proposals in this Exposure Draft are consistent with those in the July 2025 Exposure Draft. Appendix B of the Basis for Conclusions shows which metrics in this Exposure Draft are based on similar or identical metrics proposed in the July 2025 Exposure Draft.

[1] The climate-related content in the SASB Standards is identical to the *Industry-based Guidance on Implementing IFRS S2*, except that the SASB Standards also include the topic of financed emissions (which is included in the application guidance in Appendix B to IFRS S2).

[2] The July 2025 Exposure Draft *Proposed Amendments to the SASB Standards* is available at https://www.ifrs.org/content/dam/ifrs/project/enhancing-the-sasb-standards/sasb-ed-2025-1-proposed-amends.pdf.

IN7 The objective of the project is to support the high-quality implementation of IFRS S1 and IFRS S2 through timely enhancements to the SASB Standards, focusing on:

(a) further enhancing the international applicability of:

(i) industry groupings, including enhancements to represent entities and reflect value chains in emerging markets and developing economies;

(ii) disclosure topics in those industry groupings; and

(iii) metrics and supporting technical protocols;[3]

(b) exploring opportunities to improve interoperability with other sustainability-related standards and frameworks, while maintaining a focus on the needs of investors to serve as a global baseline of sustainability-related disclosures to meet the needs of capital markets;

(c) exploring opportunities to amend the disclosure topics and metrics in the SASB Standards related to biodiversity, ecosystems and ecosystem services (BEES) and human capital, to align the SASB enhancements with the ISSB's projects on those topics and to enable feedback on this Exposure Draft to provide input to those research projects; and

(d) exploring further opportunities to align the concepts and terminology in the SASB Standards with those in the IFRS Sustainability Disclosure Standards.

IN8 The proposed amendments are also intended to enhance the SASB Standards' clarity, conciseness and cost-effectiveness for preparers.

IN9 The consequential amendments to the IFRS S2 industry-based guidance would align the climate-related content in the three volumes of IFRS S2 industry-based guidance that correspond to the prioritised SASB Standards. Appendix A sets out the metrics in the IFRS S2 industry-based guidance that would be affected.

Due process provisions applicable to this Exposure Draft

IN10 The ISSB ratified this Exposure Draft of proposed amendments to the SASB Standards in [February 2026]. Consistent with the due process applicable to IFRS Sustainability Disclosure Standards, comment letters and responses on the proposed amendments will be posted on the IFRS Foundation's website.

IN11 The applicable due process for the amendments to the SASB Standards in this Exposure Draft is the same as for the July 2025 Exposure Draft. Accordingly, further information about the due process used to develop this Exposure Draft can be found in paragraphs BC22–BC26 of the Basis for Conclusions accompanying the July 2025 Exposure Draft.[4]

IN12 The proposed consequential amendments to the IFRS S2 industry-based guidance were approved by the ISSB in [February 2026].

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[3] The term 'metrics' in the SASB Standards is used to describe disclosures and encompasses qualitative and quantitative information.

[4] The Basis for Conclusions on the July 2025 Exposure Draft is available at https://www.ifrs.org/content/dam/ifrs/project/enhancing-the-sasb-standards/sasb-ed-2025-1-bc-proposed-amends.pdf.

When would the proposed amendments be effective?

IN13 The ISSB proposes to set an effective date for the amendments to the SASB Standards and IFRS S2 industry-based guidance that will occur between [12 and 18 months] after their issuance and to permit early application.

IN14 The ISSB will decide the effective date of the amendments after considering the feedback on the proposed amendments.

Next steps

IN15 The ISSB will discuss the feedback on this Exposure Draft and decide whether and how to amend the three prioritised SASB Standards and related IFRS S2 industry-based guidance.

INVITATION TO COMMENT

The ISSB invites comments on the proposals in this Exposure Draft, particularly on the questions set out in this section.

The July 2025 Exposure Draft contained broader questions regarding the project on enhancing the SASB Standards, including questions on:

(a) the objective of the project on enhancing the SASB Standards (Question 1 in the July 2025 Exposure Draft);

(b) the ISSB's proposed approach to enhancing interoperability and alignment with other sustainability-related standards and frameworks (Question 2 in the July 2025 Exposure Draft);

(c) whether the ISSB should amend the climate-related content in the SASB Standards (Question 3 in the July 2025 Exposure Draft); and

(d) whether the SASB Standards, including the proposed amendments, enable entities to provide decision-useful information about their BEES- and human capital-related related risks and opportunities to users of general purpose financial reports (Question 4 in the July 2025 Exposure Draft).

For those stakeholders who did not respond to the July 2025 Exposure Draft, the ISSB has included similar questions in this Exposure Draft. However, stakeholders that already provided responses to these questions in response to the July 2025 Exposure Draft need not repeat their responses.

The ISSB encourages stakeholders to use the online survey to submit comments. Comments are most helpful if they:

(a) respond to the questions as stated;

(b) specify the part of the SASB Standards (for example, disclosure topic name or metric code) to which they relate;

(c) contain a clear rationale;

(d) identify jurisdiction-specific considerations that could affect the relevance, decision-usefulness or cost of preparing particular disclosures;

(e) identify any wording in the proposals that is not clear or would be difficult to translate; and

(f) include any alternative the ISSB should consider, if applicable.

Respondents are not required to answer all the questions in this invitation to comment.

Questions for respondents

Question 1—*Agricultural Products* SASB Standard

This Exposure Draft includes proposals to enhance the *Agricultural Products* SASB Standard, with a focus on ensuring that the Standard helps entities applying IFRS Sustainability Disclosure Standards to provide decision-useful information to users of general purpose financial reports.[5] The information provided should help users understand the sustainability-related risks and opportunities that could reasonably be expected to affect the prospects of an entity in this industry.

The ISSB is interested in feedback on the amendments proposed in this Exposure Draft and on the *Agricultural Products* SASB Standard as a whole. The ISSB is particularly interested in feedback on whether the proposed amendments would result in the Standard meeting the needs of users of general purpose financial reports in a manner that is cost-effective for preparers.

The ISSB proposes:

- to revise the Agricultural Products industry description;
- to expand the scope of the Agricultural Products industry as classified in the Sustainable Industry Classification System® (SICS) to include direct farming operations;
- to revise one activity metric FB-AG-000.A, remove activity metrics FB-AG-000.C and FB-AG-000.D and add two activity metrics relating to workforce composition;
- to revise the Greenhouse Gas Emissions disclosure topic and associated metrics;
- to revise the Energy Management disclosure topic and associated metric;
- to revise the Water Management disclosure topic and associated metrics, remove metric FB-AG-140a.3 and add new metric FB-AG-140a.4 *Total water discharged by (1) destination and (2) level of treatment*;
- to add a Food Loss & Food Waste disclosure topic and two associated metrics:
    - FB-AG-150a.1 *(1) Total food loss and food waste generated, (2) quantity diverted*; and
    - FB-AG-150a.2 *Description of strategies to address opportunities related to food loss and food waste throughout the value chain;*
- to add a Land Use & Ecological Impacts disclosure topic and six associated metrics:
    - FB-AG-160a.1 *(1) Total spatial footprint of operations, (2) area disturbed and (3) area restored*;
    - FB-AG-160a.2 *Percentage of the total spatial footprint of operations in or near environmentally sensitive locations*;
    - FB-AG-160a.3 *Total area of land that is sustainably managed, by product*;
    - FB-AG-160a.4 *Percentages of agricultural products produced from direct farming operations determined to be deforestation- or conversion-free, including any targets set to monitor progress*;
    - FB-AG-160a.5 *Priority products from direct farming operations that are sensitive to nature- and climate-related physical risks*; and

[5] This document uses 'users' as a general term to mean 'users of general purpose financial reports', 'users' and 'investors'. See Appendix A to IFRS S1 for a definition of 'primary users of general purpose financial reports'.

- FB-AG-160a.6 *Description of strategies to manage environmental resources and implement sustainable agriculture practices in direct farming operations*;

- to revise the Food Safety disclosure topic and associated metric, remove metrics FB-AG-250a.1 and FB-AG-250a.2 and add two new metrics:
  - FB-AG-250a.4 *Percentage of production volume from sites certified to internationally recognised food safety standards for (1) own operations and (2) intermediaries*; and
  - FB-AG-250a.5 *Processes, controls and procedures to ensure food safety throughout the value chain*;
- to add a Labour Conditions disclosure topic and associated metric FB-AG-310a.1 *Processes, controls and procedures to manage labour conditions, including forced labour and child labour, in direct operations*;
- to revise the Workforce Health & Safety disclosure topic and associated metric;
- to remove the GMO Management disclosure topic and associated metric;
- to remove the Environmental & Social Impacts of Ingredient Supply Chain and Ingredient Sourcing disclosure topics and all associated metrics, and replace them with new Environmental Supply Chain Management and Social Supply Chain Management disclosure topics;
- to add three metrics to the proposed Environmental Supply Chain Management disclosure topic:
  - FB-AG-430c.1 *Percentages of sourced agricultural products determined to be deforestation- or conversion-free, including any targets set to monitor progress*;
  - FB-AG-430c.2 *Priority sourced agricultural products that are sensitive to nature- and climate-related physical risks in the supply chain*; and
  - FB-AG-430c.3 *Description of strategies to manage environmental resources and implement sustainable agriculture practices in the supply chain*;
- to add three metrics to the proposed Social Supply Chain Management disclosure topic:
  - FB-AG-430d.1 *Processes, controls and procedures for managing labour conditions and impacts on local communities in the supply chain, including human rights due diligence*;
  - FB-AG-430d.2 *Percentages of sourced agricultural products certified to internationally recognised standards that trace the path of products through the supply chain*; and
  - FB-AG-430d.3 *Percentage of high-risk suppliers subject to an independent third-party audit or verification in the previous three years, with description of non-conformances and corrective actions.*

Paragraphs BC45—BC96 of the Basis for Conclusions set out the ISSB's reasoning for these proposals.

(a) Do you agree with the proposed Agricultural Products industry description? Does it accurately describe the business activities of entities in this industry? Why or why not?

(b) Do you agree with the proposed inclusion of direct farming operations in the scope of activities included in the industry classification? Why or why not?

(c) Do you agree that the proposed disclosure topics in the *Agricultural Products* SASB Standard would accurately identify the sustainability-related risks and opportunities that could reasonably be expected to affect the prospects of entities in this industry? If not, what revisions would you suggest and why?

(d) Do you agree that the proposed metrics and technical protocols in the *Agricultural Products* SASB Standard would help an entity provide primary users with decision-useful information about sustainability-related risks and opportunities? If not, what revisions would you suggest and why?

(e) Do you agree that the proposals would improve the international applicability of the *Agricultural Products* SASB Standard and would lead to the disclosure of useful information from entities in the industry regardless of their jurisdiction? Why or why not?

(f) Do you agree that the proposed amendments would enhance the *Agricultural Products* SASB Standard's interoperability and alignment with other sustainability-related standards or frameworks? Why or why not? (Note that the ISSB is focused on providing material information for investors about the effects of sustainability-related risks and opportunities on an entity's prospects.)

Question 2—*Meat, Poultry & Dairy* SASB Standard

This Exposure Draft includes proposals to enhance the *Meat, Poultry & Dairy* SASB Standard, with a focus on ensuring that the Standard helps entities applying IFRS Sustainability Disclosure Standards to provide decision-useful information to users of general purpose financial reports. The information provided should help users understand the sustainability-related risks and opportunities that could reasonably be expected to affect the prospects of an entity in this industry.

The ISSB is interested in feedback on the amendments proposed in this Exposure Draft and on the *Meat, Poultry & Dairy* SASB Standard as a whole. The ISSB is particularly interested in feedback on whether the proposed amendments would result in the Standard meeting the needs of users of general purpose financial reports in a manner that is cost-effective for preparers.

The ISSB proposes:

- to revise the Meat, Poultry & Dairy industry description;
- to revise activity metric FB-MP-000.B and add two activity metrics relating to workforce composition;
- to revise the Greenhouse Gas Emissions disclosure topic and associated metrics;
- to revise the Energy Management disclosure topic and associated metric;
- to revise the Water Management disclosure topic and associated metrics, remove metric FB-MP-140a.3 and add new metric FB-MP-140a.4 *Total water discharged by (1) destination and (2) level of treatment*;
- to revise the Land Use & Ecological Impacts disclosure topic and associated metric FB-MP-160a.3, remove metrics FB-MP-160a.1 and FB-MP-160a.2 and add five metrics:
    - FB-MP-160a.5 *(1) Total spatial footprint of operations, (2) area disturbed and (3) area restored*;
    - FB-MP-160a.6 *Percentage of the total spatial footprint of operations in or near environmentally sensitive locations*;
    - FB-MP-160a.7 *Percentages of livestock produced from direct farming operations determined to be deforestation- or conversion-free, including explanation of assessment methodology*;
    - FB-MP-160a.8 *Priority products from direct farming operations that are sensitive to nature- and climate-related physical risks*; and
    - FB-MP-160a.9 *Percentage of livestock production from direct farming operations that*

implement and maintain a written nutrient management plan;

- to revise the Food Safety disclosure topic and associated metrics, remove metrics FB-MP-250a.1 and FB-MP-250a.2 and add two new metrics:
    - FB-MP.250a.5 *Percentage of production volume from sites certified to internationally recognised food safety standards for (1) own operations and (2) co-packing operations*; and
    - FB-MP-250a.6 *Processes, controls and procedures to ensure food safety throughout the value chain*;
- to revise the Antibiotic Use in Animal Production disclosure topic and associated metric;
- to revise the Workforce Health & Safety disclosure topic and associated metrics;
- to revise the Animal Care & Welfare disclosure topic and associated metric, including changing the disclosure topic name to Animal Health & Welfare, remove metrics FB-MP-410a.1 and FB-MP-410a.2 and add two metrics:
    - FB-MP-410a.4 *Description of animal welfare strategy, including targets, procedures and value chain integration*; and
    - FB-MP-410a.5 *Description of risks and opportunities related to biosecurity, including strategies for disease management*;
- to add a Product Innovation disclosure topic and associated metric FB-MP-410b.1 *Use of innovation in food products to address sustainability-related risks and opportunities*;
- to remove the Environmental & Social Impacts of Animal Supply Chain and Animal & Feed Sourcing disclosure topics and all associated metrics, and replace them with new Environmental Supply Chain Management and Social Supply Chain Management disclosure topics;
- to add four metrics to the proposed Environmental Supply Chain Management disclosure topic:
    - FB-MP-430b.1 *Percentages of sourced (1) livestock and (2) animal feed determined to be deforestation- or conversion-free, including any targets set to monitor progress*;
    - FB-MP-430b.2 *Priority sourced livestock and animal feed that are sensitive to nature- and climate-related physical risks in the supply chain*;
    - FB-MP-430b.3 *Percentage of sourced livestock from farms implementing and maintaining a written nutrient management plan*; and
    - FB-MP-430b.4 *Percentage of animal protein sourced from confined animal feeding operations*;
- to add three metrics to the proposed Social Supply Chain Management disclosure topic:
    - FB-MP-430c.1 *Processes, controls and procedures for managing labour conditions and impacts on local communities in the supply chain, including human rights due diligence*;
    - FB-MP-430c.2 *Percentages of sourced animal feed certified to internationally recognised standards that trace the path of products through the supply chain*; and
    - FB-MP-430c.3 *Percentage of high-risk suppliers subject to an independent third-party audit or verification in the previous three years, with description of non-conformances and corrective actions.*

Paragraphs BC97—BC131 of the Basis for Conclusions set out the ISSB's reasoning for these proposals.

(a) Do you agree with the proposed Meat, Poultry & Dairy industry description? Does it accurately describe the business activities of entities in this industry? Do you agree with the scope of activities included in the industry classification? Why or why not?

(b) Do you agree that the proposed disclosure topics in the *Meat, Poultry & Dairy* SASB Standard would accurately identify the sustainability-related risks and opportunities that could reasonably be expected to affect the prospects of entities in this industry? If not, what revisions would you suggest and why?

(c) Do you agree that the proposed metrics and technical protocols in the *Meat, Poultry & Dairy* SASB Standard would help an entity provide primary users with decision-useful information about sustainability-related risks and opportunities? If not, what revisions would you suggest and why?

(d) Do you agree that the proposals would improve the international applicability of the *Meat, Poultry & Dairy* SASB Standard and would lead to the disclosure of useful information from entities in the industry regardless of their jurisdiction? Why or why not?

(e) Do you agree that the proposed amendments would enhance the *Meat, Poultry & Dairy* SASB Standard's interoperability and alignment with other sustainability-related standards or frameworks? Why or why not? (Note that the ISSB is focused on providing material information for investors about the effects of sustainability-related risks and opportunities on an entity's prospects.)

Question 3—*Electric Utilities & Power Generators* SASB Standard

This Exposure Draft includes proposals to enhance the *Electric Utilities & Power Generators* SASB Standard, with a focus on ensuring that the Standard helps entities applying IFRS Sustainability Disclosure Standards to provide decision-useful information to users of general purpose financial reports. The information provided should help users understand the sustainability-related risks and opportunities that could reasonably be expected to affect the prospects of an entity in this industry.

The ISSB is interested in feedback on the amendments proposed in this Exposure Draft and on the *Electric Utilities & Power Generators* SASB Standard as a whole. The ISSB is particularly interested in feedback on whether the proposed amendments would result in the Standard meeting the needs of users of general purpose financial reports in a manner that is cost-effective for preparers.

The ISSB proposes:

- to revise the Electric Utilities & Power Generators industry description;
- to revise activity metric IF-EU-000.D and to add two activity metrics relating to workforce composition;
- to revise the Greenhouse Gas Emissions & Energy Resource Planning disclosure topic and associated metrics, remove metric IF-EU-110a.3 and add three new metrics:
    - IF-EU-110a.4 *Installed capacity, disaggregated by (1) major energy source and (2) energy storage*;
    - IF-EU-110a.5 *Planned capacity, disaggregated by (1) major energy source and (2) energy storage*; and
    - IF-EU-110a.6 *Description of how climate-related transition risks and opportunities influence capital strategy and investments*;
- to revise the Air Quality disclosure topic and associated metric;
- to revise the Water Management disclosure topic and associated metrics, remove metric IF-EU-140a.2 and add new metric IF-EU-140a.4 *Total water discharged by (1) destination and (2) level of treatment*;
- to revise the Coal Ash Management disclosure topic, including changing the disclosure topic name

to Hazardous Waste Management, remove metrics IF-EU-150a.1 and IF-EU-150a.3 and add three metrics:

  - IF-EU-150a.4 *(1) Hazardous waste generated, (2) hazardous waste stored and (3) hazardous waste recycled*;
  - IF-EU-150a.5 *Number of significant incidents associated with hazardous waste management*; and
  - IF-EU-150a.6 *Hazardous waste management policies and procedures for active and inactive operations*;

- to add an Ecological Impacts disclosure topic and three associated metrics:
  - IF-EU-160a.1 *(1) Total spatial footprint of operations, (2) area disturbed and (3) area restored*;
  - IF-EU-160a.2 *Percentage of the total spatial footprint of operations in or near environmentally sensitive locations*; and
  - IF-EU-160a.3 *Description of environmental management policies and practices for operational facilities*;

- to add a Community Relations & Rights of Indigenous Peoples disclosure topic and four associated metrics:
  - IF-EU-210a.1 *Processes used to manage risks and opportunities associated with community rights and interests*;
  - IF-EU-210a.2 *(1) Number of non-technical delays and (2) the total days idle*;
  - IF-EU-210a.3 *Percentage of operations in or near Indigenous Peoples' land*; and
  - IF-EU-210a.4 *Description of engagement processes and due diligence practices related to upholding Indigenous Peoples' rights*;

- to revise the Energy Affordability disclosure topic, remove metrics IF-EU-240a.1, IF-EU-240a.3 and IF-EU-240a.4 and add two new metrics:
  - IF-EU-240a.5 *Description of energy affordability-related risks and opportunities and strategies to manage them*; and
  - IF-EU-240a.6 *(1) Number of active participants and (2) number of eligible participants in energy affordability-related actions or programmes, disaggregated by (a) residential, (b) commercial and (c) industrial participants*;

- to revise the Workforce Health & Safety disclosure topic and associated metric and add metric IF-EU-320a.2 *Description of management systems used to foster a safe working environment*;

- to add an Employee Recruitment, Development & Retention disclosure topic and two associated metrics:
  - IF-EU-330a.1 *Description of employee recruitment, development and retention-related risks and opportunities and strategies to manage them*; and
  - IF-EU-330a.2 *(1) Voluntary and (2) involuntary employee turnover rate for: (a) all employees and (b) occupational categories with a significant skill shortage*;

- to revise the End Use Efficiency & Demand disclosure topic, including changing the disclosure topic name to Demand-side Management, remove metrics IF-EU-420a.2 and IF-EU-420a.3 and

add three metrics:

  - IF-EU-420a.4 *Description of demand-side management-related risks and opportunities and strategies to manage them, including any targets set to monitor progress*;
  - IF-EU-420a.5 *(1) Number of active participants and (2) number of eligible participants in demand-side management-related actions or programmes, disaggregated by (a) residential, (b) commercial and (c) industrial participants*; and
  - IF-EU-420a.6 *Peak demand savings from demand-side management strategies*;

- to add a Supply Chain Management disclosure topic and two associated metrics:
  - IF-EU-430a.1 *Description of the process to manage supply chain risks arising from sustainability-related issues*; and
  - IF-EU-430a.2 *Percentage of high-risk suppliers subject to an independent third-party audit or verification in the previous three years, with description of non-conformances and corrective actions*;

- to revise the Nuclear Safety & Emergency Management disclosure topic and associated metric, including changing the disclosure topic name to Critical Incident Risk Management, remove metric IF-EU-540a.2 and add metric IF-EU-540a.3 *Description of management systems used to identify and mitigate serious accidents*;

- to revise the Grid Resiliency disclosure topic and associated metrics, including changing the disclosure topic name to Operational Resilience & System Reliability, and add three metrics:
  - IF-EU-550a.3 *Average availability factor for generation assets*;
  - IF-EU-550a.4 *Amount and percentage of assets vulnerable to climate-related physical risks, disaggregated by industry asset type and climate-related physical risk*; and
  - IF-EU-550a.5 *Description of strategies to manage operational resilience and system reliability-related risks and opportunities, including any targets set to monitor progress*.

Paragraphs BC132—BC187 of the Basis for Conclusions set out the ISSB's reasoning for these proposals.

(a) Do you agree with the proposed Electric Utilities & Power Generators industry description? Does it accurately describe the business activities of entities in this industry? Do you agree with the scope of activities included in the industry classification? Why or why not?

(b) Do you agree that the proposed disclosure topics in the *Electric Utilities & Power Generators* SASB Standard accurately identify the sustainability-related risks and opportunities that could reasonably be expected to affect the prospects of entities in this industry? If not, what revisions would you suggest and why?

(c) Do you agree that the proposed metrics and technical protocols in the *Electric Utilities & Power Generators* SASB Standard would help an entity provide primary users with decision-useful information about sustainability-related risks and opportunities? If not, what revisions would you suggest and why?

(d) Do you agree that the proposals would improve the international applicability of the *Electric Utilities & Power Generators* SASB Standard and would lead to the disclosure of useful information from entities in the industry regardless of their jurisdiction? Why or why not?

(e) Do you agree that the proposed amendments would enhance the *Electric Utilities & Power Generators* SASB Standard's interoperability and alignment with other sustainability-related standards or frameworks? Why or why not? (Note that the ISSB is focused on providing material information for investors about the effects of sustainability-related risks and opportunities on an entity's prospects.)

Question 4—Consequential amendments to the IFRS S2 industry-based guidance

The ISSB proposes to make consequential amendments to the IFRS S2 industry-based guidance when it makes amendments to the SASB Standards to maintain alignment between the IFRS S2 industry-based guidance and the climate-related content in the SASB Standards.

Paragraphs BC188—BC189 of the Basis for Conclusions describe the reasons for this proposal.

Do you agree that the ISSB should make consequential amendments to the IFRS S2 industry-based guidance when it makes amendments to the SASB Standards as set out in this Exposure Draft? Why or why not?

Question 5—Effective date

The ISSB proposes to set an effective date for the amendments that will occur between [12 and 18 months] after their issuance and to permit early application.

Paragraph BC190 of the Basis for Conclusions describe the reasons for this proposal.

Do you agree with the proposed approach for setting the effective date of the amendments and permitting early application? Why or why not?

Questions for respondents who did not respond to the July 2025 exposure draft

Question 6—Objective

The ISSB is proposing to amend the SASB Standards with the objective of providing timely support to entities applying IFRS S1 and IFRS S2. The proposed amendments have been drafted under the assumption that an entity would apply the SASB Standards alongside IFRS Sustainability Disclosure Standards. This assumption allows the SASB Standards to remain targeted and proportionate while avoiding unnecessary duplication of requirements already included in IFRS S1 and IFRS S2. The proposed amendments aim:

- to further enhance the international applicability of:
    - industry groupings, including to reflect value chains in emerging markets and developing economies;
    - disclosure topics in those industry groupings; and
    - metrics and supporting technical protocols;
- to improve interoperability with other sustainability-related standards and frameworks, while ensuring continued focus on the needs of investors in order to serve as a global baseline of sustainability-related disclosures to meet the needs of capital markets;
- to amend the disclosure topics and metrics in the SASB Standards related to BEES and human capital, to align the SASB enhancements with the ISSB's projects on those topics and to enable feedback on this Exposure Draft to provide input to those projects;
- to align the language and concepts in the SASB Standards with IFRS Sustainability Disclosure Standards; and
- enhance the SASB Standards' clarity, conciseness and cost-effectiveness for preparers.

(a) Do you agree with the objective of the proposed amendments to the SASB Standards and related areas of focus?

(b) Do the proposed amendments meet this objective? Why or why not?

Question 7—Enhancements to interoperability with other standards and frameworks

In considering necessary amendments to the SASB Standards, the ISSB has identified possible amendments that would enhance the interoperability and alignment of the SASB Standards with other sustainability-related standards and frameworks, such as those of the Global Reporting Initiative (GRI), European Sustainability Reporting Standards, and the guidance published by the Taskforce on Nature-related Financial Disclosures (TNFD).

Paragraphs BC24–BC32 of the Basis for Conclusions explain the approach taken to improving interoperability and alignment with other sustainability-related standards and frameworks. Appendix A of the Basis for Conclusions provides a list of some of the proposed amendments that would enhance interoperability with the GRI Standards and alignment with TNFD disclosure recommendations, while maintaining a focus on the needs of primary users of general purpose financial reports.

(a) Do you agree with the proposed approach to enhancing interoperability and alignment with other sustainability-related standards and frameworks? Why or why not?

(b) Do you agree that the proposed amendments to the three priority industries and targeted amendments to other SASB Standards will result in improved interoperability and thus achieve the objectives of improving the decision-usefulness of disclosed information for primary users and cost-effectiveness for preparers? Why or why not?

(c) Could the interoperability and alignment of any disclosure topics or metrics be further enhanced while achieving the objectives of improving the decision-usefulness and cost-effectiveness of the information? What amendments would you propose and why?

Question 8—Amendments to the climate-related content in the SASB Standards

The ISSB is proposing to enhance the three prioritised industries comprehensively, including the climate-related content in the priority industries. The proposed amendments are intended to assist preparers in identifying climate-related risks and opportunities and to enhance the decision-usefulness of industry-specific information about these risks and opportunities.

(a) Do you agree that the ISSB should amend the climate-related content in the SASB Standards for the prioritised industries as proposed in this Exposure Draft? Why or why not?

(b) Do you agree that the proposed amendments would enhance the decision-usefulness of the industry-specific information about climate-related risks and opportunities? Why or why not?

(c) Do you agree that the proposed amendments would further clarify how the climate-related content in the SASB Standards and the IFRS S2 industry-based guidance relates to the requirements in IFRS S2?

Question 9—Information related to biodiversity, ecosystems and ecosystem services and human capital

The ISSB proposes to amend disclosure topics and metrics in the SASB Standards related to BEES and human capital. The ISSB is pursuing projects on BEES and human capital.

The ISSB seeks to understand the extent to which the SASB Standards, and the proposed amendments, meet user needs for information on risks and opportunities related to BEES and human capital.

(a) Do the SASB Standards, including the proposed amendments, enable entities to provide decision-useful information about their BEES-related risks and opportunities to users of general purpose financial reports? Why or why not?

(b) In the three industries that the ISSB has prioritised for enhancement in this Exposure Draft, are there other BEES-related disclosures not addressed through the proposed amendments that would be useful for users of general purposes financial reports in their decision-making? If so, please explain which disclosures and why.

(c) Do the SASB Standards, including the proposed amendments, enable entities to provide decision-useful information about their human capital-related risks and opportunities to users of general purpose financial reports? Why or why not?

(d) In the three industries that the ISSB has prioritised for enhancement in this Exposure Draft, are there other human capital-related disclosures not addressed through the proposed amendments that would be useful for users of general purposes financial reports in their decision-making? If so, please explain which disclosures and why.

Proposed amendments to FB-AG SASB Standard

Industry Description

Entities in the ~~The~~ Agricultural Products industry produce, trade, process and distribute ~~is engaged in processing, trading and distributing~~ vegetables~~,~~ ~~and~~ fruits, seeds, tea leaves and ~~producing and milling~~ agricultural commodities such as coffee beans, ~~grains,~~ sugar, consumable oils, maize, rice and soybeans ~~and animal feed~~. Entities in this industry supply ~~sell~~ products ~~directly~~ to both consumers and businesses for use in consumer goods and industrial applications ~~products~~. Entities may engage in direct crop production, act as intermediaries between farmers, processors, retailers and restaurants, or operate across multiple stages of the food value chain. Typically, they ~~in the industry typically~~ purchase agricultural products~~—from entities that grow such products (either~~ directly or indirectly—from third-party growers around the world and perform~~) to then conduct~~ value-adding activities such as ~~(for example,~~ processing, milling, trading, distributing and wholesaling.~~). Agricultural products entities also are involved in wholesale and distribution. Entities in the industry may source a substantial portion of agricultural commodities from third-party growers in various countries. Therefore, managing sustainability risks within the supply chain is critical to securing a reliable raw materials supply and reducing the risk of price increases and volatility over the long term.~~

SUSTAINABILITY DISCLOSURE TOPICS & METRICS

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

TOPIC	METRIC	~~CATEGORY~~	UNIT OF MEASURE	CODE
Greenhouse Gas Emissions	(1) Gross ~~global~~ Scope 1 emissions and (2) percentage subject to emissions-limiting regulations	~~Quantitative~~	Metric tonnes (t) CO_2-e, Percentage (%)	FB-AG-110a.1
	Description of Scope 1 greenhouse gas emissions targets ~~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	FB-AG-110a.2
	(1) Total fleet ~~Fleet~~ fuel consumed and (2)~~, percentage~~ renewable fuel consumed	~~Quantitative~~	Gigajoules (GJ)~~, Percentage (%)~~	FB-AG-110a.3
Energy Management	(1) Total ~~Operational~~ energy consumed, (2) purchased electricity consumed ~~percentage grid electricity~~ and (3) ~~percentage~~ renewable electricity consumed from (a) self-generation and (b) direct contracts	~~Quantitative~~	Gigajoules (GJ)~~, Percentage (%)~~	FB-AG-130a.1
Water Management	(1) Total water withdrawal, by source, ~~withdrawn,~~ (2) total water consumed; (3) percentages of water (a) withdrawn and (b) consumed from water-stressed locations ~~percentage of each in regions with High or Extremely High Baseline Water Stress~~	~~Quantitative~~	Megalitres (ML), ~~Thousand cubic metres (m³),~~ Percentage (%)	FB-AG-140a.1
	Description of water-related ~~management~~ risks and opportunities and ~~discussion of~~ strategies ~~and practices~~ to manage them, including any targets set to monitor progress ~~mitigate those risks~~	~~Discussion and Analysis~~	n/a	FB-AG-140a.2
	~~Number of incidents of non-compliance associated with water quality permits, standards and regulations~~	~~Quantitative~~	~~Number~~	~~FB-AG-140a.3~~
	Total water discharged by (1) destination and (2) level of treatment		Megalitres (ML)	FB-AG-140a.4
Food Loss & Food Waste	(1) Total food loss generated, (2) quantity diverted		Metric tonnes (t)	FB-AG-150a.1
	Description of strategies to address opportunities related to food loss and food waste throughout the value chain		n/a	FB-AG-150a.2
Land Use & Ecological Impacts	(1) Total spatial footprint of operations, (2) area disturbed and (3) area restored		Square kilometres (km²)	FB-AG-160a.1
	Percentage of the total spatial footprint of operations in or near environmentally sensitive locations		Percentage (%)	FB-AG-160a.2

TOPIC	METRIC	~~CATEGORY~~	UNIT OF MEASURE	CODE
	Total area of land that is sustainably managed, by product		Square kilometres (km²)	FB-AG-160a.3
	Percentages of agricultural products produced from direct farming operations determined to be deforestation- or conversion-free, including any targets set to monitor progress		Percentage, by weight	FB-AG-160a.4
	Priority products from direct farming operations that are sensitive to nature- and climate-related physical risks		n/a	FB-AG-160a.5
	Description of strategies to manage environmental resources and implement sustainable agriculture practices in direct farming operations		n/a	FB-AG-160a.6
Food Safety	~~Global Food Safety Initiative (GFSI) audit (1) non-conformance rates and (2) associated corrective action rates for (a) major and (b) minor non-conformances~~	~~Quantitative~~	~~Rate~~	~~FB-AG-250a.1~~
	~~Percentage of agricultural products sourced from suppliers certified to a Global Food Safety Initiative (GFSI) recognised food safety certification programme~~	~~Quantitative~~	~~Percentage (%) by cost~~	~~FB-AG-250a.2~~
	(1) Description ~~Number~~ of recalls issued for food safety reasons and (2) total weight ~~amount~~ of products ~~food product~~ recalled[1]	~~Quantitative~~	~~Number,~~ Metric tonnes (t)	FB-AG-250a.3
	Percentage of production volume from sites certified to internationally recognised food safety standards for (1) own operations and (2) intermediaries		Percentage (%) by weight	FB-AG-250a.4
	Processes, controls and procedures to ensure food safety throughout the value chain		n/a	FB-AG-250a.5
Labour Conditions	Processes, controls and procedures to manage labour conditions, including forced labour and child labour, in direct operations		n/a	FB-AG-310a.1
Workforce Health & Safety	(1) Number of fatalities and (2) total ~~Total~~ recordable incident rate ~~(TRIR), (2) fatality rate, and (3) near miss frequency rate (NMFR)~~ for (a) ~~direct~~ employees and (b) non-employee workers ~~contract employees~~	~~Quantitative~~	Number, Rate	FB-AG-320a.1
~~Environmental & Social Impacts of~~	~~(1) Percentage of agricultural products sourced that are certified to a third-party environmental or social~~	~~Quantitative~~	~~Percentage (%) by cost~~	~~FB-AG-430a.1~~

~~[1] Note to **FB-AG-250a.3** – The disclosure shall include a description of notable recalls, such as those that affected a significant amount of product or those related to serious illnesses or fatalities.~~

TOPIC	METRIC	~~CATEGORY~~	UNIT OF MEASURE	CODE
~~Ingredient Supply Chain~~	~~standard, and (2) percentages by standard~~			
	~~Suppliers' social and environmental responsibility audit (1) non-conformance rate and (2) associated corrective action rate for (a) major and (b) minor non-conformances~~	~~Quantitative~~	~~Rate~~	~~FB-AG-430a.2~~
	~~Discussion of strategy to manage environmental and social risks arising from contract growing and commodity sourcing~~	~~Discussion and Analysis~~	~~n/a~~	~~FB-AG-430a.3~~
~~GMO Management~~	~~Discussion of strategies to manage the use of genetically modified organisms (GMOs)~~	~~Discussion and Analysis~~	~~n/a~~	~~FB-AG-430b.1~~
Environmental Supply Chain Management	Percentages of sourced agricultural products determined to be deforestation- or conversion-free, including any targets set to monitor progress		Percentage, by weight	FB-AG-430c.1
	Priority sourced agricultural products that are sensitive to nature- and climate-related physical risks in the supply chain		n/a	FB-AG-430c.2
	Description of strategies to manage environmental resources and implement sustainable agriculture practices in the supply chain		n/a	FB-AG-430c.3
Social Supply Chain Management	Processes, controls and procedures for managing labour conditions and impacts on local communities in the supply chain, including human rights due diligence		n/a	FB-AG-430d.1
	Percentages of sourced agricultural products certified to internationally recognised standards that trace the path of products through the supply chain		Percentage (%) by weight	FB-AG-430d.2
	Percentage of high-risk suppliers subject to an independent third-party audit or verification in the previous three years, with description of non-conformances and corrective actions		Percentage (%)	FB-AG-430d.3
~~Ingredient Sourcing~~	~~Identification of principal crops and description of risks and opportunities presented by climate change~~	~~Discussion and Analysis~~	~~n/a~~	~~FB-AG-440a.1~~
	~~Percentage of agricultural products sourced from regions with High or Extremely High Baseline Water Stress~~	~~Quantitative~~	~~Percentage (%) by cost~~	~~FB-AG-440a.2~~

Table 2. ***Activity Metrics***

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Agricultural products (a) produced from direct farming operations and (b) sourced from third parties, by priority product ~~Production by principal crop~~[1][2]	Quantitative	Metric tonnes (t)	FB-AG-000.A
Number of processing facilities[3]	Quantitative	Number	FB-AG-000.B
~~Total land area under active production~~	~~Quantitative~~	~~Hectares~~	~~FB-AG-000.C~~
~~Cost of agricultural products sourced externally~~[4]	~~Quantitative~~	~~Presentation currency~~	~~FB-AG-000.D~~
Total number of (1) employees and (2) non-employee workers		Number	FB-AG-000.E
Total hours worked disaggregated by (1) employees and (2) non-employee workers		Hours	FB-AG-000.F

[1] Note to **FB-AG-000.A** – Priority products ~~Principal crops~~ are products ~~crops~~ that constitute the largest sources of the entity's revenue or products identified by the entity as essential to its business model ~~accounted for 10% or more of consolidated revenue in any of the last three fiscal years~~.

[3] Note to **FB-AG-000.B** – Processing facilities include facilities that are involved in the manufacturing, processing, packing or holding of agricultural products, and exclude administrative offices.

[4] ~~Note to **FB-AG-000.D** – Agricultural products are defined as food, feed and biofuel ingredients sourced for use in the entity's operations. The scope of agricultural products sourced externally excludes agricultural products grown on land owned or operated by the entity~~.

Greenhouse Gas Emissions

Topic Summary

Entities in the Agricultural Products industry generate direct greenhouse gas ~~(GHG)~~ emissions from soil-management practices (such as fertiliser application), land-use change (including deforestation and land conversion), processing, and transporting goods by ~~via~~ land and sea ~~freight operations~~. Emissions regulations may increase the cost of capital and operational costs and affect the operational efficiency of entities without strategies to manage greenhouse gas ~~GHG~~ emissions. To mitigate these risks, entities can adopt ~~Employing~~ innovative technologies that improve fuel efficiency, utilise alternative energy sources, ~~use alternative fuels and energy inputs~~ including biomass waste generated from internal processes, and can apply other innovative farming techniques such as low-carbon fertilisers, crop rotation and cover crops. These approaches can help reduce ~~and improving fuel efficiency are ways entities can limit~~ exposure to volatile fuel prices ~~pricing~~, supply disruptions, future regulatory costs and other potential consequences of greenhouse gas ~~GHG~~ emissions.

Metrics

FB-AG-110a.1. (1) Gross ~~global~~ Scope 1 emissions and (2) percentage subject to emissions-limiting regulations

1 An ~~The~~ entity shall disclose (1) its gross ~~global~~ Scope 1 greenhouse gas ~~(GHG)~~ emissions in metric tonnes of carbon dioxide equivalents (CO_2-e). ~~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 In preparing this disclosure, the entity shall apply the measurement and disclosure requirements in paragraph 29(a) of IFRS S2 that are applicable to Scope 1 greenhouse gas emissions.

~~Emissions of all GHGs shall be consolidated and disclosed in metric tonnes of carbon dioxide equivalents (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 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 may include:~~

~~2.1.1 *GHG Reporting Guidance for the Aerospace Industry* published by the International Aerospace Environmental Group (IAEG)~~

~~2.1.2 *Greenhouse Gas Inventory Guidance: Direct Emissions from Stationary Combustion Sources* published by the US 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 generally is 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 and social information*.~~

2 An entity shall disclose (2) the percentage of its gross Scope 1 greenhouse gas emissions subject to applicable jurisdictional greenhouse gas laws, regulations or programmes intended to limit or reduce greenhouse gas emissions directly, such as cap-and-trade schemes, carbon tax or fee systems, and other emissions control (for example, command-and-control approach) and permit-based mechanisms.

2.1 The percentage shall be calculated as the total quantity of gross Scope 1 greenhouse gas emissions subject to greenhouse gas emissions-limiting laws, regulations or programmes divided by the total quantity of gross Scope 1 greenhouse gas emissions.

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

2.2 The scope of applicable jurisdictional greenhouse gas emissions-limiting laws, regulations or programmes excludes emissions only subject to voluntary emissions-limiting frameworks (for example, voluntary trading systems), as well as reporting-based regulations.

~~3 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.~~

~~4 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.~~

~~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.~~

FB-AG-110a.2. Description of Scope 1 greenhouse gas emissions targets ~~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 An ~~The~~ entity shall disclose: ~~discuss its long- and short-term strategy or plan to manage its Scope 1 greenhouse gas (GHG) emissions.~~

1.1 the qualitative and quantitative Scope 1 greenhouse gas emissions targets it has set for itself, and any targets it is required to meet by law or regulation;

~~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 information about its approach to setting and reviewing each target and how it monitors progress towards them; and

~~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).~~

1.3 information about its performance towards each target and an analysis of trends or changes in the entity's performance.

2 In preparing this disclosure, the entity shall apply the requirements in paragraphs 33–36 of IFRS S2 which relate to Scope 1 greenhouse gas emissions.

~~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.~~

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

~~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.~~

FB-AG-110a.3. (1) Total fleet ~~Fleet~~ fuel consumed and (2), ~~percentage~~ renewable fuel consumed

1 An ~~The~~ entity shall disclose (1) the total quantity ~~amount~~ of fuel consumed by its fleet vehicles ~~as an aggregate figure~~, in gigajoules (GJ).

1.1 The calculation method ~~methodology~~ for fuel consumed is ~~shall be~~ based on actual fuel consumed as opposed to design parameters.

1.2 The entity can calculate ~~Acceptable calculation methodologies for~~ fuel consumed by: ~~may include methodologies based on:~~

1.2.1 adding ~~Adding~~ fuel purchases made during the reporting period to beginning inventory at the start of the reporting period, and deducting ~~less~~ any fuel inventory at the end of the reporting period;

1.2.2 tracking ~~Tracking~~ fuel consumed by vehicles; or

1.2.3 tracking ~~Tracking~~ fuel expenses.

2 An ~~The~~ entity shall disclose (2) the quantity ~~percentage of the total amount~~ of renewable fuel consumed (in GJ) by its fleet vehicles included in the quantity disclosed as total fuel consumed. ~~that is renewable fuel.~~

2.1 Renewable fuel ~~generally~~ is defined as fuel derived from biomass. ~~that meets all the following requirements:~~

~~2.1.1 Produced from renewable biomass~~

~~2.1.2 Used to replace or reduce the quantity of fossil fuel present in a transportation fuel, heating oil or jet fuel~~

~~2.1.3 Achieved net greenhouse gas (GHG) emissions reduction on a life cycle basis.~~

2.2 The entity shall disclose the third-party standard or jurisdictional requirement ~~Standard or regulation~~ used to determine if a fuel is renewable for the purposes of this disclosure.

3 An entity shall include ~~The scope of disclosure includes~~ fuel consumed by vehicles it owns or operates. ~~owned or operated by the entity.~~

4 An entity shall exclude ~~The scope of disclosure excludes~~ fuel consumed in the transportation of the entity's products by third parties.

Energy Management

Topic Summary

Processing and milling agricultural products require substantial energy input. While some agricultural products entities generate energy on-site through the direct combustion of fossil fuels or biomass, most energy is procured from the electrical grid. Energy consumption contributes to environmental impacts, including climate change and pollution. Energy management affects current and future costs of operation. Climate regulation and other sustainability factors could result in higher or more volatile electricity and fuel prices, increasing operating costs for agricultural products entities. Therefore, energy efficiency gained through process improvements can lower operating costs. The trade-off between on-site versus grid-sourced electricity as well as the use of alternative energy can play important roles in influencing both the long-term cost and reliability of an entity's energy supply and the extent of regulatory ~~impact~~ risk from direct versus indirect emissions.

Metrics

FB-AG-130a.1. (1) Total ~~Operational~~ energy consumed, (2) purchased electricity consumed ~~percentage grid electricity~~ and (3) ~~percentage~~ renewable electricity consumed from (a) self-generation and (b) direct contracts

1 An ~~The~~ entity shall disclose (1) the total quantity ~~amount~~ of energy it consumed ~~(excluding fleet vehicles) as an aggregate figure,~~ in gigajoules (GJ).

1.1 Total ~~The scope of~~ energy consumed ~~consumption excludes fuel consumed by fleet vehicles, but~~ includes all forms of energy used by the entity ~~from all other sources~~, including fuel, electricity, heating, cooling and steam. ~~energy purchased from external sources and energy produced by the entity itself (self-generated). For example, purchased electricity, heating, cooling and steam energy all are included within the scope of energy consumption.~~

1.2 Total energy consumed includes purchased or acquired energy and self-generated energy used by the entity.

~~The scope of energy consumption includes only energy directly consumed by the entity during the reporting period.~~

1.2.1 Purchased and acquired energy is energy that is purchased or otherwise brought into the entity's boundary.

1.2.2 Purchased energy includes energy from owned or operated generation facilities where energy attributes, such as certificates, have been sold or transferred.

1.2.3 Self-generated energy is generation owned or operated by the entity that consumes the energy.

1.2.4 In preparing this disclosure, the entity shall determine ownership or control using the same measurement approach that it uses to determine greenhouse gas emissions.

1.2.5 Total energy consumed excludes any energy the entity generates using fuel it has already consumed—that is, self-generated electricity consumed from fuel is counted only once as fuel consumed. For example, if the entity has a co-generator that uses fuel to produce electricity and then consumes the generated electricity, that energy would be counted only once as fuel consumed.

1.2.6 If the entity stores any energy, that energy is counted only once when the entity has consumed the energy and it is no longer stored.

1.3 An ~~In calculating energy consumption from fuels and biofuels, the~~ entity shall use lower ~~higher~~ heating values (LHV), ~~(HHV),~~ also known as net ~~gross~~ calorific values, to calculate energy consumed from fuels and biofuels. The entity shall measure these values directly ~~(GCV), which are measured directly~~ or use the default net calorific values in the 2006 IPCC *Guidelines for National Greenhouse Gas Inventories* (Table 1.2 Default Net Calorific Values (NCVs) and Lower and Upper Limit of the 95% Confidence Intervals, Volume 2: Energy, Chapter 1). ~~taken from the Intergovernmental Panel on Climate Change (IPCC).~~

1.3.1 The requirement to use such heating values applies unless the entity is required, in whole or in part, by a jurisdictional authority or an exchange on which it is listed to use different heating values for converting fuels into GJ. In such a case, the entity is permitted to instead use the heating values required by such a jurisdictional authority or exchange for the part of the entity to which that requirement applies, for as long as that requirement applies to that part of the entity.

1.3.2 If the entity uses heating values other than LHV for converting fuels into GJ, the entity shall disclose information about the heating values used.

2 An ~~The~~ entity shall disclose (2) the quantity ~~percentage~~ of purchased or acquired electricity ~~energy~~ it consumed (in GJ) ~~(excluding fleet vehicles)~~ included in the quantity disclosed as total energy consumed. ~~that was supplied from grid electricity.~~

2.1 Purchased electricity includes electricity, heating, cooling or steam.

~~The percentage shall be calculated as purchased grid electricity consumption divided by total energy consumption.~~

3 An ~~The~~ entity shall disclose ~~(3)~~ the quantity of electricity from renewable ~~percentage of~~ energy sources it consumed (in GJ), disaggregated between (3a) self-generation and (3b) direct contracts. ~~(excluding fleet vehicles) that was renewable energy.~~

3.1 Renewable energy sources are ~~is~~ defined as sources capable of being replenished in a short time through ecological cycles or agricultural processes, ~~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 Renewable electricity includes electricity, heating, cooling or steam.

~~The percentage shall be calculated as renewable energy consumption divided by total energy consumption.~~

3.3 Renewable electricity from self-generation is limited to that consumed from owned or operated equipment, where the electricity is produced and consumed by the same entity.

~~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 programme, 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 shall be retained (not sold) and retired or cancelled on behalf of the entity for the entity to claim them as renewable energy.~~

~~3.3.2 For renewable PPAs and green power products, the agreement shall explicitly include and convey that RECs and GOs be retained or replaced and retired or cancelled on behalf of the entity 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, renewable electricity from self-generation excludes electricity associated with contractual instruments entered into by the entity if the contractual instrument has been sold by the entity.

~~For the purposes of this disclosure, the scope of renewable energy from biomass sources is limited to materials certified to a third-party standard (for example, 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 or materials eligible for an applicable jurisdictional renewable portfolio standard.~~

3.4 Direct contracts include renewable electricity consumed that comes from a direct line transfer, such as when electricity production is fed directly and exclusively to a single entity. Direct contracts also include renewable electricity consumed related to contracts where the entity has negotiated with a specific electricity generator to supply renewable electricity to the entity with no grid transfers.

3.5 If the entity purchases or acquires renewable electricity through other contractual instruments, the entity shall provide information about any of these instruments that is necessary to inform the understanding of users of general purpose financial reports of the procurement decisions made by the entity regarding various energy sources to manage energy consumption-related risks and opportunities, including those associated with Scope 2 emissions.

3.5.1 If the entity purchases renewable electricity through a contractual instrument, the entity shall apply the Scope 2 Quality Criteria as defined in the Greenhouse Gas Protocol's *GHG Protocol Scope 2 Guidance: An amendment to the GHG Protocol Corporate Standard* (2015).

3.6 If the entity consumes renewable electricity from biomass sources, it shall disclose the quantity (in GJ) separately.

3.6.1 Renewable electricity from biomass sources includes only materials certified to a third-party standard.

3.7.2 An entity shall disclose the third-party standard to which the materials are certified.

~~4 The entity shall apply conversion factors consistently for all data reported under this disclosure, such as the use of HHVs for fuel use (including biofuels) and conversion of kilowatt hours (kWh) to GJ (for energy data including electricity from solar or wind energy).~~

Water Management

Topic Summary

The Agricultural Products industry relies on water for farming and processing activities. Entities~~, and entities~~ in the industry also typically generate wastewater or effluents ~~effluent~~. The industry's ability to operate farms or run processing facilities efficiently depends on water availability, which can be restricted by ~~of water, because of~~ physical availability or regulatory access~~, directly impacts the industry's ability to operate processing facilities efficiently~~. Entities in the industry increasingly are exposed to water-related physical and regulatory risks ~~and regulations~~, which may increase capital expenditures, ~~expenditure costs,~~ operating costs, remediation costs or potential fines. Entities can manage water-related risks and opportunities and mitigate long-term costs through capital investments and assessment of facility or farming locations relative to water scarcity risks, improvements to operational efficiency, and work with regulators and communities on issues related to water access and effluents discharge ~~effluent~~.

A separate disclosure ~~supply chain oriented~~ topic, Environmental Supply Chain Management ~~Ingredient Sourcing~~, addresses the risks related to crop production in the supply chain driven by water availability and access.

Metrics

FB-AG-140a.1. (1) Total water withdrawal, by source, ~~withdrawn,~~ (2) total water consumed; (3) percentages of water (a) withdrawn and (b) consumed from water-stressed locations ~~percentage of each in regions with High or Extremely High Baseline Water Stress~~

1 An ~~The~~ entity shall disclose (1) the quantity ~~amount~~ of water, in megalitres, ~~thousands of cubic metres,~~ withdrawn from all sources, disaggregated by source.

1.1 Water withdrawal is defined as the sum of all water drawn from ~~Water sources include~~ surface water ~~(including water from wetlands, rivers, lakes and oceans)~~, groundwater, seawater, produced water, or a third party for any use during the reporting period. ~~rainwater collected directly and stored by the entity, and water and wastewater obtained from municipal water supplies, water utilities or other entities.~~

1.2 Water sources include:

1.2.1 surface water, defined as water that occurs naturally on the Earth's surface in ice sheets, ice caps, glaciers, bogs, ponds, lakes, rivers and streams;

1.2.2 groundwater, defined as water held in and recoverable from an underground formation;

1.2.3 seawater, defined as water in a sea or ocean;

1.2.4 produced water, defined as water that enters an entity's boundary by extraction (for example, crude oil), processing (for example, sugar cane processing), or by use of any raw material, and which must be managed by the entity; and

1.2.5 third-party water, defined as water supplied by municipal water suppliers, wastewater treatment plants, public or private utilities, and other organisations involved in the provision, transport, treatment, disposal, or use of water and effluent.

~~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. If no legal definition exists, fresh water shall be considered to be water that has less than 1,000 parts per million of dissolved solids.~~

~~2.2 Water obtained from a water utility in compliance with jurisdictional drinking water regulations can be assumed to meet the definition of fresh water.~~

2 ~~3~~ An ~~The~~ entity shall disclose (2) the volume ~~amount~~ of water, in megalitres, ~~thousands of cubic metres,~~ consumed in its direct operations.

2.1 ~~3.1~~ Water consumption is defined as~~:~~ the sum of all water withdrawn and integrated into products, used in the production of crops or generated as waste, that has evaporated, transpired, or been consumed by humans or livestock, or is polluted to the point of being unusable by other users, and is not discharged back to surface water, groundwater, seawater or a third party.

2.1.1 Water consumption includes water that has been stored during the reporting period for use or discharge in a subsequent reporting period.

~~3.1.1 Water that evaporates during withdrawal, use 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 analyse all its operations for water risks and identify activities that withdraw and consume water in locations with High (40–80%) or Extremely High (>80%) Baseline Water Stress as classified by the World Resources Institute's (WRI) Water Risk Atlas tool, Aqueduct.~~

3 ~~5~~ An ~~The~~ entity shall disclose (3a) the volume of water withdrawn, in megalitres, from water-stressed ~~in~~ locations ~~with High or Extremely High Baseline Water Stress~~ as a percentage of the total water withdrawn.

3.1 Water stress is defined as the ability, or lack thereof, to meet human or ecological demand for water and can refer to the availability, quality or accessibility of water.

3.2 The entity shall disclose how it identifies water-stressed locations, for example:

3.2.1 using the World Resources Institute's *Aqueduct Water Risk Atlas* to evaluate whether the ratio of total annual water withdrawal to total available annual renewable water supply (baseline water stress) is high (40–80%) or extremely high (more than 80%); or

3.2.2 using the World Wildlife Fund's *Water Risk Filter* to evaluate whether the ratio of water consumption to water availability (water depletion) is moderate (dry-year depletion, where for at least 10% of the time, the monthly depletion ratio is more than 75%), high (seasonal depletion, where for at least an average of one month of the year, the depletion ratio is more than 75%), or very high (ongoing depletion, where the depletion ratio on average is more than 75%).

3.3 The entity shall disclose information about the internal assessments it uses to identify water-stressed locations, for example, whether the entity considers more granular local-level data.

4 ~~6~~ An ~~The~~ entity shall disclose (3b) the volume of water consumed from water stressed ~~in~~ locations ~~with High or Extremely High Baseline Water Stress~~ as a percentage of the total water consumed.

5 If information for this disclosure is estimated or modelled, rather than sourced from direct measurements, the entity shall explain its estimation methods.

FB-AG-140a.2. Description of water-related ~~management~~ risks and opportunities and ~~discussion of~~ strategies ~~and practices~~ to manage them, including any targets set to monitor progress ~~mitigate those risks~~

1 An ~~The~~ entity shall describe its ~~water management~~ risks associated with water withdrawals, water consumption and discharge of water or wastewater.

1.1 Risks associated with water withdrawals and water consumption include risks to the availability and quality of ~~adequate, clean~~ water resources, which include:

1.1.1 environmental ~~Environmental~~ constraints—such as operating in water-stressed regions, drought, floods, concerns of aquatic impingement or entrainment, interannual or seasonal variability, water quality that requires additional treatment at the point of input, and risks from the impact of climate change; and

1.1.2 regulatory ~~Regulatory~~ and financial constraints—such as water price volatility ~~in water costs~~, stakeholder perceptions and concerns related to water withdrawals (for example, those involving ~~from~~ local communities, non-governmental organisations and regulatory agencies), direct competition with ~~and impact from the actions of~~ other users (for example, commercial and municipal users), restrictions to withdrawals because of regulations, and constraints on the entity's ability to obtain and retain water rights or permits.

1.2 Risks associated with discharged ~~the discharge of~~ water or wastewater include the ability to obtain or retain rights or permits related to discharges, regulatory compliance ~~with regulations~~ related to discharges, restrictions on ~~to~~ discharges, ~~the ability to maintain control over the~~ temperature control of ~~water~~ discharges and risks stemming from impacts on local ecosystems and communities.~~, liabilities, reputational risks and increased operating costs because of regulation, stakeholder perceptions and concerns related to water discharges (for example, those from local communities, non-governmental organisations and regulatory agencies).~~

2 An ~~The~~ entity shall ~~may~~ describe how its water-related ~~management~~ risks vary by: ~~in the context of:~~

2.1 ~~How risks may vary by~~ withdrawal source; ~~, including 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~~

2.2 ~~How risks may vary by~~ discharge destinations, including surface water, groundwater, seawater or wastewater utilities; ~~.~~

2.3 local regulations, including emerging regulations; and

2.4 location of operating facilities.

3 An entity shall disclose the locations of operating facilities where water-related risks are concentrated.

~~The entity may discuss the potential effects that water management risks may have on its operations and the time line over which such risks are expected to manifest.~~

~~3.1 Effects include those associated with costs, revenue, liabilities, continuity of operations and reputation.~~

4 An entity shall disclose quantitative and qualitative information about how water-related risks and opportunities have affected, and are anticipated to affect, the entity's financial position, financial performance and cash flows both for the reporting period and over the short, medium and long term.

~~The entity shall discuss its short- and long-term strategies or plans to mitigate water management risks, which include:~~

~~4.1 The scope of its strategy, plans, goals or targets, such as how they relate to various business units, geographies or water-consuming operational processes.~~

~~4.2 Any water management goals or targets it has prioritised, and an analysis of performance against those goals or targets.~~

~~4.2.1 Goals and targets may include those associated with reducing water withdrawals, reducing water consumption, reducing water discharges, reducing aquatic impingements, improving the quality of water discharges and maintaining regulatory compliance.~~

~~4.3 The activities and investments required to achieve the plans, goals or targets, and any risks or limiting factors that might affect achievement of the plans or targets.~~

~~4.4 Disclosure of strategies, plans, goals or targets shall be limited to activities that were ongoing (active) or reached completion during the reporting period.~~

5 The entity shall disclose any targets it has set, and any targets it is required to meet by law or regulation, to mitigate or adapt to water-related risks or take advantage of water-related opportunities.

5.1 In preparing this disclosure, the entity shall apply the requirements in paragraphs 51-53 of IFRS S1 that are applicable to the entity's water related targets.

6 The entity shall disclose its strategies for managing water-related risks and opportunities, and achieving water-related targets, including:

~~5 For water management targets, the entity shall additionally disclose:~~

~~5.1 Whether the target is absolute or intensity-based, and the metric denominator if it is an intensity-based target.~~

~~5.2 The time lines for the water management plans, including the start year, the target year and the base year.~~

~~5.3 The mechanism(s) for achieving the target, including:~~

6.1 ~~5.3.1~~ efficiency ~~Efficiency~~ efforts (for example, using~~, such as the use of~~ water recycling or closed-loop systems);

6.2 ~~5.3.2~~ product ~~Product~~ innovations (for example,~~ such as~~ redesigning products or services to require less water);

6.3 ~~5.3.3~~ process ~~Process~~ and equipment innovations (for example, reducing ~~, such as those that enable the reduction of~~ aquatic impingements or entrainment); ~~entrainments~~

6.4 ~~5.3.4~~ use ~~Use~~ of tools and technologies (for example, the World Wildlife Fund Water Risk Filter~~, the Global Water Tool and Water Footprint Network Footprint Assessment Tool~~) to analyse water use, risks and opportunities; and

6.5 ~~5.3.5~~ collaborations ~~Collaborations~~ or programmes with communities ~~in place with the community~~ or other organisations.

~~5.4 The percentage reduction or improvement from the base year, in which the base year is the first year against which water management targets are evaluated towards the achievement of the target.~~

7 ~~6~~ An ~~The~~ entity shall disclose ~~discuss~~ whether its water management practices resulted ~~result~~ in any lifecycle impacts ~~additional life cycle effects~~ or trade-offs in its organisation, including trade-offs in land use, energy production and greenhouse gas (GHG) emissions, and why the entity chose these practices despite such ~~life cycle~~ trade-offs.

~~FB-AG-140a.3. Number of incidents of non-compliance associated with water quality permits, standards and regulations~~

~~1 The entity shall disclose the total number of incidents of non-compliance, including violations of a technology-based standard and exceedances of quantity or quality-based standards.~~

~~2 The scope of disclosure includes incidents governed by applicable jurisdictional statutory permits and regulations, which include the discharge of a hazardous substance, violation of pre-treatment requirements or total maximum daily load (TMDL) exceedances.~~

~~3 The scope of disclosure shall only include incidents of non-compliance that resulted in a formal enforcement action(s).~~

~~3.1 Formal enforcement actions are defined as governmental recognised actions that address a violation or threatened violation of water quantity or quality laws, regulations, policies or orders, and can result in administrative penalty orders, administrative orders and judicial actions, among others.~~

~~4 Violations shall be disclosed, regardless of their measurement methodology or frequency. These include violations for:~~

~~4.1 Continuous discharges, limitations, standards and prohibitions that are generally expressed as maximum daily, weekly and monthly averages; and~~

~~4.2 Non-continuous discharges or limitations that are generally expressed in terms of frequency, total mass, maximum rate of discharge and mass or concentration of specified pollutants.~~

FB-AG-140a.4. Total water discharged by (1) destination and (2) level of treatment

1 An entity shall disclose the (1) total volume of water discharged, in megalitres, disaggregated by destination.

1.1 Water discharge is defined as the sum of effluents, used water, and unused water released to surface water, groundwater, seawater or a third party, for which the organisation has no further use.

1.1.1 Surface water is defined as water that occurs naturally on the Earth's surface in ice sheets, ice caps, glaciers, bogs, ponds, lakes, rivers and streams.

1.1.2 Groundwater is defined as water held in and recoverable from an underground formation.

1.1.3 Seawater is defined as water in a sea or ocean.

1.1.4 Third-party water is defined as water discharged by municipal water suppliers and municipal wastewater treatment plants, public or private utilities, and other organisations involved in the provision, transport, treatment, disposal, or use of water and effluent.

1.2 The scope of disclosure includes water released into a receiving waterbody at either a defined discharge point (point-source discharge) or dispersed over land in an undefined manner (non-point-source discharge).

2 An entity shall disclose (2) the total volume of water discharged, in megalitres, disaggregated by level of treatment.

2.1 Water treatment is defined as the physical, chemical or biological processes that improve water quality by removing solids, pollutants, and organic matter from water and effluents.

2.2 Treatment levels include:

2.2.1 primary treatment, which aims to remove solid substances that settle or float on the water surface;

2.2.2 secondary treatment, which aims to remove substances and materials that have remained in the water, or are dissolved or suspended in it; and

2.2.3 tertiary treatment, which aims to upgrade water to a higher level or quality before it is discharged, for example, removing heavy metals, nitrogen, and phosphorus.

2.3 If the entity discharges water that it determines does not require treatment, it shall disclose the associated volume in megalitres.

2.4 The level of treatment shall be reported for any water or effluents at the point of discharge, whether treated by the entity on-site or sent to a third party for treatment.

2.5 The entity shall disclose how it determines the appropriate level of treatment for water discharges.

~~2.2 If the entity is unable to identify or collect data pertaining to all Tier 1 suppliers, the entity shall disclose the percentage of agricultural products for which the source region and water risks are unknown.~~

~~3 If information for these disclosures is estimated or modelled, rather than sourced from direct measurements, the entity shall explain its estimation methods.~~

Food Loss & Food Waste

Topic Summary

Food loss and food waste directly affect global food security and the operational efficiency and climate-related risks and opportunities of entities in the Agricultural Products industry. Food can be lost during harvesting, storage, transport, or processing. Food waste can happen because of spoilage, aesthetics or mislabelling, usually at the retail or consumer level. Entities that address food loss and food waste can access opportunities to improve operational efficiency, reduce costs, increase brand value and innovate, gaining competitive advantage. Entities manage food loss by upcycling, repurposing the material for animal feed or fertiliser production, or redistributing the products into the value chain. Developing a clear strategy to measure, manage and reduce food loss and food waste helps entities align with expectations from regulators, investors, customers downstream in the value chain and end consumers. Proactive management of food loss and food waste supports resilience across the value chain and may contribute to the entity's broader strategic objectives, including reducing greenhouse gas emissions and related risks.

Metrics

FB-AG-150a.1. (1) Total food loss generated, (2) quantity diverted

1 An entity shall disclose (1) the total mass of food loss it generated during the reporting period, in metric tonnes.

1.1 Food loss is defined by the Food and Agriculture Organization (FAO) Food Loss Index in *The State of Food and Agriculture* (2019) as human-edible agricultural products that 'directly or indirectly completely exit the post-harvest or the supply chain by being discarded, incinerated or otherwise disposed of, up to and excluding the retail level. Losses that occur during storage, transport and processing, also of imported quantities, are therefore all included. Losses include the commodity as a whole with its non-edible parts'.

1.2 The disclosure is limited to activities owned or controlled by the entity. For example, food loss excludes losses generated during harvesting on farms not owned or controlled by the entity.

2 An entity shall disclose (2) the total mass of food loss it diverted from landfill during the reporting period, in metric tonnes.

2.1 Diversion is the process of reducing food loss that would otherwise be discarded, not harvested, or sent to landfills or sewers, through efforts such as reuse, recycling or other recovery operations.

FB-AG-150a.2. Description of strategies to address opportunities related to food loss and food waste throughout the value chain

1 An entity shall disclose information about its strategy to respond to opportunities related to reducing food loss and food waste throughout the value chain.

1.1 The entity shall describe the primary activities and investments involved in its strategy, such as upcycling, repurposing materials for animal feed or fertiliser production and redistributing the products into the value chain.

2 An entity shall disclose information about the governance processes, controls and procedures it uses to monitor, manage and oversee food loss and food waste throughout the value chain.

3 An entity shall disclose information about any targets it has set to monitor progress towards achieving its strategic goals related to reducing food loss and food waste, and any targets it is required to meet by law or regulation.

3.1 In preparing this disclosure, the entity shall apply the requirements in paragraphs 51–53 of IFRS S1.

Land Use & Ecological Impacts

Topic Summary

Entities in the Agricultural Products industry that own and operate farms depend on land and ecosystems for their business. Entities are facing challenges raising land productivity to meet increasing demand. Entities with direct farming operations therefore need to manage land productivity and maintain high yields to meet this rising demand. At the same time, pressures on ecosystems and climate change are creating physical risks with the potential to affect soil health, land productivity and crop yields in the short, medium and long term. Environmental impacts from farming activities—for example, extensive use of fertilisers and pesticides, monoculture cultivation, forest fragmentation and land clearing—could exacerbate impacts and contribute to the degradation of land, natural resources and ecosystem services on which agricultural products entities depend. These impacts can result in decreased crop yields, land devaluation and increased operational costs, in addition to direct regulatory and reputational risks. Sustainable agricultural practices and innovative approaches and technologies can help entities manage these risks. Entities can capitalise on opportunities to operate efficiently, maintain or improve yields and generate revenue by meeting consumer expectations.

The metrics associated with this topic are intended to capture information regarding direct farming operations. The metrics associated with the Environmental Supply Chain Management and Social Supply Chain Management disclosure topic are intended to capture information about how entities in this industry address similar risks and opportunities in the supply chain.

Metrics

FB-AG-160a.1. (1) Total spatial footprint of operations, (2) area disturbed and (3) area restored

1 An entity shall disclose (1) the total spatial footprint (area) of its operations in square kilometres (km^2) at the reporting date.

1.1 The total spatial footprint of the entity's operations includes the cumulative area disturbed during the current and prior periods by its operations that has not been restored.

1.2 The area disturbed is defined as the aggregate geographical area that has been subject to human activity that has changed the condition of the area, relative to an original reference state.

1.2.1 Human activity is defined as the entity's activities and operations that have physically disrupted, modified, covered, compacted, moved or otherwise altered the characteristics of terrestrial, freshwater aquatic or marine ecosystems from before such activity.

1.2.2 The entity's total spatial footprint of operations includes the area disturbed during the current period and continues to be the area disturbed in all subsequent reporting periods unless the area disturbed is restored.

1.2.3 For bodies of water, the disturbed area includes the bottom or seabed beneath the water's surface.

1.3 The disclosure includes information about the aggregate measured area of the entity's spatial footprint in terrestrial, freshwater aquatic or marine ecosystems (land, wetlands, riverine, navigable waterways, littoral or ocean) on any leasehold, concession or property that the entity leases, manages or owns, and any rights of way or easements associated with them.

1.4 This disclosure includes all active sites, recently decommissioned sites awaiting restoration and sites being restored.

1.5 Area restored is defined as a previously disturbed area that has been restored according to applicable jurisdictional law or regulation.

1.6 If the jurisdiction in which the entity operates has no applicable law or regulation to define a previously disturbed area that has been restored, a restored area is defined as the cumulative

geographical area that has been subject to human intervention to return a degraded, damaged or destroyed area or ecosystem to an approximation of an original reference state.

1.6.1 Ecological restoration is defined as re-establishing the ecosystem's composition, structure and function, usually bringing it back to its original (pre-disturbance) state or to a healthy state close to the original. Ecological restoration focuses on biodiversity conservation and ecological integrity.

1.6.2 Ecosystem restoration is defined as a restored area that demonstrates resilience to normal ranges of environmental stress and disturbance and interacts with contiguous ecosystems in terms of biotic and abiotic flows and cultural interactions. An ecosystem is restored when it contains sufficient biotic and abiotic resources to sustain itself structurally and functionally and can continue its development without further assistance or subsidy.

2 An entity shall disclose (2) the area disturbed by the entity's operations, in km^2, during the current reporting period.

3 An entity shall disclose (3) the area previously disturbed by operations that has been restored (in km^2) during the reporting period.

3.1 An area is no longer part of the entity's spatial footprint of operations once post-closure restoration and remediation efforts are complete as defined by applicable jurisdictional law or regulation (even if after-monitoring is necessary).

4 The disclosure includes information about any adjustments to the entity's total spatial footprint of operations, area disturbed or area restored resulting from acquisitions, mergers and divestments or disposals completed during the reporting period.

FB-AG-160a.2. Percentage of the total spatial footprint of operations in or near environmentally sensitive locations

1 An entity shall disclose the percentage of its total spatial footprint (area) of operations located in or near environmentally sensitive locations at the reporting date.

1.1 The percentage is calculated as the area of the entity's spatial footprint of operation located in or near environmentally sensitive locations divided by the entity's total spatial footprint of operations.

1.1.1 The entity's spatial footprint of operations is defined as the measured area of its operational physical footprint in terrestrial, freshwater and marine ecosystems.

1.2 The disclosure includes land and bodies of water, such as wetlands, streams, rivers, lakes, navigable waterways and littoral or ocean environments, on any leasehold, concession or property that the entity leases, manages or owns and any rights of way or easements associated with them.

2 The area of an entity's operations is defined by the facility's spatial footprint of operations (polygon data defining geospatial information relating to the boundaries of disturbed area) on any leasehold, concession or property that the entity leases, manages or owns, and any rights of way or easements associated with them, which may include processing facilities, farms and warehouses.

3 Environmentally sensitive locations are defined as areas where an entity's assets or activities interface with nature in areas deemed to be ecologically sensitive. Such locations are defined as:

3.1 being important for biodiversity;

3.2 having high ecosystem integrity;

3.3 exhibiting rapidly declining ecosystem integrity; or

3.4 being important for ecosystem service provision.

4 Environmentally sensitive locations include:

4.1 International Union for Conservation of Nature (IUCN) protected areas (categories I–VI);

4.2 Ramsar Wetlands of International Importance;

4.3 United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Sites;

4.4 UNESCO's Man and the Biosphere Programme's biosphere reserves 'core areas';

4.5 Nature 2000 sites;

4.6 Ocean+ Habitats 'Protected Areas' (marine and coastal);

4.7 a clearly defined geographical area, recognised, dedicated and managed, through legal or other effective means by applicable jurisdictional authorities, to achieve the long-term conservation of nature with associated ecosystem services and cultural values (such as the protected areas listed in the World Database of Protected Areas and mapped on the Protected Planet website); or

4.8 an endangered species habitat where species on the IUCN Red List of Threatened Species that are classified as Critically Endangered or Endangered are known to reside.

4.8.1 Species reside in an area if they are resident, present during breeding or non-breeding season, or if they use the area for passage.

4.8.2 For the purposes of disclosure, 'passage' is defined as all areas of land or water that a migratory species inhabits, stays in temporarily, crosses or overflies at any time on its normal migration route.

5 An entity's operational facilities are defined as being 'in or near' an environmentally sensitive location if any part of the facility's spatial footprint of operations is in or within five kilometres of the boundary of an environmentally sensitive location.

5.1 The disclosure includes information about operations for which future operations have been formally announced and planned changes to operational boundaries are included in approved expansion plans.

FB-AG-160a.3. Total area of land that is sustainably managed, by product

1 An entity shall disclose the total area of land directly owned or controlled by the entity that is sustainably managed, in square kilometres (km^2).

1.1 'Sustainably managed' refers to areas that sustain plant productivity, promote plant and animal health, and maintain or enhance water and air quality. Such practices include:

1.1.1 management frameworks like agricultural management practice systems, soil management plans and integrated pest-management systems;

1.1.2 precision agriculture and the adoption of innovations and technology to improve resource management;

1.1.3 holistic approaches like regenerative agriculture and agroecology; and

1.1.4 other efforts focused on areas such as greenhouse gas emissions; soil health; management of the use of fertilisers, pesticides and other chemicals; maintenance of surface water and groundwater quality; water conservation; land use efficiency; and conservation of biodiversity, ecosystems and ecosystem services.

2 The entity shall disclose information about its methodology for calculating this metric, including the sustainable management practices included.

3 The entity shall disaggregate the information by agricultural product.

FB-AG-160a.4. Percentages of agricultural products produced from direct farming operations determined to be deforestation- or conversion-free, including any targets set to monitor progress

1 An entity shall disclose the percentages of its agricultural products produced from its direct farming operations, by weight, that it has determined to be deforestation- or conversion-free.

1.1 Deforestation is defined as the temporary or permanent human-induced conversion of forested land to non-forested land.

1.2 Conversion is defined as changing a natural ecosystem to another use or a profound change in a natural ecosystem's species composition, structure or function.

1.3 The entity shall disaggregate the information by product.

1.4 Disclosure is limited to products that have been found to contribute to deforestation or conversion and are important to the entity's business. Relevant products might include palm oil, soy, coffee and cocoa.

2 An entity shall describe the assessment methods used to determine that its production is deforestation- or conversion-free. Assessment methods include monitoring, certification or operating in low-risk jurisdictions with no or negligible recent conversion.

2.1 The entity shall disclose its reason for choosing the assessment method(s) and identify limitations in its methodology.

3 An entity shall disclose information about any targets it has set to monitor progress towards achieving its strategic goals related to deforestation or conversion, and any targets it is required to meet by law or regulation.

3.1 In preparing this disclosure, the entity shall apply the requirements in paragraphs 51—53 of IFRS S1 that are applicable to the entity's deforestation or conversion targets.

3.2 The entity shall disclose information about any changes in its practices that are required to meet its targets.

FB-AG-160a.5. Priority products from direct farming operations that are sensitive to nature- and climate-related physical risks

1 An entity shall disclose its priority products from direct farming operations that are sensitive to nature- and climate-related physical risks and describe how its production of these products could reasonably be expected to be affected by such risks.

1.1 Priority products are products that constitute the largest sources of the entity's revenue or products identified by the entity as essential to its business model.

1.2 Products are sensitive to nature- and climate-related physical risks if those risks could reasonably be expected to affect the entity's ability to produce and sell products at desired price points or in desired quantities over the short, medium or long term.

1.3 Relevant nature- and climate-related physical risks might include climate change, extreme weather, droughts, floods, water stress, storms, degradation of soil health, ecosystem change or biodiversity loss.

2 For each nature- and climate-related physical risk, the entity shall specify the time horizon—short, medium or long term—over which the effects of the nature- and climate-related physical risk could reasonably be expected to occur.

2.1 The entity shall explain how it defines 'short term', 'medium term' and 'long term' and how these definitions are linked to the planning horizons it uses for strategic decision-making.

3 An entity shall describe the resilience of its strategy, business model and supply chain to environmental-related changes, developments and uncertainties, taking into consideration the entity's identified nature- and climate-related physical risks.

4 An entity shall describe the strategies it uses to mitigate nature- and climate-related physical risks, which might include diversifying its suppliers, investing in research and development for alternative and substitute crops, and developing alternative products or product formulas.

FB-AG-160a.6. Description of strategies to manage environmental resources and implement sustainable agriculture practices in direct farming operations

1 An entity shall disclose information about its strategies to manage environmental resources and implement sustainable agriculture practices in its direct farming operations.

1.1 Environmental resources include land, soil, water, biodiversity, ecosystems and ecosystem services.

1.2 Sustainable agriculture practices are practices that sustain plant productivity, promote plant and animal health, and maintain or enhance water and air quality. Such practices include:

1.2.1 management frameworks like agricultural management practice systems, soil management plans and integrated pest-management systems;

1.2.2 precision agriculture and the adoption of innovations and technology to improve resource management;

1.2.3 holistic approaches like regenerative agriculture and agroecology; and

1.2.4 other efforts focused on areas such as: greenhouse gas emissions; soil health; management of the use of fertilisers, pesticides and other chemicals; maintenance of surface water and groundwater quality; water conservation; land use efficiency; and conservation of biodiversity, ecosystems and ecosystem services.

2 An entity shall disclose information about its activities and investments related to sustainable agriculture practices.

2.1 The entity shall disclose the amount that it has invested in its important actions and initiatives related to sustainable agriculture practices.

2.2 The entity shall describe any programmes or partnerships related to implementation of sustainable agricultural practices.

3 An entity shall disclose the amount and percentage of assets or business activities sensitive to the risks it aims to manage through its promotion of sustainable agriculture practices.

4 An entity shall disclose the amount and percentage of assets or business activities aligned with opportunities related to its promotion of sustainable agriculture practices.

5 An entity shall disclose information about trade-offs between risks and opportunities related to managing environmental resources and implementing sustainable agriculture practices that it has considered.

6 Relevant risks and opportunities might relate to price volatility, consumer demand, market capture, management of legal and regulatory risks, reputation management, threats to the entity's social licence to operate, and goodwill of local communities.

Food Safety

Topic Summary

Agricultural products are either sold directly to consumers in raw form or are processed beforehand. Maintaining product quality and safety is critical because contamination by pathogens, chemicals, ~~or~~ spoilage or allergen mislabelling have the potential to significantly affect the prospects of entities in this industry through the serious health risks they pose to humans and animals. ~~presents serious health risks to humans and animals.~~ Contamination may result from poor farming, transport, storage or handling practices. Food quality and safety issues can result in changes in demand and regulatory action. Food safety recalls can happen for many reasons, including packaging defects, food contamination, spoilage and mislabelling. Product recalls can harm brand reputation, reduce revenues and involve costly fines. Obtaining food safety certifications and ensuring suppliers and distributors meet ~~follow~~ food safety guidelines can ~~may~~ help entities safeguard against product safety risks and improve consumers' perceived quality of their products.

Metrics

~~FB-AG-250a.1. Global Food Safety Initiative (GFSI) audit (1) non-conformance rates and (2) associated corrective action rates for (a) major and (b) minor non-conformances~~

~~1 The entity shall disclose (1) its facilities' non-conformance rates with Global Food Safety Initiative (GFSI) recognised food safety certification programmes for (a) major non-conformances, and separately, (b) minor non-conformances.~~

~~1.1 A major non-conformance is defined by the relevant GFSI-recognised certification programme and includes the highest severity of non-conformances requiring escalation by auditors. Major non-conformances may arise from significant risks to food safety, non-compliance with relevant regulatory requirements or failure to correct minor non-conformances. Major non-conformances must be corrected in accordance with the relevant GFSI-recognised certification programme under audit.~~

~~1.2 A minor non-conformance is defined by the relevant GFSI-recognised certification programme and by itself is not indicative of a systemic problem.~~

~~1.3 The entity shall calculate the non-conformance rates as the number of non-conformances (for each respective category) identified in its facilities divided by the number of facilities audited.~~

~~1.4 The scope of the disclosure includes audit results from facilities owned or operated by the entity.~~

~~2 The entity shall disclose (2) the corrective action rates associated with its facilities' (a) major non-conformances, and separately, (b) minor non-conformances.~~

~~2.1 A corrective action is defined as the completion of an action (generally identified in a Corrective Action Plan), within the time line defined by the GFSI-recognised certification programme, designed to eliminate the cause of a detected non-conformance, including implementing practices or systems to eliminate any non-conformance and ensure against reoccurrence of the non-conformance, as well as verifying the action taken.~~

~~2.2 The entity shall calculate the corrective action rates as the number of corrective actions that address non-conformances (for each respective category) divided by the total number of non-conformances identified (for each respective category).~~

~~3 The entity may disclose the GFSI-recognised certification programme used to audit its facilities.~~

~~FB-AG-250a.2. Percentage of agricultural products sourced from suppliers certified to a Global Food Safety Initiative (GFSI) recognised food safety certification programme~~

~~1 The entity shall disclose the percentage of agricultural products sourced from Tier 1 supplier farms or facilities certified to a Global Food Safety Initiative (GFSI) recognised certification programme.~~

~~1.1 Tier 1 suppliers are defined as suppliers that transact directly with the entity.~~

~~1.2 The percentage shall be calculated as the cost of agricultural products sourced from Tier 1 suppliers certified to an applicable GFSI-recognised certification programme, divided by the total cost of agricultural products sourced from all Tier 1 suppliers.~~

~~2 The scope of the disclosure excludes packaging materials or other goods and inputs that are not food or ingredients.~~

~~3 The entity may disclose the relevant GFSI-recognised certification programme used to audit its suppliers.~~

FB-AG-250a.3. (1) Description ~~Number~~ of recalls issued for food safety reasons and (2) total weight ~~amount~~ of products ~~food product~~ recalled

1 An ~~The~~ entity shall ~~disclose~~ (1) describe each of the ~~total number of~~ food-safety-related recalls it issued during the reporting period, including voluntary and involuntary recalls.

1.1 A food-safety-related recall is defined as the removal of a marketed product that occurs if a food may reasonably be believed to cause harm to consumers. ~~to become ill.~~

1.2 The description of each recall shall include the cause of the recall issue and whether the recall was voluntary or mandatory.

1.2.1 ~~1.2~~ Mandatory ~~Involuntary~~ recalls are those requested ~~or mandated~~ by applicable jurisdictional legal or regulatory authorities, and they are issued when a product does not comply with regulatory food safety standards, when a food safety-related defect in a product is identified or during instances of import refusal.

1.2.2 ~~1.3~~ Voluntary recalls are those initiated by the entity to remove products from the market for food safety-related concerns.

1.3 The entity shall disclose information about any corrective actions initiated as a result of each recall.

1.4 The entity shall disclose information about any other significant outcomes from the recall (for example, legal proceedings or fatalities).

1.5 The entity shall provide a digital link to the recall notice.

2 An ~~The~~ entity shall disclose (2) the total weight, in metric tonnes, of food product recalled. ~~subject to recalls.~~

~~3 The scope of the disclosure includes voluntary recalls initiated by the entity and involuntary recalls requested or mandated by applicable jurisdictional legal or regulatory authorities and instances of import refusal.~~

~~4 The scope of the disclosure excludes market withdrawals, which are defined as an entity's removal or correction of a distributed product that involves a minor violation not subject to legal action by applicable jurisdictional legal or regulatory authorities, or practices that do not involve violations (for example, normal stock rotation practices).~~

~~5 The entity may separately disclose the percentage of recalls that were (a) voluntary and (b) involuntary.~~

~~Note to **FB-AG-250a.3**~~

~~1 The entity shall provide a discussion of notable recalls, such as those that affected a significant number of products or those related to potential or actual serious illnesses or fatalities.~~

~~1.1 A recall may be considered notable if it is mentioned in periodic jurisdictional recall reports.~~

~~2 For such recalls, the entity may provide:~~

~~2.1 description and cause of the recall issue;~~

~~2.2 total weight of food products recalled;~~

~~2.3 cost to remedy the issue;~~

~~2.4 whether the recall was voluntary or involuntary;~~

~~2.5 corrective actions; and~~

~~2.6 any other significant outcomes (for example, legal proceedings or fatalities).~~

FB-AG-250a.4. Percentage of production volume from sites certified to internationally recognised food safety standards for (1) own operations and (2) intermediaries

1 An entity shall disclose the percentage of its production volume, by weight, from facilities certified to an internationally recognised food safety certification standard for (1) its own operations and (2) intermediaries.

1.1 Relevant standards include the Global Food Safety Initiative (GFSI) and standards benchmarked by the GFSI, such as FSSC 22000 and the BRCGS Global Standard Food Safety.

1.2 The entity shall disclose the standard or standards used.

1.3 Intermediaries are entities that facilitate the connection between producers (farmers) and end users (consumers), including distributors, cooperatives, traders and wholesalers.

2 The scope of the disclosure excludes packaging materials or other goods and inputs that are not food or ingredients.

3 If the entity certifies sites using food safety standards that are not benchmarked by the GFSI, it shall disclose information about its use of these standards.

FB-AG-250a.5. Processes, controls and procedures to ensure food safety throughout the value chain

1 An entity shall describe the processes, controls and procedures it uses to monitor, manage and oversee food safety throughout its value chain.

2 An entity shall describe its approach to evaluating food safety in the operations of its Tier 1 suppliers, including disclosing:

2.1 whether it conducts audits or verifications on its Tier 1 suppliers;

2.2 whether its Tier 1 suppliers are certified to an internationally recognised food safety standard (GFSI or equivalent), and whether they are contractually required to have such a certification by the entity; and

2.3 whether it conducts engagement or training programmes with its Tier 1 suppliers.

2.4 Tier 1 suppliers are defined as suppliers that transact directly with the entity.

3 An entity shall disclose whether it has an approach to evaluating food safety in the operations of its suppliers beyond Tier 1 or in the operations of its distributors and, if so, describe these approaches.

Labour Conditions

Topic Summary

Working conditions associated with producing agricultural products can be physically demanding, hazardous and geographically isolated. Agricultural workers face high risks of labour rights violations, particularly forced labour, because their work is characterised by informality, seasonality and insecurity. Agriculture also accounts for a large share of child labourers globally. The risk of forced and child labour varies by region and crop type. Entities that effectively manage labour conditions in their direct farming operations often do so by implementing robust processes, controls and procedures, such as human rights due diligence. If instances of forced or child labour are identified in the production of goods, entities may face compliance risks, such as import bans, or reputational risks. Conversely, entities with robust due diligence may increase operational efficiency and resiliency of important resources and can benefit from growth in customer demand associated with upholding internationally recognised labour standards.

The metrics associated with this topic are intended to capture information regarding direct farming operations. The metrics associated with the Social Supply Chain Management disclosure topic are intended to capture information about how entities in this industry address similar risks and opportunities in the supply chain.

Metrics

FB-AG-310a.1. Processes, controls and procedures to manage labour conditions, including forced labour and child labour, in direct operations

1 An entity shall disclose information about the processes, controls and procedures it uses, such as human rights due diligence, to manage labour conditions, including forced labour and child labour, in its direct operations.

1.1 Forced labour is defined by the International Labour Organization (ILO) *Forced Labour Convention, 1930 (No.29)* as 'all work or service that is exacted from any person under the menace of any penalty and for which the said person has not offered himself voluntarily'.

1.2 Child labour is defined on the ILO website as 'work that deprives children of their childhood, their potential and their dignity, and that is harmful to physical and mental development, including by interfering with their education'. The ILO *Minimum Age Convention, 1973 (No.138)* specifies that a minimum age for admission to employment or work 'shall not be less than the age of completion of compulsory schooling and, in any case, shall not be less than 15 years'. The ILO convention adds that jurisdictions in which the 'economy and educational facilities are insufficiently developed may … initially specify a minimum age of 14 years'.

1.2.1 The minimum age for hazardous work is 18 years for all jurisdictions. Hazardous child labour is defined by the ILO *Worst Forms of Child Labour Convention, 1999 (No.182)* as 'work which, by its nature or the circumstance in which it is carried out, is likely to harm the health, safety or morals of children'.

2 Processes, controls and procedures to monitor, manage and oversee labour conditions in the entity's direct operations include those that:

2.1 embed responsible business conduct and respect for internationally recognised rights and norms into policies and management systems;

2.2 identify and assess potential or actual adverse impacts on workers;

2.3 stop, prevent or mitigate potential or actual adverse effects on workers;

2.4 track implementation and results;

2.5 communicate the ways in which adverse effects on workers are being addressed; and

2.6 provide for, or cooperate in, remediation when appropriate.

3 An entity shall disclose information about the agricultural products in its direct farming operations where it has identified a heightened level of risk of forced labour or child labour, other violations of internationally recognised labour rights and norms, or serious violations of local law or the entity's policies.

3.1 The entity shall disclose which agricultural products with a heightened level of such risk have been identified in its direct farming operations.

3.1.1 The entity shall disclose information about how it identifies high-risk agricultural products.

4 An entity shall describe whether and how its processes, controls and procedures to manage labour conditions in its direct operations vary by:

4.1 location; and

4.2 agricultural product.

5 An entity shall identify, for its direct operations:

5.1 the governance body(ies) or individual(s) responsible for oversight over labour conditions; and

5.2 management's role in the governance processes, controls and procedures, including information about whether the role is delegated to a specific management-level position or management-level committee and how oversight is exercised.

5.3 In preparing this disclosure, the entity shall apply the requirements in paragraphs 26–27 of IFRS S1 that relate to the governance of labour conditions in its direct operations.

Workforce Health & Safety

Some entities ~~Industrial processes used~~ in the Agricultural Products industry use industrial processes that present significant occupational hazards. Employees may be engaged in labour-intensive activities involving common hazards such as falls, transportation accidents, equipment-related accidents, chemical-related and heat-related illness or injury, among others. Violations of health and safety standards could result in regulatory penalties and costs for corrective actions. High injury and fatality rates may suggest that an entity has a weak governance structure and a weak workplace safety culture and could result in significant reputational harm. Strong performance on managing workforce health and safety can help build brand image and promote worker morale, which may result in increased productivity, reduced worker turnover and enhanced community relations.

Metrics

FB-AG-320a.1. (1) Number of fatalities and (2) total ~~Total~~ recordable incident rate ~~(TRIR), (2) fatality rate, and (3) near miss frequency rate (NMFR)~~ for (a) ~~direct~~ employees and (b) non-employee workers ~~contract employees~~

1 An entity shall separately disclose (1) the number of fatalities resulting from work-related injuries and work-related illnesses for (a) employees and (b) non-employee workers.

1.1 Employees are defined as individuals who render personal services to the entity and are regarded as employees for legal or tax purposes. They are in an employment relationship with the entity according to applicable jurisdictional law or regulation using indicators such as economic dependency.

1.1.1 Employees include full-time employees, permanent employees, temporary employees, non-guaranteed hours employees and part-time employees.

1.2 Non-employee workers are defined as individuals who render personal services to the entity and work under the entity's direction in the same way as individuals who are regarded as employees for legal or tax purposes. They perform work controlled by the entity but are not in an employment relationship with the entity according to applicable jurisdictional law or regulation.

1.2.1 The entity is defined as having 'control' of work performed by non-employee workers if it directs the work, controls the means or methods of doing the work or controls the workplace where the work is performed. The type of contractual relationship between the entity and the worker (for example, an employment agency or contractor) does not necessarily determine whether the entity controls the work.

1.2.2 Non-employee workers whose work is controlled by the organisation include agency workers, apprentices, contractors, interns, self-employed persons, subcontractors and volunteers.

1.3 Together, employees and non-employee workers are defined as the entity's 'workforce' or 'workers'.

2 ~~1~~ An ~~The~~ entity shall separately disclose (2) ~~(1)~~ its total recordable incident rate (TRIR) for work-related injuries and illnesses for (a) employees and (b) non-employee workers.

2.1 The entity shall use applicable jurisdictional criteria to define recordable and non-recordable incidents.

2.1.1 If the entity is subject to more than one jurisdictional law or regulation that defines recordable and non-recordable incidents, the entity shall disclose whether and how variations between these frameworks affect the reported data.

2.1.2 ~~1.1~~ An injury or illness is typically defined as ~~considered~~ a recordable incident if it results in death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, or loss of consciousness. Additionally, a significant injury or

illness diagnosed by a physician or other licensed healthcare ~~health care~~ professional is considered a recordable incident, even if it does not result in death, days away from work, restricted work or job transfer, medical treatment beyond first aid, or loss of consciousness.

2.1.3 ~~1.1.1~~ First aid is typically defined as emergency care or treatment for an ill or injured person before regular medical treatment ~~aid~~ can be provided, but jurisdictional definitions may vary.

~~1.1.2 The entity may use applicable jurisdictional criteria for definitions of a recordable incident and a non-recordable incident such as first aid. The entity shall disclose the legal, regulatory or industry framework used as the source for these criteria and definitions.~~

2.2 The TRIR is defined as: (number of recordable incidents × 1,000,000) / total number of hours worked.

2.2.1 If the entity cannot directly calculate the number of hours worked, it shall estimate this information using normal or standard hours of work and accounting for entitlements to periods of paid leave of absence from work (paid vacations, paid sick leave, public holidays) and explain this method in the disclosure.

2.2.2 If the entity cannot directly calculate or estimate the number of hours worked, it shall disclose the reason.

3 The disclosure includes all workers regardless of their location or type of employment.

~~2 The entity shall disclose (2) its fatality rate for work-related fatalities.~~

~~3 The entity shall disclose (3) its near miss frequency rate (NMFR) for work-related near misses.~~

~~3.1 A near miss is defined as an unplanned or uncontrolled event or chain of events that has not resulted in a recordable injury, illness, physical damage or environmental damage, but had the potential to do so in other circumstances.~~

~~3.2 The entity may disclose its process for classifying, identifying and reporting near misses.~~

~~4 All disclosed rates shall be calculated as: (statistic count × 200,000) / total number of hours worked by all employees in the year reported.~~

~~4.1 The '200,000' in the rate calculation represents the total number of hours 100 full-time workers working 40 hours per week for 50 weeks per year can provide annually.~~

4 ~~5~~ The ~~scope of the~~ disclosure is limited to fatalities, work-related incidents and work-related illnesses. ~~includes work-related incidents only.~~

4.1 ~~5.1~~ Work-related incidents are defined as workforce injuries and illnesses resulting from events or exposures in the work environment.

4.1.1 ~~5.2~~ The work environment is the establishment and other locations where one or more workers ~~employees~~ are working or are present as a condition of their employment.

4.1.2 ~~5.3~~ The work environment includes not only physical locations, but also the equipment or materials used ~~by the employee~~ during ~~the course of~~ work.

4.2 ~~5.4~~ Incidents that occur while a worker ~~an employee~~ is travelling are work-related if, at the time of the injury or illness, the worker ~~employee~~ was engaged in work activities in the interest of the employer.

4.3 ~~5.5~~ A work-related incident must be a new case, not a previously recorded injury or illness being updated.

5 If the total workforce varied significantly during the reporting period, an entity shall explain those variations.

~~6 The entity shall disclose the rates by each of these employee categories:~~

~~6.1 direct employees, defined as individuals on the entity's payroll, whether they are full-time, short service, part-time, executive, labour, salary, seasonal, migrant or hourly employees; and~~

~~6.2 contract employees, defined as individuals who are not on the entity's payroll, but whom the entity supervises or manages, including independent contractors and those employed by third parties (for example, temp agencies and labour brokers).~~

~~7 The scope of the disclosure includes all employees regardless of employee location or type of employment.~~

Environmental & Social Impacts of Ingredient Supply Chain

Topic Summary

Agricultural products entities source agricultural inputs from many suppliers. How entities in the industry engage with suppliers on environmental and social issues may affect consumer demand, reputational risks, and the ability of entities to effectively manage their crop supply and respond to price fluctuations. Supply chain management issues related to labour, environmental practices, ethics or corruption may result in regulatory fines or increased long-term operational costs for entities. Similarly, agricultural products entities may face reputational damage if their suppliers perform poorly on environmental or social issues. Entities can mitigate these risks and potentially increase consumer demand or access new market opportunities by engaging with essential suppliers to implement sustainable agricultural practices or source from certified suppliers.

Metrics

FB-AG-430a.1. (1) Percentage of agricultural products sourced that are certified to a third-party environmental or social standard, and (2) percentages by standard

1 The entity shall disclose (1) the percentage of agricultural products, by cost, that it sourced that are certified to a third-party environmental or social standard.

1.1 Agricultural products are defined as raw materials such as food, feed and biofuel ingredients sourced for use in the entity's operations.

1.2 Environmental standards are defined as standards that address environmental impacts related to the production of agricultural products such as protection of primary forests, maintenance of surface water and groundwater quality, and implementation of integrated pest management (IPM) solutions or an Organic System Plan.

1.3 Social standards are defined as standards that address social impacts related to the production of agricultural products such as workforce compensation, training and continual monitoring of health and safety risks associated with applications of agrochemicals, and child labour practices.

1.4 The percentage shall be calculated as the cost of agricultural products purchased from Tier 1 suppliers that have been certified to a third-party environmental or social standard divided by the total cost of agricultural products purchased from Tier 1 suppliers.

1.5 Examples of certifications to third-party environmental and social standards may include:

1.5.1 Bonsucro;

1.5.2 Fairtrade International;

1.5.3 Fair Trade USA;

1.5.4 Roundtable on Sustainable Palm Oil (RSPO);

1.5.5 Roundtable on Responsible Soy (RTRS);

1.5.6 Rainforest Alliance;

1.5.7 SA8000;

1.5.8 US Department of Agriculture (USDA) Organic; and

1.5.9 UTZ.

2 The entity shall disclose (2) the percentage of agricultural products, by cost, that it sourced that are certified to a third-party environmental or social standard, by standard.

2.1 The entity shall calculate the percentage as the cost of agricultural products purchased from Tier 1 suppliers certified to each respective third-party environmental or social standard divided by the total cost of agricultural products purchased from Tier 1 suppliers.

2.1.1 For Bonsucro certification, the entity shall disclose whether the agricultural raw materials are certified to the Bonsucro Production Standard or the Bonsucro Chain of Custody Standard.

2.1.2 For Fairtrade certification, the entity shall disclose whether the agricultural products are certified to the standards for small-scale producers, hired labour organisations, contract production, traders or independent small holders.

2.1.3 For RSPO certification, the entity shall disclose which of the RSPO supply chain models the agricultural products are certified to Identity Preserved (IP), Segregated (SG), Mass Balance (MB) or Book and Claim (B&C).

2.1.4 For RTRS certification, the entity shall disclose whether the agricultural products are certified to the RTRS Production standard or the RTRS Chain of Custody standard, and whether traceability in the Chain of Custody standard is maintained through country material balance, segregation or mass balance.

2.1.5 For other third-party certifications, the entity may specify the type of certification.

2.2 The entity may aggregate the percentages, by cost, of more than one third-party certification into one aggregate percentage, if the certifications are for the same agricultural product and have similar environmental or social criteria.

3 The scope of the disclosure includes agricultural products purchased from Tier 1 suppliers, including those grown on a contract basis or sourced as a commodity.

3.1 Tier 1 suppliers are defined as suppliers that transact directly with the entity.

3.2 Agricultural products grown on a contract basis include those for which the entity has agreed the conditions of crop production and the quality of crops directly with the farmer, consistent with the Food and Agriculture Organization of the United Nations (FAO) Contract Farming Resource Centre.

3.3 Agricultural products sourced as a commodity include those bought through the spot market, to-arrive bids, grain elevators or other measures by which the entity is unable to control the production process.

FB-AG-430a.2. Suppliers' social and environmental responsibility audit (1) non-conformance rate and (2) associated corrective action rate for (a) major and (b) minor non-conformances

1 The entity shall disclose (1) its supplier facilities' non-conformance rate with external social and environmental audit standards or internally developed supplier codes of conduct for (a) major non-conformances, and separately, (b) minor non-conformances.

1.1 A major non-conformance is defined as the highest severity of non-conformance requiring escalation by auditors. Major non-conformances include the presence of underage child workers (below the legal age for work or apprenticeship), forced labour, health and safety issues that can cause immediate danger to life or serious injury, and environmental practices that can cause serious and immediate harm to the community. Major non-conformances include material

breaches and systemic violations of code requirements or laws. Major non-conformances may also be known as critical or priority non-conformances.

1.2 A minor non-conformance is defined as a non-conformance that by itself does not confirm a systemic problem with the management system, but are typically isolated or random incidents that present low risks to workers or the environment.

1.3 The entity shall calculate the non-conformance rates as the total number of non-conformances (in each respective category) identified among its supplier facilities divided by the number of supplier facilities audited.

2 The entity shall disclose (2) the corrective action rates associated with its supplier facilities' (a) major non-conformances, and separately, (b) minor non-conformances.

2.1 A corrective action is defined as the completion of an action (generally identified in a corrective action plan) within 90 days, designed to eliminate the cause of a detected non-conformance, including implementing practices or systems to eliminate any non-conformance and ensure no reoccurrences, as well as verifying the action taken.

2.2 The entity shall calculate the corrective action rates as the number of corrective actions that address non-conformances (in each respective category) divided by the total number of non-conformances identified (in each respective category).

3 The entity shall disclose the standards or codes of conduct used to measure social and environmental responsibility audit compliance.

FB-AG-430a.3. Discussion of strategy to manage environmental and social risks arising from contract growing and commodity sourcing

1 The entity shall discuss its strategy to manage environmental and social risks that arise from its contract growing and commodity sourcing practices.

1.1 Environmental and social risks include extreme weather events, water stress, degradation of the environment, labour rights, community rights and harmful child labour practices.

2 For environmental risks, relevant strategies to discuss may include the diversification of suppliers, supplier training programmes on environmental best management practices—including implementation of agricultural management practice systems (MPS) for fertiliser use, integrated pest management (IPM) and efforts to address deforestation—expenditures on research and development for alternative and substitute crops, or audits or certifications of suppliers' environmental practices.

3 For social risks, relevant strategies to discuss include supplier training programmes on agrochemical application, engagement with suppliers on issues relating to labour, human rights and workforce health and safety such as pesticide exposure, maintenance of a supply chain code of conduct, and audits or certifications of suppliers' social practices.

4 The scope of the disclosure includes all agricultural raw materials sourced by the entity, including those sourced directly from contract growers or through producer supply agreements.

5 The entity may identify which commodities or agricultural raw materials present an operational risk, what type of risk they represent and the strategies the entity uses to mitigate that risk.

GMO Management

Topic Summary

Agricultural products developed using genetically modified organism (GMO) technology have experienced increasing consumer interest. In many cases, GMO technology has enabled improvements in crop yield through development of disease- or drought-resistant strains, but consumer concerns persist regarding the perceived health, environmental or social impacts related to the cultivation and consumption of GMOs. Some jurisdictions have banned the use or cultivation of GMOs. Food and beverage entities along the food supply chain, including entities in the Agricultural Products industry, are seeking effective means to assess GMO-related risks and opportunities, and to effectively communicate with consumers on the topic. Entities in the Agricultural Products industry that can meet changing consumer trends and regulatory changes through their products or effective communication may reduce potential reputational risks and revenue loss as well as access new market opportunities.

Metrics

FB-AG-430b.1. Discussion of strategies to manage the use of genetically modified organisms (GMOs)

1 The entity shall discuss its strategy to manage the use of genetically modified organisms (GMOs), including a discussion of jurisdictions that restrict the importation of GMOs, the risks associated with required labelling of products containing GMOs, changes in consumer preferences, and opportunities associated with the use of GMOs.

1.1 GMOs are defined as organisms, except for human beings, in which genetic material has been altered in a way that does not occur naturally by mating or natural recombination.

2 The entity shall disclose a list of jurisdictions that restrict, ban or suspend imports of one or more of the entity's products because of regulations on GMOs.

2.1 The scope of the disclosure includes regulations, trade restrictions and other measures restricting the importation of GMOs.

2.2 The entity shall discuss, with respect to each restriction: the scope of products affected, the duration for which the restriction has been in place, the stated reason for the restriction (for example, health concerns or biodiversity impacts), and the effect on the entity's operations and financial condition.

3 The entity shall disclose a list of products (or product categories) subject to applicable jurisdictional laws or regulations that require GMO labelling.

4 The entity shall discuss the risks and opportunities associated with GMO labelling requirements, including those developed by the entity's downstream customers (for example, processed food entities and food retailers).

5 The entity shall discuss the risks and opportunities associated with any changes in consumer preferences regarding the use or labelling of products containing GMOs.

Environmental Supply Chain Management

Topic Summary

Entities in the Agricultural Products industry produce and supply a wide range of crops and agricultural commodities. An entity's capacity to sustain production volumes and meet price expectations depends on resource availability, which can be affected by environmental factors such as climate change, water stress, soil health, biodiversity, and availability of ecosystem services. Some of these risks exist independently from operations in an entity's supply chain because they are global or regional in nature, while others are directly linked to impacts from local farming practices. Environmental impacts, particularly those associated with high-profile issues like deforestation, or soil degradation from intensive monocropping, can lead to regulatory action or damage a company's reputation and social licence to operate. Broader nature-related physical risks can also create volatility in crop yields and commodity prices, affecting profitability. In the long term, resource constraints and changing weather patterns might lead to entities encountering challenges in producing essential crops. Entities that collaborate with sourers and local communities, including Indigenous Peoples, to adopt sustainable farming practices—including crop rotation, cover cropping, integrated pest management, precision agriculture and agroforestry—can improve their resilience and adaptability to these risks.

Metrics

FB-AG-430c.1. Percentages of sourced agricultural products determined to be deforestation- or conversion-free, including any targets set to monitor progress

1 An entity shall disclose the percentages of the sourced agricultural products that it has determined to be deforestation- or conversion-free, by weight.

1.1 Deforestation is defined as the temporary or permanent human-induced conversion of forested land to non-forested land.

1.2 Conversion is defined as changing a natural ecosystem to another use or a profound change in a natural ecosystem's species composition, structure or function.

1.3 The entity shall disaggregate the information by sourced agricultural product.

1.4 Disclosure is limited to sourced agricultural products that have been found to contribute to deforestation or conversion and constitute the largest food ingredient expenses or are essential to the entity's products. Relevant products might include timber products, palm oil, soy, coffee, cocoa and cattle products.

2 An entity shall describe the assessment methods used to determine that a sourced agricultural product is deforestation- or conversion-free. Assessment methods include monitoring, certification, sourcing from low-risk jurisdictions with no or negligible recent conversion, and sourcing from verified suppliers.

2.1 The entity shall disclose its reason for choosing the assessment method(s) and identify limitations in its methodology.

3 An entity shall disclose the level of traceability in place for its assessment: national, regional, local, or at a specific point of origin.

4 An entity shall disclose information about any targets it has set to monitor progress towards achieving its strategic goals related to deforestation or conversion, and any targets it is required to meet by law or regulation.

4.1 In preparing this disclosure, the entity shall apply the requirements in paragraphs 51-53 of IFRS S1 that are applicable to the entity's deforestation or conversion targets.

4.2 The entity shall disclose information about any changes in its sourcing or assessment practices that are required to meet its targets.

FB-AG-430c.2. Priority sourced agricultural products that are sensitive to nature- and climate-related physical risks in the supply chain

1 An entity shall disclose its priority sourced agricultural products that are sensitive to nature- and climate-related physical risks, and describe how its sourcing of these products could reasonably be expected to be affected by such risks.

1.1 Priority sourced agricultural products are products purchased from third parties that constitute the entity's largest expenses or that are otherwise identified by the entity as essential to its business model.

1.2 Agricultural products are sensitive to nature- and climate-related physical risks if those risks could reasonably be expected to affect the entity's ability to source the product at desired price points or in desired quantities over the short, medium or long term.

1.3 Relevant nature- and climate-related physical risks might include climate change, extreme weather, droughts, floods, water stress, storms, degradation of soil health, ecosystem change or biodiversity loss.

2 For each nature- and climate-related physical risk, the entity shall specify the time horizon—short, medium or long term—over which the effects of the risk could reasonably be expected to occur.

2.1 The entity shall explain how it defines 'short term', 'medium term' and 'long term' and how these definitions are linked to the planning horizons it uses for strategic decision-making.

3 An entity shall describe the resilience of its strategy, business model and supply chain to environmental-related changes, developments and uncertainties, taking into consideration the entity's identified environmental risks.

4 An entity shall describe the strategies it uses to mitigate nature- and climate-related physical risks, which might include diversifying its suppliers, investing in research and development for alternative and substitute crops, and developing alternative products or product formulas.

FB-AG-430c.3. Description of strategies to manage environmental resources and implement sustainable agriculture practices in the supply chain

1 An entity shall disclose information about its strategies to manage environmental resources and implement sustainable agriculture practices in its supply chain.

1.1 Environmental resources include land, soil, water, biodiversity, ecosystems and ecosystem services.

1.2 Sustainable agriculture practices include regenerative agriculture, precision agriculture, agroecology and similar efforts focused on areas such as greenhouse gas emissions; soil health; management of the use of fertilisers, pesticides and other chemicals; maintenance of surface water and groundwater quality; water conservation; land use efficiency; and conservation of biodiversity, ecosystems and ecosystem services.

2 An entity shall disclose information about its activities and investments related to sustainable agriculture practices, such as grants, programmes and partnerships with farmers, co-investment and partnerships with other companies, and engagements with local communities such as Indigenous Peoples.

2.1 The entity shall disclose the amount that it has invested in its important actions and initiatives related to sustainable agriculture practices.

3 An entity shall disclose the amount and percentage of assets or business activities sensitive to the risks it aims to manage through its promotion of sustainable agriculture practices among its suppliers.

4 An entity shall disclose the amount and percentage of assets or business activities aligned with opportunities related to its promotion of sustainable agriculture practices among its suppliers.

5 An entity shall disclose information about trade-offs between risks and opportunities related to managing environmental resources and implementing sustainable agriculture practices in the supply chain that it has considered.

6 Relevant risks and opportunities might relate to supplier relationships, supply chain resilience, reputation management, price volatility, consumer demand, market capture, management of legal and regulatory risks, threats to the entity's social licence to operate, and goodwill of local communities.

Social Supply Chain Management

Topic Summary

Entities in the Agricultural Products industry manage extensive supply chains to source crops and commodities. How entities screen, monitor and engage with suppliers on social issues—including labour conditions, worker safety, ethics and engagement with local communities, including Indigenous Peoples—affects the stability of prices and production. Supply chain management issues related to forced or child labour, or to land disputes, can undermine a company's social licence to operate and lead to regulatory penalties or increased operational costs. Some social risks are specific to a particular crop or region, while others are more general. Local regulations and enforcement vary widely by jurisdiction, creating additional governance challenges for entities and their suppliers. Because of the complexity of agricultural supply chains, entities often invest in traceability systems to identify and assess these risks. Entities can also gain certifications to capture new market opportunities. Entities can engage with suppliers and farming communities to improve labour practices, strengthen supply chain resilience and mitigate reputational risks.

Metrics

FB-AG-430d.1. Processes, controls and procedures for managing labour conditions and impacts on local communities in the supply chain, including human rights due diligence

1 An entity shall disclose information about the processes, controls and procedures it uses, such as human rights and environmental due diligence, to monitor, manage and oversee issues in the supply chain related to:

1.1 labour conditions, workplace safety, labour rights, forced labour, modern slavery and child labour;

1.2 negative impacts on local communities, including Indigenous Peoples – such as pollution, displacement and resource deprivation or depletion;

1.3 corruption and compliance with applicable jurisdictional laws or regulations; and

1.4 rights and norms set forth in internationally recognised frameworks.

2 Processes, controls and procedures to monitor, manage and oversee labour conditions and impacts on local communities in the supply chain include those that:

2.1 embed responsible business conduct and respect for internationally recognised rights and norms into policies and management systems;

2.2 identify and assess adverse impacts to workers, stakeholders and local communities stemming from supply chain operations and business relationships;

2.3 cease, prevent or mitigate potential or actual adverse impacts on workers and communities in the supply chain;

2.4 track implementation and results;

2.5 communicate how impacts are being addressed;

2.6 provide for or cooperate in remediation when appropriate; and

2.7 promote the use of free, prior and informed consent (or consultation) processes when engaging with Indigenous Peoples.

3 An entity shall disclose whether suppliers are incentivised and rewarded for the prevention, mitigation, and remediation of potential or actual adverse impacts on workers and communities in the supply chain.

4 An entity shall disclose whether it has a policy forbidding the payment of recruitment fees by workers in the supply chain and, if so, describe the mechanisms by which that policy is enforced.

5 An entity shall identify:

5.1 the governance body(ies) or individual(s) responsible for oversight over labour conditions and impacts on local communities in the supply chain; and

5.2 management's role in the governance processes, controls and procedures, including information about whether the role is delegated to a specific management-level position or management-level committee and how oversight is exercised.

5.3 In preparing this disclosure, the entity shall apply the requirements in paragraphs 26–27 of IFRS S1 that relate to the governance of labour conditions and impacts on local communities in its value chain.

FB-AG-430d.2. Percentages of sourced agricultural products certified to internationally recognised standards that trace the path of products through the supply chain

1 An entity shall disclose the percentages of its sourced agricultural products, by weight, certified to an internationally recognised standard that traces the path of the commodity through the supply chain.

1.1 In each case, the entity shall identify the standard used and the type of certification if there is more than one type related to that standard.

1.2 The entity shall disaggregate the information by product.

2 An entity shall explain its rationale for selecting the certification standards it uses.

3 Examples of internationally recognised standards include:

3.1 Bonsucro

3.2 Fairtrade International

3.3 Roundtable on Sustainable Palm Oil (RSPO)

3.4 Roundtable on Responsible Soy (RTRS)

3.5 Rainforest Alliance

3.6 SA8000

4 An entity shall describe improvement projects to get suppliers certified to internationally recognised standards that trace the path of products through the supply chain.

FB-AG-430d.3. Percentage of high-risk suppliers subject to an independent third-party audit or verification in the previous three years, with description of non-conformances and corrective actions

1 An entity shall disclose the percentage of its high-risk suppliers that have been subject to an independent third-party audit or verification at least once in the three years before the reporting date.

1.1 High-risk suppliers are defined as suppliers throughout the value chain where the entity has determined a heightened level of risk of forced labour or modern slavery, child labour, other violations of internationally recognised rights and norms, negative impacts on local communities including Indigenous Peoples or serious violations of local law or the entity's supplier code of conduct.

1.1.1 The entity shall disclose information about how it identifies high-risk suppliers.

1.2 An independent third-party audit or verification is defined as a visit to a supplier's facility and review of records conducted by an independent external organisation to determine that the supplier facility complies with relevant principles, policies and regulations.

2 An entity shall disclose its audit or verification methodology and criteria (for example, management system investigation, worker interviews, management interviews, document review and visual observations).

3 An entity shall disclose the standards or codes of conduct to which it has measured audit or verification compliance.

4 An entity shall disclose information regarding non-conformances and corrective actions, which might include description of the levels in the supply chain in which the non-conformances occurred (Tier 1, Tier 2 or other, or by region), timelines to resolve priority non-conformances, assessment of whether corrective actions were successful and efforts to increase supply chain transparency and build supplier capacity.

4.1 A priority non-conformance is defined as the highest severity of non-conformance and requires escalation by auditors or investigators. Priority non-conformances confirm the presence of underage workers, forced labour or modern slavery, health and safety issues that can cause immediate danger to life or serious injury, or environmental practices that can cause serious and immediate harm to the community. Priority non-conformance includes material breach or systemic breaking of code requirement or law.

Ingredient Sourcing

Topic Summary

Agricultural products entities source a wide variety of commodities and ingredients from farmers or intermediary distributors. The industry's ability to reliably source ingredients at desired price points fluctuates with crop yield, which may be affected by climate change, water scarcity, land management and other resource scarcity considerations. Entities that source more productive and less resource-intensive crops, or those that work closely with suppliers to increase their adaptability to climate change and other resource scarcity risks, may reduce crop price volatility and crop supply disruptions. Additionally, entities may improve their brand reputation and develop new market opportunities. Failure to effectively manage sourcing risks can result in higher costs of capital, reduced margins and constrained revenue growth.

Metrics

FB-AG-440a.1. Identification of principal crops and description of risks and opportunities presented by climate change

1 The entity shall identify any principal crops that are a priority to its business.

1.1 Principal crops are those crops that accounted for 10% or more of consolidated revenue in any of the last three reporting periods, as disclosed in FB-AG-000.A.

2 The scope of disclosure shall include crops cultivated directly by the entity, grown on a contract basis or sourced as a commodity.

2.1 Crops cultivated directly by the entity include those grown on farms owned or operated by the entity.

2.2 Crops grown on a contract basis include those for which the entity has contracted directly for the conditions of crop production and the quality of crops with the farmer, consistent with the Food and Agriculture Organization of the United Nations (FAO) 'Contract Farming Resource Center'.

2.3 Crops sourced as a commodity include those bought through the spot market, to-arrive bids, grain elevators or other measures by which the entity is unable to control the production process.

3 The entity shall describe the risks or opportunities that are presented to its principal crops by climate change scenarios, including, where relevant:

3.1 Identification of the risks presented by climate change, which may include availability of water, shifts in crop regions, pest migration and extreme weather events

3.2 Discussion of the scenarios used to determine the risks and opportunities presented by climate change

3.3 Discussion of how such scenarios will manifest (for example, effects directly on the entity or the entity's supply chain) and the potential implications that these would have on its priority crops

3.4 The timeline over which such risks and opportunities are expected to manifest.

4 The entity may discuss the methods or models used to develop these scenarios, including the use of global gridded crop models or scientific research provided by governmental and non-governmental organisations (for example, Intergovernmental Panel on Climate Change Climate Scenario Process).

5 The entity shall discuss efforts to assess and monitor the impacts of climate change and the related strategies to alleviate or adapt to any risks, and its efforts to recognise any opportunities (for example, FAO 'Climate-Smart Agriculture' approach).

5.1 Alleviation strategies may include use of crop insurance, investments in hedging instruments and supply chain diversification.

5.2 Adaptation strategies may include improving ecosystem management and biodiversity, development of tolerant crop varieties and optimising timing of planting and harvesting.

FB-AG-440a.2. Percentage of agricultural products sourced from regions with High or Extremely High Baseline Water Stress

1 The entity shall disclose the percentage of agricultural products sourced from regions with High or Extremely High Baseline Water Stress.

1.1 Agricultural products are defined as raw materials such as food, feed and biofuel ingredients sourced for use by the entity's operations.

2 The percentage shall be calculated as the cost of agricultural products purchased from Tier 1 suppliers that withdraw and consume water in regions with High or Extremely High Baseline Water Stress to produce the agricultural products divided by the total cost of agricultural products purchased from Tier 1 suppliers.

2.1 The entity shall identify Tier 1 suppliers that withdraw and consume water in locations with High (40–80%) or Extremely High (>80%) Baseline Water Stress as classified by the World Resources Institute's (WRI) water risk atlas tool, Aqueduct.

3 The scope of disclosure is agricultural products purchased from Tier 1 suppliers, including those grown on a contract basis or sourced as a commodity.

3.1 Tier 1 suppliers are defined as suppliers that transact directly with the entity for agricultural products.

3.2 Agricultural products grown on a contract basis include those for which the entity has directly contracted the conditions of crop production and the quality of crops with the farmer, consistent with the Food and Agriculture Organization of the United Nations (FAO) Contract Farming Resource Center.

3.3 Agricultural products sourced as a commodity include those bought through the spot market, to-arrive bids, grain elevators or other measures by which the entity is not able to control the production process.

4 If the entity is unable to identify or collect data pertaining to all Tier 1 suppliers, the entity shall disclose the percentage of agricultural products for which the source region and water risks are unknown.

Proposed amendments to FB-MP SASB Standard

Industry Description

The Meat, Poultry & Dairy industry produces raw and processed animal products, including beef, pork, poultry ~~meats~~, eggs and dairy products, for human and animal consumption. Important activities include animal raising, live animal transportation, slaughtering, processing and packaging. The industry's largest entities have international operations, and entities are integrated ~~vertically~~ to varying degrees, depending on the ~~type of~~ animal product produced. Large industry operators typically rely on contract or independent farmers to supply animals and may have varying degrees of control over their operations. Some entities produce their own animal feed to distribute to the farmers. The industry usually sells products ~~primarily~~ to entities in the Processed Foods industry and to retail distributors that distribute ~~finished products~~ to ~~key~~ end markets including restaurants, hotels, cafeterias ~~livestock and pet feed consumers,~~ and grocery retailers.

SUSTAINABILITY DISCLOSURE TOPICS & METRICS

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

TOPIC	METRIC	~~CATEGORY~~	UNIT OF MEASURE	CODE
Greenhouse Gas Emissions	(1) Gross ~~global~~ Scope 1 emissions, (2) percentage methane and (3) percentage subject to emissions-limiting regulations	~~Quantitative~~	Metric tonnes (t) CO_2-e, Percentage (%)	FB-MP-110a.1
	Description of Scope 1 greenhouse gas emissions targets ~~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	FB-MP-110a.2
Energy Management	(1) Total energy consumed, (2) purchased electricity consumed ~~percentage grid electricity~~ and (3) ~~percentage~~ renewable electricity consumed from (a) self-generation and (b) direct contracts	~~Quantitative~~	Gigajoules (GJ), ~~Percentage (%)~~	FB-MP-130a.1
Water Management	(1) Total water withdrawal, by source, ~~withdrawn,~~ (2) total water consumed; (3) percentages of water (a) withdrawn and (b) consumed from water-stressed locations ~~percentage of each in regions with High or Extremely High Baseline Water Stress~~	~~Quantitative~~	Megalitres (ML) ~~Thousand cubic metres (m^3)~~, Percentage (%)	FB-MP-140a.1
	Description of water-related ~~management~~ risks and opportunities and ~~discussion of~~ strategies ~~and practices~~ to manage them, including any targets set to monitor progress ~~mitigate those risks~~	~~Discussion and Analysis~~	n/a	FB-MP-140a.2
	~~Number of incidents of non-compliance associated with water quality permits, standards and regulations~~	~~Quantitative~~	~~Number~~	~~FB-MP-140a.3~~
	Total water discharged by (1) destination and (2) level of treatment		Megalitres (ML)	FB-MP-140a.4
Land Use & Ecological Impacts	~~Amount of animal litter and manure generated, percentage managed according to a nutrient management plan~~	~~Quantitative~~	~~Metric tonnes (t), Percentage (%)~~	~~FB-MP-160a.1~~
	~~Percentage of pasture and grazing land managed to conservation plan criteria~~	~~Quantitative~~	~~Percentage (%) by hectares~~	~~FB-MP-160a.2~~
	Percentage of animal ~~Animal~~ protein production from confined animal feeding operations	~~Quantitative~~	Percentage (%) by live weight ~~Metric tonnes (t)~~	FB-MP-160a.4 ~~FB-MP-160a.3~~
	(1) Total spatial footprint of operations, (2) area disturbed and (3) area restored		Square kilometres (km^2)	FB-MP-160a.5

TOPIC	METRIC	~~CATEGORY~~	UNIT OF MEASURE	CODE
	Percentage of the total spatial footprint of operations in or near environmentally sensitive locations		Percentage (%)	FB-MP-160a.6
	Percentages of livestock produced from direct farming operations determined to be deforestation- or conversion-free, including explanation of assessment methodology		Percentage (%) by live weight	FB-MP-160a.7
	Priority products from direct farming operations that are sensitive to nature- and climate-related physical risks		n/a	FB-MP-160a.8
	Percentage of livestock production from direct farming operations that implement and maintain a written nutrient management plan		Percentage (%) by live weight	FB-MP-160a.9
Food Safety	~~Global Food Safety Initiative (GFSI) audit (1) non-conformance rates and (2) associated corrective action rates for (a) major and (b) minor non-conformances~~	~~Quantitative~~	~~Rate~~	~~FB-MP-250a.1~~
	~~Percentage of supplier facilities certified to a Global Food Safety Initiative (GFSI) food safety certification programme~~	~~Quantitative~~	~~Percentage (%)~~	~~FB-MP-250a.2~~
	(1) Description ~~Number~~ of recalls issued for food safety reasons and (2) total weight of products recalled[1]	~~Quantitative~~	~~Number,~~ Metric tonnes (t)	FB-MP-250a.3
	Information about ~~Discussion of~~ markets that restrict, ban or suspend imports of the entity's products	~~Discussion and Analysis~~	n/a	FB-MP-250a.4
	Percentage of production volume from sites certified to internationally recognised food safety standards for (1) own operations and (2) co-packing operations		Percentage (%)	FB-MP-250a.5
	Processes, controls and procedures to ensure food safety throughout the value chain		n/a	FB-MP-250a.6
Antibiotic Use in Animal Production	Percentage of animal production that received (1) medically important antibiotics and (2) not medically important antibiotics, by ~~animal~~ type of livestock	~~Quantitative~~	Percentage (%) by weight	FB-MP-260a.1
Workforce Health & Safety	(1) Number of fatalities and (2) total ~~Total~~ recordable incident rate ~~(TRIR) and (2) fatality rate~~ for (a) ~~direct~~ employees and (b) non-employee workers; (3) average hours of health, safety and emergency response training ~~contract employees~~	~~Quantitative~~	Number, Rate, Hours (h)	FB-MP-320a.1
	Description of efforts to assess, monitor~~,~~ and mitigate acute and chronic ~~respiratory~~ health conditions	~~Discussion and Analysis~~	n/a	FB-MP-320a.2

~~[1] Note to **FB-MP-250a.3** – The disclosure shall include a description of notable recalls, such as those that affected a significant amount of product or those related to serious illnesses or fatalities.~~

TOPIC	METRIC	~~CATEGORY~~	UNIT OF MEASURE	CODE
Animal Health ~~Care~~ & Welfare	~~Percentage of pork produced without the use of gestation crates~~	~~Quantitative~~	~~Percentage (%) by weight~~	~~FB-MP-410a.1~~
	~~Percentage of cage-free shell egg sales~~	~~Quantitative~~	~~Percentage (%)~~	~~FB-MP-410a.2~~
	Percentage of production certified to a third-party animal welfare standard, by type of livestock and certification	~~Quantitative~~	Percentage (%) by weight	FB-MP-410a.3
	Description of animal welfare strategy, including targets, procedures and value chain integration		n/a	FB-MP-410a.4
	Description of risks and opportunities related to biosecurity, including strategies for disease management		n/a	FB-MP-410a.5
Product Innovation	Use of innovation in food products to address sustainability-related risks and opportunities		n/a	FB-MP-410b.1
~~Environmental & Social Impacts of Animal Supply Chain~~	~~Percentage of livestock from suppliers implementing conservation plan criteria~~	~~Quantitative~~	~~Percentage (%) by weight~~	~~FB-MP-430a.1~~
	~~Percentage of supplier and contract production facilities verified to meet animal welfare standards~~	~~Quantitative~~	~~Percentage (%)~~	~~FB-MP-430a.2~~
Environmental Supply Chain Management	Percentages of sourced (1) livestock and (2) animal feed determined to be deforestation- or conversion-free, including any targets set to monitor progress		Percentage (%) by weight	FB-MP-430b.1
	Priority sourced livestock and animal feed that are sensitive to nature- and climate-related physical risks in the supply chain		n/a	FB-MP-430b.2
	Percentage of sourced livestock from farms implementing and maintaining a written nutrient management plan		Percentage (%) by live weight	FB-MP-430b.3
	Percentage of animal protein sourced from confined animal feeding operations		Percentage (%) by live weight	FB-MP-430b.4
Social Supply Chain Management	Processes, controls and procedures for managing labour conditions and impacts on local communities in the supply chain, including human rights due diligence		n/a	FB-MP-430c.1
	Percentages of sourced animal feed certified to internationally recognised standards that trace the path of products through the supply chain		Percentage (%) by cost	FB-MP-430c.2
	Percentage of high-risk suppliers subject to an independent third-party audit or verification in the previous three years, with description of non-conformances and corrective actions		Percentage (%)	FB-MP-430c.3
~~Animal & Feed Sourcing~~	~~Percentage of animal feed sourced from regions with High or Extremely High Baseline Water Stress~~	~~Quantitative~~	~~Percentage (%) by weight~~	~~FB-MP-440a.1~~

TOPIC	METRIC	~~CATEGORY~~	UNIT OF MEASURE	CODE
	~~Percentage of contracts with producers located in regions with High or Extremely High Baseline Water Stress~~	~~Quantitative~~	~~Percentage (%) by contract value~~	~~FB-MP-440a.2~~
	~~Discussion of strategy to manage opportunities and risks to feed sourcing and livestock supply presented by climate change~~	~~Discussion and Analysis~~	~~n/a~~	~~FB-MP-440a.3~~

Table 2. ***Activity Metrics***

ACTIVITY METRIC	~~CATEGORY~~	UNIT OF MEASURE	CODE
Number of processing and manufacturing facilities	~~Quantitative~~	Number	FB-MP-000.A
Animal protein production, by category; percentage sourced from third parties ~~outsourced~~[2]	~~Quantitative~~	Various, Percentage (%)	FB-MP-000.B
Total number of (1) employees and (2) non-employee workers		Number	FB-MP-000.C
Total hours worked disaggregated by (1) employees and (2) non-employee workers		Hours	FB-MP-000.D

[2] Note to **FB-MP-000.B** – Categories of animal protein production may be based on animal (for example, chicken, pork or beef) or product type (for example, milk or shell eggs). Units of measure shall be appropriate to the animal or product category (for example, metric tonnes, number/head or litres).

Greenhouse Gas Emissions

Topic Summary

The Meat, Poultry & Dairy industry generates significant ~~Scope 1~~ greenhouse gas ~~(GHG)~~ emissions from both livestock and energy-intensive industrial processes. Greenhouse gas ~~GHG~~ emissions contribute to climate change and create additional regulatory compliance costs and risks for meat, poultry and dairy entities because of climate change mitigation policies. The majority of the industry's emissions stem ~~directly~~ from ~~the~~ animal husbandry ~~themselves~~ through the release of methane during enteric fermentation, and from manure management ~~storage and processing~~. The direct emissions from raising and producing livestock represent a significant portion of global greenhouse gas ~~total GHG~~ emissions ~~released among all sources~~. Currently, these emissions sources are not regulated widely, which presents uncertainties regarding the future of greenhouse gas ~~GHG~~ regulations for the industry. ~~Entities in this industry also use large quantities of fossil fuels to meet energy needs, generating additional direct GHG emissions and increasing exposure to regulatory risks.~~ Future emission regulations could result in additional operating or compliance costs. By implementing new technologies and sustainable practices to capture ~~animal~~ livestock emissions and improving ~~focusing on~~ energy efficiency, entities can ~~may~~ mitigate regulatory risk and volatile energy costs while also limiting greenhouse gas ~~GHG~~ emissions.

Metrics

FB-MP-110a.1. (1) Gross ~~global~~ Scope 1 emissions, (2) percentage methane and (3) percentage subject to emissions-limiting regulations

1 An ~~The~~ entity shall disclose (1) its gross ~~global~~ Scope 1 greenhouse gas ~~(GHG)~~ emissions in metric tonnes of carbon dioxide equivalents (CO_2-e). ~~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 In preparing this disclosure, the entity shall apply the measurement and disclosure requirements in paragraph 29(a) of IFRS S2 that are applicable to Scope 1 greenhouse gas emissions.

~~Emissions of all GHGs shall be consolidated and disclosed in metric tonnes of carbon dioxide equivalents (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 Scope 1 greenhouse gases can be emitted from stationary devices (for example, boilers, heaters, incinerators or compressors); mobile sources (for example, trucks, buses or other entity-owned vehicles); or from livestock-related emissions (for example, manure management or enteric fermentation).

~~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 An entity shall disclose (2) the percentage of gross Scope 1 emissions from methane emissions.

~~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 The percentage of methane is calculated as the Scope 1 methane emissions in metric tonnes CO_2-e divided by the gross Scope 1 greenhouse gas emissions in metric tonnes CO_2-e.

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 may include:

2.1.1 *GHG Reporting Guidance for the Aerospace Industry* published by the International Aerospace Environmental Group (IAEG)

2.1.2 *Greenhouse Gas Inventory Guidance: Direct Emissions from Stationary Combustion Sources* published by the US 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 generally is 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 and social information*.

3 An entity shall disclose (3) the percentage of its gross Scope 1 greenhouse gas emissions subject to applicable jurisdictional greenhouse gas laws, regulations or programmes intended to limit or reduce greenhouse gas emissions directly, such as cap-and-trade schemes, carbon tax or fee systems, and other emissions control (for example, command-and-control approach) and permit-based mechanisms.

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.

3.1 The percentage shall be calculated as the total quantity of gross Scope 1 greenhouse gas emissions subject to greenhouse gas emissions-limiting laws, regulations or programmes divided by the total quantity of gross Scope 1 greenhouse gas emissions.

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

3.2 The scope of applicable jurisdictional greenhouse gas emissions-limiting laws, regulations or programmes excludes emissions only subject to voluntary emissions-limiting frameworks (for example, voluntary trading systems), as well as reporting-based regulations.

4 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.

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.

FB-MP-110a.2. Description of Scope 1 greenhouse gas emissions targets ~~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 An ~~The~~ entity shall disclose: ~~discuss its long- and short-term strategy or plan to manage its Scope 1 greenhouse gas (GHG) emissions.~~

1.1 the qualitative and quantitative Scope 1 greenhouse gas emissions targets it has set for itself, and any targets it is required to meet by law or regulation;

~~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 information about its approach to setting and reviewing each target and how it monitors progress towards them; and

~~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).~~

1.3 information about its performance towards each target and an analysis of trends or changes in the entity's performance.

2 In preparing this disclosure, the entity shall apply the requirements in paragraphs 33–36 of IFRS S2 which relate to Scope 1 greenhouse gas emissions.

~~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.~~

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

~~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.~~

Energy Management

Topic Summary

Entities in the ~~The~~ Meat, Poultry & Dairy industry rely ~~relies~~ heavily on purchased electricity and fuel as critical inputs for value creation. Entities' use of electricity and fossil fuels in their operations results in indirect and direct greenhouse gas ~~(GHG)~~ emissions, which contribute to environmental impacts, including climate change and pollution. Purchased electricity is a significant operating cost for meat, poultry and dairy entities. Efficient energy usage is essential to maintain a competitive advantage in this industry, as purchased fuels and electricity account for a significant portion of total production costs. Decisions regarding alternative fuels use, renewable energy and on-site electricity generation versus purchasing from the grid can influence both the costs and the reliability of the energy supply, and the extent of regulatory risks from direct and indirect emissions.

Metrics

FB-MP-130a.1. (1) Total energy consumed, (2) purchased electricity consumed ~~percentage grid electricity~~ and (3) ~~percentage~~ renewable electricity consumed from (a) self-generation and (b) direct contracts

1 An ~~The~~ entity shall disclose (1) the total quantity ~~amount~~ of energy it consumed ~~as an aggregate figure,~~ in gigajoules (GJ).

1.1 Total ~~The scope of~~ energy consumed ~~consumption~~ includes all forms of energy used by the entity, ~~from all sources,~~ including fuel, electricity, heating, cooling and steam. ~~energy purchased from external sources and energy produced by the entity itself (self-generated). For example, direct fuel usage, purchased electricity, and heating, cooling and steam energy all are included within the scope of energy consumption.~~

1.2 Total energy consumed includes purchased or acquired energy and self-generated energy used by the entity.

~~The scope of energy consumption includes only energy directly consumed by the entity during the reporting period.~~

1.2.1 Purchased and acquired energy is energy that is purchased or otherwise brought into the entity's boundary.

1.2.2 Purchased energy includes energy from owned or operated generation facilities where energy attributes, such as certificates, have been sold or transferred.

1.2.3 Self-generated energy is generation owned or operated by the entity that consumes the energy.

1.2.4 In preparing this disclosure, the entity shall determine ownership or control using the same measurement approach that it uses to determine greenhouse gas emissions.

1.2.5 Total energy consumed excludes any energy the entity generates using fuel it has already consumed—that is, self-generated electricity consumed from fuel is counted only once as fuel consumed. For example, if the entity has a co-generator that uses fuel to produce electricity and then consumes the generated electricity, that energy would be counted only once as fuel consumed.

1.2.6 If the entity stores any energy, that energy is counted only once when the entity has consumed the energy and it is no longer stored.

1.3 An ~~In calculating energy consumption from fuels and biofuels, the~~ entity shall use lower ~~higher~~ heating values (LHV), ~~(HHV),~~ also known as net ~~gross~~ calorific values, to calculate energy

consumed from fuels and biofuels. The entity shall measure these values directly ~~(GCV), which are measured directly~~ or use the default net calorific values in the 2006 IPCC *Guidelines for National Greenhouse Gas Inventories* (Table 1.2 Default Net Calorific Values (NCVs) and Lower and Upper Limit of the 95% Confidence Intervals, Volume 2: Energy, Chapter 1). ~~taken from the Intergovernmental Panel on Climate Change (IPCC).~~

1.3.1 The requirement to use such heating values applies unless the entity is required, in whole or in part, by a jurisdictional authority or an exchange on which it is listed to use different heating values for converting fuels into GJ. In such a case, the entity is permitted to instead use the heating values required by such a jurisdictional authority or exchange for the part of the entity to which that requirement applies, for as long as that requirement applies to that part of the entity.

1.3.2 If the entity uses heating values other than LHV for converting fuels into GJ, the entity shall disclose information about the heating values used.

2 An ~~The~~ entity shall disclose (2) the quantity ~~percentage~~ of purchased or acquired electricity ~~energy~~ it consumed (in GJ) included in the quantity disclosed as total energy consumed. ~~that was supplied from grid electricity.~~

2.1 Purchased electricity includes electricity, heating, cooling or steam.

~~The percentage shall be calculated as purchased grid electricity consumption divided by total energy consumption.~~

3 An ~~The~~ entity shall disclose ~~(3)~~ the quantity of electricity from renewable energy sources it consumed (in GJ), disaggregated between (3a) self-generation and (3b) direct contracts. ~~percentage of energy consumed that was renewable energy.~~

3.1 Renewable energy sources are ~~is~~ defined as sources capable of being replenished in a short time through ecological cycles or agricultural processes, ~~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 Renewable electricity include electricity, heating, cooling or steam.

~~The percentage shall be calculated as renewable energy consumption divided by total energy consumption.~~

3.3 Renewable electricity from self-generation is limited to that consumed from owned or operated equipment, where the electricity is produced and consumed by the same entity.

~~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 programme, 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 shall be retained (not sold) and retired or cancelled on behalf of the entity for the entity to claim them as renewable energy.~~

~~3.3.2 For renewable PPAs and green power products, the agreement shall explicitly include and convey that RECs and GOs be retained or replaced and retired or cancelled on behalf of the entity 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, renewable electricity from self-generation excludes electricity associated with contractual instruments entered into by the entity if the contractual instrument has been sold by the entity.

~~For the purposes of this disclosure, the scope of renewable energy from biomass sources is limited to materials certified to a third-party standard (for example, 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 or materials eligible for an applicable jurisdictional renewable portfolio standard.~~

3.5 Direct contracts include renewable electricity consumed that comes from a direct line transfer, such as when electricity production is fed directly and exclusively to a single entity. Direct contracts also include renewable electricity consumed related to contracts where the entity has negotiated with a specific electricity generator to supply renewable electricity to the entity with no grid transfers.

3.6 If the entity purchases or acquires renewable electricity through other contractual instruments, the entity shall provide information about any of these instruments that is necessary to inform the understanding of users of general purpose financial reports of the procurement decisions made by the entity regarding various energy sources to manage energy consumption-related risks and opportunities, including those associated with Scope 2 emissions.

3.6.1 If the entity purchases renewable electricity through a contractual instrument, the entity shall apply the Scope 2 Quality Criteria as defined in the Greenhouse Gas Protocol's *GHG Protocol Scope 2 Guidance: An amendment to the GHG Protocol Corporate Standard* (2015).

3.7 If the entity consumes renewable electricity from biomass sources, it shall disclose the quantity (in GJ) separately.

3.7.1 Renewable electricity from biomass sources includes only materials certified to a third-party standard.

3.7.2 An entity shall disclose the third-party standard to which the materials are certified.

~~4 The entity shall apply conversion factors consistently for all data reported under this disclosure, such as the use of HHVs for fuel use (including biofuels) and conversion of kilowatt hours (kWh) to GJ (for energy data including electricity from solar or wind energy).~~

Water Management

Topic Summary

~~The~~ Meat, Poultry & Dairy industry operations such as animal rearing and industrial processing are ~~is~~ water-intensive and often generate substantial volumes of effluents and wastewater ~~both in raising livestock and industrial processing. Additionally, entities in the industry typically generate wastewater or effluent, from both animal production and processing activities~~. As water stress ~~water scarcity~~ becomes an issue of growing importance because of population growth, increasing consumption per capita, poor water management and climate change, entities ~~in the industry~~ may face higher operating ~~operational~~ costs, reduced production capacity, or revenue loss ~~lost revenues because of water shortages or regulations resulting in production reduction~~. Entities can manage water-related risks and opportunities through capital investments and assessment of operational ~~facility~~ locations relative to water stress ~~scarcity~~ risks, improvements to operational efficiency, and partnerships with regulators and communities on issues related to water access and effluent management.

Metrics

FB-MP-140a.1. (1) Total water withdrawal, by source, ~~withdrawn,~~ (2) total water consumed; (3) percentages of water (a) withdrawn and (b) consumed from water-stressed locations ~~percentage of each in regions with High or Extremely High Baseline Water Stress~~

1 An ~~The~~ entity shall disclose (1) the quantity ~~amount~~ of water, in megalitres, ~~thousands of cubic metres,~~ withdrawn from all sources, disaggregated by source.

1.1 Water withdrawal is defined as the sum of all water drawn from ~~Water sources include~~ surface water ~~(including water from wetlands, rivers, lakes and oceans)~~, groundwater, seawater, produced water, or a third party for any use during the reporting period. ~~rainwater collected directly and stored by the entity, and water and wastewater obtained from municipal water supplies, water utilities or other entities.~~

1.2 Water sources include:

1.2.1 surface water, defined as water that occurs naturally on the Earth's surface in ice sheets, ice caps, glaciers, bogs, ponds, lakes, rivers and streams;

1.2.2 groundwater, defined as water held in and recoverable from an underground formation;

1.2.3 seawater, defined as water in a sea or ocean;

1.2.4 produced water, defined as water that enters an entity's boundary by extraction (for example, crude oil), processing (for example, sugar cane processing), or by use of any raw material, and which must be managed by the entity; and

1.2.5 third-party water, defined as water supplied by municipal water suppliers, wastewater treatment plants, public or private utilities, and other organisations involved in the provision, transport, treatment, disposal, or use of water and effluent.

~~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. If no legal definition exists, fresh water shall be considered to be water that has less than 1,000 parts per million of dissolved solids.~~

~~2.2 Water obtained from a water utility in compliance with jurisdictional drinking water regulations can be assumed to meet the definition of fresh water.~~

2 ~~3~~ An ~~The~~ entity shall disclose (2) the volume ~~amount~~ of water, in megalitres, ~~thousands of cubic metres,~~ consumed in its direct operations.

2.1 ~~3.1~~ Water consumption is defined as~~:~~ the sum of all water withdrawn and integrated into products, used in the production of crops or generated as waste, that has evaporated, transpired, or been consumed by humans or livestock, or is polluted to the point of being unusable by other users, and is not discharged back to surface water, groundwater, seawater or a third party.

2.1.1 Water consumption includes water that has been stored during the reporting period for use or discharge in a subsequent reporting period.

~~3.1.1 Water that evaporates during withdrawal, use 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 analyse all its operations for water risks and identify activities that withdraw and consume water in locations with High (40–80%) or Extremely High (>80%) Baseline Water Stress as classified by the World Resources Institute's (WRI) Water Risk Atlas tool, Aqueduct.~~

3 ~~5~~ An ~~The~~ entity shall disclose (3a) the volume of water withdrawn, in megalitres, from water-stressed ~~in~~ locations ~~with High or Extremely High Baseline Water Stress~~ as a percentage of the total water withdrawn.

3.1 Water stress is defined as the ability, or lack thereof, to meet human or ecological demand for water and can refer to the availability, quality or accessibility of water.

3.2 The entity shall disclose how it identifies water-stressed locations, for example:

3.2.1 using the World Resources Institute**'**s *Aqueduct Water Risk Atlas* to evaluate whether the ratio of total annual water withdrawal to total available annual renewable water supply (baseline water stress) is high (40**–**80%) or extremely high (more than 80%); or

3.2.2 using the World Wildlife Fund**'**s *Water Risk Filter* to evaluate whether the ratio of water consumption to water availability (water depletion) is moderate (dry-year depletion, where for at least 10% of the time, the monthly depletion ratio is more than 75%), high (seasonal depletion, where for at least an average of one month of the year, the depletion ratio is more than 75%), or very high (ongoing depletion, where the depletion ratio on average is more than 75%).

3.3 The entity shall disclose information about the internal assessments it uses to identify water-stressed locations, for example, whether the entity considers more granular local-level data.

4 ~~6~~ An ~~The~~ entity shall disclose (3b) the volume of water consumed from water stressed ~~in~~ locations ~~with High or Extremely High Baseline Water Stress~~ as a percentage of the total water consumed.

5 If information for this disclosure is estimated or modelled, rather than sourced from direct measurements, the entity shall explain its estimation methods.

FB-MP-140a.2. Description of water-related ~~management~~ risks and opportunities and ~~discussion of~~ strategies ~~and practices~~ to manage them, including any targets set to monitor progress ~~mitigate those risks~~

1 An ~~The~~ entity shall describe its ~~water management~~ risks associated with water withdrawals, water consumption and discharge of water or wastewater.

1.1 Risks associated with water withdrawals and water consumption include risks to the availability and quality of ~~adequate, clean~~ water resources, which include:

1.1.1 environmental ~~Environmental~~ constraints—such as operating in water-stressed regions, drought, floods, concerns of aquatic impingement or entrainment, interannual or seasonal variability, water quality that requires additional treatment at the point of input, and risks from the impact of climate change; and

1.1.2 regulatory ~~Regulatory~~ and financial constraints—such as water price volatility ~~in water costs~~, stakeholder perceptions and concerns related to water withdrawals (for example, those involving ~~from~~ local communities, non-governmental organisations and regulatory agencies), direct competition with ~~and impact from the actions of~~ other users (for example, commercial and municipal users), restrictions to withdrawals because of regulations, and constraints on the entity's ability to obtain and retain water rights or permits.

1.2 Risks associated with discharged ~~the discharge of~~ water or wastewater include the ability to obtain or retain rights or permits related to discharges, regulatory compliance related to discharges, restrictions on ~~to~~ discharges, ~~the ability to maintain control over the~~ temperature control of ~~water~~ discharges and risks stemming from impacts on local ecosystems and communities.~~, liabilities, reputational risks and increased operating costs because of regulation, stakeholder perceptions and concerns related to water discharges (for example, those from local communities, non-governmental organisations and regulatory agencies).~~

2 An ~~The~~ entity shall ~~may~~ describe how its water-related ~~management~~ risks vary by: ~~in the context of:~~

2.1 ~~How risks may vary by~~ withdrawal source~~;, including 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; and~~

2.2 ~~How risks may vary by~~ discharge destinations, including surface water, groundwater, seawater or wastewater utilities~~;~~ .

2.3 local regulations, including emerging regulations; and

2.4 location of operating facilities.

3 An entity shall disclose the locations of operating facilities where water-related risks are concentrated.

~~The entity may discuss the potential effects that water management risks may have on its operations and the time line over which such risks are expected to manifest.~~

~~3.1 Effects include those associated with costs, revenue, liabilities, continuity of operations and reputation.~~

4 An entity shall disclose quantitative and qualitative information about how water-related risks and opportunities have affected, and are anticipated to affect, the entity's financial position, financial performance and cash flows both for the reporting period and over the short, medium and long term.

~~The entity shall discuss its short- and long-term strategies or plan to mitigate water management risks, which may include:~~

~~4.1 The scope of its strategy, plans, goals or targets, such as how they relate to various business units, geographies or water-consuming operational processes;~~

~~4.2 Any water management goals or targets it has prioritised, and an analysis of performance against those goals or targets;~~

~~4.2.1 Goals and targets include those associated with reducing water withdrawals, reducing water consumption, reducing water discharges, reducing aquatic impingements, improving the quality of water discharges and maintaining regulatory compliance.~~

4.3 The activities and investments required to achieve the plans, goals or targets, and any risks or limiting factors that might affect achievement of the plans or targets; and

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

5 The entity shall disclose any targets it has set, and any targets it is required to meet by law or regulation, to mitigate or adapt to water-related risks or take advantage of water-related opportunities.

5.1 In preparing this disclosure, the entity shall apply the requirements in paragraphs 51-53 of IFRS S1 that are applicable to the entity's water related targets.

6 The entity shall disclose its strategies for managing water-related risks and opportunities, and achieving water-related targets, including:

5 For water management targets, the entity shall additionally disclose:

5.1 Whether the target is absolute or intensity-based, and the metric denominator if it is an intensity-based target;

5.2 The time lines for the water management plans, including the start year, the target year and the base year; and

5.3 The mechanism(s) for achieving the target, including:

6.1 5.3.1 efficiency Efficiency efforts (for example, using, such as the use of water recycling or closed-loop systems);

6.2 5.3.2 product Product innovations (for example, such as redesigning products or services to require less water);

6.3 5.3.3 process Process and equipment innovations (for example, reducing , such as those that enable the reduction of aquatic impingements or entrainment); entrainments;

6.4 5.3.4 use Use of tools and technologies (for example, the World Wildlife Fund Water Risk Filter, the Global Water Tool and Water Footprint Network Footprint Assessment Tool) to analyse water use, risks and opportunities; and

6.5 5.3.5 collaborations Collaborations or programmes with communities in place with the community or other organisations.

5.4 The percentage reduction or improvement from the base year, in which the base year is the first year against which water management targets are evaluated towards the achievement of the target.

7 6 An The entity shall disclose discuss whether its water management practices resulted result in any lifecycle impacts additional life cycle effects or trade-offs in its organisation, including trade-offs in land use, energy production and greenhouse gas (GHG) emissions, and why the entity chose these practices despite such life cycle trade-offs.

FB-MP-140a.3. Number of incidents of non-compliance associated with water quality permits, standards and regulations

1 The entity shall disclose the total number of incidents of non-compliance, including violations of a technology-based standard and exceedances of quantity or quality-based standards.

2 The scope of disclosure includes incidents governed by applicable jurisdictional statutory permits and regulations, which include the discharge of a hazardous substance, violation of pre-treatment requirements or total maximum daily load (TMDL) exceedances.

~~3 The scope of disclosure shall only include incidents of non-compliance that resulted in a formal enforcement action(s).~~

~~3.1 Formal enforcement actions are defined as governmental recognised actions that address a violation or threatened violation of water quantity or quality laws, regulations, policies or orders, and can result in administrative penalty orders, administrative orders and judicial actions, among others.~~

~~4 Violations shall be disclosed, regardless of their measurement methodology or frequency. These include violations for:~~

~~4.1 Continuous discharges, limitations, standards and prohibitions that are generally expressed as maximum daily, weekly and monthly averages; and~~

~~4.2 Non-continuous discharges or limitations that are generally expressed in terms of frequency, total mass, maximum rate of discharge and mass or concentration of specified pollutants.~~

FB-MP-140a.4. Total water discharged by (1) destination and (2) level of treatment

1 An entity shall disclose the (1) total volume of water discharged, in megalitres, disaggregated by destination.

1.1 Water discharge is defined as the sum of effluents, used water, and unused water released to surface water, groundwater, seawater or a third party, for which the organisation has no further use.

1.1.1 Surface water is defined as water that occurs naturally on the Earth's surface in ice sheets, ice caps, glaciers, bogs, ponds, lakes, rivers and streams.

1.1.2 Groundwater is defined as water held in and recoverable from an underground formation.

1.1.3 Seawater is defined as water in a sea or ocean.

1.1.4 Third-party water is defined as water discharged by municipal water suppliers and municipal wastewater treatment plants, public or private utilities, and other organisations involved in the provision, transport, treatment, disposal, or use of water and effluent.

1.2 The scope of disclosure includes water released into a receiving waterbody at either a defined discharge point (point-source discharge) or dispersed over land in an undefined manner (non-point-source discharge).

2 An entity shall disclose (2) the total volume of water discharged, in megalitres, disaggregated by level of treatment.

2.1 Water treatment is defined as the physical, chemical or biological processes that improve water quality by removing solids, pollutants, and organic matter from water and effluents.

2.2 Treatment levels include:

2.2.1 primary treatment, which aims to remove solid substances that settle or float on the water surface;

2.2.2 secondary treatment, which aims to remove substances and materials that have remained in the water, or are dissolved or suspended in it; and

2.2.3 tertiary treatment, which aims to upgrade water to a higher level or quality before it is discharged, for example, removing heavy metals, nitrogen, and phosphorus.

2.3 If the entity discharges water that it determines does not require treatment, it shall disclose the associated volume in megalitres.

2.4 The level of treatment shall be reported for any water or effluents at the point of discharge, whether treated by the entity on-site or sent to a third party for treatment.

2.5 The entity shall disclose how it determines the appropriate level of treatment for water discharges.

Land Use & Ecological Impacts

Topic Summary

Entities in the Meat, Poultry & Dairy industry that own and operate farms depend on land and ecosystems for their business. Entities in the Meat, Poultry & Dairy industry are facing more challenges in optimising land use for livestock and feed production to meet increasing demand. Consumer preferences are increasingly shifting towards sustainable and ethically produced protein sources. Meanwhile, pressures on ecosystems and climate change present physical risks that could impact soil health and the capacity of land to support livestock and feed crops over the short, medium and long term. Environmental impacts from animal rearing, land clearing and nutrient management could exacerbate these issues and contribute to the degradation of land, natural resources and ecosystem services on which entities depend. These challenges can lead to decreased carrying capacity, higher feed costs and land devaluation, alongside regulatory and reputational risks. By adopting sustainable practices and innovative technologies, entities can manage these risks effectively. Entities can capitalise on opportunities to operate efficiently and generate revenue by meeting consumer expectations.

NOTE: The metrics associated with this topic are designed to capture information regarding direct livestock operations. The metrics associated with the Environmental Supply Chain Management and Social Supply Chain Management disclosure topic are designed to capture information about how entities in this industry address similar risks and opportunities in the supply chain.

~~Meat, Poultry & Dairy industry operations have diverse ecological impacts, primarily because of significant land-use requirements to raise livestock and the contamination of the air, land and groundwater by animal waste. While the impacts are varied, both traditional and confined animal feeding operations may result in significant ecological impacts. The primary concern from confined animal feeding operations and animal-product processing facilities is the generation of large and concentrated amounts of waste and pollutants. Treating effluent and waste from facilities involves significant costs. Non-confined animal feeding operations require large tracts of pastureland and may result in the physical degradation of land resources. Land use and ecological impacts pose legal and regulatory risks in the form of fines, litigation and difficulties obtaining permits for facility expansions or waste discharges.~~

Metrics

~~FB-MP-160a.1. Amount of animal litter and manure generated, percentage managed according to a nutrient management plan~~

~~1 The entity shall disclose the total amount, in metric tonnes, of animal litter and manure generated at its facilities.~~

~~1.1 The scope of animal litter and manure includes both dry and liquid manures and litter.~~

~~2 The entity shall disclose the percentage of animal litter and manure generated from facilities that implement a nutrient management plan divided by the total amount of animal litter and manure generated.~~

~~2.1 A nutrient management plan is defined as a documented management practice that addresses the generation, collection, treatment, storage and agronomic use of all manure.~~

~~2.2 At a minimum, the nutrient management plan shall meet these minimum specific elements:~~

~~2.2.1 background and site information;~~

~~2.2.2 manure and wastewater handling and storage;~~

~~2.2.3 farmstead safety and security;~~

2.2.4 land treatment practices;

2.2.5 soil and risk assessment analyses;

2.2.6 nutrient management;

2.2.7 recordkeeping; and

2.2.8 references.

3 The scope of disclosure includes facilities that the entity owns and operates, facilities from which it contracts animal production (for example, independent producers) and facilities that otherwise supply animal protein to the entity (for example, for processing by the entity).

4 The scope of disclosure includes production areas and land treatment areas.

4.1 Production area includes the animal confinement area, storage areas for feed and other raw materials, animal mortality facilities and manure handling containment or storage areas.

4.2 Land treatment area includes land under control of the entity or its contracted suppliers (for example, independent producers), whether it is owned, rented or leased, and to which manure or process wastewater is, or might be, applied for crop, hay or pasture production or other uses.

FB-MP-160a.2. Percentage of pasture and grazing land managed to conservation plan criteria

1 The entity shall disclose the percentage of pasture and grazing land that is managed to applicable jurisdictional conservation plan criteria.

1.1 The percentage shall be calculated as the area of pasture and grazing land managed to applicable conservation plan criteria divided by the total area of pasture and grazing land.

1.2 Conservation plans are jurisdictional standards or regulations intended to promote sustainable management of natural resources, which may include soil, water, air, and related plant and animal resources.

2 The scope of disclosure includes land defined as rangeland, which is land on which the historic climax plant community is predominantly grasses, grass-like plants, forbs or shrubs, includes lands revegetated naturally or artificially when routine management of that vegetation is accomplished mainly through manipulation of grazing, and includes grazed forest, naturalised pasture, pastureland, hayland, and grazed and hayed cropland.

2.1 The scope of disclosure includes land from operations that the entity owns and operates, operations with which it contracts animal production (for example, independent producers) and operations that otherwise supply animal protein to the entity (for example, for processing by the entity).

3 The entity shall disclose the jurisdictional standard or regulation used for its calculation.

FB-MP-160a.4. FB-MP-160a.3. Percentage of animal Animal protein production from confined animal feeding operations

1 The entity shall disclose the percentage amount, by live weight in metric tonnes, of animal protein production from confined animal feeding operations.

1.1 Confined animal feeding operations are defined as animal feeding practices in dense population or limited spaces. They require high resource inputs, such as chemicals, for maximum livestock production, which can lead to environmental impacts such as pollution and waste.

1.1.1 Confined animal feeding operations also could be referred to as intensive farming, resource-intensive animal production or concentrated animal feeding operations.

1.2 If the entity uses a jurisdictional definition of confined animal feeding operations, the entity shall disclose the definition used.

~~1.2 The amount shall be calculated as the carcass (or dressed) weight of animal protein.~~

~~1.2.1 Carcass is defined as all parts, including viscera, of any slaughtered livestock.~~

~~1.3 The entity may use applicable jurisdictional definitions of confined animal feeding operations.~~

2 The scope is limited to ~~includes~~ animal protein from operations that the entity owns and operates~~,~~ ~~operations with which it contracts animal production (for example, independent producers) and operations that otherwise supply animal protein to the entity (for example, for processing by the entity)~~.

3 The entity shall disclose information about its process, controls and procedures to mitigate risks associated with confined animal feeding operations.

FB-MP-160a.5. (1) Total spatial footprint of operations, (2) area disturbed and (3) area restored

1 An entity shall disclose (1) the total spatial footprint (area) of its operations in square kilometres (km2) at the reporting date.

1.1 The total spatial footprint of the entity's operations includes the cumulative area disturbed during the current and prior periods by its operations that has not been restored.

1.2 The area disturbed is defined as the aggregate geographical area that has been subject to human activity that has changed the condition of the area, relative to an original reference state.

1.2.1 Human activity is defined as the entity's activities and operations that have physically disrupted, modified, covered, compacted, moved or otherwise altered the characteristics of terrestrial, freshwater aquatic or marine ecosystems from before such activity.

1.2.2 The entity's total spatial footprint of operations includes the area disturbed during the current period and continues to be the area disturbed in all subsequent reporting periods unless the area disturbed is restored.

1.2.3 For bodies of water, the disturbed area includes the bottom or seabed beneath the water's surface.

1.3 The disclosure includes information about the aggregate measured area of the entity's spatial footprint in terrestrial, freshwater aquatic or marine ecosystems (land, wetlands, riverine, navigable waterways, littoral or ocean) on any leasehold, concession or property that the entity leases, manages or owns, and any rights of way or easements associated with them.

1.4 This disclosure includes all active sites, recently decommissioned sites awaiting restoration and sites being restored.

1.5 Area restored is defined as a previously disturbed area that has been restored according to applicable jurisdictional law or regulation.

1.6 If the jurisdiction in which the entity operates has no applicable law or regulation to define a previously disturbed area that has been restored, a restored area is defined as the cumulative geographical area that has been subject to human intervention to return a degraded, damaged or destroyed area or ecosystem to an approximation of an original reference state.

1.6.1 Ecological restoration is defined as re-establishing the ecosystem's composition, structure and function, usually bringing it back to its original (pre-disturbance) state or to a healthy

state close to the original. Ecological restoration focuses on biodiversity conservation and ecological integrity.

1.6.2 Ecosystem restoration is defined as a restored area that demonstrates resilience to normal ranges of environmental stress and disturbance and interacts with contiguous ecosystems in terms of biotic and abiotic flows and cultural interactions. An ecosystem is restored when it contains sufficient biotic and abiotic resources to sustain itself structurally and functionally and can continue its development without further assistance or subsidy.

2 An entity shall disclose (2) the area disturbed by the entity's operations, in km^2, during the current reporting period.

3 An entity shall disclose (3) the area previously disturbed by operations that has been restored (in km^2) during the reporting period.

3.1 An area is no longer part of the entity's spatial footprint of operations once post-closure restoration and remediation efforts are complete as defined by applicable jurisdictional law or regulation (even if after-monitoring is necessary).

4 The disclosure includes information about any adjustments to the entity's total spatial footprint of operations, area disturbed or area restored resulting from acquisitions, mergers and divestments or disposals completed during the reporting period.

FB-MP-160a.6. Percentage of the total spatial footprint of operations in or near environmentally sensitive locations

1 An entity shall disclose the percentage of its total spatial footprint (area) of operations located in or near environmentally sensitive locations at the reporting date.

1.1 The percentage is calculated as the area of the entity's spatial footprint of operations located in or near environmentally sensitive locations divided by the entity's total spatial footprint of operations.

1.1.1 The entity's spatial footprint of operations is defined as the measured area of its operational physical footprint in terrestrial, freshwater and marine ecosystems.

1.2 The disclosure includes land and bodies of water, such as wetlands, streams, rivers, lakes, navigable waterways and littoral or ocean environments, on any leasehold, concession or property that the entity leases, manages or owns and any rights of way or easements associated with them.

2 Environmentally sensitive locations are defined as areas where an entity's assets or activities interface with nature in areas deemed to be ecologically sensitive. Such locations are defined as:

2.1 being important for biodiversity;

2.2 having high ecosystem integrity;

2.3 exhibiting rapidly declining ecosystem integrity; or

2.4 being important for ecosystem service provision.

3 Environmentally sensitive locations include:

3.1 International Union for Conservation of Nature (IUCN) protected areas (categories I–VI);

3.2 Ramsar Wetlands of International Importance;

3.3 United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Sites;

3.4 UNESCO's Man and the Biosphere Programme's biosphere reserves 'core areas';

3.5 Natura 2000 sites;

3.6 Ocean+ Habitats 'Protected Areas' (marine and coastal);

3.7 a clearly defined geographical area, recognised, dedicated and managed, through legal or other effective means by applicable jurisdictional authorities, to achieve the long-term conservation of nature with associated ecosystem services and cultural values (such as the protected areas listed in the World Database of Protected Areas and mapped on the Protected Planet website); or

3.8 an endangered species habitat where species on the IUCN Red List of Threatened Species that are classified as Critically Endangered or Endangered are known to reside.

3.8.1 Species reside in an area if they are resident, present during breeding or non-breeding season, or if they use the area for passage.

3.8.2 For the purposes of disclosure, 'passage' is defined as all areas of land or water that a migratory species inhabits, stays in temporarily, crosses or overflies at any time on its normal migration route.

4 An entity's operations are defined as being 'in or near' an environmentally sensitive location if any part of the entity's spatial footprint of operations is in or within five kilometres of the boundary of an environmentally sensitive location.

4.1 The disclosure includes information about operational facilities for which future operations have been formally announced and planned changes to facility boundaries are included in approved expansion plans.

FB-MP-160a.7. Percentages of livestock produced from direct farming operations determined to be deforestation- or conversion-free, including explanation of assessment methodology

1 An entity shall disclose the percentage of its livestock production in its direct farming operations, by live weight, it has determined to be deforestation- or conversion-free.

1.1 Deforestation is defined as the temporary or permanent human-induced conversion of forested land to non- forested land.

1.2 Conversion is defined as changing a natural ecosystem to another use or a profound change in a natural ecosystem's species composition, structure or function.

1.3 The entity shall disaggregate the information by the type of livestock.

1.4 Disclosure is limited to livestock that have been found to contribute to deforestation or conversion and are important to the entity's business.

2 An entity shall describe the assessment methods used to determine that livestock production is deforestation- or conversion-free. Assessment methods include monitoring, certification, sourcing from low-risk jurisdictions with no or negligible recent conversion.

2.1 The entity shall disclose its reason for choosing the assessment method(s) and identify limitations in its methodology.

3 An entity shall disclose information about any targets it has set to monitor progress towards achieving its strategic goals related to deforestation or conversion, and any targets it is required to meet by law or regulation.

3.1 In preparing this disclosure, the entity shall apply the requirements in paragraphs 51-53 of IFRS S1 that are applicable to the entity's deforestation or conversion targets.

3.2 The entity shall disclose information about any changes in its practices that are required to meet its targets.

FB-MP-160a.8. Priority products from direct farming operations that are sensitive to nature- and climate-related physical risks

1 An entity shall disclose the priority products from its direct farming operations that are sensitive to nature- and climate-related physical risks and describe how its production of these products could reasonably be expected to be affected by such risks.

1.1 Priority products are defined as products that constitute the entity's largest sources of revenue or are otherwise identified by the entity as essential to its business model.

1.2 Products are sensitive to nature- and climate-related physical risks if those risks could reasonably be expected to affect the entity's ability to produce animal protein products at desired price points or in desired quantities over the short, medium or long term.

1.3 Relevant nature- and climate-related physical risks might include climate change, extreme weather, droughts, floods, water stress, storms, degradation of soil health, ecosystem change or biodiversity loss.

2 For each nature- and climate-related physical risk, the entity shall specify the time horizon—short, medium or long term—over which the effects of the nature- and climate-related physical risk could reasonably be expected to occur.

2.1 The entity shall explain how it defines 'short term', 'medium term' and 'long term' and how these definitions are linked to the planning horizons it uses for strategic decision-making.

3 An entity shall disclose its products or product categories that are reliant on the priority products vulnerable to nature- and climate-related physical risks.

4 An entity shall describe the resilience of its strategy, business model and supply chain to environmental-related changes, developments and uncertainties, taking into consideration the entity's identified nature- and climate-related physical risks.

5 An entity shall describe the strategies it uses to mitigate nature- and climate-related physical risks, which might include investing in research and development for manure and nutrient management and implementing water efficiency technologies.

FB-MP-160a.9. Percentage of livestock production from direct farming operations that implement and maintain a written nutrient management plan

1 The entity shall disclose the percentage of its livestock, by live weight, produced in farms owned or controlled by the entity that implemented and maintained a written nutrient management plan during the reporting period.

1.1 A nutrient management plan is a documented management practice that addresses the generation, collection, treatment, storage and agronomic use of manure.

1.2 The percentage is calculated as the total live weight of livestock produced at facilities that implement and maintain a written nutrient management plan, divided by the total live weight of livestock produced by the entity during the reporting period.

2 The disclosure is limited to facilities owned or controlled by the entity.

Food Safety

Topic Summary

Meat, poultry and dairy products are either sold directly to consumers (for example, milk or eggs) or are processed into a wide variety of foods. Maintaining product quality and safety is crucial because contamination by pathogens, chemicals or spoilage presents serious health risks to humans and animals. Food safety issues that arise within an entity's value chain can ~~practices and procedures in the industry are often subject to intense scrutiny and oversight, and outbreaks of diseases among livestock may~~ result in recalls of final products. ~~increased regulation. Product recalls can harm brand reputation, reduce revenues and lead to costly fines.~~ Product recalls ~~Recalls~~ can ~~also~~ increase regulatory scrutiny, which may lead to trade restrictions. Poor management of food quality and safety may impair brand value, reduce revenues and increase costs due to recalls, fines, lost inventory or litigation. Obtaining food safety certifications and ensuring suppliers and distributors meet ~~follow~~ food safety guidelines can ~~may~~ help entities in the industry safeguard ~~against~~ product safety ~~risks~~ and communicate the ~~improve consumers' perceived~~ quality of their products to retailers and consumers.

Metrics

~~FB-MP-250a.1. Global Food Safety Initiative (GFSI) audit (1) non-conformance rates and (2) associated corrective action rates for (a) major and (b) minor non-conformances~~

~~1 The entity shall disclose (1) its facilities' non-conformance rates with Global Food Safety Initiative (GFSI) recognised food safety certification programmes for (a) major non-conformances, and separately, (b) minor non-conformances.~~

~~1.1 A major non-conformance is defined by the relevant GFSI-recognised certification programme and includes the highest severity of non-conformances requiring escalation by auditors. Major non-conformances may arise from significant risks to food safety, non-compliance with relevant regulatory requirements or failure to correct minor non-conformances. Major non-conformances must be corrected in accordance with the relevant GFSI-recognised certification programme under audit.~~

~~1.2 A minor non-conformance is defined by the relevant GFSI-recognised certification programme and by itself does not confirm a systemic problem.~~

~~1.3 The entity shall calculate the non-conformance rates as the number of non-conformances (for each respective category) identified in its facilities divided by the number of facilities audited.~~

~~1.4 The scope of the disclosure includes audit results from facilities owned or operated by the entity.~~

~~2 The entity shall disclose (2) the corrective action rates associated with its facilities' (a) major non-conformances, and separately, (b) minor non-conformances.~~

~~2.1 A corrective action is defined as the completion of an action (generally identified in a Corrective Action Plan), within the time line defined by the GFSI-recognised certification programme, designed to eliminate the cause of a detected non-conformance, including implementing practices or systems to eliminate any non-conformance and ensure no reoccurrence of the non-conformance, as well as verifying the action taken.~~

~~2.2 The entity shall calculate the corrective action rates as the number of corrective actions that address non-conformances (for each respective category) divided by the total number of non-conformances identified (for each respective category).~~

~~3 The entity may disclose the relevant GFSI-recognised certification programme used to audit its facilities.~~

~~FB-MP-250a.2. Percentage of supplier facilities certified to a Global Food Safety Initiative (GFSI) food safety certification programme~~

~~1 The entity shall disclose the percentage of its supplier facilities certified to a Global Food Safety Initiative (GFSI) recognised certification programme.~~

~~1.1 The percentage shall be calculated as the number of supplier facilities certified to an applicable GFSI-recognised certification programme divided by the total number of supplier facilities.~~

~~1.2 The scope of the disclosure includes facilities operated by entities with which the entity contracts animal production (for example, independent producers) and those that otherwise supply animal protein to the entity (for example, for processing by the entity).~~

~~2 The scope of the disclosure excludes suppliers of packaging materials or other goods and inputs that are not animal protein.~~

~~3 The entity may disclose the GFSI-recognised certification programme used to audit its facilities.~~

FB-MP-250a.3. (1) Description ~~Number~~ of recalls issued for food safety reasons and (2) total weight of products recalled

1 An ~~The~~ entity shall ~~disclose~~ (1) describe each of the ~~total number of~~ food safety-related recalls it issued during the reporting period, including voluntary and involuntary recalls.

1.1 A food safety-related recall is defined as the removal of a marketed product that occurs if a food may reasonably be believed to cause harm to consumers. ~~to become ill.~~

1.2 The description of each recall shall include the cause of the recall issue and whether the recall was voluntary or mandatory.

1.2.1 ~~1.2~~ Mandatory ~~Involuntary~~ recalls are those requested ~~or mandated~~ by applicable jurisdictional legal or regulatory authorities, and they are issued when a product does not comply with regulatory food safety standards, when a food safety-related defect in a product is identified or during instances of import refusal.

1.2.2 ~~1.3~~ Voluntary recalls are those initiated by the entity to remove products from the market for food safety-related concerns.

1.3 The entity shall disclose information about any corrective actions initiated as a result of each recall.

1.4 The entity shall disclose information about any other significant outcomes from the recall (for example, legal proceedings or fatalities).

1.5 The entity shall provide a digital link to the recall notice.

2 An ~~The~~ entity shall disclose (2) the total weight, in metric tonnes, of food product recalled. ~~subject to recalls.~~

~~3 The entity may separately disclose the percentage of recalls that were (a) voluntary or (b) involuntary.~~

~~Note to **FB-MP-250a.3**~~

~~1 The entity shall provide a discussion of notable recalls, such as those that affected a significant number of products or those related to potential or actual serious illnesses or fatalities.~~

~~1.1 A recall may be considered notable if it is mentioned in periodic jurisdictional recall reports.~~

~~2 For such recalls, the entity may provide:~~

~~2.1 description and cause of the recall issue;~~

~~2.2 the total weight of products recalled;~~

~~2.3 the cost to remedy the issue;~~

~~2.4 whether the recall was voluntary or involuntary;~~

~~2.5 corrective actions; and~~

~~2.6 any other significant outcomes (for example, legal proceedings or consumer fatalities).~~

FB-MP-250a.4. Information about ~~Discussion of~~ markets that restrict, ban or suspend imports of the entity's products

1 The entity shall disclose a list of jurisdictions that restrict, ban or suspend imports of the entity's products because of sanitary and phytosanitary (SPS) measures.

1.1 SPS measures are food, animal and plant safety and health standards and regulations enacted by governments to protect human, animal or plant life or health in accordance with the World Trade Organization (WTO) *Agreement on the Application of Sanitary and Phytosanitary Measures*.

1.2 The scope of the disclosure excludes import bans, embargoes or restrictions in place because of non-SPS measures.

2 The entity shall discuss, with respect to each ban:

2.1 the animal protein products affected;

2.2 the duration for which the ban has been in place, or expected timeline for it to be resolved;

2.3 the stated reason for the ban (for example, risk of bovine spongiform encephalopathy); and

2.4 the plan to manage existing and future inventories affected by the restriction.

~~the effects on the entity's results of operations and financial prospects; and condition.~~

3 The entity shall disclose information about how the restriction(s) has affected, and is anticipated to affect, the entity's financial position, financial performance and cash flows for the reporting period and over the short, medium and long term.

FB-MP-250a.5. Percentage of production volume from sites certified to internationally recognised food safety standards for (1) own operations and (2) co-packing operations

1 An entity shall disclose the percentage of its production volume, by cost of ingredients, from facilities certified to an internationally recognised food safety certification standard for (1) its own operations and (2) co-packing operations.

1.1 Relevant standards include the Global Food Safety Initiative (GFSI) and standards benchmarked by the GFSI, such as FSSC 22000 and the BRCGS Global Standard Food Safety.

1.2 The entity shall disclose the standard or standards used.

2 The scope of the disclosure excludes packaging materials or other goods and inputs that are not food or ingredients.

3 If the entity certifies sites using food safety standards that are not benchmarked by the GFSI, it shall disclose information about its use of these standards.

FB-MP-250a.6. Processes, controls and procedures to ensure food safety throughout the value chain

1 An entity shall describe the processes, controls and procedures it uses to monitor, manage and oversee food safety throughout its value chain.

2 An entity shall describe its approach to evaluating food safety in the operations of its Tier 1 suppliers, including disclosing:

2.1 whether it conducts audits or verifications on its Tier 1 suppliers;

2.2 whether its Tier 1 suppliers are certified to an internationally recognised food safety standard (GFSI or equivalent), and whether they are contractually required to have such a certification by the entity; and

2.3 whether it conducts engagement or training programmes with its Tier 1 suppliers.

2.4 Tier 1 suppliers are defined as suppliers that transact directly with the entity.

3 An entity shall disclose whether it has an approach to evaluating food safety in the operations of its suppliers beyond Tier 1 or in the operations of its distributors and, if so, describe these approaches.

Antibiotic Use in Animal Production

Topic Summary

In livestock production, prevalent use of antibiotics that are also administered to humans may lead to antimicrobial resistance, posing serious risks to human health by diminishing the efficacy of treatments for bacterial infections. ~~promote the development of antibiotic-resistant strains of bacteria.~~ Although the use of antibiotics ~~in animal feed or water supplies~~ can improve the output of animal production ~~and enhance animal welfare in industrial farm settings~~, entities in the industry must balance these benefits against the potential public health risks. The use of antibiotics in animal production presents reputational and regulatory risks, both of which can affect long-term profitability through effects on demand and market share for meat, poultry and dairy producers. Depending on the animal species, entities ~~in the industry may~~ have varying degrees of control over, and management approaches to, this issue. Entities usually ~~may~~ have direct control over antibiotic administration in their own operations and those of ~~the feed and medicine administered by~~ contract suppliers. ~~in some instances but may set requirements for suppliers more broadly in others.~~ Entities that implement robust procedures and controls to proactively address these challenges are better placed to mitigate risks and ensure compliance with regulatory standards.

Metrics

FB-MP-260a.1. Percentage of animal production that received (1) medically important antibiotics and (2) not medically important antibiotics, by ~~animal~~ type of livestock

1 An ~~The~~ entity shall disclose (1) the percentage of animal production, by live weight, that received medically important antibiotics, disaggregated by ~~animal~~ type of livestock (for example, pork, beef, chicken or turkey).

1.1 Medically important antibiotics are defined as all antimicrobial drugs included in the World Health Organization~~'s~~ (WHO) *Medically Important Antimicrobials for Human Medicine* (MIA) list.

1.1.1 Antibiotics considered medically important are those used in animal and human medicine.

1.1.2 Updates made to the list of drugs included in the WHO MIA list shall constitute updates to this metric.

1.2 The entity shall calculate the percentage as the live ~~carcass (or dressed)~~ weight of animal protein that received medically important antibiotics at any stage of its life divided by the total live ~~carcass (or dressed)~~ weight of animal protein produced during the reporting period.

2 The entity shall disclose (2) the percentage of animal production, by live weight, that received not medically important antibiotics, disaggregated by ~~animal~~ type of livestock.

2.1 Not medically important antibiotics (or 'not medically important antimicrobial drugs') include all other antibiotics, excluding medically important antibiotics defined according to the WHO MIA list, administered at any stage of an animal's life.

2.1.1 Antibiotics considered not medically important are those not used in human medicine.

2.2 The percentage is calculated as the live ~~carcass (or dressed)~~ weight of animal protein that received not medically important antibiotics at any stage of its life divided by the total live ~~carcass (or dressed)~~ weight of animal protein produced during the reporting period.

3 An animal that receives both medically important and not medically important antibiotics shall be included in both percentage calculations.

4 The scope includes animal protein from operations that the entity owns and operates, operations with which it contracts animal production (for example, independent producers) and operations that otherwise supply animal protein to the entity (for example, for processing by the entity).

5 An entity shall disclose information about its process, controls and procedures related to antibiotics through the value chain, including engagement with suppliers.

Workforce Health & Safety

Topic Summary

Entities in the ~~The~~ Meat, Poultry & Dairy industry have high ~~has relatively high considerable~~ injury rates due to the extensive use ~~compared with other industries given the prevalence~~ of industrial machinery and chemicals, and their ~~a~~ fast-paced, noisy ~~loud~~ working environments ~~environment~~. Acute ~~Common acute~~ and chronic industrial hazards prevalent in this sector include musculoskeletal disorders, chemical and pathogen exposure ~~to chemicals and pathogens~~, and traumatic injuries from machines and tools. Such incidents can negatively impact employee ~~Worker injuries or deaths may result in low worker~~ morale and productivity, while exposing the entity to ~~and prohibitive~~ legal, financial and reputational risks ~~to the entity~~. Regulatory bodies may impose fines for non-compliance with ~~Regulators may levy fines against entities for worker~~ health and safety standards. ~~standard non-compliance or mandate employee training to reduce preventable accidents.~~ Cultivating a robust ~~By developing a strong~~ safety culture and minimising employee ~~reducing employees'~~ exposure to hazardous conditions can effectively shield ~~potentially harmful situations,~~ an entity from ~~can safeguard against~~ accidents and improve ~~proactively improve~~ workforce health and safety.

Metrics

FB-MP-320a.1. (1) Number of fatalities and (2) total ~~Total~~ recordable incident rate ~~(TRIR) and (2) fatality rate~~ for (a) ~~direct~~ employees and (b) non-employee workers; (3) average hours of health, safety and emergency response training ~~contract employees~~

1 An entity shall separately disclose (1) the number of fatalities resulting from work-related injuries and work-related illnesses for (a) employees and (b) non-employee workers.

1.1 Employees are defined as individuals who render personal services to the entity and are regarded as employees for legal or tax purposes. They are in an employment relationship with the entity according to applicable jurisdictional law or regulation using indicators such as economic dependency.

1.1.1 Employees include full-time employees, permanent employees, temporary employees, non-guaranteed hours employees and part-time employees.

1.2 Non-employee workers are defined as individuals who render personal services to the entity and work under the entity's direction in the same way as individuals who are regarded as employees for legal or tax purposes. They perform work controlled by the entity but are not in an employment relationship with the entity according to applicable jurisdictional law or regulation.

1.2.1 The entity is defined as having 'control' of work performed by non-employee workers if it directs the work, controls the means or methods of doing the work or controls the workplace where the work is performed. The type of contractual relationship between the entity and the worker (for example, an employment agency or contractor) does not necessarily determine whether the entity controls the work.

1.2.2 Non-employee workers whose work is controlled by the organisation include agency workers, apprentices, contractors, interns, self-employed persons, subcontractors and volunteers.

1.3 Together, employees and non-employee workers are defined as the entity's 'workforce' or 'workers'.

2 ~~1~~ An ~~The~~ entity shall separately disclose (2) ~~(1)~~ its total recordable incident rate (TRIR) for work-related injuries and illnesses for (a) employees and (b) non-employee workers.

2.1 The entity shall use applicable jurisdictional criteria to define recordable and non-recordable incidents.

2.1.1 If the entity is subject to more than one jurisdictional law or regulation that defines recordable and non-recordable incidents, the entity shall disclose whether and how variations between these frameworks affect the reported data.

2.1.2 ~~1.1~~ An injury or illness is typically defined as ~~considered~~ a recordable incident if it results in death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, or loss of consciousness. Additionally, a significant injury or illness diagnosed by a physician or other licensed healthcare ~~health care~~ professional is considered a recordable incident, even if it does not result in death, days away from work, restricted work or job transfer, medical treatment beyond first aid, or loss of consciousness.

2.1.3 ~~1.1.1~~ First aid is typically defined as emergency care or treatment for an ill or injured person before regular medical treatment ~~aid~~ can be provided, but jurisdictional definitions may vary.

~~1.1.2 The entity may use applicable jurisdictional criteria for definitions of a recordable incident and a non-recordable incident such as first aid. The entity shall disclose the legal, regulatory or industry framework used as the source for these criteria and definitions.~~

2.2 The TRIR is defined as: (number of recordable incidents × 1,000,000) / total number of hours worked.

2.2.1 If the entity cannot directly calculate the number of hours worked, it shall estimate this information using normal or standard hours of work and accounting for entitlements to periods of paid leave of absence from work (paid vacations, paid sick leave, public holidays) and explain this method in the disclosure.

2.2.2 If the entity cannot directly calculate or estimate the number of hours worked, it shall disclose the reason.

3 The disclosure includes all workers regardless of their location or type of employment.

~~2 The entity shall disclose its fatality rate for work-related fatalities.~~

~~3 All disclosed rates shall be calculated as: (statistic count × 200,000) / total number of hours worked by all employees in the year reported.~~

~~3.1 The '200,000' in the rate calculation represents the total number of hours 100 full-time workers working 40 hours per week for 50 weeks per year can provide annually.~~

4 The ~~scope of the~~ disclosure is limited to fatalities, work-related incidents and work-related illnesses. ~~includes work-related incidents only.~~

4.1 Work-related incidents are defined as workforce injuries and illnesses resulting from events or exposures in the work environment.

4.1.1 ~~4.2~~ The work environment is the establishment and other locations where one or more workers ~~employees~~ are working or are present as a condition of their employment.

4.1.2 ~~4.3~~ The work environment includes not only physical locations, but also the equipment or materials used ~~by the employee~~ during ~~the course of~~ work.

4.2 ~~4.4~~ Incidents that occur while a worker ~~an employee~~ is travelling are work-related if, at the time of the injury or illness, the worker ~~employee~~ was engaged in work activities in the interest of the employer.

4.3 ~~4.5~~ A work-related incident must be a new case, not a previously recorded injury or illness being updated.

5 An entity shall disclose (3) the average number of training hours provided to its workforce for health, safety and emergency preparedness management training.

5.1 Training includes topics such as the health, safety or emergency preparedness related to the occupational risks or hazards to which the workforce is reasonably likely to be exposed and to specific occupational risks or hazards.

5.1.1 Training includes technical health, safety and emergency management training required by applicable jurisdictional authorities related to occupational risks or hazards.

5.2 The average number of hours of health, safety and emergency response training is calculated as the total qualifying training hours provided to the workforce divided by the total workforce.

5.2.1 The total workforce is defined as the number of individual employees and non-employee workers the entity employs at the reporting date.

6 If the total workforce varied significantly during the reporting period, an entity shall explain those variations.

~~5 The entity shall disclose the rates for each of these employee categories:~~

~~5.1 direct employees, defined as individuals on the entity's payroll, whether they are full-time, short service, part-time, executive, labour, salary, seasonal, migrant or hourly employees; and~~

~~5.2 contract employees, defined as individuals who are not on the entity's payroll, but whom the entity supervises or manages, including independent contractors and those employed by third parties (for example, temp agencies and labour brokers).~~

~~6 The scope of the disclosure includes all employees regardless of employee location or type of employment.~~

FB-MP-320a.2. Description of efforts to assess, monitor~~,~~ and mitigate acute and chronic ~~respiratory~~ health conditions

1 The entity shall disclose information about ~~discuss~~ its efforts to assess, monitor and mitigate acute and chronic ~~respiratory~~ health conditions in employees and non-employee workers.

1.1 Acute and chronic conditions are conditions that last more than one year and require ongoing medical attention or limit daily basic living activities, or both.

~~Acute respiratory conditions may include chemical burns, inflammation of the respiratory tract, acute or subacute bronchitis and death.~~

1.2 If the entity uses an alternative definition of chronic health conditions, it shall disclose the regulation and definition.

~~Chronic respiratory conditions may include chronic bronchitis, chronic lung disease (for example, COPD), decreased lung function, organic toxic dust syndrome and other conditions resulting from exposure to particulate matter.~~

1.3 Acute and chronic conditions include respiratory diseases, musculoskeletal injuries and infections.

~~Relevant efforts to discuss may include management plans, policies, risk assessments, participation in long-term health studies, health and wellness monitoring programmes, readily accessible personal protective equipment (PPE) and implementation of relevant worker training programmes.~~

2 The disclosure includes all employees and non-employee workers regardless of their location or type of employment.

3 Relevant efforts to discuss may include:

3.1 management plans or policies;

3.2 risk assessments;

3.3 participation in long-term health studies;

3.4 health and wellness monitoring programmes;

3.5 readily accessible personal protective equipment; and

3.6 implementation of relevant worker training programmes.

Animal Health ~~Care~~ & Welfare

Topic Summary

Entities in the Meat, Poultry & Dairy industry are particularly sensitive to public perception of animal health and welfare. Management practices directly impact their prospects, because poor livestock care increases disease risks, leading to supply shortages or temporary sales prohibitions during epidemics. Practices perceived as cruel—such as intensive confinement, painful procedures, inadequate transport conditions and ineffective stunning—can result in operational disruptions, reputational damage, increased-regulatory scrutiny, and the loss of supply or customer contracts. Effective animal care and welfare practices play a crucial role in biosecurity. By reducing stress and improving health, these practices minimise disease susceptibility and transmission. Entities that proactively implement welfare practices and engage with suppliers who uphold credible standards strengthen brand value and help mitigate regulatory and litigation risks, gaining a competitive advantage. Robust animal care practices can also increase the perceived healthiness and quality of products. Entities may market these practices to enhance brand value or sell premium products, expanding their margins or capturing additional market share.

~~Entities in the Meat, Poultry & Dairy industry are especially sensitive to changes in the public perception of animal welfare. Entities perceived to be causing unnecessary cruelty to animals may face increased risk of fines, damage to brand reputation and regulatory restrictions, such as mandated factory closures. Pressure from consumers and advocacy groups can drive shifts in industry practices such as reducing the use of small enclosures. Entities that anticipate or adapt to these trends effectively may increase market share by capturing new markets as they emerge, or by being the first to comply with new regulations.~~

Metrics

~~FB-MP-410a.1. Percentage of pork produced without the use of gestation crates~~

~~1 The entity shall disclose the percentage of pork produced, by weight, without the use of gestation crates.~~

~~1.1 A gestation crate is defined as an enclosure for housing an individual breeding sow, if the enclosure can enclose an unmoving sow, but is restrictive enough to prevent dynamic movements, such as turning around. Gestation crates are typically non-bedded, with concrete floors and metal stalls.~~

~~1.2 The percentage shall be calculated as the weight of pork produced without using gestation crates, divided by the total weight of pork produced.~~

~~1.2.1 Weight of production shall be calculated using carcass weight or retail weight (if the entity has sourced already-processed pork or pork products).~~

~~2 The scope of the disclosure includes pork or pork products that originated from facilities the entity owns and operates and facilities from which the entity contracts animal production (for example, independent producers).~~

~~3 The entity may discuss, if relevant:~~

~~3.1 how, if applicable, the use of gestation crates is drafted in contracts with producers and independent farmers;~~

~~3.2 important customers' conditions regarding the use of gestation crates and how the entity meets those conditions; and~~

~~3.3 any targets the entity has related to phasing out gestation crates, and progress toward those targets.~~

~~FB-MP-410a.2. Percentage of cage-free shell egg sales~~

~~1 The entity shall disclose the percentage of shell eggs that originated from a cage-free environment.~~

~~1.1 Eggs that originated from a cage-free environment are defined as those produced by hens housed in a space that allows for unrestricted access to food and water and provides freedom to roam within the space during the laying cycle.~~

~~1.1.1 The scope also includes eggs that originated from a free-range environment.~~

~~1.2 The percentage shall be calculated as the number of shell eggs produced that originated from a cage-free environment divided by the total number of shell eggs produced.~~

~~2 The scope of the disclosure includes eggs from facilities that the entity owns and operates, facilities from which the entity contracts egg production (for example, independent producers) and eggs that the entity purchases for resale.~~

FB-MP-410a.3. Percentage of production certified to a third-party animal welfare standard, by type of livestock and certification

1 The entity shall disclose the percentage of animal protein production, by weight, certified to an independent third-party animal welfare standard ~~standards~~.

1.1 For direct operations, the percentage is calculated as the live weight of animal production certified to a third-party animal welfare standard, divided by the total live weight of animal production.

1.2. If the entity sources processed animal protein or animal products, it shall disclose the percentage of animal protein production based on the retail weight of production.

1.3 The entity shall disaggregate the disclosure by type of livestock.

2 An animal welfare standard typically assesses the following aspects of animal production:

2.1 animal treatment and handling;

2.2 housing systems (specifically the use of confinement-based production systems);

2.3 transportation conditions; and

2.4 slaughter facilities and procedures.~~-~~

~~1.1 An animal welfare standard is defined as a standard that relates to one or more of these aspects of beef, pork or poultry production:~~

~~1.1.1 animal treatment and handling;~~

~~1.1.2 housing and transportation conditions;~~

~~1.1.3 slaughter facilities and procedures; or~~

~~1.1.4 the use of antibiotics and hormones.~~

~~1.2 Animal welfare standards may include Animal Welfare Approved, Certified Humane Program, Food Alliance Certified and the Global Animal Partnership 5-Step Animal Welfare Rating Program.~~

~~1.3 The percentage shall be calculated as the weight of animal protein production certified to third-party animal welfare standards divided by the total weight of animal protein production.~~

~~1.3.1 The weight of production shall be calculated using the carcass weight or retail weight (if the entity has sourced already-processed animals or animal products).~~

3 The entity shall disclose the certification(s) used to prepare its disclosure.

3.1 Relevant standards include the Humane Farm Animal Care, Global Animal Partnership, A Greener World, RSPCA Assured, Better Animal Welfare, and other certification programmes recommended by the Farm Animal Responsible Minimum Standards (FARMS Initiative).

3.2 If the entity uses animal welfare standards in its operations or supply chain that are not third-party verified (for example, those enforced by the entity, trade association or customer), it shall specify which standard is used.

3.3 If the entity uses more than one certification, it shall disaggregate information by certification.

4 ~~2~~ The ~~scope of the~~ disclosure includes all animal protein production offered for sale by the entity, including animal protein from facilities the entity owns and operates, and from which the entity contracts animal production (for example, independent producers) and rented facilities.

~~3 The entity may disclose the animal welfare standards to which its production is certified.~~

~~4 The entity may discuss additional animal welfare standards that it implements in its operations or supply chain that are not third-party verified (for example, those enforced by the entity, trade association or customer).~~

FB-MP-410a.4. Description of animal welfare strategy, including targets, procedures and value chain integration

1 An entity shall disclose information about its short-, medium- and long-term animal welfare strategies and information about the procedures and practices it uses to ensure species-appropriate welfare in its owned and contracted facilities.

1.1 The entity shall describe how it identifies and responds to risks and opportunities arising from animal welfare concerns, such as:

1.1.1 use of cages, crates, or high-stocking densities that limit animal movement;

1.1.2 breeding practices linked to health issues such as leg disorders, bone weakness and premature mortality;

1.1.3 physical alterations (for example, castration, tail docking, beak trimming, dehorning) performed without effective pain control;

1.1.4 injury or stress due to poor transport conditions or long travel times; and

1.1.5 slaughter methods that involve painful, inconsistent or ineffective stunning.

1.2 Examples of relevant procedures and practices could include:

1.2.1 use of standards and targets in producer or supplier contracts;

1.2.2 verification mechanisms (for example, audits, self-assessments or third-party certifications); and

1.2.3 engagement mechanisms to improve supplier performance or support transitions.

2 An entity shall disclose information about any targets it has set related to animal health and welfare.

2.1 In preparing this disclosure, the entity shall apply the requirements in paragraphs 51–53 of IFRS S1 that relate to the entity's animal health and welfare targets.

FB-MP-410a.5. Description of risks and opportunities related to biosecurity, including strategies for disease management

1 An entity shall describe its risks and opportunities related to biosecurity and disclose information about its strategies for disease management.

1.1 Relevant risks and opportunities may relate to current or potential disease outbreaks, the type or structure of the entity's operations or facilities, the regions in which it operates, and applicable jurisdictional law or regulation.

1.2 Relevant strategies for disease management include policies, programmes and procedures for preventing and controlling disease outbreaks, engagement with suppliers, employee training, and other actions taken to maintain the health of livestock.

2 An entity shall disclose information about how it monitors risks related to biosecurity, including whether it monitors notifiable diseases according to local regulations or the World Organisation for Animal Health's listed diseases.

2.1 A notifiable disease is a disease that the entity is required to report to jurisdictional authorities.

3 In the event of a disease outbreak during the reporting period, the entity shall describe any restrictions placed on the purchase of its products resulting from contamination and how the incident affected the entity's financial position, financial performance and cash flows for the reporting period.

3.1 Effects might include remediation costs, production losses, supply chain disruption and investments made to prevent further incidents.

Product Innovation

Topic Summary

Consumers in many markets are increasingly concerned with the environmental and social impacts of their food, and are changing their diets based on concerns related to issues such as greenhouse gas emissions and animal welfare. Entities in the Meat, Poultry & Dairy industry are increasingly developing or investing in innovative products, including plant-based, fermentation-derived and cultivated proteins. Entities that expand their product portfolios can mitigate risks associated with greenhouse gas emissions, land degradation and water usage. Growing demand for alternative protein products also presents an opportunity for entities to increase revenue, gain market share and improve brand reputation.

Metrics

FB-MP-410b.1 Use of innovation in food products to address sustainability-related risks and opportunities

1 An entity shall disclose information about its strategies to use innovation in food products to respond to sustainability-related risks and opportunities.

1.1 Innovation in food products includes innovation in raw materials, ingredients or in food processing.

1.2 Relevant risks or opportunities might arise from consumer preferences, pricing and supply of ingredients or regulation related to issues like greenhouse gas emissions, animal welfare, resource scarcity, food waste and environmental and social issues in the supply chain.

1.3 Using innovation in food products to address sustainability-related risks and opportunities includes:

1.3.1 the introduction or promotion of innovative products such as plant-, cultivation-, fermentation- or insect-based protein products; or

1.3.2 the reformulation of existing products, including phasing them out, substituting them or using alternative ingredients in their production.

2 Relevant aspects of strategy could include:

2.1 investments in research and development for new raw materials, ingredients or packaging;

2.2 acquisitions or partnerships to expand the entity's sustainable product offerings;

2.3 investing in the design phase or in research and development to identify substitutable or alternative ingredients; or

2.4 partnerships with peers or other organisations, such as public interest organisations or academic institutions.

3 An entity shall disclose the activities and investments required to implement its strategy.

Environmental & Social Impacts of Animal Supply Chain

Topic Summary

Entities in the Meat, Poultry & Dairy industry rely on a variety of contract farmers and suppliers. Environmental and social impacts within the industry's supply chain include those related to deforestation, land use and waste management, water withdrawals, animal welfare, antibiotic usage and food safety. An entity's management of environmental and social risks relating to its animal supply chain is critical to secure a steady source of animals at desired price points and prevent reputational damage, all of which may decrease revenue and market share.

Metrics

FB-MP-430a.1. Percentage of livestock from suppliers implementing conservation plan criteria

1 The entity shall disclose the percentage of livestock, by weight, sourced from suppliers that manage pasture and grazing land to applicable jurisdictional conservation plan criteria.

1.1 The percentage shall be calculated as the live weight of livestock sourced from suppliers implementing the applicable jurisdictional conservation plan criteria divided by the total live weight of livestock sourced by the entity.

1.2 'Conservation plans' are defined as jurisdictional standards or regulations intended to promote sustainable management of natural resources, including soil, water, air and related plant and animal resources.

2 The scope of the disclosure includes livestock purchased by the entity during the reporting period, adjusted for any changes in the inventory of live animals.

3 The entity shall disclose the jurisdictional standard or regulation used for the calculation.

FB-MP-430a.2. Percentage of supplier and contract production facilities verified to meet animal welfare standards

1 The entity shall disclose the percentage of its supplier and contract production facilities verified to be operating in accordance with animal welfare standards.

1.1 An animal welfare standard is defined as a standard that relates to one or more of these aspects of beef, pork or poultry production:

1.1.1 animal treatment and handling;

1.1.2 housing and transportation conditions;

1.1.3 slaughter facilities and procedures; or

1.1.4 use of antibiotics and hormones.

1.2 Animal welfare standards include those that the entity has developed and enforces in its supply chain, those developed and enforced by a trade association, or those developed and enforced by a third party.

1.3 Third-party animal welfare standards may include Animal Welfare Approved, Certified Humane Program, Food Alliance and the Global Animal Partnership 5-Step Animal Welfare Rating Program.

1.4 The percentage shall be calculated as the number of supplier facilities verified to be operating in accordance with animal welfare standards divided by the total number of supplier facilities.

2 The scope of the disclosure includes facilities operated by entities from which the entity contracts animal production (for example, independent producers) and those that otherwise supply animal protein to the entity (for example, for processing by the entity).

3 The entity may disclose the animal welfare standards to which its production is certified.

4 The entity may discuss additional animal welfare standards it implements in its operations or supply chain that are not third-party verified (for example, those enforced by the entity, trade association or customer).

Environmental Supply Chain Management

Topic Summary

Entities in the Meat, Poultry & Dairy industry source many ingredients internationally, across long supply chains. The industry's ability to source ingredients at specific prices changes with availability, which can be affected by environmental factors like climate change, water stress, soil quality, biodiversity and availability of ecosystem services. Some of these risks are closely linked to the impacts of operations in entities' supply chains, whereas others exist independently because they are global or regional in nature. Environmental impacts can lead to stricter regulation or affect a company's reputation or social licence to operate. Broader environmental risks can lead to volatility of ingredient supply and cost, affecting profitability. Resource-intensive or environmentally sensitive ingredients might be subject to continuous price volatility and supply disruptions in the future, compounding some risks. Conversely, entities that work with suppliers or with local communities including Indigenous Peoples to improve the sustainability of their livestock in their supply chain can become more resilient to such risks.

Metrics

FB-MP-430b.1. Percentages of sourced (1) livestock and (2) animal feed determined to be deforestation- or conversion-free, including any targets set to monitor progress

1 An entity shall disclose (1) the percentage of its sourced livestock, by live weight, it has determined to be deforestation- or conversion-free.

1.1 Deforestation is defined as the temporary or permanent human-induced conversion of forested land to non-forested land.

1.2 Conversion is defined as changing a natural ecosystem to another use or a profound change in a natural ecosystem's species composition, structure or function.

1.3 Disclosure is limited to types of livestock that have been found to contribute to deforestation or conversion and are important to the entity's business.

1.4 The entity shall disaggregate the information by type of livestock.

2 An entity shall disclose (2) the percentage of its sourced animal feed, by weight, it has determined to be deforestation- or conversion-free.

2.1 Sourced animal feed includes the agricultural products sourced to produce the animal feed, such as corn and soybeans.

2.2 The entity shall disaggregate the information by type of product.

2.3 Disclosure is limited to sourced products that have been found to contribute to deforestation or conversion and constitute the largest expenses for animal feed production or are important to the entity's business.

3 An entity shall describe the assessment methods used to determine that its sourced livestock and animal feed are deforestation- or conversion-free. Assessment methods include monitoring, certification, sourcing from low-risk jurisdictions with no or negligible recent conversion, and sourcing from verified suppliers.

3.1 The entity shall disclose its reason for choosing the assessment method(s) and identify limitations in its methodology.

4 An entity shall disclose the level of traceability in place for its assessment: national, regional, local, or at a specific point of origin.

5 An entity shall disclose information about any targets it has set to monitor progress towards achieving its strategic goals related to deforestation or conversion, and any targets it is required to meet by law or regulation.

5.1 In preparing this disclosure, the entity shall apply the requirements in paragraphs 51-53 of IFRS S1 that are applicable to the entity's deforestation or conversion targets.

5.2 The entity shall disclose information about any changes in its sourcing or assessment practices that are required to meet its targets.

FB-MP-430b.2. Priority sourced livestock and animal feed that are sensitive to nature- and climate-related physical risks in the supply chain

1 An entity shall disclose its priority sourced livestock and animal feed that are sensitive to nature- and climate-related physical risks, and describe how its sourcing of these commodities could be reasonably affected by such risks.

1.1 Priority sourced livestock and animal feed are defined as livestock and animal feed purchased from third parties that constitute the entity's largest expenses, or those that are otherwise identified by the entity as essential to its business model.

1.1.1 Sourced animal feed includes the agricultural products sourced to produce the animal feed, such as corn and soybeans.

1.2 Sourced livestock and animal feed are sensitive to nature- and climate-related physical risks if those risks could reasonably be expected to affect the entity's ability to source the commodities at desired price points or in desired quantities over the short, medium or long term.

1.3 Relevant nature- and climate-related physical risks might include climate change, extreme weather, droughts, floods, water stress, storms, degradation of soil health, ecosystem change or biodiversity loss.

2 For each environmental risk, the entity shall specify the time horizon—short, medium or long term—over which the effects of the nature- and climate-related physical risks could reasonably be expected to occur.

2.1 The entity shall explain how it defines 'short term', 'medium term' and 'long term' and how these definitions are linked to the planning horizons it uses for strategic decision-making.

3 An entity shall disclose its products or product categories that are reliant on the priority livestock and animal feed vulnerable to nature- and climate-related physical risks.

4 An entity shall describe the resilience of its strategy, business model and supply chain to environmental-related changes, developments and uncertainties, taking into consideration the entity's identified environmental risks.

5 An entity shall describe the strategies it uses to mitigate nature- and climate-related physical risks, which might include diversifying its suppliers, investing in research and development for alternative and substitute crops, and developing alternative products or product formulas.

FB-MP-430b.3. Percentage of sourced livestock from farms implementing and maintaining a written nutrient management plan

1 The entity shall disclose the percentage of its sourced livestock, by live weight, originating from farms implementing and maintaining a written nutrient management plan.

1.1 A nutrient management plan is a documented management practice that addresses the generation, collection, treatment, storage and agronomic use of manure.

1.2 The percentage is calculated as the total live weight of livestock sourced from farms that implement and maintain a written nutrient management plan, divided by the total live weight of livestock purchased by the entity during the reporting period.

2 The scope of disclosure is limited to animal protein from contracted animal production (for example, independent producers) and operations that otherwise supply animal protein to the entity.

FB-MP-430b.4. Percentage of animal protein sourced from confined animal feeding operations

1 The entity shall disclose the percentage, by live weight, of animal protein sourced from confined animal feeding operations.

1.1 Confined animal feeding operations are defined as animal feeding practices in densely populated or limited spaces. They require inputs such as chemicals for maximum livestock production.

1.1.1 Confined animal feeding operations could also be referred to as intensive farming, resource-intensive animal production or concentrated animal feeding operations.

1.2 If the entity uses a jurisdictional definition of confined animal feeding operations, the entity shall disclose the definition used.

1.3 The percentage is calculated as the live weight of animal protein purchased from third-party farms using confined animal feeding operations, divided by the total live weight of animal protein purchased from third parties.

2 The scope is limited to animal protein from contracted animal production (for example, independent producers) and operations that otherwise supply animal protein to the entity (for example, for processing by the entity).

3 The entity shall include information about how it engages with its suppliers or contractors to mitigate the risks associated with confined animal feeding operations.

Social Supply Chain Management

Topic Summary

Entities in the Meat, Poultry & Dairy industry manage global supply chains to source a wide range of inputs, including livestock and feed crops. How entities screen, monitor and engage with suppliers on social issues affects the ability of entities to maintain steady supplies and manage price fluctuations. Supply chain management issues related to labour conditions, ethics, corruption or impacts on local communities including Indigenous Peoples may damage a company's social licence to operate and result in regulatory fines or increased long-term operational costs, even for issues that are relatively distant from the entity in the value chain. Some social risks are specific to a particular commodity or region, while others are more general. Local regulations and enforcement vary widely by jurisdiction, creating additional governance challenges for entities and their suppliers. Because of the complexity of food supply chains, entities often invest in traceability systems to identify and assess these risks. Entities can also gain certifications to capture new market opportunities. Entities can engage with suppliers and farming communities to improve labour practices, strengthen supply chain resilience and mitigate reputational risks.

Metrics

FB-MP-430c.1. Processes, controls and procedures for managing labour conditions and impacts on local communities in the supply chain, including human rights due diligence

1 An entity shall disclose information about the processes, controls and procedures it uses, such as human rights and environmental due diligence, to monitor, manage and oversee issues in the supply chain related to:

1.1 labour conditions, workplace safety, labour rights, forced labour, modern slavery and child labour;

1.2 negative impacts on local communities, including Indigenous Peoples – such as pollution, displacement and resource deprivation or depletion;

1.3 corruption and compliance with applicable jurisdictional laws or regulations; and

1.4 rights and norms set forth in internationally recognised frameworks.

2 Processes, controls and procedures to monitor, manage and oversee labour conditions and impacts on local communities in the supply chain include those that:

2.1 embed responsible business conduct and respect for internationally recognised rights and norms into policies and management systems;

2.2 identify and assess adverse impacts to workers, stakeholders and local communities stemming from supply chain operations and business relationships;

2.3 cease, prevent or mitigate potential or actual adverse impacts on workers and communities in the supply chain;

2.4 track implementation and results;

2.5 communicate how impacts are being addressed;

2.6 provide for or cooperate in remediation when appropriate; and

2.7 promote the use of free, prior and informed consent (or consultation) processes when engaging with Indigenous Peoples.

3 An entity shall disclose whether suppliers are incentivised and rewarded for the prevention, mitigation, and remediation of potential or actual adverse impacts on workers and communities in the supply chain.

4 An entity shall disclose whether it has a policy forbidding the payment of recruitment fees by workers in the supply chain and, if so, describe the mechanisms by which that policy is enforced.

5 An entity shall identify:

5.1 the governance body(ies) or individual(s) responsible for oversight over labour conditions and impacts on local communities in the supply chain; and

5.2 management's role in the governance processes, controls and procedures, including information about whether the role is delegated to a specific management-level position or management-level committee and how oversight is exercised.

5.3 In preparing this disclosure, the entity shall apply the requirements in paragraphs 26–27 of IFRS S1 that relate to the governance of labour conditions and impacts on local communities in its value chain.

FB-MP-430c.2. Percentages of sourced animal feed certified to internationally recognised standards that trace the path of products through the supply chain

1 An entity shall disclose the percentages of its sourced animal feed, by weight, certified to an internationally recognised standard that traces the path of the commodity through the supply chain.

1.1 In each case, the entity shall identify the standard used and the type of certification if there is more than one type related to that standard.

1.2 The entity shall disaggregate the information by product.

2 The entity shall explain its rationale for selecting the certification standards it uses.

3 Examples of internationally recognised standards include:

3.1 Bonscuro;

3.2 Fairtrade International;

3.3 Roundtable on Sustainable Palm Oil (RSPO);

3.4 Roundtable on Responsible Soy (RTRS);

3.5 Rainforest Alliance; and

3.6 SA8000.

4 An entity shall describe improvement projects to get suppliers certified to internationally recognised standards that trace the path of products through the supply chain.

FB-MP-430c.3. Percentage of high-risk suppliers subject to an independent third-party audit or verification in the previous three years, with description of non-conformances and corrective actions

1 An entity shall disclose the percentage of its high-risk suppliers that have been subject to an independent third-party audit or verification at least once in the three years before the reporting date.

1.1 High-risk suppliers are defined as suppliers throughout the value chain where the entity has determined a heightened level of risk of forced labour or modern slavery, child labour, other violations of internationally recognised rights and norms, negative impacts on local communities including Indigenous Peoples or serious violations of local law or the entity's supplier code of conduct.

1.1.1 The entity shall disclose information about how it identifies high-risk suppliers.

1.2 An independent third-party audit or verification is defined as a visit to a supplier's facility and review of records conducted by an independent external organisation to determine that the supplier facility complies with relevant principles, policies and regulations.

2 An entity shall disclose its audit or verification methodology and criteria (for example, management system investigation, worker interviews, management interviews, document review and visual observations).

3 An entity shall disclose the standards or codes of conduct to which it has measured audit or verification compliance.

4 An entity shall disclose information regarding non-conformances and corrective actions, which might include description of the levels in the supply chain in which the non-conformances occurred (Tier 1, Tier 2 or other, or by region), timelines to resolve priority non-conformances, assessment of whether corrective actions were successful and efforts to increase supply chain transparency and build supplier capacity.

4.1 A priority non-conformance is defined as the highest severity of non-conformance and requires escalation by auditors or investigators. Priority non-conformances confirm the presence of underage workers, forced labour or modern slavery, health and safety issues that can cause immediate danger to life or serious injury, or environmental practices that can cause serious and immediate harm to the community. Priority non-conformance includes material breach or systemic breaking of code requirement or law.

Animal & Feed Sourcing

Topic Summary

Meat, poultry and dairy entities source animal and animal feed from a range of suppliers depending on animal species. The industry's ability to reliably source animals and animal feed at desired price points may be affected by climate change, water scarcity, land management and other resource scarcity considerations. Entities that select and work with suppliers who are less resource-intensive and who actively manage adaptation to climate change and other resource scarcity risks, may reduce price volatility and supply disruptions. Additionally, such entities may improve their brand reputation and develop new market opportunities. Failure to effectively manage sourcing risks may result in higher costs of capital, reduced margins and constrained revenue growth.

Metrics

FB-MP-440a.1. Percentage of animal feed sourced from regions with High or Extremely High Baseline Water Stress

1 The entity shall disclose the percentage of animal feed sourced from regions with High or Extremely High Baseline Water Stress.

1.1 Animal feed includes soybean meal, cornmeal and other grains, and other fodder provided to livestock, but excludes forage.

2 The scope of disclosure shall include feed grown or manufactured by the entity and feed purchased by the entity.

3 The percentage shall be calculated as the weight of animal feed sourced from regions with High or Extremely High Baseline Water Stress divided by the total weight of animal feed sourced by the entity.

3.1 The entity shall identify animal feed sourced from locations with High (40–80%) or Extremely High (>80%) Baseline Water Stress as classified by the World Resources Institute's (WRI) Water Risk Atlas tool, Aqueduct.

FB-MP-440a.2. Percentage of contracts with producers located in regions with High or Extremely High Baseline Water Stress

1 The entity shall disclose the percentage of contracts with producers located in regions with High or Extremely High Baseline Water Stress.

1.1 A contract producer (or grower) is a party with which the entity has an agreement under which the party typically agrees to provide facilities, labour, utilities and care for livestock owned by the entity in return for payment.

2 The percentage shall be calculated as the value of contracts associated with entities located in water-stressed regions divided by the total value of contracts associated with contract production of animal protein.

2.1 The entity shall identify contract producers that withdraw and consume water in locations with High (40–80%) or Extremely High (>80%) Baseline Water Stress as classified by the World Resources Institute's (WRI) Water Risk Atlas tool, Aqueduct.

FB-MP-440a.3. Discussion of strategy to manage opportunities and risks to feed sourcing and livestock supply presented by climate change

1 The entity shall discuss the risks or opportunities presented by climate change scenarios to its feed sourcing and livestock supply.

1.1 Feed sourcing risks and opportunities include those at the cultivation, milling and other processing and transportation phases of animal feed production.

1.2 Livestock production risks and opportunities include those affecting all life cycle phases of bringing animal protein to market, including breeding, grazing, feedlot, slaughter, processing and distribution/transportation of live animals and processed animal protein products.

2 The entity may identify the risks presented by climate change, which may include availability of water, shifts in rangeland quality, disease migration and more frequent extreme weather events.

3 The entity may discuss how climate change scenarios will manifest (for example, at the point they will affect the entity's supply chain), how each type of feed (for example, soybean meal, cornmeal and other grains, or hay) or livestock (for example, beef cattle, dairy cattle, pigs or poultry) may be affected, and how other operating conditions (for example, transportation and logistics or physical infrastructure) will be affected.

4 The entity shall discuss efforts to assess and monitor the impacts of climate change and the related strategies to adapt to any risks or recognise any opportunities.

4.1 For feed, strategies may include use of insurance, investments in hedging instruments, supply chain diversification, and ecosystem and biodiversity management.

4.2 For livestock, strategies may include use of insurance, investments in hedging instruments, supply chain diversification, ecosystem and biodiversity management, and development of tolerant livestock breeds.

5 The entity may discuss the probability that risks and opportunities will come to fruition, the likely magnitude of the effect on financial results and operating conditions, and the time frame over which such risks and opportunities are expected to manifest.

6 The entity may include discussion of the methods or models used to develop the climate change scenario(s) it uses, including the use of global gridded crop models or scientific research provided by governmental and non-governmental organisations (for example, Intergovernmental Panel on Climate Change Climate Scenario Process).

7 The scope of disclosure includes the impact of climate change on the entity's operations, but it excludes the entity's strategy and risks and opportunities related to the mitigation of greenhouse gas (GHG) emissions generated through its operations (addressed in FB-MP.110a.2).

Proposed amendments to IF-EU SASB Standard

Industry Description

Entities in the Electric Utilities & Power Generators (IF-EU) industry generate electricity; build, own and operate transmission and distribution (T&D) lines; and sell and trade electricity. Entities in this industry generate electricity from diverse sources including coal, natural gas, nuclear energy, hydropower, solar and wind. The amount of regulation and competition under which entities operate can vary widely by jurisdiction. Entities in jurisdictions with more regulation are likely to face more comprehensive regulatory oversight of their activities in order for them to maintain their social licence to operate in a less competitive market. This includes, for example, oversight of pricing mechanisms and allowed return on equity. Such entities can be more vertically integrated compared with entities in jurisdictions with more competition—for example, independent power producers that generate electricity to sell to the wholesale market or competitive retailers, but do not perform T&D-related activities. Entities can also operate in more than one jurisdiction and have more than one type of structure. Entities in the industry face risks and opportunities affecting their prospects associated with the complex task of providing reliable, accessible, and affordable electricity while ensuring safe delivery and meeting consumer and regulatory expectations on environmental performance. These risks and opportunities vary depending on entity structure, the type of regulatory oversight, market competition and the technology and equipment used, including that associated with energy storage and distributed energy resources.

Note: The Electric Utilities & Power Generators industry covers activities related only to electricity provision, not to natural gas provision. Some entities may operate in both electricity and natural gas markets. Entities undertaking activities related to natural gas sourcing and distribution also should consider the topics and metrics in the Gas Utilities & Distributors (IF-GU) industry.

~~Electric Utilities & Power Generators industry entities generate electricity; build, own and operate transmission and distribution (T&D) lines; and sell electricity. Utilities generate electricity from many different sources, commonly including coal, natural gas, nuclear energy, hydropower, solar, wind and other renewable and fossil fuel energy sources. The industry comprises entities operating in both regulated and unregulated business structures. Regulated utilities face comprehensive regulatory oversight of their pricing mechanisms and their allowed return on equity, among other types of regulation, to maintain their licence to operate as a monopoly. Unregulated entities or merchant power entities are often independent power producers (IPPs) that generate electricity to sell to the wholesale market, which includes regulated utility buyers and other end users. Furthermore, entities in the industry may operate across both regulated and deregulated power markets depending on their operational span. Regulated markets typically contain vertically integrated utilities that own and operate everything from the generation of power to its retail distribution. Deregulated markets commonly split generation from distribution to encourage wholesale power generation competition. Overall, the complex task of providing reliable, accessible, low-cost power while balancing the protection of human life and the environment remains a challenge.~~

~~Note: The Electric Utilities & Power Generators industry covers activities related only to electricity provision, not to natural gas provision. Some utilities may operate in both electricity and natural gas markets. Utilities undertaking activities related to natural gas sourcing and distribution also should consider the topics and metrics in the Gas Utilities & Distributors (IF-GU) industry.~~

SUSTAINABILITY DISCLOSURE TOPICS & METRICS

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

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Greenhouse Gas Emissions & Energy Resource Planning	(1) Gross ~~global~~ Scope 1 emissions and (2) ~~,~~percentage subject to ~~covered under (2)~~ emissions-limiting regulations~~and (3) emissions-reporting regulations~~	~~Quantitative~~	Metric tonnes (t) CO_2-e, Percentage (%)	IF-EU-110a.1
	Greenhouse gas ~~(GHG)~~ emissions associated with (1) transmission and distribution loss and (2) net electricity purchased ~~power deliveries~~	~~Quantitative~~	Metric tonnes (t) CO_2-e	IF-EU-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~~	~~Discussion and Analysis~~	~~n/a~~	~~IF-EU-110a.3~~
	Installed capacity, disaggregated by (1) major energy source and (2) energy storage		Megawatts (MW)	IF-EU-110a.4
	Planned capacity, disaggregated by (1) major energy source and (2) energy storage		Megawatts (MW)	IF-EU-110a.5
	Description of how climate-related transition risks and opportunities influence capital strategy and investments		n/a	IF-EU-110a.6
Air Quality	Air pollutant emissions of ~~the following pollutants~~: (1) NO_x (excluding N_2O), (2) SO_x, (3) hazardous air pollutants and (4) particulate matter ~~(PM_{10}), (4) lead (Pb), and (5) mercury (Hg)~~; percentage of each in or near areas of dense population	~~Quantitative~~	Metric tonnes (t), Percentage (%)	IF-EU-120a.1
Water Management	(1) Total water withdrawal, by source, ~~withdrawn,~~ (2) total water consumed; (3) percentages of water (a) withdrawn and (b) consumed from water-stressed locations ~~percentage of each in regions with High or Extremely High Baseline Water Stress~~	~~Quantitative~~	Megalitres (ML), ~~Thousand cubic metres (m^3),~~ Percentage (%)	IF-EU-140a.1
	~~Number of incidents of non-compliance associated with water quality permits, standards and regulations~~	~~Quantitative~~	~~Number~~	~~IF-EU-140a.2~~
	Description of water-related ~~management~~ risks and opportunities and ~~discussion of~~ strategies ~~and practices~~ to manage them, including any	~~Discussion and Analysis~~	n/a	IF-EU-140a.3

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
	targets set to monitor progress~~-mitigate those risks~~			
	Total water discharged by (1) destination and (2) level of treatment		Megalitres (ML)	IF-EU-140a.4
Hazardous Waste ~~Coal Ash~~ Management~~-~~	~~(1) Amount of coal combustion products (CCPs) generated, (2) percentage recycled~~	~~Quantitative~~	~~Metric tonnes (t), Percentage (%)~~	~~IF-EU-150a.1~~
	~~Description of coal combustion products (CCPs) management policies and procedures for active and inactive operations~~	~~Discussions and Analysis~~	~~n/a~~	~~IF-EU-150a.3~~
	(1) Hazardous waste generated, (2) hazardous waste stored and (3) hazardous waste recycled		Metric tonnes (t); Cubic metres (m^3)	IF-EU-150a.4
	Number of significant incidents associated with hazardous waste management		Number	IF-EU-150a.5
	Hazardous waste management policies and procedures for active and inactive operations		n/a	IF-EU-150a.6
Ecological Impacts	(1) Total spatial footprint of operations, (2) area disturbed and (3) area restored		Square kilometres (km^2)	IF-EU-160a.1
	Percentage of the total spatial footprint of operations in or near environmentally sensitive locations		Percentage (%)	IF-EU-160a.2
	Description of environmental management policies and practices for operational facilities		n/a	IF-EU-160a.3
Community Relations & Rights of Indigenous Peoples	Processes used to manage risks and opportunities associated with community rights and interests		n/a	IF-EU-210a.1
	(1) Number of non-technical delays and (2) the total days idle		Number, Days	IF-EU-210a.2
	Percentage of operations in or near Indigenous Peoples' land		Percentage (%)	IF-EU-210a.3
	Description of engagement processes and due diligence practices related to upholding Indigenous Peoples' rights		n/a	IF-EU-210a.4
Energy Affordability	~~Average retail electric rate for (1) residential, (2) commercial, and (3) industrial customers~~	~~Quantitative~~	~~Rate~~	~~IF-EU-240a.1~~
	~~(1) Number of residential customer electric disconnections for non-payment, (2) percentage reconnected within 30 days~~ [1]	~~Quantitative~~	~~Number, Percentage (%)~~	~~IF-EU-240a.3~~

[1] ~~Note to **IF-EU-240a.3** – The entity shall discuss how policies, programmes and regulations impact the number and duration of residential customer disconnections.~~

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
	~~Discussion of impact of external factors on customer affordability of electricity, including the economic conditions of the service territory~~	~~Discussion and Analysis~~	~~n/a~~	~~IF-EU-240a.4~~
	Description of energy affordability-related risks and opportunities and strategies to manage them		n/a	IF-EU-240a.5
	(1) Number of active participants and (2) number of eligible participants in energy affordability-related actions or programmes, disaggregated by (a) residential, (b) commercial and (c) industrial participants		Number	IF-EU-240a.6
Workforce Health & Safety	(1) Number of fatalities and (2) total ~~Total~~ recordable incident rate ~~(TRIR), (2) fatality rate, and (3) near miss frequency rate (NMFR)~~ for (a) ~~direct~~ employees and (b) non-employee workers; (3) average hours of health, safety and emergency response training ~~contract employees~~	~~Quantitative~~	Number, Rate, Hours (h)	IF-EU-320a.1
	Description of management systems used to foster a safe working environment		n/a	IF-EU-320a.2
Employee Recruitment, Development & Retention	Description of employee recruitment, development and retention-related risks and opportunities and strategies to manage them		n/a	IF-EU-330a.1
	(1) Voluntary and (2) involuntary employee turnover rate for: (a) all employees and (b) occupational categories with a significant skill shortage		Rate	IF-EU-330a.2
~~End-Use Efficiency &~~ Demand-side Management	~~Percentage of electric load served by smart grid technology~~ [2]	~~Quantitative~~	~~Percentage (%) by megawatt hours (MWh)~~	~~IF-EU-420a.2~~
	~~Customer electricity savings from efficiency measures, by market~~ [3]	~~Quantitative~~	~~Megawatt hours (MWh)~~	~~IF-EU-420a.3~~
	Description of demand-side management-related risks and opportunities and strategies to manage them, including any targets set to monitor progress		n/a	IF-EU-420a.4

~~[2] Note to **IF-EU-420a.2** – The entity shall discuss the opportunities and challenges associated with the development and operations of a smart grid.~~

~~[3] Note to **IF-EU-420a.3** – The entity shall discuss customer efficiency regulations relevant to each market in which it operates.~~

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
	(1) Number of active participants and (2) number of eligible participants in demand-side management-related actions or programmes, disaggregated by (a) residential, (b) commercial and (c) industrial participants		Number	IF-EU-420a.5
	Peak demand savings from demand-side management strategies		Megawatts (MW)	IF-EU-420a.6
Supply Chain Management	Description of the process to manage supply chain risks arising from sustainability-related issues		n/a	IF-EU-430a.1
	Percentage of high-risk suppliers subject to an independent third-party audit or verification in the previous three years, with description of non-conformances and corrective actions		Percentage (%)	IF-EU-430a.2
Critical Incident Risk ~~Nuclear Safety & Emergency~~ Management	Total number of nuclear power units, disaggregated ~~broken down~~ by results of most recent independent national regulatory safety review	~~Quantitative~~	Number	IF-EU-540a.1
	~~Description of efforts to manage nuclear safety and emergency preparedness~~	~~Discussion and Analysis~~	~~n/a~~	~~IF-EU-540a.2~~
	Description of management systems used to identify and mitigate serious accidents		n/a	IF-EU-540a.3
Operational Resilience & System Reliability ~~Grid Resiliency~~	Number of cybersecurity incidents related to disruptions of the electrical power system ~~of non-compliance with physical or cybersecurity standards or regulations~~	~~Quantitative~~	Number	IF-EU-550a.1
	(1) System Average Interruption Duration Index (SAIDI), (2) System Average Interruption Frequency Index (SAIFI), and (3) Customer Average Interruption Duration Index (CAIDI)~~, inclusive of major event days~~ [4]	~~Quantitative~~	Minutes, Number	IF-EU-550a.2
	Average availability factor for generation assets		Percentage (%)	IF-EU-550a.3
	Amount and percentage of assets vulnerable to climate-related physical risks, disaggregated by industry asset type and climate-related physical risk		Presentation currency, Percentage (%)	IF-EU-550a.4
	Description of strategies to manage operational resilience		n/a	IF-EU-550a.5

~~[4] Note to **IF-EU-550a.2** – The entity shall discuss notable service disruptions such as those that affected a significant number of customers or disruptions of extended duration.~~

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
	and system reliability-related risks and opportunities, including any targets set to monitor progress			

Table 2. ***Activity Metrics***

ACTIVITY METRIC	~~CATEGORY~~	UNIT OF MEASURE	CODE
Number of: (1) residential, (2) commercial, and (3) industrial customers served[5]	~~Quantitative~~	Number	IF-EU-000.A
Total electricity delivered to: (1) residential, (2) commercial, (3) industrial, (4) all other retail customers, and (5) wholesale customers	~~Quantitative~~	Megawatt hours (MWh)	IF-EU-000.B
Length of transmission and distribution lines[6]	~~Quantitative~~	Kilometres (km)	IF-EU-000.C
Total electricity generated, percentage by major energy source~~, percentage in regulated markets~~[7]	~~Quantitative~~	Megawatt hours (MWh), Percentage (%)	IF-EU-000.D
Total wholesale electricity purchased[8]	~~Quantitative~~	Megawatt hours (MWh)	IF-EU-000.E
Total number of (1) employees and (2) non-employee workers		Number	IF-EU-000.F
Total number of hours worked disaggregated by (1) employees and (2) non-employee workers		Number	IF-EU-000.G

[5] Note to **IF-EU-000.A** – The number of customers served for each category shall be the number of meters billed for residential, commercial and industrial customers.

[6] Note to **IF-EU-000.C** – The length of transmission and distribution lines shall be calculated on a circuit kilometre basis, where a circuit-kilometre is defined as the total length of circuits, regardless of conductors used per circuit.

[7] Note to **IF-EU-000.D** – Generation shall be disclosed for each of the following major energy sources: coal, natural gas, nuclear, petroleum, hydropower, solar, wind, other renewables and other gases. The scope of the disclosure includes owned or controlled ~~operated~~ assets. The scope of the disclosure excludes electricity consumed at generating facilities.

[8] Note to **IF-EU-000.E** – The scope of the disclosure excludes electricity consumed at generating facilities.

Greenhouse Gas Emissions & Energy Resource Planning

Topic Summary

Entities in the industry face climate-related transition risks with effects on prospects. These transition risks can take the form of regulatory, legal and reputational risks, as well as relate to changes in end-user demand. Entities in the industry can be subject to regulation of their greenhouse gas emissions from electricity generation as well as from transmission and distribution activities and related losses. For entities in the industry that also buy and sell electricity, regulatory risks and end-user demand for low-carbon electricity can influence an entity's purchasing decisions. Entities that seek to respond to regulations or customer demand for electricity with lower greenhouse gas emissions might do so by incurring increased operating costs or capital expenditures for mitigating greenhouse gas emissions. Depending on the regulatory structure, entities may not be able to recoup these costs fully from their customers. Energy resource and infrastructure investment planning, including decisions about the energy mix and deployment of appropriate technologies, can create competitive advantages for entities and help them mitigate unexpected regulatory costs, permitting delays or asset impairment. An entity's ability to avoid asset impairment in the current period or in the future, maintain profitability and preserve creditworthiness depends on how it manages its climate-related transition risks and opportunities.

~~Electricity generation represents the largest source of greenhouse gas (GHG) emissions in the world. Mainly carbon dioxide, methane and nitrous oxide, these emissions are mostly by-products of fossil fuel combustion. The transmission or distribution (T&D) segments of the industry produce negligible emissions. Electric utility entities could face significant operating costs and capital expenditures for mitigating GHG emissions as environmental regulations become increasingly stringent. Although many of these costs may be passed to a utility's customers, some power generators, especially in deregulated markets, may be unable to recoup these costs. Entities may reduce GHG emissions from electricity generation through careful infrastructure investment planning by ensuring the delivery of an energy mix capable of meeting the emissions requirements set forth by regulations, and by implementing industry-leading technologies and processes. Being proactive in cost-effectively reducing GHG emissions may create a competitive advantage for entities and mitigate unanticipated regulatory compliance costs. Failure to properly estimate capital expenditure needs and permitting costs, or other difficulties in reducing GHG emissions, may result in significant negative effects on returns in the form of asset write-downs, the costs to obtain carbon credits, or unexpected increases in operating and capital expenditures. Regulatory emphasis on this issue may increase in the coming decades, as exemplified by the international emissions reduction agreement made at the 21st session of the United Nations Conference of the Parties in 2015.~~

Metrics

IF-EU-110a.1. (1) Gross ~~global~~ Scope 1 emissions and (2) ~~,~~ percentage subject to ~~covered under (2)~~ emissions-limiting regulations ~~and (3) emissions-reporting regulations~~

1 An ~~The~~ entity shall disclose (1) its ~~(1)~~ gross ~~global~~ Scope 1 greenhouse gas ~~(GHG)~~ emissions in metric tonnes of carbon dioxide equivalents (CO_2-e). ~~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 In preparing this disclosure, the entity shall apply the measurement and disclosure requirements in paragraph 29(a) of IFRS S2 that are applicable to Scope 1 greenhouse gas emissions.

~~Emissions of all GHGs shall be consolidated and disclosed in metric tonnes of carbon dioxide equivalents (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 These emissions include Scope 1 greenhouse gas emissions from stationary or mobile sources that include electricity generation facilities, equipment and vehicles.

~~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 that include production facilities, office buildings and product transportation (marine, road and rail).~~

~~2.2 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:~~

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

~~2.2.2 *Greenhouse Gas Inventory Guidance: Direct Emissions from Stationary Combustion Sources* published by the U.S. 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* published by Entreprises pour l'Environnement (EpE)~~

~~2.3 GHG emissions data shall be consolidated and disclosed 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, and the approach published 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*.~~

2 ~~3~~ An ~~The~~ entity shall disclose (2) the percentage of its gross ~~global~~ Scope 1 greenhouse gas ~~GHG~~ emissions subject to applicable jurisdictional greenhouse gas ~~covered under an emissions-limiting~~ laws, regulations or programmes ~~regulation or programme~~ intended to limit or reduce greenhouse gas emissions directly, such as cap-and-trade schemes, carbon tax or fee ~~tax/fee~~ systems, and other emissions control (for example, command-and-control approach) and permit-based mechanisms.

~~3.1 Examples of emissions-limiting regulations include:~~

~~3.1.1 California Cap-and-Trade (California Global Warming Solutions Act)~~

~~3.1.2 European Union Emissions Trading Scheme (EU ETS)~~

~~3.1.3 Quebec Cap-and-Trade (Quebec Environment Quality Act)~~

2.1 ~~3.2~~The percentage shall be calculated as the total quantity ~~amount~~ of gross ~~global~~ Scope 1 greenhouse gas ~~GHG~~ emissions subject to greenhouse gas ~~(CO_2-e) covered under~~ emissions-limiting laws, regulations or programmes ~~regulations~~ divided by the total quantity ~~amount~~ of gross ~~global~~ Scope 1 greenhouse gas ~~GHG~~ emissions ~~(CO_2-e)~~.

2.1.1 ~~3.2.1~~ For emissions subject to more than one emissions-limiting framework, ~~regulation,~~ the entity shall not account for those emissions more than once.

2.2 ~~3.3~~ The scope of applicable jurisdictional greenhouse gas emissions-limiting laws, regulations or programmes ~~regulations~~ excludes emissions only subject to ~~covered under~~ voluntary emissions-limiting frameworks ~~regulations~~ (for example, voluntary trading systems), as well as reporting-based regulations.

~~4 The entity shall disclose (3) the percentage of its gross global Scope 1 GHG emissions that are covered under emissions reporting-based regulations.~~

~~4.1 Emissions reporting-based regulations are defined as regulations that mandate demand the disclosure of GHG emissions data to the applicable jurisdictional authorities regulators and/or the public, but for which there is no limit, cost, target, or controls on the amount of emissions generated.~~

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

~~4.2.1 For emissions that are subject to more than one emissions reporting-based regulation, the entity shall not account for those emissions more than once.~~

~~4.3 The scope of emissions reporting-based regulations does not exclude emissions covered under emissions-limiting 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.~~

IF-EU-110a.2. Greenhouse gas ~~(GHG)~~ emissions associated with (1) transmission and distribution loss and (2) net electricity purchased ~~power deliveries~~

1 An entity shall disclose gross greenhouse gas emissions associated with (1) transmission and distribution loss in metric tonnes of carbon dioxide equivalents (CO_2-e) during the reporting period.

~~The entity shall disclose gross global greenhouse gas (GHG) emissions associated with electric power delivered to retail customers, resulting from owned power generation and purchased power.~~

1.1 The disclosure is limited to the emissions included in the entity's calculation of Scope 2 greenhouse gas emissions.

~~GHG emissions are defined as 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).~~

~~1.1.1 Emissions of all GHGs shall be consolidated and disclosed in metric tonnes of carbon dioxide equivalents (CO_2-e), calculated in accordance with published 100-year time horizon global warming potential (GWP) values. To date, the preferred source for GWP factors is the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (2014).~~

1.1.2 ~~Gross emissions are GHGs emitted into the atmosphere before accounting for offsets or credits.~~

1.2 Transmission and distribution loss (T&D loss) is the electricity consumed during transmission and distribution.

2 An entity shall disclose gross greenhouse gas emissions associated with (2) net electricity purchased in metric tonnes of carbon dioxide equivalents (CO_2-e), consistent with the entity's calculation of its Scope 3 Category 3 greenhouse gas emissions.

~~GHG emissions associated with electric power delivered to retail customers are defined by, and shall be calculated according to, the methodology established by the numerator in 'EPS Metric D-3: Retail Electric Deliveries', contained in the Electric Power Sector Protocol for the Voluntary Reporting Program, June 2009, Version 1.0, provided by The Climate Registry, including 2010 Updates and Clarifications (which clarified that 'EPS Metric D-3: Retail Electric Deliveries' was mislabelled as 'EPS Metric D-1' in Version 1.0).~~

2.1 Net electricity purchased is calculated as the total quantity of electricity generated from owned or controlled assets subtracted from the total quantity of electricity supplied to end-users.

~~These emissions generally are calculated as the sum of emissions from power generation facilities owned by the entity, and those from power purchased from a third-party, subtracted by the emissions from power that was resold at the wholesale level.~~

~~2.2 The scope of GHG emissions shall include all emissions associated with power delivered to retail customers, including emissions associated with power lost in transmission and distribution.~~

~~2.3 Emissions factors for power purchased from third-parties are based on the most relevant and accurate method, which will depend on the type of power purchased. The Electric Power Sector Protocol for the Voluntary Reporting Program establishes potential methods.~~

3 In preparing this disclosure, the entity shall apply the measurement and disclosure requirements in paragraph 29(a) of IFRS S2.

~~Disclosure corresponds to the numerator in the metric contained in the Electric Power Research Institute's 2018 *Metrics to Benchmark Electric Power Company Sustainability Performance*, 'Total CO_2 emissions rate for power deliveries', except for the scope of emissions including all seven GHGs covered under the Kyoto Protocol.~~

~~IF-EU-110a.3. 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 (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF6) and nitrogen trifluoride (NF3).~~

~~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.

3 The entity shall discuss its strategy to manage risks and opportunities associated with the GHG emissions regulatory environment, which may include:

3.1 Any changes it has made or plans to make to its business structure or model

3.2 The development of new technologies or services

3.3 Any changes it has made or plans to make to its operational process, control or organisational structures

3.4 Influencing the regulatory or legislative process and outcomes, which may include interactions with regulators, regulatory agencies, utility commissions, legislators and policymakers

4 The entity may discuss its involvement in green power markets, including the number of customers served (by customer category) and the corresponding electricity generated.

4.1 Green power markets are defined as an optional utility service that allows customers the opportunity to support a greater level of utility entity investment in renewable energy technologies.

4.2 The entity may disclose instances in which the provision of green power markets is required by state renewable portfolio standards.

5 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.

6 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.

7 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.

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

IF-EU-110a.4. Installed capacity, disaggregated by (1) major energy source and (2) energy storage

1 An entity shall disclose its installed capacity in megawatts (MW).

1.1 Capacity is the maximum quantity of electricity, in MW, that an entity can generate.

1.2 Installed capacity includes owned or controlled assets.

1.2.1 In preparing this disclosure, the entity shall determine ownership or control by including assets included in the consolidation boundary used to measure greenhouse gas emissions.

2 An entity shall disaggregate installed capacity in MW by (1) each of its major energy sources and by (2) energy storage capacity.

2.1 Major energy sources include coal, natural gas, nuclear, petroleum, hydropower, solar, wind, other renewables and other gases.

2.2 Types of energy storage include energy storage systems related to batteries, pumped hydro, thermal (such as molten salt), mechanical (such as compressed air) and hydrogen.

IF-EU-110a.5. Planned capacity, disaggregated by (1) major energy source and (2) energy storage

1 An entity shall disclose information to enable users to understand its planned capacity for electricity generation in megawatts (MW) over the short, medium and long term.

1.1 Planned capacity includes the entity's investment and disposal plans, such as plans to which the entity is not contractually committed and plans to redeploy, repurpose, upgrade or decommission existing assets.

1.2 The entity shall disclose information about its planned capacity consistent with its disclosure of installed capacity prepared in accordance with metric IF-EU-110a.4.

1.3 The entity shall explain how it defines 'short term', 'medium term' and 'long term' and how these definitions are linked to the planning horizons it uses for strategic decision-making on planned capacity, consistent with paragraph 10(d) of IFRS S2.

2 An entity shall disaggregate information about its planned capacity in MW by (1) each of its major energy sources and by (2) energy storage capacity.

2.1 Major energy sources include coal, natural gas, nuclear, petroleum, hydropower, solar, wind, other renewables and other gases.

2.2 Types of energy storage include energy storage systems related to batteries, pumped hydro, thermal (such as molten salt), mechanical (such as compressed air) and hydrogen.

3 The entity shall disclose information about how it plans to comply with applicable jurisdictional law or regulation to discontinue any of the major energy sources it uses.

IF-EU-110a.6. Description of how climate-related transition risks and opportunities influence capital strategy and investments

1 An entity shall disclose how climate-related transition risks and opportunities influence its investment, maintenance and disposal plans.

1.1 In accordance with paragraph 16(c)(i) of IFRS S2, the disclosure includes information about the entity's plans for capital expenditure, major acquisitions and divestments, joint ventures, business transformation, innovation, new business areas and asset retirements.

2 The disclosure includes information about the entity's strategy and the resilience of its strategy to climate-related transition risks, developments and uncertainties considering its identified climate-related risks and opportunities, consistent with paragraph 22 of IFRS S2. Specifically, the entity shall disclose:

2.1 an assessment of its capacity to adjust or adapt its strategy and business model to climate-related transition risks over the short, medium and long term;

2.2 an evaluation of new investments it considers as potential market transition opportunities, such as small modular reactors, renewable energy sources, carbon capture and storage, or hydrogen production and its use as an energy source; and

2.3 an evaluation of significant areas of uncertainty considered in its assessment of its climate resilience.

3 The disclosure is limited to the entity's climate-related transition risks and does not include climate-related physical risks.

4 The disclosure includes a description of factors that could reasonably be expected to influence the entity's investment decision-making, including information about:

4.1 jurisdictional or industry climate-related regulations that could influence its investment in specific energy sources or technologies;

4.2 trade-offs related to the reliability, affordability and resilience to climate-related physical risks;

4.3 interactions with regulators, regulatory agencies, utility commissions, legislators, policymakers and industry associations;

4.4 any climate-related transition plan it has in accordance with paragraph 14(a)(iv) of IFRS S2; and

4.5 qualitative and quantitative greenhouse gas emissions targets it has set for itself, and any targets it is required to meet by law or regulation, in accordance with paragraphs 33–36 of IFRS S2.

Air Quality

Topic Summary

Fuel combustion in electricity-generation operations generates hazardous air pollutants. These air pollutants can create significant and localised environmental and health risks. The most common and concerning ~~impactful~~ are nitrogen oxides (excluding nitrous oxide), sulphur oxide, lead, mercury and particulate matter (PM)~~, lead and mercury~~. Emissions of these localised air pollutants are often ~~are~~ strictly regulated, creating significant compliance risks for electricity generators. Regulatory and legal risks are greater ~~higher~~ for entities operating near large communities. Harmful operational air emissions may result in regulatory penalties, increasing ~~higher~~ regulatory compliance costs, legal liabilities and capital expenditures~~ to install control technology~~. In some cases, such expenditures may be cost prohibitive to continued facility operations. Entities can ~~may~~ manage air quality concerns and related effects on prospects by reducing emissions, as well as by working with regulators to establish priorities and manage short- and long-term capital planning risks.

Metrics

IF-EU-120a.1. Air pollutant emissions of ~~the following pollutants~~: (1) NO_x (excluding N_2O), (2) SO_x, (3) hazardous air pollutants and (4) particulate matter ~~(PM_{10}), (4) lead (Pb), and (5) mercury (Hg)~~; percentage of each in or near areas of dense population

1 An ~~The~~ entity shall disclose its air pollutant emissions ~~of air pollutants~~, in metric tonnes for each ~~per~~ pollutant, released into the atmosphere.

1.1 The ~~scope of the~~ disclosure includes air pollutants associated with the entity's operational ~~direct air emissions resulting from all the entity's~~ activities and sources of emissions, which ~~may~~ include stationary or mobile sources~~, production facilities, office buildings and transportation fleets~~.

1.2 The entity shall define the listed air pollutant emissions according to the applicable jurisdictional law or regulation.

1.3 If the entity is subject to more than one jurisdictional law or regulation that defines air pollutant emissions, the entity shall disclose whether and how variations between these frameworks affect the reported data.

1.4 If the entity defines and manages its air pollutant emissions using the strictest compliance guidelines from applicable legal, regulatory or voluntary trade association frameworks in all jurisdictions in which it operates, it shall disclose that fact, and if so, which framework it uses.

2 An ~~The~~ entity shall disclose its emissions of (1) nitrogen oxides ~~of nitrogen~~ (NO_X), reported as NO_x.

2.1 The scope of NO_x includes NO and NO_2 but excludes nitrous oxide, N_2O.

2.2 If the jurisdiction in which the entity operates has no applicable law or regulation to define NO_x emissions, the entity shall instead use the United Nations Economic Commission for Europe (UNECE) Convention, *Sofia Protocol concerning the Control of Emissions of Nitrogen Oxides or their Transboundary Fluxes*, 1988 definition of NO_x emissions.

3 An ~~The~~ entity shall disclose its emissions of (2) sulphur oxides ~~of sulphur~~ (SO_X), reported as SO_X.

3.1 The scope of SO_x includes SO_2 and SO_3.

3.2 If the jurisdiction in which the entity operates has no applicable law or regulation to define SO_x emissions, the entity shall instead use the UNECE Convention, *Helsinki Protocol on the Reduction of Sulphur Emissions or their Transboundary Fluxes*, 1985 definition of SO_x emissions.

4 An entity shall disclose its emissions of (3) hazardous air pollutants (HAPs).

4.1 HAPs are defined as pollutants known to cause adverse health or environmental effects.

4.1.1 HAPs include gases such as carbon monoxide, hydrogen chloride, hydrogen sulphide and polycyclic aromatic hydrocarbons or metals such as cadmium, chromium, lead, manganese and mercury.

4.2 For the purposes of this disclosure, HAPs exclude NOx, SOx, and particulate matter.

5 ~~4~~ An ~~The~~ entity shall separately disclose its emissions of ~~(4)~~ (3) particulate matter (PM), disaggregated as (a) PM_{10} and (b) $PM_{2.5}$. ~~10 micrometres or less in diameter (PM_{10}), reported as PM_{10}.~~

5.1 ~~4.1~~ PM_{10} is defined as any airborne fine ~~finely divided~~ solid or liquid material with an aerodynamic diameter less than or equal to ~~a nominal~~ 10 micrometres.

5.2 $PM_{2.5}$ is defined as any airborne fine solid or liquid material with an aerodynamic diameter less than or equal to 2.5 micrometres.

~~5 The entity shall disclose its emissions of (4) lead and lead compounds, reported as Pb.~~

~~6 The entity shall disclose its emissions of (5) mercury and mercury compounds, reported as Hg.~~

6 ~~7~~ An ~~The~~ entity shall disclose the percentage of its NO_x, SO_x, HAPs and PM ~~PM_{10}, Pb, and Hg~~ emissions from its facilities ~~located~~ in or near areas of dense population. ~~defined as urbanised areas in the local jurisdiction.~~

6.1 ~~7.1~~ Areas of dense population are defined as 'urban centres' identified in the Statistical Office of the European Union's Degree of Urbanization (DEGURBA) database, publicly accessible on the Global Human Settlement Layer website.

~~Generically, urbanised areas include densely developed residential, commercial and other non-residential areas with a population greater than 50,000. The entity may reference the United Nations Statistics Division list of the various national definitions for the word 'urban' in its *Demographic Yearbook 2005*, Table 6.~~

6.1.1 For areas not covered by DEGURBA, dense population is defined as developed residential, commercial and other non-residential areas with a population greater than 50,000 in a contiguous region with a density of greater than 1,500 inhabitants per square kilometre.

6.2 ~~7.2~~ An entity's facility is defined as 'in or near' an area of dense population if any part of the facility's spatial footprint of operations (polygon data defining geospatial information relating to the boundaries of the facility) is in or within 49 kilometres of an urbanised area identified as an 'Urban centre (City)' in the DEGURBA database or identified using the definition set out in paragraph 6.1.1.

~~The scope of the disclosure includes facilities located in an urbanised area or those with boundaries within 49 kilometres of an urbanised area, which constitutes an exposed population that is likely to come into contact with air emissions.~~

~~7.3 In the absence of available or accurate census data, the entity may use global population density data available from the NASA Socioeconomic Data and Applications Centre's (SEDAC) *Gridded Population of the World* (GPW).~~

7 ~~8~~ An ~~The~~ entity shall disclose ~~may discuss~~ the calculation method for its emissions disclosure, such as whether data is from: ~~continuous emissions monitoring systems (CEMS), engineering calculations or mass balance calculations.~~

7.1 direct measurement of emissions (such as online analysers);

7.2 calculations based on site-specific data;

7.3 calculations based on published emission factors; or

7.4 estimation.

Water Management

Topic Summary

Electricity generation is one of the most water-intensive industries ~~in the world~~ in terms of water withdrawals. Thermoelectric power plants—typically coal, nuclear and natural gas—use large quantities of water for cooling purposes, which is often then discharged and subject to regulation. The industry is facing increasing water-related supply and regulatory risks, potentially requiring capital investment in technology or even creating stranded assets. As water supplies tighten in many regions—and electricity generation, agriculture, commercial, industrial and community use compete for water supplies—power plants may increasingly ~~may~~ be unable to operate at full capacity, or at all, because of region-specific water constraints. The availability of water is an important factor to consider when determining ~~calculating~~ the future value of many electricity-generating assets and for evaluating proposals for new generation sources. Increased water scarcity —because of ~~factors such as~~ increasing consumption and decreasing supply ~~reduced supplies resulting from climate change, which could result in more frequent or intense droughts~~ —could prompt regulatory authorities to limit entities' ability to withdraw ~~necessary amounts of~~ water, especially in regions with high baseline water stress. Furthermore, violations of water-discharge regulations for cooling water and wastewater could affect entities through significant penalties or compliance costs. ~~entities must manage the growing number of regulations related to the significant biodiversity impacts that such large withdrawals may cause.~~ To mitigate these risks, entities can invest ~~both~~ in more efficient water-usage systems for plants~~,~~ and place strategic priority on assessing long-term water availability~~, as well as water-related biodiversity risks,~~ when making decisions about energy sources. ~~siting new power plants.~~

Metrics

IF-EU-140a.1. (1) Total water withdrawal, by source, ~~withdrawn,~~ (2) total water consumed; (3) percentages of water (a) withdrawn and (b) consumed from water-stressed locations ~~percentage of each in regions with High or Extremely High Baseline Water Stress~~

1 An ~~The~~ entity shall disclose (1) the quantity ~~amount~~ of water, in megalitres, ~~thousands of cubic metres,~~ withdrawn from all sources, disaggregated by source.

1.1 Water withdrawal is defined as the sum of all water drawn from ~~Water sources include~~ surface water ~~(including water from wetlands, rivers, lakes and oceans)~~, groundwater, seawater, produced water, or a third party for any use during the reporting period. ~~rainwater collected directly and stored by the entity, and water and wastewater obtained from municipal water supplies, water utilities or other entities.~~

1.2 Water sources include:

1.2.1 surface water, defined as water that occurs naturally on the Earth's surface in ice sheets, ice caps, glaciers, bogs, ponds, lakes, rivers and streams;

1.2.2 groundwater, defined as water held in and recoverable from an underground formation;

1.2.3 seawater, defined as water in a sea or ocean;

1.2.4 produced water, defined as water that enters an entity's boundary by extraction (for example, crude oil), processing (for example, sugar cane processing), or by use of any raw material, and which must be managed by the entity; and

1.2.5 third-party water, defined as water supplied by municipal water suppliers, wastewater treatment plants, public or private utilities, and other organisations involved in the provision, transport, treatment, disposal, or use of water and effluent.

~~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. If no legal definition exists, fresh water shall be considered to be water that has less than 1,000 parts per million of dissolved solids.~~

~~2.2 Water obtained from a water utility in compliance with jurisdictional drinking water regulations can be assumed to meet the definition of fresh water.~~

2 ~~3~~ An ~~The~~ entity shall disclose (2) the volume ~~amount~~ of water, in megalitres, ~~thousands of cubic metres,~~ consumed in its direct operations.

2.1 ~~3.1~~ Water consumption is defined as~~:~~ the sum of all water withdrawn and integrated into products, used in the production of crops or generated as waste, that has evaporated, transpired, or been consumed by humans or livestock, or is polluted to the point of being unusable by other users, and is not discharged back to surface water, groundwater, seawater or a third party.

2.1.1 Water consumption includes water that has been stored during the reporting period for use or discharge in a subsequent reporting period.

~~3.1.1 Water that evaporates during withdrawal, use 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 analyse all its operations for water risks and identify activities that withdraw and consume water in locations with High (40–80%) or Extremely High (>80%) Baseline Water Stress as classified by the World Resources Institute's (WRI) Water Risk Atlas tool, Aqueduct.~~

3 ~~5~~ An ~~The~~ entity shall disclose (3a) the volume of water withdrawn, in megalitres, from water-stressed ~~in~~ locations ~~with High or Extremely High Baseline Water Stress~~ as a percentage of the total water withdrawn.

3.1 Water stress is defined as the ability, or lack thereof, to meet human or ecological demand for water and can refer to the availability, quality or accessibility of water.

3.2 The entity shall disclose how it identifies water-stressed locations, for example:

3.2.1 using the World Resources Institute's *Aqueduct Water Risk Atlas* to evaluate whether the ratio of total annual water withdrawal to total available annual renewable water supply (baseline water stress) is high (40–80%) or extremely high (more than 80%); or

3.2.2 using the World Wildlife Fund's *Water Risk Filter* to evaluate whether the ratio of water consumption to water availability (water depletion) is moderate (dry-year depletion, where for at least 10% of the time, the monthly depletion ratio is more than 75%), high (seasonal depletion, where for at least an average of one month of the year, the depletion ratio is more than 75%), or very high (ongoing depletion, where the depletion ratio on average is more than 75%).

3.3 The entity shall disclose information about the internal assessments it uses to identify water-stressed locations, for example, whether the entity considers more granular local-level data.

4 ~~6~~ An ~~The~~ entity shall disclose (3b) the volume of water consumed from water stressed ~~in~~ locations ~~with High or Extremely High Baseline Water Stress~~ as a percentage of the total water consumed.

5 If information for this disclosure is estimated or modelled, rather than sourced from direct measurements, the entity shall explain its estimation methods.

~~IF-EU-140a.2. Number of incidents of non-compliance associated with water quality permits, standards and regulations~~

~~1 The entity shall disclose the total number of incidents of non-compliance, including violations of a technology-based standard and exceedances of quantity or quality-based standards.~~

~~2 The scope of disclosure includes incidents governed by applicable jurisdictional statutory permits and regulations, which include the discharge of a hazardous substance, violation of pre-treatment requirements or total maximum daily load (TMDL) exceedances.~~

~~3 The scope of disclosure shall only include incidents of non-compliance that resulted in a formal enforcement action(s).~~

~~3.1 Formal enforcement actions are defined as governmental recognised actions that address a violation or threatened violation of water quantity or quality laws, regulations, policies or orders, and can result in administrative penalty orders, administrative orders and judicial actions, among others.~~

~~4 Violations shall be disclosed, regardless of their measurement methodology or frequency. These include violations for:~~

~~4.1 Continuous discharges, limitations, standards and prohibitions that are generally expressed as maximum daily, weekly and monthly averages; and~~

~~4.2 Non-continuous discharges, limitations that are generally expressed in terms of frequency, total mass, maximum rate of discharge and mass or concentration of specified pollutants.~~

IF-EU-140a.3. Description of water-related ~~management~~ risks and opportunities and ~~discussion of~~ strategies ~~and practices~~ to manage them, including any targets set to monitor progress ~~mitigate those risks~~

1 An ~~The~~ entity shall describe its ~~water management~~ risks associated with water withdrawals, water consumption and discharge of water or wastewater.

1.1 Risks associated with water withdrawals and water consumption include risks to the availability and quality of ~~adequate, clean~~ water resources, which include:

1.1.1 environmental ~~Environmental~~ constraints—such as operating in water-stressed regions, drought, floods, concerns of aquatic impingement or entrainment, interannual or seasonal variability, water quality that requires additional treatment at the point of input, and risks from the impact of climate change; and

1.1.2 regulatory ~~Regulatory~~ and financial constraints—such as water price volatility ~~in water costs~~, stakeholder perceptions and concerns related to water withdrawals (for example, those involving ~~from~~ local communities, non-governmental organisations and regulatory agencies), direct competition with ~~and impact from the actions of~~ other users (for example, commercial and municipal users), restrictions to withdrawals because of regulations, and constraints on the entity's ability to obtain and retain water rights or permits.

1.2 Risks associated with discharged ~~the discharge of~~ water or wastewater include the ability to obtain or retain rights or permits related to discharges, regulatory compliance related to discharges, restrictions on ~~to~~ discharges, ~~the ability to maintain control over the~~ temperature control of ~~water~~ discharges and risks stemming from impacts on local ecosystems and communities. ~~, liabilities, reputational risks and increased operating costs because of regulation, stakeholder perceptions and concerns related to water discharges (for example, those from local communities, non-governmental organisations and regulatory agencies).~~

2 An ~~The~~ entity shall ~~may~~ describe how its water-related ~~management~~ risks vary by: ~~in the context of:~~

2.1 ~~How risks may vary by~~ withdrawal source~~; , including 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; and~~

2.2 ~~How risks may vary by~~ discharge destinations, including surface water, groundwater, seawater or wastewater utilities~~; .~~

2.3 local regulations, including emerging regulations; and

2.4 location of operating facilities.

3 An entity shall disclose the locations of operating facilities where water-related risks are concentrated.

~~The entity may discuss the potential effects that water management risks may have on its operations and the time line over which such risks are expected to manifest.~~

~~3.1 Effects include those associated with costs, revenue, liabilities, continuity of operations and reputation.~~

4 An entity shall disclose quantitative and qualitative information about how water-related risks and opportunities have affected, and are anticipated to affect, the entity's financial position, financial performance and cash flows both for the reporting period and over the short, medium and long term.

~~The entity shall discuss its short- and long-term strategies or plan to mitigate water management risks, which may include:~~

~~4.1 The scope of its strategy, plans, goals or targets, such as how they relate to various business units, geographies or water-consuming operational processes.~~

~~4.2 Any water management goals or targets it has prioritised, and an analysis of performance against those goals or targets.~~

~~4.2.1 Goals and targets include those associated with reducing water withdrawals, reducing water consumption, reducing water discharges, reducing aquatic impingements, improving the quality of water discharges and maintaining regulatory compliance.~~

~~4.3 The activities and investments required to achieve the plans, goals or targets, and any risks or limiting factors that might affect achievement of the plans or targets.~~

~~4.4 Disclosure of strategies, plans, goals or targets shall be limited to activities that were ongoing (active) or reached completion during the reporting period.~~

5 The entity shall disclose any targets it has set, and any targets it is required to meet by law or regulation, to mitigate or adapt to water-related risks or take advantage of water-related opportunities.

5.1 In preparing this disclosure, the entity shall apply the requirements in paragraphs 51-53 of IFRS S1 that are applicable to the entity's water related targets.

6 The entity shall disclose its strategies for managing water-related risks and opportunities, and achieving water-related targets, including:

~~5 For water management targets, the entity shall additionally disclose:~~

~~5.1 Whether the target is absolute or intensity-based, and the metric denominator if it is an intensity-based target.~~

~~5.2 The time lines for the water management plans, including the start year, the target year and the base year.~~

~~5.3 The mechanism(s) for achieving the target, including:~~

6.1 ~~5.3.1~~ efficiency ~~Efficiency~~ efforts (for example, using~~, such as the use of~~ water recycling or closed-loop systems);

6.2 ~~5.3.2~~ product ~~Product~~ innovations (for example,~~ such as~~ redesigning products or services to require less water);

6.3 ~~5.3.3~~ process ~~Process~~ and equipment innovations (for example, reducing ~~, such as those that enable the reduction of~~ aquatic impingements or entrainment); ~~entrainments;~~

6.4 ~~5.3.4~~ use ~~Use~~ of tools and technologies (for example, the World Wildlife Fund Water Risk Filter~~, the Global Water Tool and Water Footprint Network Footprint Assessment Tool~~) to analyse water use, risks and opportunities; and

6.5 ~~5.3.5~~ collaborations ~~Collaborations~~ or programmes with communities ~~in place with the community~~ or other organisations.

~~5.4 The percentage reduction or improvement from the base year, in which the base year is the first year against which water management targets are evaluated towards the achievement of the target.~~

7 ~~6~~ An ~~The~~ entity shall disclose ~~discuss~~ whether its water management practices resulted ~~result~~ in any ~~additional~~ lifecycle impacts ~~effects~~ or trade-offs in its organisation, including trade-offs in land use, energy production and greenhouse gas ~~(GHG)~~ emissions, and why the entity chose these practices despite such ~~lifecycle~~ trade-offs.

IF-EU-140a.4. Total water discharged by (1) destination and (2) level of treatment

1 An entity shall disclose the (1) total volume of water discharged, in megalitres, disaggregated by destination.

1.1 Water discharge is defined as the sum of effluents, used water, and unused water released to surface water, groundwater, seawater or a third party, for which the organisation has no further use.

1.1.1 Surface water is defined as water that occurs naturally on the Earth's surface in ice sheets, ice caps, glaciers, bogs, ponds, lakes, rivers and streams.

1.1.2 Groundwater is defined as water held in and recoverable from an underground formation.

1.1.3 Seawater is defined as water in a sea or ocean.

1.1.4 Third-party water is defined as water discharged by municipal water suppliers and municipal wastewater treatment plants, public or private utilities, and other organisations involved in the provision, transport, treatment, disposal, or use of water and effluent.

1.2 The scope of disclosure includes water released into a receiving waterbody at either a defined discharge point (point-source discharge) or dispersed over land in an undefined manner (non-point-source discharge).

2 An entity shall disclose (2) the total volume of water discharged, in megalitres, disaggregated by level of treatment.

2.1 Water treatment is defined as the physical, chemical or biological processes that improve water quality by removing solids, pollutants, and organic matter from water and effluents.

2.2 Treatment levels include:

2.2.1 primary treatment, which aims to remove solid substances that settle or float on the water surface;

2.2.2 secondary treatment, which aims to remove substances and materials that have remained in the water, or are dissolved or suspended in it; and

2.2.3 tertiary treatment, which aims to upgrade water to a higher level or quality before it is discharged, for example, removing heavy metals, nitrogen, and phosphorus.

2.3 If the entity discharges water that it determines does not require treatment, it shall disclose the associated volume in megalitres.

2.4 The level of treatment shall be reported for any water or effluents at the point of discharge, whether treated by the entity on-site or sent to a third party for treatment.

2.5 The entity shall disclose how it determines the appropriate level of treatment for water discharges.

Hazardous Waste ~~Coal Ash~~ Management

Topic Summary

Entities in the Electric Utilities & Power Generators industry generate and handle various types of hazardous waste related to generation, transmission and distribution activities, including coal ash, spent nuclear fuel and polychlorinated biphenyls (PCBs). Coal ash—a form of hazardous waste due to coal-fired electricity generation—contains heavy metal contaminants that could leach into groundwater if inadequately managed. Spent nuclear fuel is often stored in interim storage facilities while longer-term disposal facilities are developed and can pose regulatory compliance and litigation risks if improperly stored. Some hazardous waste can have beneficial uses when recycled or reused, such as coal ash when used in the creation of fly ash concrete or wallboard, creating revenue opportunities. Hazardous waste storage or disposal incidents can result in significant litigation and remediation costs. Entities can adopt strategies to reduce regulatory compliance costs, avoid penalties, or to generate revenues. These strategies include safely handling hazardous waste, locating storage and disposal facilities to minimise potential harm to human life or the environment, effective monitoring and containment of waste and the sale of waste for beneficial uses.

~~Electricity generators must safely discard the hazardous by-products of their operations. Coal-fired electricity generation is a major source of hazardous waste because of coal ash. Coal ash can have a significant effect on entity value in the power generation segment of the industry. This issue will affect entities differently, depending on the extent to which they generate electricity from coal. Coal ash is one of the largest industrial waste streams in the world. It contains heavy metal contaminants associated with cancer and other serious diseases, especially when they leach into groundwater. Coal ash can have beneficial uses when recycled or reused, such as in the creation of fly ash concrete or wallboard, creating revenue opportunities for electric utilities. Safe handling of coal ash, locating coal ash impoundments to minimise potential harm to human life or the environment, effective monitoring and containment of coal ash, and the sale of coal ash for beneficial uses are important strategies to reduce regulatory compliance costs as well as penalties for non-compliance. Coal ash leaching into the surrounding environment can result in significant litigation and remediation costs.~~

Metrics

~~IF-EU-150a.1. (1) Amount of coal combustion products (CCPs) generated, (2) percentage recycled~~

~~1 The entity shall disclose (1) the weight, in metric tonnes, of coal combustion products (CCPs) generated from its operations.~~

~~1.1 CCPs include fly ash, bottom ash, boiler slag, fluidised bed combustion ash or flue gas desulphurisation material resulting predominantly from the combustion of coal.[9]~~

~~2 The entity shall disclose (2) the percentage of CCPs recycled, by weight.~~

~~2.1 The entity shall define recycled CCPs based on the applicable jurisdictional definition.~~

~~2.2 CCPs generally are considered recycled if they are converted into new materials and objects. Recycling includes selling CCPs to a third-party for re-use or other circularity measures to prevent waste.~~

~~2.3 The percentage shall be calculated as the weight of CCPs reused or reclaimed, plus the weight recycled (through treatment or processing) by the entity, plus the weight sent externally for further recycling, divided by the total weight of CCPs generated from operations.~~

~~2.4 The entity shall disclose the applicable jurisdictional laws or regulations used to define recycled CCPs.~~

~~9 Adapted from the World Wide Coal Combustion Products Network's definition of coal combustion products.~~

~~IF-EU-150a.3. Description of coal combustion products (CCPs) management policies and procedures for active and inactive operations~~

~~1 The entity shall describe the policies and procedures set forth by its coal combustion products (CCPs) management strategy.~~

~~1.1 The scope of the disclosure shall include policies and procedures for the entity's active and inactive operations.~~

~~1.2 CCPs include fly ash, bottom ash, boiler slag, fluidised-bed combustion ash or flue gas desulphurisation material resulting predominantly from the combustion of coal.[10]~~

~~2 The entity shall describe how its policies and procedures compare with those required by local jurisdictions that apply to the entity.~~

~~2.1 The entity shall discuss whether and how its policies and procedures exceed the requirements of local jurisdictions.~~

~~2.2 The entity shall discuss how its policies and procedures vary by region.~~

~~3 The entity shall describe its approach to CCPs management during the entire product lifecycle.~~

~~3.1 The scope of the disclosure shall include a discussion of the entity's:~~

~~3.1.1 approach to assessment of potential environmental impacts associated with CCPs;~~

~~3.1.2 policies and procedures related to CCP waste avoidance;~~

~~3.1.3 approach to identification, assessment and application of recycling, reuse and repurposing of CCPs as management strategy;~~

~~3.1.4 policies and procedures related to CCP disposal;~~

~~3.1.5 policies and procedures related to remediation of environmental or social impacts of incidents associated with the mishandling of CCPs; and~~

~~3.1.6 approach to decommissioning CCP disposal facilities.~~

~~4 The entity shall include a description of how CCP management efforts are coordinated among business partners (for example, contractors and subcontractors).~~

~~5 The entity shall describe how it ensures compliance and conformance with its CCP management policies and procedures.~~

IF-EU-150a.4. (1) Hazardous waste generated, (2) hazardous waste stored and (3) hazardous waste recycled

1 An entity shall disclose (1) the total mass of hazardous waste that it generated, in metric tonnes.

1.1 Hazardous waste is defined in accordance with the applicable jurisdictional law or regulation where the waste was generated.

1.1.1 Hazardous waste excludes gaseous waste and wastewater.

1.2 If the jurisdiction in which the entity operates has no applicable law or regulation to define hazardous waste, the entity shall use the United Nations Environmental Programme *Basel*

~~10 Adapted from the World Wide Coal Combustion Products Network's definition of coal combustion products.~~

Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention) to define hazardous waste.

1.3 If the entity generates radioactive waste, it shall separately disclose the volume (in cubic metres).

1.4 If the entity generates coal combustion products (CCPs), it shall separately disclose the mass in metric tonnes.

1.4.1 CCPs include fly ash, bottom ash, boiler slag, fluidised-bed combustion ash or flue gas desulphurisation material resulting predominantly from the combustion of coal.

2 An entity shall disclose (2) the mass of hazardous waste stored or disposed of on-site, in metric tonnes.

2.1 If the entity stores or disposes of radioactive waste on-site, it shall separately disclose the volume (in cubic metres).

3 An entity shall disclose (3) the mass of hazardous waste recycled as the weight of hazardous waste that has been recycled by being reused, reclaimed or remanufactured.

3.1 If the entity recycles radioactive waste, it shall separately disclose that information in cubic metres.

3.2 If the entity recycles CCPs, it shall separately disclose that information.

3.3 The mass of hazardous waste recycled is defined as the mass of hazardous waste reused plus the mass recycled or remanufactured (through treatment or processing) by the entity, plus the mass sent externally for further recycling, such that:

3.3.1 reused materials are defined as those recovered products or components of products used for the same purpose for which they were conceived;

3.3.2 recycled and remanufactured materials are defined as waste reprocessed or treated through production or manufacturing processes and made into a final product or made into a component to be integrated into a product;

3.3.3 recycled and remanufactured products include primary recycled materials, co-products (outputs of equal value to primary recycled materials) and by-products (outputs of lesser value than primary recycled materials);

3.3.4 portions of products and materials discarded in landfills do not qualify as recycled;

3.3.5 recycled waste includes only the portions of products directly used in new products, co-products or by-products; and

3.3.6 materials sent for further recycling include those transferred to a third party for the purpose of reuse, recycling or refurbishment.

3.4 Materials incinerated, including for energy recovery, are excluded from recycled materials.

3.4.1 Energy recovery is defined as the use of combustible waste to generate energy through direct incineration, with or without other waste, but with recovery of the heat.

4 If an entity is subject to more than one jurisdictional law or regulation that defines waste, hazardous waste and recycled waste, the entity shall disclose whether and how variations between these frameworks affect the reported data.

4.1 If the entity defines and manages its hazardous waste and recycled hazardous waste using the strictest compliance guidelines from applicable legal, regulatory or trade association frameworks in all jurisdictions in which it operates, it shall disclose that fact, and if so, which framework it uses.

IF-EU-150a.5. Number of significant incidents associated with hazardous waste management

1 An entity shall disclose the total number of significant incidents associated with the handling, storage, transportation or disposal of hazardous waste being generated.

1.1 The disclosure includes incidents of mishandling and improper disposal of hazardous waste. Such incidents include seepage or leaching from facilities that contain a meaningful concentration of hazardous waste, or major spills or releases that occurred during handling, storage, transportation or disposal of hazardous waste that impacted the environment, workforce or surrounding communities.

1.1.1 A meaningful concentration is defined as a concentration that exceeds the limits of applicable jurisdictional law or regulation or industry-wide accepted codes.

1.1.2 Impacts on the environment, workforce or surrounding communities include contamination of surface water, groundwater and land that required response and remediation, reduced biodiversity, or caused injuries or deaths among the workforce or community members.

1.2 A significant incident is defined as a release of hazardous waste to the environment that exceeds the volume and concentration limits of applicable jurisdictional law or regulation or industry-accepted codes; or does not meet any of these criteria but is judged by the entity as significant.

1.2.1 The disclosure includes information about whether the entity has developed its own criteria for establishing the threshold in volume and concentration exceeding that which it considers a significant incident.

1.3 The entity shall identify hazardous waste in accordance with the applicable jurisdictional law or regulation where the hazardous waste was generated.

1.3.1 If the jurisdiction in which the entity operates has no applicable law or regulation to define hazardous waste, the entity shall use the United Nations Environmental Programme *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal* (Basel Convention) to define hazardous waste.

2 If an entity is subject to more than one jurisdictional law or regulation that defines hazardous waste, the entity shall disclose whether and how variations between these frameworks affect the reported data.

2.1 If the entity defines and manages its hazardous waste using the strictest compliance guidelines from applicable legal, regulatory or voluntary trade association frameworks in all jurisdictions in which it operates, it shall disclose that fact, and if so, which framework it uses.

IF-EU-150a.6. Hazardous waste management policies and procedures for active and inactive operations

1 An entity shall describe the policies and procedures used in its hazardous waste management strategy.

1.1 The disclosure includes policies and procedures for the entity's active and inactive operations.

1.2 Hazardous waste is defined in accordance with the applicable jurisdictional law or regulation where the waste was generated.

1.2.1 If the jurisdiction in which the entity operates has no applicable law or regulation to define hazardous waste, the entity shall use the United Nations Environmental Programme *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal* (Basel Convention) to define hazardous waste.

2 An entity shall describe how its policies and procedures compare with those required under applicable jurisdictional law or regulation.

2.1 The entity shall disclose whether and how its policies and procedures exceed the requirements of local jurisdictions.

2.2 The entity shall explain whether and how its policies and procedures vary by region.

2.3 The entity shall explain whether and how its policies and procedures vary by hazardous waste stream, including radioactive waste and CCPs.

3 An entity shall describe how it manages hazardous waste, including its:

3.1 approach to risk assessment of potential environmental impacts associated with hazardous waste streams;

3.2 policies and procedures related to hazardous waste avoidance;

3.3 approach to identification, assessment and application of recycling, reuse and repurposing as hazardous waste management strategies, including opportunities associated with CCPs if the entity generates them;

3.4 policies and procedures related to hazardous waste disposal or incineration, including;

3.4.1 how the entity determines its approach to storing radioactive waste;

3.5 policies and procedures related to the remediation of environmental or social impacts of incidents associated with the mishandling of hazardous waste; and

3.6 approach to decommissioning hazardous waste facilities.

4 An entity shall disclose information about how its hazardous waste management efforts are coordinated among business partners (for example, contractors and subcontractors).

5 An entity shall disclose information about how it ensures compliance and conformance with its hazardous waste management policies and procedures.

Ecological Impacts

Topic Summary

The development and operation of electricity infrastructure for generation, transmission and distribution activities (and related decommissioning and remediation activities) can have a wide range of ecological impacts on landscapes, vegetation and wildlife habitats, with regulatory and reputational risks for entities. These ecological impacts vary depending on the type and location of electricity infrastructure; specifically, they vary by the energy source used for electricity generation and for transmission and distribution. These impacts can lead to increased costs of operation, fines or penalties for violations of environmental regulations, and reputational damage. Because project development often depends on securing environmental permitting approval, the siting of medium or large projects in or near environmentally sensitive locations may make environmental permitting more difficult or costly. Regulatory activities or community opposition to projects over potential natural resource impacts might also affect project development. These factors may slow or disrupt the development process, possibly resulting in higher costs, lost revenues or project delays. Entities with effective environmental management plans could reduce their compliance costs and legal liabilities, leading to fewer difficulties in developing and completing projects, while enhancing their social licence to operate.

Metrics

IF-EU-160a.1. (1) Total spatial footprint of operations, (2) area disturbed and (3) area restored

1 An entity shall disclose (1) the total spatial footprint (area) of its operations in square kilometres (km^2) at the reporting date.

1.1 The total spatial footprint of the entity's operations includes the cumulative area disturbed during the current and prior periods by its operations that has not been restored.

1.2 The area disturbed is defined as the aggregate geographical area that has been subject to human activity that has changed the condition of the area, relative to an original reference state.

1.2.1 Human activity is defined as the entity's activities and operations that have physically disrupted, modified, covered, compacted, moved or otherwise altered the characteristics of terrestrial, freshwater aquatic or marine ecosystems from before such activity.

1.2.2 The entity's total spatial footprint of operations includes the area disturbed during the current period and continues to be the area disturbed in all subsequent reporting periods unless the area disturbed is restored.

1.2.3 For bodies of water, the disturbed area includes the bottom or seabed beneath the water's surface.

1.3 The disclosure includes information about the aggregate measured area of the entity's spatial footprint in terrestrial, freshwater aquatic or marine ecosystems (land, wetlands, riverine, navigable waterways, littoral or ocean) on any leasehold, concession or property that the entity leases, manages or owns, and any rights of way or easements associated with them.

1.4 This disclosure includes the entity's operational facilities that are active, recently decommissioned awaiting restoration and being restored.

1.5 Area restored is defined as a previously disturbed area that has been restored according to applicable jurisdictional law or regulation.

1.6 If the jurisdiction in which the entity operates has no applicable law or regulation to define a previously disturbed area that has been restored, a restored area is defined as the cumulative geographical area that

has been subject to human intervention to return a degraded, damaged or destroyed area or ecosystem to an approximation of an original reference state.

1.6.1 Ecological restoration is defined as re-establishing the ecosystem's composition, structure and function, usually bringing it back to its original (pre-disturbance) state or to a healthy state close to the original. Ecological restoration focuses on biodiversity conservation and ecological integrity.

1.6.2 Ecosystem restoration is defined as a restored area that demonstrates resilience to normal ranges of environmental stress and disturbance and interacts with contiguous ecosystems in terms of biotic and abiotic flows and cultural interactions. An ecosystem is restored when it contains sufficient biotic and abiotic resources to sustain itself structurally and functionally and can continue its development without further assistance or subsidy.

2 An entity shall disclose (2) the area disturbed by the entity's operations, in km^2, during the current reporting period.

3 An entity shall disclose (3) the area previously disturbed by operations that has been restored in km^2 during the reporting period.

3.1 An area is no longer part of the entity's spatial footprint of operations once post-closure restoration and remediation efforts are complete as defined by applicable jurisdictional law or regulation (even if after-monitoring is necessary).

4 The disclosure includes information about any adjustments to the entity's total spatial footprint of operations, area disturbed or area restored resulting from acquisitions, mergers and divestments or disposals completed during the reporting period.

IF-EU-160a.2. Percentage of the total spatial footprint of operations in or near environmentally sensitive locations

1 An entity shall disclose the percentage of its total spatial footprint (area) of operational facilities located in or near environmentally sensitive locations at the reporting date.

1.1 The percentage is calculated as the area of the entity's spatial footprint of operational facilities located in or near environmentally sensitive locations divided by the entity's total spatial footprint of operations.

1.1.1 The entity's spatial footprint of operations is defined as the measured area of its operational physical footprint in terrestrial, freshwater and marine ecosystems.

1.2 The disclosure includes land and bodies of water, such as wetlands, streams, rivers, lakes, navigable waterways and littoral or ocean environments, on any leasehold, concession or property that the entity leases, manages or owns and any rights of way or easements associated with them.

2 The area of an entity's operational facilities is defined by the facility's spatial footprint of operations (polygon data defining geospatial information relating to the boundaries of disturbed area) on any leasehold, concession or property that the entity leases, manages or owns, and any rights of way or easements associated with them.

2.1 The disclosure includes information about operational facilities for which future operations have been formally announced and planned changes to facility boundaries are included in approved expansion plans.

3 Environmentally sensitive locations are defined as areas where an entity's assets or activities interface with nature in areas deemed to be ecologically sensitive. Such locations are defined as:

3.1 being important for biodiversity;

3.2 having high ecosystem integrity;

3.3 exhibiting rapidly declining ecosystem integrity; or

3.4 being important for ecosystem service provision.

4 Environmentally sensitive locations include:

4.1 International Union for Conservation of Nature (IUCN) protected areas (categories I–VI);

4.2 Ramsar Wetlands of International Importance;

4.3 United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Sites;

4.4 UNESCO's Man and the Biosphere Programme's biosphere reserves 'core areas';

4.5 Natura 2000 sites;

4.6 Ocean+ Habitats 'Protected Areas' (marine and coastal);

4.7 a clearly defined geographical area, recognised, dedicated and managed, through legal or other effective means by applicable jurisdictional authorities, to achieve the long-term conservation of nature with associated ecosystem services and cultural values (such as the protected areas listed in the World Database of Protected Areas and mapped on the Protected Planet website); or

4.8 an endangered species habitat where species on the IUCN Red List of Threatened Species that are classified as Critically Endangered or Endangered are known to reside.

4.8.1 Species reside in an area if they are resident, present during breeding or non-breeding season, or if they use the area for passage.

4.8.2 For the purposes of disclosure, 'passage' is defined as all areas of land or water that a migratory species inhabits, stays in temporarily, crosses or overflies at any time on its normal migration route.

5 An entity's operational facilities are defined as being 'in or near' an environmentally sensitive location if any part of the facility's spatial footprint of operations is in or within five kilometres of the boundary of an environmentally sensitive location.

IF-EU-160a.3. Description of environmental management policies and practices for operational facilities

1 An entity shall disclose information about its environmental management policies and practices implemented at operational facilities, including:

1.1 the life cycle stages to which the plans apply, such as land acquisition and surveying, development and construction, revegetation, operations, closure, site decommissioning, removal and restoration;

1.2 the types of ecological impacts included in the plans, such as ecological and biodiversity impacts, waste generation, noise, emissions to air, discharges to water, spill prevention, natural resource consumption and hazardous chemical use;

1.3 whether the entity integrates an environmental mitigation hierarchy into its project development and operations, such as using the 2020 Science Based Targets Network's *Initial Guidance for Business* AR3T Action Framework;

1.4 the underlying definitions and references for its plans, including whether they originate from codes, guidelines, standards or regulations; and

1.5 whether the entity, an industry organisation, a third-party organisation (for example, a non-governmental organisation), a governmental agency or some combination of these groups developed the environmental management policies and practices.

2 If environmental management policies and practices vary significantly by activity, by location or by type of operation, then the entity shall describe the differences.

3 If the environmental management policies and practices do not apply to all the entity's operational facilities, it shall disclose the percentage of its total spatial footprint (area) of its operations to which they applied at the reporting date.

4 An entity shall explain whether its policies and practices are aligned with the International Finance Corporation's (IFC) *Performance Standards on Environmental and Social Sustainability*, 2012, including:

4.1 IFC Performance Standard 1, *Assessment and Management of Environmental and Social Risks and Impacts;*

4.2 IFC Performance Standard 3, *Resource Efficiency and Pollution Prevention*;

4.3 IFC Performance Standard 4, *Community Health, Safety, and Security*; and

4.4 IFC Performance Standard 6, *Biodiversity Conservation and Sustainable Management of Living Natural Resources.*

Community Relations & Rights of Indigenous Peoples

Topic Summary

The development and operation of infrastructure to generate, transmit and distribute electricity can have wide-ranging effects on local communities, with associated operational risks for entities. An entity that has the support of local communities might have an improved ability to make siting decisions for new infrastructure, develop projects on time and operate existing infrastructure. An entity that adopts effective community engagement strategies, such as integrating community engagement into each phase of a project, can avoid disruptions, cultivate goodwill, build a positive reputation and enhance its prospects. A community's support might depend on an entity's choice of energy generation source, which may have local impacts to human health, the surrounding landscape or real estate values. Entities can face increased risks when operating in areas in or near Indigenous Peoples' land, where mismanagement of community relationships could result in protests or legal action disrupting operations. Entities failing to account for community and Indigenous Peoples' rights can face fines and penalties, compensation and settlement payments, operational disruptions and reputational risks. Entities can reduce these risks by fostering community engagement, adhering to local laws and following international guidelines, such as obtaining free, prior and informed consent from Indigenous Peoples.

Metrics

IF-EU-210a.1. Processes used to manage risks and opportunities associated with community rights and interests

1 An entity shall disclose information about how it manages the sustainability-related risks and opportunities associated with community rights and interests in areas where it operates. These include rights and interests related to economic, environmental, social and cultural factors, such as:

1.1 employment, fair wages, payment transparency, national resource governance, and respect for infrastructure and agricultural land;

1.2 clean air and water, as well as safe disposal of waste;

1.3 adequate healthcare, education and housing; and

1.4 protection and preservation of places of cultural significance (for example, sacred sites or burial sites).

2 An entity shall disclose information about:

2.1 the lifecycle stages to which its processes apply, such as pre-development (when the entity is considering a project), site development, operation, closure, decommissioning and restoration;

2.2 the community rights and interests specifically addressed by the entity's processes;

2.3 how the entity identifies, assesses, prioritises and monitors the risks and opportunities associated with community rights and interests, including whether and how those processes are integrated into and inform the entity's overall risk management process;

2.4 the underlying definitions and references for its processes, including whether they are codes, guidelines, standards or regulations; and

2.5 whether the entity, an industry organisation, a third-party organisation (for example, a non-governmental organisation), a governmental agency or some combination of these groups developed the processes.

3 Community-related risks and opportunities include: corruption, non-technical delays, legal and regulatory complexities, local community employment, availability of skilled labour, purchases of local goods and services,

availability of local goods and services, quality of and access to adequate infrastructure (for example, ports, roads, bridges or shipping channels), resettlement and access to land and social licence to operate.

4 An entity shall disclose whether its processes align with the International Finance Corporation's (IFC) *Performance Standards on Environmental and Social Sustainability*, 2012, including:

4.1 IFC Performance Standard 4, *Community Health, Safety, and Security*;

4.2 IFC Performance Standard 5, *Land Acquisition and Involuntary Resettlement*; and

4.3 IFC Performance Standard 8, *Cultural Heritage*.

5 The disclosure includes information about how the entity's processes apply to business partners such as contractors, subcontractors, suppliers and joint arrangement partners.

6 The disclosure includes information about an entity's efforts to eliminate or mitigate community risks or address community concerns, including:

6.1 the use of social impact assessment that evaluates, manages and mitigates risks;

6.2 efforts to engage with stakeholders, build consensus and collaborate with communities;

6.3 the frequency of community engagement;

6.4 the amount invested in community engagement programmes; and

6.5 'shared' or 'blended' value projects that provide quantifiable benefits to the community and the entity.

7 An entity shall disclose relevant quantitative information to characterise its exposure to community-related risks, such as the entity's estimated value at risk.

7.1 Value at risk is defined as the difference in value between the value of a project not taking into account community-related risks, and the value of the project adjusted for those risks.

7.1.1 These risks could vary by jurisdiction and project.

IF-EU-210a.2. (1) Number of non-technical delays and (2) the total days idle

1 An entity shall disclose (1) the total number of non-technical delays.

1.1 Non-technical delays are defined as shutdowns and project delays resulting from pending regulatory permits or other delays resulting from community-related risks such as protests.

2 An entity shall disclose (2) the total days idle resulting from non-technical delays.

2.1 'Days idle' is defined as the number of workdays lost resulting from a non-technical delay.

2.2 Total days idle is calculated as the sum of days idle for each non-technical delay.

2.2.1 If the entity experiences concurrent site shutdowns or project delays at different locations, the overlapping periods are counted only once.

3 The disclosure excludes delays resulting from organised labour collective actions (strikes), employer actions (lockouts) and technical situations unrelated to community-related risks (permitting delays).

4 An entity shall provide information about the delays including associated costs, the root cause of each non-technical delay, the effect on production, the status of ongoing non-technical delays and corrective action taken.

IF-EU-210a.3. Percentage of operations in or near Indigenous Peoples' land

1 An entity shall disclose the percentage of its operations located in or near Indigenous Peoples' land at the reporting date.

1.1 The percentage is calculated as the area of an entity's operational facilities located in or near Indigenous Peoples' land divided by the total area of an entity's operational facilities.

2 The area of an entity's operational facilities is defined by the facility's spatial footprint of operations (polygon data defining geospatial information relating to the boundaries of disturbed area) on any leasehold, concession or property that the entity leases, manages or owns, and any rights of way or easements associated with them.

2.1 The disclosure includes information about operational facilities for which future operations have been formally announced and planned changes to facility boundaries are included in approved expansion plans.

3 Indigenous Peoples' land is defined as an area occupied by Indigenous Peoples as determined by Article 33 of the 2007 United Nations *Declaration on the Rights of Indigenous Peoples* and the International Labour Organization *Indigenous and Tribal Peoples Convention*, 1989 (No. 169). Based on the working definition adopted by the United Nations, Indigenous Peoples have one or more of the following characteristics:

3.1 historical continuity with pre-colonial or pre-settler societies;

3.2 strong link to territories and surrounding natural resources;

3.3 distinct social, economic or political systems;

3.4 distinct language, culture and beliefs;

3.5 form non-dominant groups of society; and

3.6 resolve to maintain and reproduce ancestral environments and systems as distinct peoples and communities.

4 An entity's operational facilities are defined as being 'in or near' Indigenous Peoples' land if any part of the facility's spatial footprint of operations is in or within five kilometres of the recognised boundary of Indigenous Peoples' land.

IF-EU-210a.4. Description of engagement processes and due diligence practices related to upholding Indigenous Peoples' rights

1 An entity shall disclose information about its engagement processes and due diligence practices related to upholding Indigenous Peoples' rights in the areas in which it operates or intends to operate including whether the entity:

1.1 upholds the principles of the International Labour Organization *Indigenous and Tribal Peoples Convention*, 1989 (No. 169) and the 2007 United Nations *Declaration on the Rights of Indigenous Peoples*;

1.2 uses free, prior and informed consent (or consultation) processes;

1.3 develops partnerships and shared decision-making mechanisms;

1.4 establishes project grievance procedures; and

1.5 executes formal community agreements.

2 An entity shall include information about the engagement process and due diligence practices it employs during project development such as the local or regional factors it examines and its governance mechanisms to monitor workforce compliance.

3 An entity shall describe whether and, if so, how these processes and practices apply to its business partners, such as contractors, subcontractors, suppliers and joint arrangement partners.

Energy Affordability

Topic Summary

End-user economics, electricity rates and pricing structures each play a role in determining whether electricity is affordable for end-users. As entities face increasing climate-related physical and transition risks, investments to mitigate these risks while ensuring reliability can add to operating costs and capital expenditures. These increasing expenditures can lead to higher costs for end-users, which can result in more end-users being unable to pay their electricity bills on time. In turn, end-users' inability to pay can affect an entity's prospects through lower payment collection and reduced investment in its strategic initiatives. In high-regulation jurisdictions, regulatory intervention might aim to improve affordability through, for example, pricing controls imposed on the entity. In competitive markets, unaffordable rates could affect revenues if end-users switch to other providers with more affordable pricing. Managing affordability and the related costs and benefits with other strategic objectives involves operating an efficient business with a comprehensive long-term strategy, and working effectively with end-users, regulators and policymakers on rate structures and affordability assistance programmes. Such initiatives can support entities in maintaining and growing their customer base, improving revenues and generating investment and return opportunities.

~~An objective of regulated electric utilities is to provide reliable, affordable and sustainable electricity. Entities in the industry manage these potentially competing priorities to maintain favourable relations with customers and regulators—and ultimately to earn appropriate returns for shareholders. The affordability of energy is particularly challenging for entities to balance because it often conflicts with other core objectives. Utility energy bills generally are perceived to be increasingly unaffordable for low-income customers (affordability is determined by both the net cost of energy bills and the underlying customer economics). Ensuring that utility bills are affordable is crucial for utilities working to build trust (intangible asset value) with regulators and customers. Regulatory relations are an important value driver for utilities and one of the issues analysed closely by investment analysts. The willingness of regulators to grant rate requests, rate structure modifications, cost recovery and allowed returns determines financial performance and investment risk. Effectively managing affordability may enable utilities to invest more capital, favourably revise rate structures and increase allowed returns. Furthermore, utilities that ineffectively manage affordability increasingly are exposed to customers defecting from the grid (or reducing reliance on the grid) by implementing distributed energy resources or pursuing other alternative energy sources (for example, industrial customers' use of combined heat and power). Managing affordability involves operating an efficient business with a comprehensive, long-term strategy, as well as working closely with regulators and public policymakers on rate structures and, potentially, bill-assistance programmes. Although a utility's business model and rate structure largely determine the precise nature of the financial effects, affordability is a critical business issue for utilities managing, maintaining and growing customer bases, building intangible asset value, creating investment and return opportunities, and ultimately delivering shareholder returns.~~

Metrics

~~IF-EU-240a.1. Average retail electric rate for (1) residential, (2) commercial, and (3) industrial customers~~

~~1 The entity shall disclose its average retail electric rate per kilowatt hour (kWh) of electricity delivered to retail customers.~~

~~1.1 The entity shall calculate its average retail electric rate as the total revenue directly resulting from electricity delivered to retail customers divided by the corresponding amount of electricity delivered (in kWh).~~

~~2 The entity shall disclose its average retail electric rate separately for each type of customer, classified as (1) residential, (2) commercial, and (3) industrial.~~

~~2.1 The scope of each customer type shall be consistent with the entity's financial reporting.~~

~~2.2 Each customer type shall be disclosed as an aggregate for all customers within that respective customer type.~~

2.2.1 If the entity's financial reporting combines commercial and industrial customers into one category, then the entity may combine the commercial and industrial customer types.

2.2.2 The entity may disclose sub-classifications of customer types. For example, in addition to the average retail electric rate for commercial customers, the entity may provide further disclosures by small commercial customers and large commercial customers.

3 The entity may disclose additional customer types if such customer types exist outside the scope of the customer types described above. For example, the entity may additionally disclose the average electric rate for agricultural customers or public street lighting.

IF-EU-240a.3. (1) Number of residential customer electric disconnections for non-payment, (2) percentage reconnected within 30 days

1 The entity shall disclose (1) the total number of electricity disconnections among residential customers during the reporting period that resulted from non-payment.

1.1 A disconnection is defined as the entity, or its service provider, intentionally terminating a customer's access to electricity.

1.2 Disconnections occurring for more than one reason shall be included if non-payment (or under-payment) is a contributing cause of the disconnection.

2 The entity shall disclose (2) the percentage of disconnections that are reconnected within 30 days.

2.1 The percentage shall be calculated as the number of residential customers previously disconnected, which were reconnected within 30 days of the date of the disconnection, divided by the total number of residential customers disconnected during the reporting period as a result of non-payment.

2.2 A reconnection is defined as the entity, or its service provider, intentionally reinstating a customer's access to electricity, which was previously disconnected.

2.2.1 Reconnections may occur for reasons including bill payment, the establishment of a bill payment plan or the use of a bill-assistance programme.

2.3 The scope of the disclosure may include reconnections that occur after the end of the reporting period; but the entity shall not double-count reconnections for more than one discrete reporting period.

Note to **IF-EU-240a.3**

1 The entity shall discuss how policies, programmes and regulations affect the number and duration of residential customer disconnections.

1.1 Policies include entity-level policies that govern the conditions under which the entity may (or may not) disconnect residential customers.

1.2 Programmes include those administered by jurisdictions, utility commissions or entities designed to improve the affordability of electricity among residential customers or reduce the number or duration of residential customer disconnections.

1.3 Regulations include those enforced by jurisdictions, utility commissions or entities designed to improve the affordability of electricity among residential customers or reduce the number or duration of residential customer disconnections.

~~IF-EU-240a.4. Discussion of impact of external factors on customer affordability of electricity, including the economic conditions of the service territory~~

~~1 The entity shall describe the external factors that cause, or are reasonably likely to cause, a significant change in the affordability of electricity among the entity's retail customers.~~

~~1.1 External factors are defined as influences outside the entity's direct control.~~

~~1.2 The scope of external factors includes factors that directly affect current or future electricity rates, or factors that affect customers' current or future ability to pay electricity bills (with no direct effect on electricity rates).~~

~~1.3 External factors may include geography, climate, weather, regulations, public policy and public purpose programmes, regardless of whether such factors directly relate to affordability.~~

~~1.4 At a minimum, external factors shall include the prevailing economic conditions in the service territory.~~

~~1.4.1 The entity may disclose the median household income, poverty rates, employment rates, or other quantitative or qualitative data describing the economic conditions of the service territory.~~

~~2 For each external factor, in addition to a description of the factor, the entity shall briefly describe:~~

~~2.1 the frequency and magnitude with which the factor affects electricity affordability for the entity's customers; and~~

~~2.2 the trend in how the factor affects electricity affordability for the entity's customers.~~

~~3 The entity shall describe the risks and opportunities that may arise from external factors.~~

~~3.1 Risks may include customer non-payment of electricity bills, cost recovery uncertainty, reputational value, and regulations, public policy or public purpose programmes that may generate adverse financial consequences.~~

~~3.2 Opportunities may include customer growth, capital investment opportunities, reputational value, and regulations, public policy or public purpose programmes that may generate positive financial effects.~~

~~4 The scope of the disclosure includes the affordability of electricity for all retail customers within the entity's service territory, which may include residential, commercial, industrial and agricultural customers.~~

~~4.1 The entity may prioritise low-income residential customers in its disclosures.~~

~~5 The entity may describe how its average rates, average bills or customer disconnections compare to other utilities in the industry.~~

IF-EU-240a.5. Description of energy affordability-related risks and opportunities and strategies to manage them

1 An entity shall describe the risks and opportunities associated with energy affordability that could reasonably be expected to affect its prospects over the short, medium and long term.

1.1 Risks and opportunities associated with energy affordability include:

1.1.1 the ability to collect end-user payments when due;

1.1.2 changes in end-users' electricity suppliers or sources of electricity, such as distributed electricity generation;

1.1.3 changes in the cost of electricity generation, such as changes in the cost of different energy sources;

1.1.4 climate-related risks that could influence energy affordability and an entity's ability to execute its strategic plans related to energy affordability; and

1.1.5 applicable jurisdictional law or regulation that affects energy affordability and regulatory compliance related to energy affordability.

2 An entity shall describe how its energy affordability-related risks and opportunities vary by location, including due to local regulation.

3 An entity shall disclose information about its strategies to manage energy affordability-related risks and opportunities, including:

3.1 energy affordability-related actions or programmes available to end-users during the reporting period, for example:

3.1.1 financial assistance programmes;

3.1.2 bill credits;

3.1.3 percentage-of-income payment plans;

3.1.4 deferred payment arrangements;

3.1.5 electricity rate or tariff plans;

3.1.6 electricity disconnections; and

3.1.7 electricity delivery reductions;

3.2 technology used to assist end-users with affordability management, for example, smart meters, home energy management systems and end-user applications;

3.3 communications to inform end-users about how they can economise on electricity use;

3.4 participation of the entity in regulatory or legislative processes, including interactions with regulators, regulatory agencies, utility commissions, legislators and policymakers or through representative industry associations;

3.5 trade-offs related to the reliability, affordability, resilience to climate-related physical risks and other factors relevant for its activities; and

3.6 quantitative and qualitative results identified from the strategies used to manage energy affordability-related risks and opportunities, such as changes in the number of delinquent end-user payments.

4 An entity shall disclose the activities and investments required to support its strategies, including its planned sources of funding and any limiting factors related to those strategies.

4.1 Sources of funding include internal resources, external financing, and grants or other forms of assistance, whether from the government or other third parties.

4.2 Limiting factors include external factors that affect energy affordability—for example, the median household income, poverty rates, employment rates, or other quantitative or qualitative data describing the economic conditions of the end-users.

IF-EU-240a.6. (1) Number of active participants and (2) number of eligible participants in energy affordability-related actions or programmes, disaggregated by (a) residential, (b) commercial and (c) industrial participants

1 An entity shall disclose, for each type of energy affordability-related action or programme, (1) the number of active participants in the action or programme and (2) the number of eligible participants in the action or programme.

1.1 The entity shall disaggregate disclosure by (a) residential, (b) commercial and (c) industrial participants.

1.2 Types of energy affordability-related actions or programmes include:

1.2.1 financial assistance programmes;

1.1.2 bill credits;

1.1.3 percentage of income payment plans;

1.1.4 deferred payment arrangements;

1.1.5 electricity rate or tariff plans;

1.1.6 electricity disconnections; and

1.1.7 electricity delivery reductions.

2 The number of active participants is the number of unique, active participants in the entity's energy affordability-related actions or programmes who are documented to have participated in at least one related action or programme during the reporting period.

2.1 The entity shall include participants in ongoing actions or programmes for which active participation can be documented during the reporting period—for example, by the issuance of bill credits or disconnections from electricity service during the reporting period.

3 The number of eligible participants is the number of unique participants eligible to participate in the entity's energy affordability-related actions or programmes during the reporting period.

4 Table 3 illustrates a possible way of presenting this information.

Table 3. ***Energy affordability-related actions or programmes***

ACTION OR PROGRAMME	PARTICIPANT TYPE	NUMBER OF PARTICIPANTS	ELIGIBLE PARTICIPANTS	
(Example: bill credits)	**(residential, commercial or industrial)**	**(number of unique, active participants)**	**(number of unique, eligible participants)**	

Workforce Health & Safety

Topic Summary

Workers in the Electric Utilities & Power Generators industry face numerous hazards in the construction and maintenance of electric transmission and distribution lines and in electricity generation. Many workers work for extended periods at great heights, operate heavy machinery and face electrocution risks. Poor health and safety records can result in fines and penalties, increased regulatory compliance costs and more stringent oversight. Entities that maintain a culture of safety to ensure adequate working conditions for their workers can prevent accidents, mitigate costs, reduce operational downtime and enhance productivity.

~~Employees of entities in the Electric Utilities & Power Generators industry face numerous hazards in the construction and maintenance of electric transmission and distribution lines, as well as with the various means of electricity generation. Many of these employees work for extended periods at great heights, operate heavy machinery and face electrocution risks. Although the industry has made significant strides in safety improvements, significant risks remain, along with opportunities for further improvements. The nature of the industry—as a necessity of modern life and economies, as well as commonly a legally granted monopoly—means that entity actions receive significant public and regulatory scrutiny. Entities must maintain a culture of safety to ensure adequate working conditions for their workers, strong operational productivity, and to uphold positive views from the perspective of regulators and manage potential risks of regulatory penalties.~~

Metrics

IF-EU-320a.1. (1) Number of fatalities and (2) total ~~Total~~ recordable incident rate ~~(TRIR), (2) fatality rate, and (3) near miss frequency rate (NMFR)~~ for (a) ~~direct~~ employees and (b) non-employee workers; (3) average hours of health, safety and emergency response training ~~contract employees~~

1 An entity shall separately disclose (1) the number of fatalities resulting from work-related injuries and work-related illnesses for (a) employees and (b) non-employee workers.

1.1 Employees are defined as individuals who render personal services to the entity and are regarded as employees for legal or tax purposes. They are in an employment relationship with the entity according to applicable jurisdictional law or regulation using indicators such as economic dependency.

1.1.1 Employees include full-time employees, permanent employees, temporary employees, non-guaranteed hours employees and part-time employees.

1.2 Non-employee workers are defined as individuals who render personal services to the entity and work under the entity's direction in the same way as individuals who are regarded as employees for legal or tax purposes. They perform work controlled by the entity but are not in an employment relationship with the entity according to applicable jurisdictional law or regulation.

1.2.1 The entity is defined as having 'control' of work performed by non-employee workers if it directs the work, controls the means or methods of doing the work or controls the workplace where the work is performed. The type of contractual relationship between the entity and the worker (for example, an employment agency or contractor) does not necessarily determine whether the entity controls the work.

1.2.2 Non-employee workers whose work is controlled by the organisation include agency workers, apprentices, contractors, interns, self-employed persons, subcontractors and volunteers.

1.3 Together, employees and non-employee workers are defined as the entity's 'workforce' or 'workers'.

2 ~~1~~ An ~~The~~ entity shall separately disclose (2) ~~(1)~~ its total recordable incident rate (TRIR) for work-related injuries and illnesses for (a) employees and (b) non-employee workers.

2.1 The entity shall use applicable jurisdictional criteria to define recordable and non-recordable incidents.

2.1.1 If the entity is subject to more than one jurisdictional law or regulation that defines recordable and non-recordable incidents, the entity shall disclose whether and how variations between these frameworks affect the reported data.

2.1.2 ~~1.1~~ An injury or illness is typically defined as ~~considered~~ a recordable incident if it results in death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, or loss of consciousness. Additionally, a significant injury or illness diagnosed by a physician or other licensed healthcare ~~health care~~ professional is considered a recordable incident, even if it does not result in death, days away from work, restricted work or job transfer, medical treatment beyond first aid, or loss of consciousness.

2.1.3 ~~1.1.1~~ First aid is typically defined as emergency care or treatment for an ill or injured person before regular medical treatment ~~aid~~ can be provided, but jurisdictional definitions may vary.

~~1.1.2 The entity may use applicable jurisdictional criteria for definitions of a recordable incident and a non-recordable incident such as first aid. The entity shall disclose the legal, regulatory or industry framework used as the source for these criteria and definitions.~~

2.2 The TRIR is defined as: (number of recordable incidents × 1,000,000) / total number of hours worked.

2.2.1 If the entity cannot directly calculate the number of hours worked, it shall estimate this information using normal or standard hours of work and accounting for entitlements to periods of paid leave of absence from work (paid vacations, paid sick leave, public holidays) and explain this method in the disclosure.

2.2.2 If the entity cannot directly calculate or estimate the number of hours worked, it shall disclose the reason.

3 The disclosure includes all workers regardless of their location or type of employment.

~~2 The entity shall disclose (2) its fatality rate for work-related fatalities.~~

~~3 The entity shall disclose (3) its near miss frequency rate (NMFR) for work-related near misses.~~

~~3.1 A near miss is defined as an unplanned or uncontrolled event or chain of events that has not resulted in a recordable injury, illness, physical damage, or environmental damage, but had the potential to do so in other circumstances.~~

~~3.2 The entity may disclose its process for classifying, identifying and reporting near misses.~~

~~4 All disclosed rates shall be calculated as: (statistic count × 200,000) / total number of hours worked by all employees in the year reported.~~

~~4.1 The 200,000 in the rate calculation represents the total number of hours 100 full-time workers working 40 hours per week for 50 weeks per year can provide annually.~~

4 ~~5~~ The ~~scope of the~~ disclosure is limited to fatalities, work-related incidents and work-related illnesses. ~~includes work-related incidents only.~~

4.1 ~~5.1~~ Work-related incidents are defined as workforce injuries and illnesses resulting from events or exposures in the work environment.

4.1.1 ~~5.2~~ The work environment is the establishment and other locations where one or more workers ~~employees~~ are working or are present as a condition of their employment.

4.1.2 ~~5.3~~ The work environment includes not only physical locations, but also the equipment or materials used ~~by the employee~~ during ~~the course of~~ work.

4.2 ~~5.4~~ Incidents that occur while a worker ~~an employee~~ is travelling are work-related if, at the time of the injury or illness, the worker ~~employee~~ was engaged in work activities in the interest of the employer.

4.3 ~~5.5~~ A work-related incident must be a new case, not a previously recorded injury or illness being updated.

5 An entity shall disclose (3) the average number of training hours provided to its workforce for health, safety and emergency preparedness management training.

5.1 Training includes topics such as the health, safety or emergency preparedness related to the occupational risks or hazards to which the workforce is reasonably likely to be exposed and to specific occupational risks or hazards.

5.1.1 Training includes technical health, safety and emergency management training required by applicable jurisdictional authorities related to occupational risks or hazards.

5.2 The average number of hours of health, safety and emergency response training is calculated as the total qualifying training hours provided to the workforce divided by the total workforce.

5.2.1 The total workforce is defined as the number of individual employees and non-employee workers the entity employs at the reporting date.

6 If the total workforce varied significantly during the reporting period, an entity shall explain those variations.

~~The entity shall disclose the rates for each of these categories of employee:~~

~~6.1 direct employees, defined as individuals on the entity's payroll, whether they are full-time, short service, part-time, executive, labour, salary, seasonal, migrant or hourly employees.~~

~~6.2 contract employees, defined as individuals who are not on the entity's payroll, but whom the entity supervises or manages, including independent contractors and those employed by third parties (for example, temp agencies and labour brokers).~~

~~7 The scope of the disclosure includes all employees regardless of employee location or type of employment.~~

IF-EU-320a.2. Description of management systems used to foster a safe working environment

1 An entity shall disclose information about:

1.1 how it cultivates a safe working environment throughout its operations, avoids accidents and minimises health risks to its workforce;

1.2 how it manages safety and coordinates emergency preparedness throughout its value chain, such as through technology, training, corporate culture, rules and guidelines enforcement, and regulatory compliance;

1.3 how it manages health risks associated with operations, such as through use of personal protective equipment, testing and monitoring;

1.4 the safety management systems the entity uses to maintain a safe working environment, including the prevention of incidents, fatalities and illnesses;

1.5 leading indicators the entity has developed to monitor, manage or improve safety performance, such as near-miss reporting, workforce engagement programmes, hazard reduction, emergency drills or safety-related compliance rates; and

1.6 the implementation of these safety management systems including progress towards tracking safety and health performance, and obtaining third-party verification of the systems' efficacy.

2 An entity shall describe how workforce safety management is coordinated among business partners (for example, contractors and subcontractors).

Employee Recruitment, Development & Retention

Topic Summary

Entities in the Electric Utilities & Power Generators industry can face labour and skills shortages in occupations that are instrumental to the entity's prospects, such as engineers, critical infrastructure field staff and digital and cybersecurity staff. Employees in these roles may be required to undertake complex tasks that demand specialised skills, mental acuity, or physical preparedness. Recruiting and maintaining a highly skilled workforce is integral to maintaining a reliable electricity supply to customers and executing expansion and climate-related transition plans. Staff shortages may arise from increased demand for labour associated with meeting the growing demand for electricity, and high competition for talent within the industry and from other industries. Labour and skills shortages can result in high vacancy rates, posing operational risks to entities, such as infrastructure failure, cybersecurity risks, supply disruption and project delays, as well as increased recruitment costs. The training needed for these roles, which includes both formal instruction and on-the-job experience, often takes years to complete, making it challenging to fill vacancies. Markets with ageing workforces face additional risks to institutional knowledge. Moreover, desirable skills are expected to evolve over time to meet future electricity demand and to implement new technologies, such as smart grids, renewable energy sources and energy storage. Entities can improve their strategic position through training and development programmes, which can include early-career outreach and re- and up-skilling, to expand workforce capabilities and utilise existing knowledge and expertise. Strategic workforce planning to identify labour and skills shortages and effectively recruit, retain and develop employees, including from under-represented talent pools, can help to ensure entities have access to the skilled workforce necessary for operational continuity and the execution of their growth and transition plans.

Metrics

IF-EU-330a.1. Description of employee recruitment, development and retention-related risks and opportunities and strategies to manage them

1 An entity shall describe its risks and opportunities associated with employee recruitment, development and retention, including for each occupational category with a skill shortage.

1.1 Employees are defined as individuals who render personal services to the entity and are regarded as employees for legal or tax purposes. They are in an employment relationship with the entity according to applicable jurisdictional law or regulation using indicators such as economic dependency.

1.1.1 Employees include full-time employees, permanent employees, temporary employees, non-guaranteed hours employees and part-time employees.

2 An occupational category has a skill shortage if the entity's prospects could reasonably be expected to be affected by having fewer employees in that category than necessary.

2.1 The entity shall disclose information about the assessment method used to determine occupational categories with a skill shortage.

2.2 If an entity refers to an occupational classification standard in defining occupational categories, the entity shall disclose information about the standard used.

3 Risks and opportunities associated with employee recruitment, development and retention include:

3.1 operational disruptions or inability to execute the entity's planned activities or business strategy due to insufficient staffing;

3.2 availability of, and ability to recruit, individuals with the specific skills required by an occupation, including the effects of changing workforce demographics, such as age and gender distribution;

3.3 increasing operating costs associated with recruiting, developing and retaining employees, including through the loss of institutional knowledge; and

3.4 opportunities to support growth and expansion plans including by re- and up-skilling employees.

4 An entity shall describe how such risks and opportunities vary by location.

5 For each risk and opportunity associated with employee recruitment, development and retention, the entity shall specify the time horizon—short, medium or long term—over which the effects of those risks and opportunities could reasonably be expected to occur.

5.1 The entity shall explain how it defines 'short term', 'medium term' and 'long term' and how these definitions are linked to the planning horizons it uses for strategic decision-making.

6 An entity shall disclose information about the effects of these risks and opportunities on its strategy and decision-making, such as on how the entity decides which energy sources to use for electricity generation.

7 An entity shall disclose information about its strategic initiatives for managing risks and opportunities associated with employee recruitment and retention, including:

7.1 early-career outreach and development programmes (for example, scholarships, apprenticeships and partnerships with educational or technical institutions);

7.2 recruiting from under-represented talent pools (for example, specific groups from which the entity has not often recruited);

7.3 pay, benefits, and working conditions (for example, health and wellbeing programmes, parental leave, flexible working, retirement and pension plans, insurance and work–life balance); and

7.4 engagement initiatives (for example, surveys, focus groups and interviews).

8 An entity shall disclose the activities and investments required to support those strategic initiatives and any limiting factors related to those strategic initiatives.

9 An entity shall disclose information about its strategic initiatives for managing risks and opportunities associated with employee development, including:

9.1 training and development pathways (for example, role-specific programmes leading to industry-recognised qualifications);

9.2 opportunities for skills development (for example, digital and information and communication technology training); and

9.3 up- and re-skilling programmes on existing and new technologies to meet the operational requirements of the entity (for example, training to support the redeployment of employees to business activities associated with new technologies, such as smart grids and renewable energy sources).

10 An entity shall disclose the activities and investments required to support those strategic initiatives and any limiting factors related to those strategic initiatives.

IF-EU-330a.2. (1) Voluntary and (2) involuntary employee turnover rate for: (a) all employees and (b) occupational categories with a significant skill shortage

1 An entity shall separately disclose the (1) voluntary and (2) involuntary employee turnover rate during the reporting period as a percentage for (a) all employees and (b) occupational categories with a skill shortage.

1.1 Employees are defined as individuals who render personal services to the entity and are regarded as employees for legal or tax purposes. They are in an employment relationship with the entity

according to applicable jurisdictional law or regulation using indicators such as economic dependency.

1.1.1 Employees include permanent employees, temporary employees, non-guaranteed hours employees, full-time employees and part-time employees.

2 An occupational category has a skill shortage if the entity's prospects could reasonably be expected to be affected by having fewer employees in that category than necessary.

2.1 The entity shall disclose information about the assessment method used to determine occupational categories with a skill shortage.

2.2 If the entity refers to an occupational classification standard in defining occupational categories, the entity shall disclose information about the standard used.

3 The voluntary turnover rate is the number of employee-initiated voluntary separations (for example, resignations or retirement) during the reporting period, divided by the average number of employees during the reporting period.

4 The involuntary turnover rate is the number of entity-initiated separations (for example, termination due to role redundancy or employee conduct) during the reporting period, divided by the average number of employees during the reporting period.

~~End-Use Efficiency &~~ Demand-side Management

Topic Summary

Demand-side management can help entities in the industry reduce peak demand for electricity and effectively manage electricity demand and supply, creating the potential to lower operating costs and capital expenditures without expanding generation capacity or buying costly electricity from other entities. Entities that rely on renewable energy sources with variable electricity output can face challenges in balancing electricity demand and supply and ensuring reliability of supply. A reduction or shift in electricity demand from peak hours can be achieved through various actions or programmes, such as those centred on end-use efficiency, demand response, load management, dynamic pricing, end-user behaviour or technology. For example, entities can encourage energy efficiency and conservation among end-users by offering rebates for energy-efficient appliances, insulating customers' homes and educating end-users on energy-saving methods. Entities can also provide incentives to reduce electricity use during times of peak demand or invest in technology such as smart meters that can help monitor electricity use. These efforts have the potential to provide end-user cost savings, which can also support the entity's management of energy affordability-related risks and opportunities. A reduction in electricity demand also has the potential to support the entity in managing climate-related transition risks through reductions in associated greenhouse gas emissions. Ultimately, demand-side management strategies can help an entity reduce the variability in electricity demand and supply and effectively manage its resources, which may result in positive effects on an entity's prospects.

~~Energy efficiency is a low-lifecycle-cost method to reduce greenhouse gas (GHG) emissions, because less electricity needs to be generated to provide the same end-use energy services. Utilities can promote energy efficiency and conservation among their customers. Such strategies may include offering rebates for energy-efficient appliances, weatherising customers' homes, educating customers on energy-saving methods, offering incentives to customers to curb electricity use during times of peak demand ('demand response'), or investing in technology such as smart meters, which allow customers to track their energy use. While saving consumers money, these efforts also may reduce operating costs for electric utilities by decreasing peak demand. Furthermore, depending on the utility regulatory framework, local jurisdictions may mandate that entities develop energy efficiency plans before permitting new builds. Companies with effective strategies to reduce the downside risks from demand fluctuations, may gain adequate and timely returns on needed investments. Furthermore, reducing costs through efficiency initiatives may earn higher, long-term risk-adjusted returns.~~

Metrics

~~IF-EU-420a.2. Percentage of electric load served by smart grid technology~~

~~1 The entity shall disclose the percentage of its electric load, in megawatt hours, served by smart grid technology.~~

~~1.1 The electric load served by smart grid technology is defined as the amount of electricity delivered to the entity's customers that incorporates the use of smart grid technologies to meet the electricity demand of the consumer.~~

~~1.2 A smart grid is defined, consistent with the International Energy Agency (IEA), as an electricity network that uses digital and other advanced technologies to monitor and manage the transport of electricity from all generation sources to meet the varying electricity demands of end users. Smart grids coordinate the needs and capabilities of all generators, grid operators, end users and electricity market stakeholders to operate all parts of the system as efficiently as possible, minimising costs and environmental impacts while maximising system reliability, resilience and stability.~~

~~1.3 An electric load is considered to be served by smart grid technology when the technology enables one or more of the distinguishing characteristics defined by the IEA:~~

~~1.3.1 Enables informed participation by customers~~

~~1.3.2 Accommodates all generation and storage options~~

1.3.3 Enables new products, services and markets

1.3.4 Provides the power quality for the range of needs

1.3.5 Optimises asset utilisation and operation efficiency

1.3.6 Provides resiliency to disturbances, attacks and natural disasters

1.4 Examples of smart grid technologies may include wide-area monitoring and control, information and communication technology integration, renewable and distributed generation integration, transmission enhancement, distribution grid management, advanced metering infrastructure, electric vehicle charging infrastructure, and customer-side systems.

2 The percentage of load served by smart grid technology shall be calculated as the total amount of energy load, in megawatt hours, served by smart grid technology divided by the total amount of energy load, in megawatt hours.

3 The entity may discuss the type of smart grid technology through which its electric load is served, the customer types using the technology (for example, residential, commercial or industrial), whether technologies are owned by the utility or the customer, and any plans for further integration of smart grid capabilities.

Note to **IF-EU-420a.2**

1 The entity shall discuss the opportunities and challenges associated with the development and operation of a smart grid, including, if relevant:

1.1 Demand-response and end-user efficiency opportunities (for example, smoothing of the demand curve, increased cost-effective electric generation, improved incorporation of distributed generation, and increased generation and transmission efficiency)

1.2 Political and deployment challenges (for example, opposition to smart grid development, disparate degrees of technology deployment and economic disincentives)

IF-EU-420a.3. Customer electricity savings from efficiency measures, by market

1 The entity shall disclose the total amount of electricity savings delivered to customers, in megawatt hours, from energy efficiency measures during the reporting period, for each of its markets.

1.1 Markets are defined as those operations subject to distinct public utility regulatory oversight.

1.2 Electricity savings are defined according to the gross savings approach as the changes in energy consumption or demand that result from programme-related actions taken by participants in an efficiency programme, regardless of why they participated.

1.2.1 The entity may list those markets where it reports electricity savings on a net electricity savings basis, and thus, may be different from the figures disclosed here. Net electricity savings are defined as changes in consumption specifically attributable to an energy efficiency programme, and that would not have occurred in the absence of the programme.

2 Electricity savings shall be calculated on a gross basis but consistent with the methodology set forth in applicable jurisdictional evaluation, measurement and verification (EM&V) regulations where such savings occur.

3 The scope of electricity savings from efficiency measures includes savings delivered directly by the entity and, where regulations provide, savings substantiated through purchases of efficiency savings credits.

3.1 For any savings from efficiency measures delivered directly by the entity, any efficiency savings credits shall be retained (not sold) and retired or cancelled on behalf of the entity for the entity to claim them as delivered electricity savings.

3.2 For efficiency savings credits purchased, the agreement shall explicitly include and convey that credits be retained and retired on behalf of the entity for the entity to claim them.

Note to **IF-EU-420a.3**

1 The entity shall discuss regulations related to customer efficiency measures for each of its relevant markets, including:

1.1 The amount or percentage of electricity savings from efficiency measures required by regulations for each market.

1.2 Instances of non-compliance with electricity savings obligations.

1.3 In such instances, the entity shall disclose the difference between the energy savings delivered and the amount required by the regulation.

1.4 Electricity savings delivered that exceed those required by regulations and that resulted in the entity receiving energy efficiency performance incentives, including the value of any such incentives.

2 The entity shall discuss the forms of policy, by each market, that allow for, or incentivise, energy efficiency, including a discussion of the benefits, challenges and financial effects associated with such regulations.

3 Relevant policy mechanisms to discuss may include:

3.1 Deferral decoupling

3.2 Current period decoupling

3.3 Single fixed variable rates

3.4 Lost revenue adjustments

3.5 Energy efficiency feebates

4 For markets lacking regulations that allow for, or incentivise, energy efficiency, the entity shall discuss its stance on and efforts to manage risks and opportunities relating to such regulation.

5 The entity may discuss any efforts to meet regulations through incentives it has developed for its customers that promote end-use efficiency, including dynamic pricing, energy efficiency rebates and other measures to subsidise customer energy efficiency.

IF-EU-420a.4. Description of demand-side management-related risks and opportunities and strategies to manage them, including any targets set to monitor progress

1 An entity shall describe its risks and opportunities associated with demand-side management that could reasonably be expected to affect its prospects over the short, medium and long term.

1.1 Risks and opportunities associated with demand-side management include:

1.1.1 operational risks related to reliability of electricity service from difficulties balancing demand and supply;

1.1.2 regulatory risks from jurisdictional law or regulation related to demand-side management;

1.1.3 risks and opportunities related to changes in services offered or to asset management plans related to demand-side management, affecting operating costs and capital expenditures;

1.1.4 risks and opportunities associated with the influence of demand-side management on energy affordability- or climate-related transition risks and opportunities; and

1.1.5 technology-related risks and opportunities for demand-side management.

2 An entity shall describe how its demand-side management-related risks and opportunities vary by location, including due to local regulation.

3 An entity shall disclose any targets it has set, and any targets it is required to meet by law or regulation, for demand-side management.

3.1 In preparing this disclosure, the entity shall apply the requirements in paragraphs 33–36 of IFRS S2 that are applicable to such targets.

4 An entity shall disclose information about its strategies to manage demand-side management-related risks and opportunities and whether any of its strategies are required by law or regulation, including:

4.1 demand-side management-related actions or programmes provided to end-users during the reporting period, which include:

4.1.1 energy efficiency programmes;

4.1.2 demand response programmes;

4.1.3 load management programmes;

4.1.4 dynamic pricing programmes;

4.1.5 end-user behavioural programmes; and

4.1.6 end-user electricity usage monitoring services;

4.2 technology utilised, such as smart meters, distributed generation integration and distribution grid management; and

4.3 participation of the entity in related regulatory or legislative processes, including interactions with regulators, regulatory agencies, utility commissions, legislators and policymakers or through representative industry associations.

5 An entity shall disclose the activities and investments required to support its strategies, including its planned sources of funding and any limiting factors related to those strategies.

4.1 Sources of funding include internal resources, external financing, and grants or other forms of assistance, whether from the government or other third parties.

IF-EU-420a.5. (1) Number of active participants and (2) number of eligible participants in demand-side management-related actions or programmes, disaggregated by (a) residential, (b) commercial and (c) industrial participants

1 An entity shall disclose, for each type of demand-side management-related action or programme, (1) the number of active participants in the action or programme and (2) the number of eligible participants in the action or programme.

1.1 The entity shall disaggregate disclosure by (a) residential, (b) commercial and (c) industrial participants.

1.2 Types of demand-side management-related actions or programmes include:

1.2.1 energy efficiency programmes;

1.2.2 demand response programmes;

1.2.3 load management programmes;

1.2.4 dynamic pricing programmes; and

1.2.5 end-user behavioural programmes.

2 The number of active participants is the number of unique, active participants in the entity's demand-side management-related actions or programmes who are documented to have participated in at least one related action or programme during the reporting period.

2.1 The entity shall include participants in ongoing actions or programmes for which active participation can be documented during the reporting period, such as by electric rates charged based on time of use during the reporting period.

3 The number of eligible participants is the number of unique participants eligible to participate in the entity's demand-side management-related actions or programmes during the reporting period.

4 Table 4 illustrates a possible way of presenting this information:

*Table 4. **Demand-side management-related actions or programmes***

ACTION OR PROGRAMME	PARTICIPANT TYPE	NUMBER OF PARTICIPANTS	ELIGIBLE PARTICIPANTS
(Example: energy efficiency)	**(residential, commercial or industrial)**	**(number of unique, active participants)**	**(number of unique, eligible participants)**

IF-EU-420a.6. Peak demand savings from demand-side management strategies

1 An entity shall disclose by the type of demand-side management-related actions or programmes the quantity in megawatts (MW) of peak demand savings during the reporting period from its demand-side management strategies.

1.1 Types of demand-side management-related actions or programmes include:

1.1.1 energy efficiency programmes;

1.1.2 demand response programmes;

1.1.3 load management programmes;

1.1.4 dynamic pricing programmes; and

1.1.5 end-user behavioural programmes.

1.2 Peak demand savings refers to the reduction in the highest level of electricity demand during the reporting period.

2 An entity shall disclose how it calculates peak demand savings from its demand-side management strategies.

2.1 The entity shall disclose the jurisdictional law or regulation, protocols, frameworks or guidance used for the peak demand savings calculations.

Supply Chain Management

Topic Summary

As entities in the Electric Utilities & Power Generators industry maintain and expand their infrastructural footprint to meet the increasing demand for electricity, including deploying different and new technologies, they face supply chain risks when procuring critical materials and services. Limited global resources of critical materials, such as rare-earth minerals, nickel, lithium, cobalt, aluminium and copper, as well as their concentration in countries that can have relatively limited governance and regulatory structures or are subject to geopolitical tensions, expose entities to the risk of supply-chain disruptions, input-price increases or volatility. These risks are compounded by increased competition for critical materials due to growing global demand from other sectors. These risks could ultimately lead to delays in entities' plans to participate in the industry's ongoing transition. Entities in this industry also face risks arising from labour practices, such as instances of forced or child labour, nature-related dependencies and impacts, and ethics and corruption in the supply chain associated with the different energy sources, and equipment and other materials. These issues may result in increasing operating costs related to supply disruptions and changes in an entity's suppliers. Entities with effective supply chain management practices (including the ability to adapt to resource scarcity and secure the supply of materials essential to their business) may mitigate potential financial effects because of supply disruptions, volatile input prices and reputational and regulatory risks. How entities screen, monitor and engage with suppliers to ensure those suppliers are not engaged in illegal or damaging practices that could affect the entity's prospects can help entities better comply with applicable regulations and maintain and expand operations.

Metrics

IF-EU-430a.1. Description of the process to manage supply chain risks arising from sustainability-related issues

1 An entity shall disclose information about its policies and procedures for managing sustainability-related risks in its supply chain.

1.1 The disclosure includes information about any current or expected risks, constraints or opportunities associated with sourcing materials, equipment and services, such as those related to competition for restricted or limited supplies, geopolitical uncertainties, local labour conditions, natural disasters, the effects of climate change, or changes in applicable jurisdictional law or regulation.

1.2 The disclosure includes information about how the entity manages the risks associated with the use of critical materials in its equipment, including physical limits on availability and access, changes in price, and regulatory and reputational risks.

1.2.1 Critical materials are materials both essential in use and subject to the risk of supply restriction.

1.3 The disclosure includes a description of the processes the entity uses to manage sustainability-related risks in its supply chains, such as supplier screening, codes of conduct, audits and certifications.

2 An entity shall disclose the proportion (by cost) of its sourced materials, equipment and services certified or accredited by third-party verified supply chain certifications related to sustainability issues.

2.1 The entity shall disclose the sustainable supply chain certifications and accreditations the entity used to prepare this disclosure.

3 If an entity uses supplier audits to manage these risks, the entity shall disclose whether the audits are internal (first party), independent (third party) or administered by peers (for example, trade organisations).

IF-EU-430a.2. Percentage of high-risk suppliers subject to an independent

third-party audit or verification in the previous three years, with description of non-conformances and corrective actions

1 An entity shall disclose the percentage of its high-risk suppliers that have been subject to an independent third-party audit or verification at least once in the three years before the reporting date.

1.1 High-risk suppliers are defined as suppliers throughout the value chain where the entity has determined a heightened level of risk of forced labour or modern slavery, child labour, other violations of internationally recognised rights and norms, negative impacts on local communities including Indigenous Peoples, or serious violations of local law or the entity's supplier code of conduct.

1.1.1 The entity shall disclose information about how it identifies high-risk suppliers.

1.2 An independent third-party audit or verification is defined as a visit to a supplier's facility and review of records conducted by an independent external organisation to determine that the supplier facility complies with relevant principles, policies and regulations.

2 An entity shall disclose its audit or verification methodology and criteria (for example, management system investigation, worker interviews, management interviews, document review and visual observations).

3 An entity shall disclose the standards or codes of conduct to which it has measured audit or verification compliance.

4 An entity shall disclose information regarding non-conformances and corrective actions, which might include description of the levels in the supply chain in which the non-conformances occurred (Tier 1, Tier 2 or other, or by region), timelines to resolve priority non-conformances, assessment of whether corrective actions were successful and efforts to increase supply chain transparency and build supplier capacity.

4.1 A priority non-conformance is defined as the highest severity of non-conformance and requires escalation by auditors or investigators. Priority non-conformances confirm the presence of underage workers, forced labour or modern slavery, health and safety issues that can cause immediate danger to life or serious injury, or environmental practices that can cause serious and immediate harm to the community. Priority non-conformance includes material breach or systemic breaking of code requirement or law.

Critical Incident Risk ~~Nuclear Safety & Emergency~~ Management

Topic Summary

Entities in the Electric Utilities & Power Generators industry are exposed to a wide variety of critical incident risks through the different types of power generation sources and the vast network of transmission and distribution lines they own and control. Although rare, critical incidents associated with the industry's infrastructure can be especially severe, causing significant human health and environmental consequences. These incidents might include nuclear accidents, hydroelectric dam failures or wildfires. For example, owners of nuclear power plants in many regions have operated for decades without any major public safety incidents, but the occurrence of infrequent but large-magnitude incidents anywhere in the world can have major effects on the entire nuclear power industry. Entities that experience these rare but critical incidents may find that they lose their social licence to operate, as well as face many other financial consequences—even as entities carry insurance and may have legal protections from some liabilities. Failure to comply with safety regulations can be expensive and may in extreme circumstances make the continued operation of the plant uneconomical. An entity's prospects can be affected by its safety culture, approach to safety compliance and the quality of its emergency preparedness training for its staff. These measures can reduce the probability that accidents will occur and enable an entity to effectively detect and respond to such incidents.

~~Although rare, nuclear accidents can have significant human health and environmental consequences because of their severity. Owners of nuclear power plants in many regions have operated for decades without any major public safety incidents, but the occurrence of infrequent but large-magnitude incidents anywhere in the world can have major effects on the entire nuclear power industry. Entities that own and operate nuclear plants may lose their licence to operate, as well as face many other financial consequences in the event of an accident—though entities carry insurance and may have legal protections from some liabilities. Failure to comply with the safety regulations can be expensive to nuclear power operators; in extreme circumstances it may make the continued operation of the plant uneconomical. Facing potentially significant financial repercussions, both from ongoing safety compliance as well as tail risk incidents, entities that own or operate nuclear plants must be vigilant in the safety compliance, best practices and upgrades of their facilities. They also must maintain robust emergency preparedness training for their staff and a strong safety culture. These measures can reduce the probability that accidents will occur and enable an entity to effectively detect and respond to such incidents.~~

Metrics

IF-EU-540a.1. Total number of nuclear power units, disaggregated ~~broken down~~ by results of most recent independent national regulatory safety review

1 An ~~The~~ entity shall disclose the total number of nuclear power units that it owns or controls ~~operates~~, where:

1.1 A nuclear power unit is defined as a nuclear reactor and associated equipment necessary for electric power generation, including those structures, systems and components required to provide reasonable assurance that the facility can be operated without undue risk to the health and safety of the public.

2 An ~~The~~ entity shall disaggregate information about the ~~provide a breakdown of~~ nuclear power units that it owns or controls ~~operates~~ by the results of the most recent independent national regulatory safety review.

2.1 A regulatory safety review is an assessment ~~considered independent when~~ conducted by a competent national regulatory authority. ~~third parties who are not and have not been directly involved with the design or operation of the nuclear power unit.~~

2.2 ~~For applicable jurisdictions, the entity shall disclose the results of the most recent independent safety review for both regulatory and peer reviews.~~

2.3 The entity shall disclose the applicable jurisdictional regulation, guideline or standard under which the safety review was conducted.

~~IF-EU-540a.2. Description of efforts to manage nuclear safety and emergency preparedness~~

1 ~~The entity shall describe its efforts to manage nuclear safety and emergency preparedness, including its efforts to identify, report and assess initiating events and event sequences relating to nuclear safety and emergency preparedness.~~

1.1 ~~Initiating events are defined as natural or human-induced events that cause an event sequence.~~

1.2 ~~An event sequence is defined as a series of actions or occurrences within the natural and engineered components of a geologic repository operations area that potentially could lead to exposure of individuals to radiation. An event sequence includes one or more initiating events and associated combinations of repository system component failures, including those produced by the action or inaction of operating staff.~~

1.3 ~~Disclosure may focus broadly on nuclear safety and emergency management systems, but it specifically shall address the systems in place to avoid and manage initiating events, accidents, emergencies and incidents that could have catastrophic impacts on human health, the local community and the environment.~~

2 ~~The entity shall discuss how it manages nuclear safety and emergency preparedness, such as through training, rules and guidelines (and their enforcement), implementation of emergency plans and use of technology.~~

3 ~~The entity shall discuss its efforts to create and maintain a culture of nuclear safety and emergency preparedness, including efforts to institute the traits of a positive safety culture, where the traits of a positive safety culture include:~~

3.1 ~~Leadership safety values and actions~~

3.2 ~~Problem identification and resolution~~

3.3 ~~Personal accountability~~

3.4 ~~Work process~~

3.5 ~~Continuous learning~~

3.6 ~~Environment for raising concerns~~

3.7 ~~Effective safety communications~~

3.8 ~~Respectful work environment~~

3.9 ~~Questioning attitude~~

4 ~~The entity may discuss implementation of the Institute of Nuclear Power Operations' (INPO) Principles for a Strong Nuclear Safety Culture or the International Atomic Energy Agency's (IAEA) Best Practices in the Utilization and Dissemination of Operating Experience at Nuclear Power Plants.~~

IF-EU-540a.3. Description of management systems used to identify and mitigate serious accidents

1 An entity shall disclose information about the management systems it uses to identify and mitigate serious accidents and emergencies that could have catastrophic effects on human health, local communities and the environment.

1.1 The information disclosed includes context about workforce training, the use of operating procedures, safety reviews, mechanical integrity programmes, management of change, incident investigation, emergency planning and response, audits and other management systems.

2 An entity shall describe how critical risk management is coordinated among business partners (for example, contractors and subcontractors).

3 If the entity owns or controls nuclear power units, it shall disclose information about its efforts to manage nuclear safety and emergency preparedness, including its efforts to identify, report and assess initiating events and event sequences relating to nuclear safety and emergency preparedness.

3.1 A nuclear power unit is a nuclear reactor and associated equipment necessary for electric power generation, including those structures, systems and components required to provide reasonable assurance that the facility can be operated without undue risk to the health and safety of the public.

3.2 Initiating events are natural or human-induced events that cause an event sequence.

3.3 An event sequence is a series of actions or occurrences within the natural and engineered components of a nuclear power plant that potentially could lead to exposure of individuals to radiation. An event sequence includes one or more initiating events and associated combinations of repository system component failures, including those produced by the action or inaction of operating staff.

3.4 The entity shall disclose information about systems in place to avoid and manage initiating events, accidents, emergencies and incidents that could have catastrophic impacts on human health, the local community and the environment.

3.5 The entity shall disclose information about how it manages nuclear safety and emergency preparedness, such as through training, rules and guidelines (and their enforcement), implementation of emergency plans (consistent with national nuclear regulations) and use of technology.

3.6 The entity shall describe its efforts to create and maintain a culture of nuclear safety and emergency preparedness, including its efforts to institute the traits of a positive safety culture, where the traits of a positive safety culture include the World Association of Nuclear Operators (WANO) *Traits of a Healthy Nuclear Safety Culture* (2013).

Operational Resilience & System Reliability ~~Grid Resiliency~~

Topic Summary

Electricity is integral to the functions of modern life, creating social reliance on continuous supply. Disruptions may result in high social costs and can affect entities' prospects through loss of revenue and additional operating and capital expenditures. Disruptions can be caused by events such as extreme weather, natural disasters or cyberattacks. As the frequency and severity of climate-related physical risks increases, entities will face increased risks to the reliable supply of electricity. Repairs or improvements might necessitate additional costs, some of which might be required by regulatory authorities. Because electricity assets typically have a long useful life with planned lifetimes of decades, planning involves considering risks decades in advance. For example, assumptions about daily temperatures, wind speeds and precipitation each affect the technical and economic viability of assets. The limited flexibility and higher costs involved in making changes to assets after their deployment requires that entities consider the future risks and sequencing of adaptation options in their planning. Entities have deployed smart grid and other technologies to help mitigate risks related to operational resilience and reliability, including to make the electric power system more resilient to extreme weather events. However, these technologies may make the electric power system more vulnerable to cyberattacks. Entities can implement strategies that minimise the likelihood and magnitude of effects from climate-related physical risks and cybersecurity risks and improve the reliability, resilience and quality of their infrastructure.

~~Electricity is critical for the continued function of most elements of modern life, from medicine to finance, creating a societal reliance on continuous service. Major disruptions to electricity infrastructure may result in potentially high societal costs. Disruptions can be caused by extreme weather events, natural disasters and cyberattacks. As the frequency and severity of extreme weather events associated with climate change continues to increase, all segments of electric utilities entities—and especially major transmission and distribution (T&D) operations—will face increasing physical threats to their infrastructure. Extreme weather events could result in frequent or significant service disruptions, outages and require upgrade or repair of damaged or compromised equipment, all of which may add substantial costs and damage brand reputation among regulators and customers. The increased use of smart grid technology has several benefits, including strengthening the resiliency of the grid to extreme weather events. However, this technology may make the grid more vulnerable to cyberattacks, because it provides hackers more entryways into infrastructure systems. Entities must implement strategies that minimise the probability and magnitude of impacts from extreme weather events and cyberattacks. To remain competitive in the face of increasing external competition, entities must improve the reliability, resilience and quality of their infrastructure.~~

Metrics

IF-EU-550a.1. Number of cybersecurity incidents related to disruptions of the electrical power system ~~of non-compliance with physical or cybersecurity standards or regulations~~

1 An ~~The~~ entity shall disclose the total number of ~~instances of non-compliance with physical or~~ cybersecurity incidents that caused an interruption in the entity's ~~standards or regulations applicable to~~ electricity supply during the reporting period. ~~infrastructure owned or operated by the entity.~~

1.1 A cybersecurity incident is an event that compromises or disrupts the services provided or made accessible by an entity through network and information systems.

~~The scope of physical or cybersecurity standards or regulations includes mandatory, enforceable standards and regulations intended to mitigate physical or cybersecurity risks related to the reliability or resiliency of electricity infrastructure, including the electricity grid.~~

1.1.1 If the jurisdiction in which the entity operates, in whole or in part, requires the entity to apply a specific definition of a cybersecurity incident, the entity is permitted to instead use the required definition.

~~The entity may disclose instances of non-compliance with voluntary physical or cybersecurity standards or regulations.~~

2 The entity shall disclose information about any corrective actions taken in response to cybersecurity incidents during the reporting period, such as changes in operations, management, processes, business partners, training or technology.

IF-EU-550a.2. (1) System Average Interruption Duration Index (SAIDI), (2) System Average Interruption Frequency Index (SAIFI), and (3) Customer Average Interruption Duration Index (CAIDI)~~, inclusive of major event days~~

1 The entity shall disclose its (1) System Average Interruption Duration Index (SAIDI) for the reporting period, in minutes.

1.1 ~~The~~ SAIDI is defined as the total duration of an interruption for the average customer during the period under reporting.

1.2 The entity shall calculate its SAIDI as the total number of customers interrupted multiplied by the duration of interruptions (restoration time) divided by the total number of customers served, written as $\sum(r_i \times N_i) / N_T$

1.2.1 $\sum$ = Summation function

1.2.2 r_i = Restoration time, in minutes

1.2.3 N_i = Total number of customers interrupted

1.2.4 N_T = Total number of customers served

2 The entity shall disclose its (2) System Average Interruption Frequency Index (SAIFI) for the reporting period.

2.1 SAIFI is defined as the average number of times that a system customer experiences an outage during the period under reporting.

2.2 The entity shall calculate its SAIFI as the total number of customers interrupted divided by the total number of customers served, written as $\sum(N_i) / N_T$ ~~$\sum(N_i) / N_T$~~

2.2.1 $\sum$ = Summation function

2.2.2 N_i = Total number of customers interrupted

2.2.3 N_T = Total number of customers served

3 The entity shall disclose its (3) Customer Average Interruption Duration Index (CAIDI) for the reporting period.

3.1 ~~The~~ CAIDI is defined as the average amount of time required to restore service once an outage has occurred.

3.2 The entity shall calculate its CAIDI as the total number of customers interrupted multiplied by the duration of interruptions (restoration time in minutes) divided by the sum of the number of customers interrupted, written as $\sum(N_i \times r_i) / \sum(N_i)$

3.2.1 $\sum$ = Summation function

3.2.2 r_i = Restoration time, in minutes

3.2.3 N_i = Total number of customers interrupted

4 The entity shall separately disclose its SAIDI, SAIFI and CAIDI, including and excluding ~~inclusive of~~ major event days, where:

4.1 Major event days are defined, according to IEEE Std 1366, as days in which the daily SAIDI exceeds a threshold value, T_{MED}, where T_{MED} is calculated as follows:

4.1.1 The entity should collect values of daily SAIDI for five sequential years, ending on the last day of the last complete reporting period. If fewer than five years of historical data are available, use all the available historical data.

4.1.2 If any day in the data set has a value of zero for SAIDI, replace it with the lowest non-zero SAIDI value in the data set—this permits taking the logarithm of every day.

4.1.3 Take the natural logarithm (ln) of each daily SAIDI value in the data set.

4.1.4 Find α (Alpha), the average of the logarithms (also known as the log-average ~~logaverage~~) of the data set.

4.1.5 Find β (Beta), the standard deviation of the logarithms (also known as the log-average) of the data set.

4.1.6 Compute the major event day threshold, T_{MED}, using the equation: $T_{MED} = e^{(\alpha+\beta)}$.

4.1.7 Any day with daily SAIDI greater than the threshold value T_{MED} that occurs during the subsequent reporting period is a major event day.

~~Note to **IF-EU-550a.2**~~

~~1 The entity shall discuss notable service disruptions such as those that affected a significant number of customers, or disruptions of extended duration.~~

~~2 For such disruptions, the entity should provide:~~

~~2.1 Description and cause of the service disruption~~

~~2.2 The total generation or transmission capacity, in megawatts, and population affected by the disruption~~

~~2.3 The costs associated with the service disruption~~

~~2.4 Actions taken to mitigate the potential for future service interruptions~~

~~2.5 Any other significant outcomes (for example, legal proceedings or related fatalities).~~

IF-EU-550a.3. Average availability factor for generation assets

1 An entity shall disclose the average availability factor for its generation assets as a percentage during the reporting period, disaggregated by major energy source.

1.1 Major energy sources include coal, natural gas, nuclear, petroleum, hydropower, solar, wind, other renewables and other gases.

2 The percentage shall be calculated as the total number of hours that the generation asset was available to generate electricity during the reporting period divided by the total planned number of hours of operation in the reporting period.

IF-EU-550a.4. Amount and percentage of assets vulnerable to climate-related physical risks, disaggregated by industry asset type and climate-related physical risk

1 An entity shall disclose the amount and percentage of its assets vulnerable to climate-related physical risks, disaggregated by the industry asset type—defined as generation, transmission or distribution assets—and the climate-related physical risk to which it is vulnerable, in accordance with paragraph 29(c) of IFRS S2.

1.1 Climate-related physical risks shall be disaggregated by the type of (a) acute physical risks and (b) chronic physical risks the entity has identified, as defined in Appendix A of IFRS S2.

1.1.1 Examples of acute physical risks for generation assets include storms, floods, droughts or heatwaves.

1.1.2 Examples of acute physical risks for transmission or distribution assets include wildfires or storms.

1.1.3 Examples of chronic physical risks for generation assets include changes in wind speeds, and changes in precipitation and temperature which could lead to sea level rise and reduced water availability.

1.1.4 Examples of chronic physical risks for transmission or distribution assets include extreme variability in weather patterns.

2 An entity shall describe whether and how its assets are vulnerable to climate-related physical risks and whether and how its vulnerabilities vary by location.

2.1 The entity shall disclose information about how it determines whether an asset is vulnerable to climate-related physical risks.

2.2 The entity shall disclose information about the internal assessments it uses to identify assets vulnerable to climate-related physical risks, including whether the entity considers more specific local-level data.

2.3 The entity shall disclose the locations of assets vulnerable to climate-related physical risks where such risks are concentrated.

2.3.1 Disclosure of the asset's location includes the country in which it is located.

3 For each type of acute or chronic climate-related physical risk, the entity shall specify the time horizon—short, medium or long term—over which the effects of those risks could reasonably be expected to occur.

3.1 The entity shall explain how it defines 'short term', 'medium term' and 'long term' and how these definitions are linked to the planning horizons it uses for strategic decision-making.

4 The entity shall prepare this disclosure in accordance with paragraphs 10 and 29(c) of IFRS S2.

5 Table 5 illustrates a possible way of presenting this information:

*Table 5**. Amount and percentage of assets vulnerable to climate-related physical risks***

IDENTIFIED RISK	TYPE OF RISK	ASSET TYPE	LOCATION	AMOUNT OF ASSETS	PERCENTAGE OF ASSETS	TIME HORIZON
(Example: floods)	**(chronic or acute)**	**(generation)**	**(Example: South Africa)**	**(monetary value)**	**(percentage)**	**(short, medium or long term)**

IF-EU-550a.5. Description of strategies to manage operational resilience and system reliability-related risks and opportunities, including any targets set to monitor progress

1 An entity shall disclose information about its strategies to manage operational resilience and system reliability-related risks and opportunities, including:

1.1 generator or grid-hardening efforts—for example, undergrounding transmission and distribution lines or installing physical barriers;

1.2 technology utilised and the extent to which such technology is utilised—for example, distributed energy resources, energy storage, grid sensors or advanced distribution management systems;

1.3 the use of interconnections;

1.4 the effects of connection queues for power generation and/or curtailment; and

1.5 cybersecurity risk management policies and practices—for example, employee training, system testing, system audits, or use of third-party standards or frameworks.

2 An entity shall disclose the activities and investments, including capital expenditures, required to support those strategies and any limiting factors related to those strategies.

3 An entity shall disclose information about notable disruptions to electricity supply such as those that affected a substantial number of customers, or disruptions of extended duration, including:

3.1 description and cause of the service disruption;

3.2 the total generation, transmission or distribution capacity, in megawatts (MW), and population affected by the disruption;

3.3 the costs associated with the disruption;

3.4 actions planned to mitigate the potential for future service interruptions; and

3.5 any other significant outcomes (for example, legal proceedings or related fatalities).

4 An entity shall disclose information about any targets it has set, and any targets it is required to meet by law or regulation, to manage operational resilience and system reliability.

4.1 In preparing this disclosure, the entity shall apply the requirements in paragraphs 51–53 of IFRS S1 that are applicable to its operational resilience and system reliability targets, and for information about climate-related targets, it shall apply the requirements in paragraphs 33–36 of IFRS S2 that are applicable to its operational resilience and system reliability targets.

Proposed consequential amendments to the IFRS S2 industry-based guidance arising from proposed amendments to the SASB Standards

The ISSB proposes to make consequential amendments to the industry descriptions, disclosure topics and associated metrics in the *Industry-based Guidance on Implementing IFRS S2* (IFRS S2 industry-based guidance) to maintain alignment with the SASB Standards.

The consequential amendments are proposed to reflect amendments proposed for the climate-related content in the SASB Standards for three industries prioritised by the ISSB and detailed in this Exposure Draft:

(a) Agricultural Products;

(b) Meat, Poultry & Dairy; and

(c) Electric Utilities & Power Generators.

Appendix A sets out the metrics that would be affected by the consequential amendments.

Approval by the ISSB of Exposure Draft *Proposed Amendments to the SASB Standards and IFRS S2 Industry-based Guidance* published in [March 2026]

The Exposure Draft *Proposed Amendments to the SASB Standards and IFRS S2 Industry-based Guidance* was approved for publication by all 12 members of the International Sustainability Standards Board.

Emmanuel Faber	Chair
Jingdong Hua	Vice-Chair
Suzanne Lloyd	Vice-Chair
Richard Barker	
Jenny Bofinger-Schuster	
Verity Chegar	
Jeffrey Hales	
Hiroshi Komori	
Bing Leng	
Ndidi Nnoli-Edozien	
Veronika Pountcheva	
Elizabeth Seeger	

Appendix A—Metrics in the IFRS S2 industry-based guidance that the ISSB proposes be subject to consequential amendments

Table A1—Metrics in Volume 20—Agricultural Products

Current metric	Proposed metric
FB-AG-110a.1. Gross global Scope 1 emissions	FB-AG-110a.1. (1) Gross Scope 1 emissions and (2) percentage subject to emissions-limiting regulations
FB-AG-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	FB-AG-110a.2. Description of Scope 1 greenhouse gas emissions targets and analysis of performance against those targets
FB-AG-110a.3. Fleet fuel consumed, percentage renewable	FB-AG-110a.3. (1) Total fleet fuel consumed and (2) renewable fuel consumed
FB-AG-130a.1. (1) Operational energy consumed, (2) percentage grid electricity and (3) percentage renewable	FB-AG-130a.1. (1) Total energy consumed, (2) purchased electricity consumed and (3) renewable electricity consumed from (a) self-generation and (b) direct contracts
FB-AG-140a.1. (1) Total water withdrawn, (2) total water consumed; percentage of each in regions with High or Extremely High Baseline Water Stress	FB-AG-140a.1. (1) Total water withdrawal, by source, (2) total water consumed; (3) percentages of water (a) withdrawn and (b) consumed from water-stressed locations
FB-AG-140a.2. Description of water management risks and discussion of strategies and practices to mitigate those risks	FB-AG-140a.2. Description of water-related risks and opportunities and strategies to manage them, including any targets set to monitor progress
FB-AG-140a.3. Number of incidents of non-compliance associated with water quality permits, standards and regulations	[N/A--metric proposed to be removed]
[N/A--proposed new metric]	FB-AG-140a.4. Total water discharged by (1) destination and (2) level of treatment
[N/A--proposed new metric]	FB-AG-150a.1. (1) Total food loss generated, (2) quantity diverted
[N/A--proposed new metric]	FB-AG-150a.2. Description of strategies to address opportunities related to food loss and food waste throughout the value chain
[N/A--proposed new metric]	FB-AG-160a.1. (1) Total spatial footprint of operations, (2) area disturbed and (3) area restored
[N/A--proposed new metric]	FB-AG-160a.2. Percentage of the total spatial footprint of operations in or near environmentally sensitive locations
[N/A--proposed new metric]	FB-AG-160a.3. Total area of land that is sustainably managed, by product
[N/A--proposed new metric]	FB-AG-160a.4. Percentages of agricultural products produced from direct farming operations determined to be deforestation- or conversion-free, including any targets set to monitor progress

[N/A--proposed new metric]	FB-AG-160a.5. Priority products from direct farming operations that are sensitive to nature- and climate-related physical risks
[N/A--proposed new metric]	FB-AG-160a.6. Description of strategies to manage environmental resources and implement sustainable agricultural practices in direct farming operations
[N/A--proposed new metric]	FB-AG-430c.1. Percentages of sourced agricultural products determined to be deforestation- or conversion-free, including any targets set to monitor progress
[N/A--proposed new metric]	FB-AG-430c.2. Priority sourced agricultural products that are sensitive to nature- and climate-related physical risks in the supply chain
[N/A--proposed new metric]	FB-AG-430c.3. Description of strategies to manage environmental resources and implement sustainable agriculture practices in the supply chain
FB-AG-440a.1. Identification of principal crops and description of risks and opportunities presented by climate change	[N/A--metric proposed to be removed]
FB-AG-440a.2. Percentage of agricultural products sourced from regions with High or Extremely High Baseline Water Stress	[N/A--metric proposed to be removed]

Table A2—Metrics in Volume 23—Meat, Poultry & Dairy

Current metric	Proposed metric
FB-MP-110a.1. Gross global Scope 1 emissions	FB-MP-110a.1. (1) Gross Scope 1 emissions, (2) percentage methane and (3) percentage subject to emissions-limiting regulations
FB-MP-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	FB-MP-110a.2. Description of Scope 1 greenhouse gas emissions targets and analysis of performance against those targets
FB-MP-130a.1. (1) Total energy consumed, (2) percentage grid electricity and (3) percentage renewable	FB-MP-130a.1. (1) Total energy consumed, (2) purchased electricity consumed from (a) self-generation and (b) direct contracts
FB-MP-140a.1. (1) Total water withdrawn, (2) total water consumed; percentage of each in regions with High or Extremely High Baseline Water Stress	FB-MP-140a.1. (1) Total water withdrawal, by source, (2) total water consumed; (3) percentages of water (a) withdrawn and (b) consumed from water-stressed locations
FB-MP-140a.2. Description of water management risks and discussion of strategies and practices to mitigate those risks	FB-MP-140a.2. Description of water-related risks and opportunities and strategies to manage them, including any targets set to monitor progress
FB-MP-140a.3. Number of incidents of non-compliance associated with water quality permits, standards and regulations	[N/A--metric proposed to be removed]

[N/A--proposed new metric]	FB-MP-140a.4. Total water discharged by (1) destination and (2) level of treatment
FB-MP-160a.1. Amount of animal litter and manure generated, percentage managed according to a nutrient management plan	[N/A--metric proposed to be removed]
FB-MP-160a.2. Percentage of pasture and grazing land managed to conservation plan criteria	[N/A--metric proposed to be removed]
FB-MP-160a.3. Animal protein production from confined animal feeding operations	[N/A--metric proposed to be removed]
[N/A--proposed new metric]	FB-MP-160a.4. Percentage of animal protein production from confined animal feeding operations
[N/A--proposed new metric]	FB-MP-160a.5. (1) Total spatial footprint of operations, (2) area disturbed and (3) area restored
[N/A--proposed new metric]	FB-MP-160a.6. Percentage of the total spatial footprint of operations in or near environmentally sensitive locations
[N/A--proposed new metric]	FB-MP-160a.7. Percentages of livestock produced from direct farming operations determined to be deforestation- or conversion-free, including explanation of assessment methodology
[N/A--proposed new metric]	FB-MP-160a.8. Priority products from direct farming operations that are sensitive to nature- and climate-related physical risks
[N/A--proposed new metric]	FB-MP-160a.9. Percentage of livestock production from direct farming operations that implement and maintain a written nutrient management plan
[N/A--proposed new metric]	FB-MP-410b.1. Use of innovation in food products to address sustainability-related risks and opportunities
[N/A--proposed new metric]	FB-MP-430b.1. Percentages of sourced (1) livestock and (2) animal feed determined to be deforestation- or conversion-free, including any targets set to monitor progress
[N/A--proposed new metric]	FB-MP-430b.2. Priority sourced livestock and animal feed that are sensitive to nature- and climate-related physical risks in the supply chain
[N/A--proposed new metric]	FB-MP-430b.3. Percentage of sourced livestock from farms implementing and maintaining a written nutrient management plan
[N/A--proposed new metric]	FB-MP-430b.4. Percentage of animal protein sourced from confined animal feeding operations
FB-MP-440a.1. Percentage of animal feed sourced from regions with High or Extremely High Baseline Water Stress	[N/A--metric proposed to be removed]
FB-MP-440a.2. Percentage of contracts with producers located in regions with High or Extremely High Baseline Water Stress	[N/A--metric proposed to be removed]
FB-MP-440a.3. Discussion of strategy to manage opportunities and risks to feed sourcing and livestock supply presented by climate change	[N/A--metric proposed to be removed]

Table A3—Metrics in Volume 32—Electric Utilities & Power Generators

Current metric	Proposed metric
IF-EU-110a.1. (1) Gross global Scope 1 emissions, percentage covered under (2) emissions-limiting regulations and (3) emissions-reporting regulations	IF-EU-110a.1. (1) Gross Scope 1 emissions and (2) percentage subject to emissions-limiting regulations
IF-EU-110a.2. Greenhouse gas (GHG) emissions associated with power deliveries	IF-EU-110a.2. Greenhouse gas emissions associated with (1) transmission and distribution loss and (2) net electricity purchased
IF-EU-110a.3. 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	[N/A--metric proposed to be removed]
[N/A--proposed new metric]	IF-EU-110a.4. Installed capacity, disaggregated by (1) major energy source and (2) energy storage
[N/A--proposed new metric]	IF-EU-110a.5. Planned capacity, disaggregated by (1) major energy source and (2) energy storage
[N/A--proposed new metric]	IF-EU-110a.6. Description of how climate-related transition risks and opportunities influence capital strategy and investments
IF-EU-140a.1. (1) Total water withdrawn, (2) total water consumed; percentage of each in regions with High or Extremely High Baseline Water Stress	IF-EU-140a.1. (1) Total water withdrawal, by source, (2) total water consumed; (3) percentages of water (a) withdrawn and (b) consumed from water-stressed locations
IF-EU-140a.2. Number of incidents of non-compliance associated with water quality permits, standards and regulations	[N/A--metric proposed to be removed]
IF-EU-140a.3. Description of water management risks and discussion of strategies and practices to mitigate those risks	IF-EU-140a.3. Description of water-related risks and opportunities and strategies to manage them, including any targets set to monitor progress
[N/A--proposed new metric]	IF-EU-140a.4. Total water discharged by (1) destination and (2) level of treatment
IF-EU-420a.2. Percentage of electric load served by smart grid technology	[N/A--metric proposed to be removed]
IF-EU-420a.3. Customer electricity savings from efficiency measures, by market	[N/A--metric proposed to be removed]
[N/A--proposed new metric]	IF-EU-420a.4. Description of demand-side management-related risks and opportunities and strategies to manage them, including any targets set to monitor progress
[N/A--proposed new metric]	IF-EU-420a.5. (1) Number of active participants and (2) number of eligible participants in demand-side management-related actions or programmes, disaggregated by (a) residential, (b) commercial and (c) industrial participants
[N/A--proposed new metric]	IF-EU-420a.6. Peak demand savings from demand-side management strategies

IF-EU-540a.1. Total number of nuclear power units, broken down by results of most recent independent safety review	IF-EU-540a.1. Total number of nuclear power units, disaggregated by results of most recent independent national regulatory safety review
IF-EU-540a.2. Description of efforts to manage nuclear safety and emergency preparedness	[N/A--metric proposed to be removed]
[N/A--proposed new metric]	IF-EU-540a.3. Description of management systems used to identify and mitigate serious accidents
IF-EU-550a.1. Number of incidents of non-compliance with physical or cybersecurity standards or regulations	IF-EU-550a.1. Number of cybersecurity incidents related to disruptions of the electrical power system
IF-EU-550a.2. (1) System Average Interruption Duration Index (SAIDI), (2) System Average Interruption Frequency Index (SAIFI), and (3) Customer Average Interruption Duration Index (CAIDI), inclusive of major event days	IF-EU-550a.2. (1) System Average Interruption Duration Index (SAIDI), (2) System Average Interruption Frequency Index (SAIFI), and (3) Customer Average Interruption Duration Index (CAIDI)
[N/A--proposed new metric]	IF-EU-550a.3. Average availability factor for generation assets
[N/A--proposed new metric]	IF-EU-550a.4. Amount and percentage of assets vulnerable to climate-related physical risks, disaggregated by industry asset type and climate-related physical risk
[N/A--proposed new metric]	IF-EU-550a.5. Description of strategies to manage operational resilience and system reliability-related risks and opportunities, including any targets set to monitor progress