SASB STANDARDS
Now part of IFRS Foundation

INFRASTRUCTURE SECTOR

ENGINEERING & CONSTRUCTION SERVICES

Sustainability Accounting Standard

Sustainable Industry Classification System® (SICS®) IF-EN

Prepared by the
Sustainability Accounting Standards Board

October 2018

INDUSTRY STANDARD | VERSION 2018-10

ENGINEERING & CONSTRUCTION SERVICES

Sustainability Accounting Standard

As of August 2022, the International Sustainability Standards Board (ISSB) of the IFRS Foundation assumed responsibility for the SASB Standards. The ISSB has committed to build on the industry-based SASB Standards and leverage SASB's industry-based approach to standards development. The ISSB encourages preparers and investors to continue to provide full support for and to use the SASB Standards until IFRS Sustainability Disclosure Standards replace SASB Standards.

Historical Information About the SASB Foundation

These materials were developed under the auspices of the SASB Foundation. The SASB Foundation was founded in 2011 as a not-for-profit, independent standards-setting organization. The SASB Foundation's mission was to establish and maintain industry-specific standards that assist companies in disclosing financially material, decision-useful sustainability information to investors. The SASB Foundation operated in a governance structure similar to the structure adopted by other internationally recognized bodies that set standards for disclosure to investors, including the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB). This structure included a board of directors ("the Foundation Board") and a standards-setting board ("the Standards Board" or "the SASB"). The Standards Board developed, issued, and maintained the SASB Standards. The Foundation Board oversaw the strategy, finances, and operations of the entire organization, and appointed the members of the Standards Board. The Foundation Board was not involved in setting standards, but was responsible for overseeing the Standards Board's compliance with the organization's due process requirements. As set out in the SASB Rules of Procedure, the SASB's standards-setting activities were transparent and followed careful due process, including extensive consultation with companies, investors, and relevant experts. The SASB Foundation was funded by a range of sources, including contributions from philanthropies, companies, and individuals, as well as through the sale and licensing of publications, educational materials, and other products.

sasb.org/contact

Table of Contents

INTRODUCTION

Purpose of SASB Standards

The SASB's use of the term "sustainability" refers to corporate activities that maintain or enhance the ability of the company to create value over the long term. Sustainability accounting reflects the governance and management of a company's environmental and social impacts arising from production of goods and services, as well as its governance and management of the environmental and social capitals necessary to create long-term value. The SASB also refers to sustainability as "ESG" (environmental, social, and governance), though traditional corporate governance issues such as board composition are not included within the scope of the SASB's standards-setting activities.

SASB standards are designed to identify a minimum set of sustainability issues most likely to impact the operating performance or financial condition of the typical company in an industry, regardless of location. SASB standards are designed to enable communications on corporate performance on industry-level sustainability issues in a cost-effective and decision-useful manner using existing disclosure and reporting mechanisms.

Businesses can use the SASB standards to better identify, manage, and communicate to investors sustainability information that is financially material. Use of the standards can benefit businesses by improving transparency, risk management, and performance. SASB standards can help investors by encouraging reporting that is comparable, consistent, and financially material, thereby enabling investors to make better investment and voting decisions.

Overview of SASB Standards

The SASB has developed a set of 77 industry-specific sustainability accounting standards ("SASB standards" or "industry standards"), categorized pursuant to SASB's Sustainable Industry Classification System® (SICS®). Each SASB standard describes the industry that is the subject of the standard, including any assumptions about the predominant business model and industry segments that are included. SASB standards include:

1. **Disclosure topics** – A minimum set of industry-specific disclosure topics reasonably likely to constitute material information, and a brief description of how management or mismanagement of each topic may affect value creation.

2. **Accounting metrics** – A set of quantitative and/or qualitative accounting metrics intended to measure performance on each topic.

3. **Technical protocols** – Each accounting metric is accompanied by a technical protocol that provides guidance on definitions, scope, implementation, compilation, and presentation, all of which are intended to constitute suitable criteria for third-party assurance.

4. **Activity metrics** – A set of metrics that quantify the scale of a company's business and are intended for use in conjunction with accounting metrics to normalize data and facilitate comparison.

Furthermore, the *SASB Standards Application Guidance* establishes guidance applicable to the use of all industry standards and is considered part of the standards. Unless otherwise specified in the technical protocols contained in the industry standards, the guidance in the SASB Standards Application Guidance applies to the definitions, scope, implementation, compilation, and presentation of the metrics in the industry standards.

The *SASB Conceptual Framework* sets out the basic concepts, principles, definitions, and objectives that guide the Standards Board in its approach to setting standards for sustainability accounting. The *SASB Rules of Procedure* is focused on the governance processes and practices for standards setting.

Use of the Standards

SASB standards are intended for use in communications to investors regarding sustainability issues that are likely to impact corporate ability to create value over the long term. Use of SASB standards is voluntary. A company determines which standard(s) is relevant to the company, which disclosure topics are financially material to its business, and which associated metrics to report, taking relevant legal requirements into account[1]. In general, a company would use the SASB standard specific to its primary industry as identified in SICS® . However, companies with substantial business in multiple SICS® industries can consider reporting on these additional SASB industry standards.

It is up to a company to determine the means by which it reports SASB information to investors. One benefit of using SASB standards may be achieving regulatory compliance in some markets. Other investor communications using SASB information could be sustainability reports, integrated reports, websites, or annual reports to shareholders. There is no guarantee that SASB standards address all financially material sustainability risks or opportunities unique to a company's business model.

Industry Description

The Engineering & Construction Services industry provides engineering, construction, design, consulting, contracting, and other related services that support various building and infrastructure projects. The industry is primarily made up of four major segments: engineering services, infrastructure construction, non-residential building construction, and building sub-contractors and construction-related professional services. The infrastructure construction segment includes companies that design and/or build infrastructure projects such as power plants, dams, oil and gas pipelines, refineries, highways, bridges, tunnels, railways, ports, airports, waste treatment plants, water networks, and stadiums. The non-residential building construction segment includes companies that design and/or build industrial and commercial facilities such as factories, warehouses, data centers, offices, hotels, hospitals, universities, and retail spaces like malls. The engineering services segment includes companies that provide specialized architectural and engineering services such as design and development of feasibility studies for many of the project types listed above. Finally, the building sub-contractors and other construction-related professional services segment includes smaller companies that provide ancillary services such as carpentry, electrical, plumbing, painting, waterproofing, landscaping, interior design, and building inspection. The

[1] **Legal Note**: SASB standards are not intended to, and indeed cannot, replace any legal or regulatory requirements that may be applicable to a reporting entity's operations.

industry's customers include infrastructure owners and developers in the public and private sectors. Large companies in this industry operate and generate revenue globally and typically specialize in multiple segments.

SUSTAINABILITY DISCLOSURE TOPICS & ACCOUNTING METRICS

Table 1. Sustainability Disclosure Topics & Accounting Metrics

TOPIC	ACCOUNTING METRIC	CATEGORY	UNIT OF MEASURE	CODE
Environmental Impacts of Project Development	Number of incidents of non-compliance with environmental permits, standards, and regulations	Quantitative	Number	IF-EN-160a.1
	Discussion of processes to assess and manage environmental risks associated with project design, siting, and construction	Discussion and Analysis	n/a	IF-EN-160a.2
Structural Integrity & Safety	Amount of defect- and safety-related rework costs	Quantitative	Reporting currency	IF-EN-250a.1
	Total amount of monetary losses as a result of legal proceedings associated with defect- and safety-related incidents[2]	Quantitative	Reporting currency	IF-EN-250a.2
Workforce Health & Safety	(1) Total recordable incident rate (TRIR) and (2) fatality rate for (a) direct employees and (b) contract employees	Quantitative	Rate	IF-EN-320a.1
Lifecycle Impacts of Buildings & Infrastructure	Number of (1) commissioned projects certified to a third-party multi-attribute sustainability standard and (2) active projects seeking such certification	Quantitative	Number	IF-EN-410a.1
	Discussion of process to incorporate operational-phase energy and water efficiency considerations into project planning and design	Discussion and Analysis	n/a	IF-EN-410a.2
Climate Impacts of Business Mix	Amount of backlog for (1) hydrocarbon-related projects and (2) renewable energy projects	Quantitative	Reporting currency	IF-EN-410b.1
	Amount of backlog cancellations associated with hydrocarbon-related projects	Quantitative	Reporting currency	IF-EN-410b.2
	Amount of backlog for non-energy projects associated with climate change mitigation	Quantitative	Reporting currency	IF-EN-410b.3
Business Ethics	(1) Number of active projects and (2) backlog in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index[3]	Quantitative	Number, Reporting currency	IF-EN-510a.1

[2] Note to **IF-EN-250a.2** – The entity shall briefly describe the nature, context, and any corrective actions taken as a result of the monetary losses.

[3] Note to **IF-EN-510a.1** – The entity shall provide a brief description of its approach to managing ethical risks specific to the countries with low rankings in the index where the entity has active projects and/or backlog.

TOPIC	ACCOUNTING METRIC	CATEGORY	UNIT OF MEASURE	CODE
	Total amount of monetary losses as a result of legal proceedings associated with charges of (1) bribery or corruption and (2) anti-competitive practices[4]	Quantitative	Reporting currency	IF-EN-510a.2
	Description of policies and practices for prevention of (1) bribery and corruption, and (2) anti-competitive behavior in the project bidding processes	Discussion and Analysis	n/a	IF-EN-510a.3

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of active projects[5]	Quantitative	Number	IF-EN-000.A
Number of commissioned projects[6]	Quantitative	Number	IF-EN-000.B
Total backlog[7]	Quantitative	Reporting currency	IF-EN-000.C

[4] Note to **IF-EN-510a.2** – The entity shall briefly describe the nature, context, and any corrective actions taken as a result of the monetary losses.

[5] Note to **IF-EN-000.A** – Active projects are defined as buildings and infrastructure projects under development that the entity was actively providing services to as of the close of the reporting period, including, but not limited to, both the design and construction stages. Active projects exclude projects that were commissioned during the reporting period.

[6] Note to **IF-EN-000.B** – Commissioned projects are defined as projects that were completed and deemed ready for service during the reporting period. The scope of commissioned projects shall only include projects that the entity provided construction services to.

[7] Note to **IF-EN-000.C** – Backlog is defined as the value of projects not completed as of the close of the reporting period (i.e., revenue contractually expected in the future but that has not been recognized), or is defined by the entity, consistent with its existing disclosure of backlog. Backlog may also be referred to as revenue backlog or unsatisfied performance obligations. The scope of disclosure is limited to buildings and infrastructure projects where the entity provides engineering, construction, architecture, design, installation, planning, consulting, repair, and/or maintenance services, or other similar services.

Environmental Impacts of Project Development

Topic Summary

Infrastructure construction projects help improve economic and social development; however, they can also pose risks to the local environment and surrounding communities. Industry activities can disrupt local ecosystems through biodiversity impacts, emissions into the air, water discharges, natural resource consumption, waste generation, and the use of hazardous chemicals. In particular, construction companies perform clearing, grading, and excavation activities and may generate harmful waste during project construction. Effectively assessing environmental impacts prior to construction may help mitigate unforeseen issues that can raise operational and capital costs. In some cases, environmental concerns and/or local community pushback can result in project delays and, in extreme cases, project cancellations, which may impact a company's profitability and growth opportunities. A failure to comply with environmental regulations during construction can result in costly fines and remediation costs, and can damage a company's reputation. Environmental impact assessments can provide an understanding of a project's potential environmental impacts and the mitigation activities that may be necessary before it begins. Likewise, proper management of environmental risks during project construction can reduce regulatory oversight and/or community pushback. By assessing environmental considerations up front, as well as continuing to evaluate them during project development, engineering and construction companies may be better prepared to mitigate the potential environmental issues and financial risks that may occur, while also establishing a competitive advantage for obtaining new contracts with prospective clients.

Accounting Metrics

IF-EN-160a.1. Number of incidents of non-compliance with environmental permits, standards, and regulations

1 The entity shall disclose the total number of instances of non-compliance associated with the environment, including, but not limited to, violations of permits, standards, and/or regulations associated with waste, air quality and/or emissions, water discharges, water withdrawal exceedances, effluent limit exceedances (such as waste load allocation), violation of wastewater pretreatment requirements, oil or hazardous substance spills, land use, and endangered species.

2 The scope of disclosure includes incidents governed by national, state, and local statutory permits and regulations.

3 The scope of disclosure includes incidents of non-compliance received by the entity and by subcontractors under the entity's direct supervision.

4 An incident of non-compliance shall be disclosed regardless of whether it resulted in an enforcement action (e.g., fine and/or warning letter).

5 An incident of non-compliance, regardless of the measurement methodology or frequency, shall be disclosed. These include violations for one-time violations, continuous discharges, and non-continuous discharges.

IF-EN-160a.2. Discussion of processes to assess and manage environmental risks associated with project design, siting, and construction

1 The entity shall discuss the processes it employs to assess and manage the environmental risks associated with project siting, design and construction.

1.1 Environmental risks may include, but are not limited to, ecological impacts, biodiversity impacts, emissions to air, discharges to water, slope disturbance, soil disturbance and erosion, storm water management, waste management, natural resource consumption, and hazardous chemical usage.

2 The entity shall discuss the due diligence practices it employs to assess the environmental risks of projects, where relevant due diligence practices include environmental impact assessments and stakeholder engagement practices.

2.1 Relevant items to discuss include, but are not limited to: practices to assess the baseline environmental considerations of the project site; feasible, environmentally preferable alternatives for the project; local legal requirements; the protection of biodiversity; use of renewable natural resources; use of hazardous substances; and efficient production, delivery and use of energy.

3 The entity shall discuss the operational practices it employs to the minimize environmental impacts during project siting, design, and construction, which may include, but are not limited to: waste management, reducing biodiversity impacts, emissions to air, discharges to water, natural resource consumption, and hazardous chemical usage.

4 The entity shall describe its approach to operating in compliance with all applicable environmental regulations and permits.

4.1 Relevant items to discuss include, but are not limited to: employee training on relevant regulations and cleanup procedures, quality control processes on project sites, internal mechanisms for reporting and following up on environmental incidents, and maintenance and reporting of accurate data.

5 The entity shall discuss the use of codes, guidelines, and standards to assess and minimize environmental impacts of project siting, design, and construction, where applicable. Relevant codes, guidelines, and standards may include, but are not limited to:

5.1 BREEAM®

5.2 The Equator Principles

5.3 International Finance Corporation's Environmental and Social Performance Standards and Guidance Notes

5.4 Institute for Sustainable Infrastructure's (ISI) Envision® rating system

5.5 International Organization for Standardization (ISO) environmental standards

5.6 United Nations Development Programme's Performance Standards on Environmental and Social Sustainability

5.7 United Nations Global Compact's Environmental Principles

5.8 U.S. Green Building Council's LEED® certification

6 The entity shall describe its approach to managing projects that have heightened environmental and/or social due diligence requirements or are expected to have significant adverse environmental and/or social impacts, including additional measures or policies it employs.

6.1 An example of a project type that has heightened environmental and/or social impacts are "Category A" projects categorized by the International Finance Corporation (IFC).

6.2 The entity may describe its approach to categorizing the severity of environmental risk for its projects, including how it determines if a project has heightened environmental risk.

7 Where applicable and relevant, the entity shall describe differences between policies and practices for its different operating regions, project types, and business segments.

8 The scope of disclosure includes project stages associated with siting, design, and construction that the entity is involved with through contractual responsibility, including, but not limited to, feasibility studies, proposals, design and planning, subcontractor procurement, and construction.

Structural Integrity & Safety

Topic Summary

Whether providing engineering, design, architectural, consulting, inspection, construction, or maintenance services, companies in this industry have a professional responsibility to ensure the safety and integrity of their work. Errors or inadequate quality in the project design phase and construction of buildings or infrastructure can cause significant personal injury, loss of property value, and economic harm. Companies that perform poorly on structural integrity and safety can therefore face potentially high costs due to redesign and/or repair work and legal liabilities, as well as reputational damage that could hurt growth prospects. Moreover, when designing and constructing buildings or infrastructure, companies in the industry must increasingly contemplate potential climate change impacts, which may affect the structural integrity of projects and the safety of the general public. Compliance with minimum applicable codes and standards may not be sufficient for maintaining and growing reputational value (or even mitigating legal liabilities) in certain circumstances, especially if the frequency and severity of climate-change-related events increases as expected. Meeting or exceeding new industry standards for quality and establishing internal control procedures to address potential design issues, including those resulting from climate risks, are practices that can help companies reduce these risks.

Accounting Metrics

IF-EN-250a.1. Amount of defect- and safety-related rework costs

1 The entity shall disclose the total amount of defect- and safety-related rework costs incurred.

1.1 Rework is defined, consistent with the Construction Industry Institute's definition, as activities in the field that have to be done more than once in the field or activities that remove work previously installed as part of the project.

1.2 For the purposes of this disclosure, the scope of rework costs excludes costs resulting from client- or project-owner-driven modifications including, but not limited to, change orders, revisions to scope, or revisions to design.

1.3 The scope of rework costs includes, but is not limited to, costs associated with labor, materials, design, equipment, and subcontractors.

2 The entity may discuss projects with significant rework costs relative to actual or projected total project costs. Relevant context to provide may include, but is not limited to:

2.1 Root causes of rework

2.2 Corrective actions implemented

2.3 Financial impacts to company

IF-EN-250a.2. Total amount of monetary losses as a result of legal proceedings associated with defect- and safety-related incidents

1 The entity shall disclose the total amount of monetary losses it incurred during the reporting period as a result of legal proceedings associated with defect- and safety-related incidents and allegations.

2 The legal proceedings shall include any adjudicative proceeding in which the entity was involved, whether before a court, a regulator, an arbitrator, or otherwise.

3 The losses shall include all monetary liabilities to the opposing party or to others (whether as the result of settlement or verdict after trial or otherwise), including fines and other monetary liabilities incurred during the reporting period as a result of civil actions (e.g., civil judgments or settlements), regulatory proceedings (e.g., penalties, disgorgement, or restitution), and criminal actions (e.g., criminal judgment, penalties, or restitution) brought by any entity (e.g., governmental, business, or individual).

4 The scope of monetary losses shall exclude legal and other fees and expenses incurred by the entity in its defense.

Note to **IF-EN-250a.2**

1 The entity shall briefly describe the nature (e.g., judgment or order issued after trial, settlement, guilty plea, deferred prosecution agreement, or non-prosecution agreement) and context (e.g., negligence) of all monetary losses as a result of legal proceedings.

2 The entity shall describe any corrective actions it has implemented as a result of legal proceedings. This may include, but is not limited to, specific changes in operations, management, processes, products, business partners, training, or technology.

Workforce Health & Safety

Topic Summary

Construction, maintenance and repair services, and other on-site activities require a substantial amount of manual labor. Fatality and injury rates in the Engineering & Construction Services industry are high compared with those in other industries as a result of the workforce's exposure to powered haulage and heavy machinery accidents, fall accidents, exposure to hazardous chemicals, and other unique and potentially dangerous situations. Additionally, temporary workers may be at a higher risk due to lack of training or industry experience. Failing to protect worker health and safety can result in fines and penalties; serious incidents can lead to acute, one-time extraordinary expenses and contingent liabilities from legal and/or regulatory actions. In addition, health and safety incidents can result in project delays and downtime that raise project costs and lower profitability. Companies that seek to properly train both permanent and temporary employees and build a strong safety culture could reduce their risk profile while potentially gaining a competitive advantage in new project bids and proposals as a result of strong workforce health and safety track records.

Accounting Metrics

IF-EN-320a.1. (1) Total recordable incident rate (TRIR) and (2) fatality rate for (a) direct employees and (b) contract employees

1 The entity shall disclose its total recordable incident rate (TRIR) for work-related injuries and illnesses.

1.1 An injury or illness is considered a recordable incident if it results in any of the following: 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 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. This definition is derived from U.S. 29 CFR 1904.7.

1.2 The U.S. Occupational Safety and Health Administration (OSHA) provides additional resources for determining if injuries or illnesses are considered recordable incidents in its guidance for OSHA Forms 300, 300A, and 301.

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

3 Rates shall be calculated as: (statistic count × 200,000) / hours worked

3.1 The U.S. Bureau of Labor Statistics (BLS) provides additional guidance for the calculation of rates in, "How to Compute a Firm's Incidence Rate for Safety Management" and "Incidence Rate Calculator and Comparison Tool."

4 The scope of disclosure includes work-related incidents only.

4.1 OSHA guidance for Forms 300, 300A, and 301 provides guidance on determining whether an incident is work-related, as well as definitions for exemptions for incidents that occur in the work environment but are not work-related.

5 The entity shall disclose the rates by each of the following employee categories:

5.1 Direct employees, defined as those employees on the entity's payroll, whether they are full-time, part-time, executive, labor, salary, hourly, or seasonal employees.

5.2 Contract employees, defined as those who are not on the entity's payroll, but who are supervised by the entity on a day-to-day basis, including independent contractors and those employed by third parties (e.g., temp agencies and labor brokers).

6 The scope of disclosure includes all employees regardless of employee location.

Lifecycle Impacts of Buildings & Infrastructure

Topic Summary

Buildings and major infrastructure projects are among the largest users of natural resources in the economy; during construction, these materials include iron and steel products, cement, concrete, bricks, drywall, wallboards, glass, insulation, fixtures, doors, and cabinetry, among others. Once completed, and during their daily use, these projects often consume significant amounts of resources in the form of energy and water (for a discussion on direct environmental impacts from project construction see the Environmental Impacts of Project Development topic). Therefore, the sourcing of construction materials and the everyday use of buildings and infrastructure can contribute to direct and indirect greenhouse gas (GHG) emissions, global and/or local resource constraints, water stress, and negative human health outcomes. Client and regulatory pressures to develop a sustainable built environment are contributing to the growth of markets intended to reduce the lifecycle impacts of buildings and infrastructure projects. In response, various international sustainable building and infrastructure certification schemes have been developed to assess, among other aspects, a project's use-phase energy and water efficiency, impacts on human health, and the use of sustainable construction and building materials. As a result, multiple opportunities are being created for industries in the value chain—from suppliers that can provide such materials, to companies in the Engineering & Construction Services industry that can provide sustainability-oriented project design, consulting, and construction services. Such services can provide a competitive advantage and revenue growth opportunities as client demand for economically advantageous sustainable projects increases and related regulations evolve. Companies unable to effectively integrate such considerations into their services may stand to lose market share in the long term.

Accounting Metrics

IF-EN-410a.1. Number of (1) commissioned projects certified to a third-party multi-attribute sustainability standard and (2) active projects seeking such certification

1 The entity shall disclose (1) the number of projects commissioned during the reporting period that were certified to a third-party multi-attribute sustainability standard.

1.1 The scope of third-party multi-attribute sustainability standards is limited to standards or certifications that, at a minimum, address the following aspects of building or infrastructure design and construction:

1.1.1 Energy efficiency;

1.1.2 Water conservation;

1.1.3 Material and resource efficiency; and

1.1.4 Indoor environmental quality.

1.2 Examples of third-party multi-attribute sustainability standards include:

1.2.1 BREEAM®

1.2.2 Green Globes®

1.2.3 Institute for Sustainable Infrastructure's (ISI) Envision®

1.2.4 LEED®

2 The entity shall disclose (2) the number of active projects that sought certification to a third-party multi-attribute sustainability standard during the reporting period.

2.1 The scope of active projects includes all buildings and infrastructure projects actively under development at the close of the reporting period, including, but not limited to, those in the design and construction stages.

2.2 The scope of active projects excludes projects that were commissioned during the reporting period.

3 The entity shall disclose the third-party multi-attribute sustainability standard(s) to which projects are certified or seeking certification.

4 The scope of disclosure is limited to projects in which the entity had a direct role in design, engineering, procurement and/or construction of the building or infrastructure project.

5 The scope of disclosure includes buildings (such as residential, commercial and retail, government, healthcare, and offices) and other infrastructure projects (such as transportation, oil and gas, electrical grid, renewable energy, water supply distribution, and water treatment).

6 The entity may discuss sustainability standards or guidelines that it implements into its building and infrastructure project design and construction that are not third-party verified.

IF-EN-410a.2. Discussion of process to incorporate operational-phase energy and water efficiency considerations into project planning and design

1 The entity shall provide a discussion of the process it uses to incorporate operational-phase energy and water efficiency considerations into project planning and design.

1.1 Operational-phase energy and water efficiency considerations are solutions aimed at reducing and optimizing operational use of energy and water, including, but not limited to, water collection and reuse designs, repair and retrofits, improved insulation and material use, shading devices, energy procurement, and use of energy- and water-efficient devices and lighting.

1.2 Relevant information to disclose includes, but is not limited to:

1.2.1 The actions taken to incorporate such considerations, such as design solutions, technological solutions, material use, modeling of energy and water use

1.2.2 The geographic markets where the entity operates in, including current and expected future energy and water efficiency regulations, potential constraints on water and/or energy resources, and stakeholder demands in those markets

1.2.3 Whether these energy and water efficiency solutions serve as competitive advantages in project bids and proposals, and how the entity communicates performance—including any perceived competitive advantages—to project owners

1.2.4 How the entity communicates long-term cost-benefit analyses to project owners or developers, including the potential savings from energy efficiency projects based on past performance of energy efficiency projects

2 The entity shall describe its approach to assessing risks associated with operational-phase energy and water efficiency considerations, including internal policies, practices, and procedures.

3 The entity shall describe its use of codes, guidelines, and standards that address operational-phase energy and water efficiency, where applicable.

3.1 The entity may discuss how its energy and water efficiency efforts exceed building code requirements.

4 The scope of disclosure excludes environmental impacts associated with project construction, as well as codes, guidelines, and standards associated with project construction, which are both included within the scope of IF-EN-160a.2.

Climate Impacts of Business Mix

Topic Summary

The Engineering & Construction Services industry works with clients that are exposed to potentially disruptive climate regulation as well as those that play a role in addressing climate change. Certain types of construction projects are significant contributors toward climate change due to the greenhouse gases (GHGs) emitted during their use phase. Projects that are likely to contribute to global GHG emissions include those in the oil and gas space and other extractives industries, as well as large buildings. While some infrastructure projects, such as renewable energy projects, are designed to reduce GHG emissions, many types of projects present trade-offs. Mass transit systems, for example, may be direct contributors of GHG emissions while lowering net emissions once the benefits offered by the system are factored in. Several companies in the industry generate a substantial share of revenues and profits from clients in carbon-intensive industries and whose future capital expenditures may be at risk due to evolving climate regulations. Downside risks may manifest through project delays, cancellations, and diminished long-term revenue growth opportunities. On the other hand, companies that specialize in infrastructure projects that contribute to GHG mitigation could develop competitive advantages as they continue to focus on these growing markets. As the industry and its customers continue to operate within an uncertain business environment and face increasing environmental and regulatory requirements, assessing and communicating the risks and opportunities stemming from climate change that are embedded in a company's backlog and future business prospects can be helpful for investors in assessing the overall impact of climate change on the business.

Accounting Metrics

IF-EN-410b.1. Amount of backlog for (1) hydrocarbon-related projects and (2) renewable energy projects

1 The entity shall disclose the amount of its backlog associated with (1) hydrocarbon-related projects.

1.1 Backlog is defined as the value of projects not completed as of the close of the reporting period (i.e., revenue contractually expected in the future but that has not been recognized), or is defined by the entity, consistent with its existing disclosure of backlog. Backlog may also be referred to as revenue backlog or unsatisfied performance obligations.

1.2 Hydrocarbon-related projects are defined as any type of project directly associated with the hydrocarbon value chain, including, but not limited to: hydrocarbon exploration, extraction, development, production, and/or transportation; hydrocarbon infrastructure services and maintenance; hydrocarbon power generation; and hydrocarbon-related downstream services.

1.2.1 Examples of hydrocarbon-related projects include, but are not limited to: any project directly associated with oil, gas, or coal production; transportation; refining; and fossil fuel-based electricity generation.

2 If a significant portion of the entity's backlog in hydrocarbon-related projects is associated with natural gas power generation projects, the entity may provide supplemental disclosures describing this proportion of backlog and the sustainability impacts of such projects relative to alternatives or baseline scenarios.

3 The entity may provide a description of the sustainability implications of hydrocarbon-related projects, including, but not limited to, project descriptions, categorizations by resource type, expected sustainability impacts, and risks related to project completion and/or conversion to revenue.

4 The entity shall disclose the amount of its backlog associated with (2) renewable energy projects.

4.1 Renewable energy is defined as energy from sources that are replenished at a rate greater than or equal to their rate of depletion, consistent with U.S. Environmental Agency Protection (EPA) definitions, such as geothermal, wind, solar, hydro, and biomass.

5 The entity shall exclude from its calculations and disclosures of backlog any amount of an order backlog cancellation that re-enters order backlog during the same reporting period as a result of a project owner's successful re-planning of the project.

6 The scope of disclosure is limited to projects where the entity provided engineering, architecture, design, construction, installation, planning, consulting, repair, and/or maintenance services, or other similar services.

IF-EN-410b.2. Amount of backlog cancellations associated with hydrocarbon-related projects

1 The entity shall disclose the amount of its total backlog associated with hydrocarbon-related projects of any type that was cancelled during the reporting period for any reason.

1.1 Backlog is defined as the value of projects not completed as of the close of the reporting period (i.e., revenue contractually expected in the future but that has not been recognized), or is defined by the entity, consistent with its existing disclosure of backlog. Backlog may also be referred to as revenue backlog or unsatisfied performance obligations.

1.2 Backlog cancellations are defined as the amount of backlog cancelled, reduced, terminated, or deferred such that it no longer meets the definition of backlog, or removed from the backlog for any reason other than conversion to revenue or currency exchange rate fluctuations.

1.2.1 Backlog cancellations include cancellations that occur for any reason, including, but not limited to, a customer's failure to obtain necessary project permitting or financing, a customer's voluntary project cancellation, and reduction in project scope due to financial constraints.

1.2.2 The scope of backlog cancellations excludes cancellations associated with decommissioning projects.

1.3 Hydrocarbon-related projects are defined as any type of project directly associated with the hydrocarbon value chain, including, but not limited to: hydrocarbon exploration, extraction, development, production, and/or transportation; hydrocarbon infrastructure services and maintenance; hydrocarbon power generation; and hydrocarbon-related downstream services.

1.3.1 Examples of hydrocarbon-related projects include, but are not limited to: any project directly associated with oil, gas, or coal production; transportation; refining; and fossil fuel-based electricity generation.

2 The scope of disclosure is limited to projects where the entity provided engineering, architecture, design, construction, installation, planning, consulting, repair, and/or maintenance services, or other similar services.

3 The entity may discuss specific backlog cancellations, including the root cause and corrective actions taken to prevent future backlog cancellations.

IF-EN-410b.3. Amount of backlog for non-energy projects associated with climate change mitigation

1 The entity shall disclose the amount of its backlog for non-energy projects associated with climate change mitigation.

1.1 Backlog is defined as the value of projects not completed as of the close of the reporting period (i.e., revenue contractually expected in the future but that has not been recognized), or is defined by the entity, consistent with its existing disclosure of backlog. Backlog may also be referred to as revenue backlog or unsatisfied performance obligations.

1.2 Non-energy projects are defined as projects that are not directly associated with the energy value, where the energy value chain includes, but is not limited to: hydrocarbon exploration, extraction, development, production, and transportation; power generation projects (hydrocarbon and renewable); and energy infrastructure services and maintenance.

1.3 Climate change mitigation is defined by the Intergovernmental Panel on Climate Change (IPCC) as an anthropogenic intervention to reduce the sources or enhance the sinks of greenhouse gases (GHG).

2 The scope of disclosure shall only include projects that are significantly motivated by, or undertaken in response to, climate change mitigation. Such climate change mitigation is not required to be the primary project motivation, but it must be a significant motivating factor for project development and implementation.

2.1 Examples of projects that may be associated with climate change mitigation include, but are not limited to: mass transportation systems; alternative, low-carbon transportation systems; carbon capture and storage; hydrocarbon-related decommissioning projects; and energy efficiency infrastructure retrocommissionings.

3 The scope of disclosure shall only include projects that provide significant climate change mitigation relative to a baseline scenario, or baseline emissions, defined as the GHG emissions that may occur without project implementation.

3.1 The entity may use or reference all or part of the "European Investment Bank Induced GHG Footprint" methodology for assessing relative emissions (including absolute emissions and/or baseline emissions).

3.2 The entity may use alternative methodologies or proprietary methodologies for assessing climate change mitigation relative to a baseline scenario or baseline emissions.

4 The scope of disclosure shall exclude all backlog directly associated with the energy value chain, which may be equivalent to backlog included in IF-EN-410b.1, with the exception of hydrocarbon-related decommissioning projects.

5 The entity may exclude backlog associated with decommissioning projects.

6 The scope of disclosure is limited to buildings and infrastructure projects where the entity provided engineering, architecture, design, construction, installation, planning, consulting, repair, and/or maintenance services, or other similar services.

Business Ethics

Topic Summary

Companies in the industry face risks associated with bribery, corruption, and anti-competitive practices. This is due to several factors, including the global operations of many companies, the need to manage multiple local agents and subcontractors, the complexity of project financing and project permitting, the magnitude of the contracts involved in building large infrastructure projects, and the competitive process necessary to secure contracts with private and public entities. Ethical breaches can result in investigations by authorities, as well as large fines, settlement costs, and damaged reputations. Such breaches may include violations of anti-bribery laws, such as paying government officials in order to gain project contracts. They may also include unethical bidding practices, such as complementary bidding (e.g., submitting an artificially high or otherwise unacceptable bid for a contract that a bidder does not intend to win) and bid-pooling (e.g., coordinating to split contracts and assure each bidder is awarded a certain amount of work). Moreover, companies with poor track records can be barred from working on future projects, resulting in lost revenue. Developing an ethical culture through employee training, effective governance structures, and internal controls is critical for companies to mitigate risks associated with business ethics.

Accounting Metrics

IF-EN-510a.1. (1) Number of active projects and (2) backlog in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index

1 The entity shall disclose (1) the number of active projects located in the countries with the 20 lowest rankings in Transparency International's Corruption Perception Index (CPI).

1.1 The scope of active projects includes all buildings and infrastructure projects actively under development at the close of the reporting period, including, but not limited to, those in the design and construction stages.

1.2 The scope of active projects excludes projects that were commissioned during the reporting period.

1.3 The entity shall use the most current version of the CPI via Transparency International.

1.4 The 20 lowest numerical ranks shall be used to generate the scope of countries; therefore, due to the fact that multiple countries may share ranks, the scope may include more than 20 countries.

2 The entity shall disclose (2) the amount of backlog for projects located in the countries with the 20 lowest rankings in Transparency International's CPI.

2.1 Backlog is defined as the value of projects not completed as of the close of the reporting period (i.e., revenue contractually expected in the future but that has not been recognized), or is defined by the entity, consistent

with its existing disclosure of backlog. Backlog may also be referred to as revenue backlog or unsatisfied performance obligations.

3 The scope of disclosure is limited to buildings and infrastructure projects where the entity provided engineering, architecture, design, construction, installation, planning, consulting, repair, and/or maintenance services, or other similar services.

4 The entity may provide a discussion of projects that are located in countries with low rankings in the index but that present low business ethics risks.

5 The entity may provide a discussion of projects that are located in countries that are not among the 20 lowest rankings in the index but that present unique or high business ethics risks.

Note to **IF-EN-510a.1**

1 The entity shall provide a brief description of its approach to managing ethical risks specific to the countries with low rankings in the index where the entity has active projects and/or backlog.

IF-EN-510a.2. Total amount of monetary losses as a result of legal proceedings associated with charges of (1) bribery or corruption and (2) anti-competitive practices

1 The entity shall disclose the total amount of monetary losses it incurred during the reporting period as a result of legal proceedings associated with charges of (1) bribery or corruption.

1.1 The scope of legal proceedings associated with charges of bribery or corruption includes, but is not limited to, the enforcement of relevant regulations, such as the U.K. Bribery Act 2010 and the U.S. Foreign Corrupt Practices Act of 1977 (FCPA).

2 The entity shall disclose the total amount of monetary losses it incurred during the reporting period as a result of legal proceedings associated with charges of (2) anti-competitive behavior and/or practices.

2.1 The scope of anti-competitive behavior and practices includes complementary bidding, defined as the practice of submitting an artificially high or unacceptable bid for a contract that the bidder does not intend to win. Complementary bidding is also referred to as "cover bidding," "cover pricing," and "courtesy bidding."

2.2 The scope of anti-competitive behavior and practices includes bid-pooling, defined as the practice of coordinating to split contracts and assure each bidder is awarded a certain amount of work.

2.3 The scope of legal proceedings associated with charges of anti-competitive behavior and practices includes, but is not limited to, the enforcement of relevant regulations, such as laws and regulations on price fixing, conflicts of interest, antitrust behavior, or services that limit competition, including violations of the U.S. Sherman Antitrust Act of 1890 and the U.S. Clayton Antitrust Act of 1914.

3 The legal proceedings shall include any adjudicative proceeding in which the entity was involved, whether before a court, a regulator, an arbitrator, or otherwise.

4 The losses shall include all monetary liabilities to the opposing party or to others (whether as the result of settlement or verdict after trial or otherwise), including fines and other monetary liabilities incurred during the reporting period as a result of civil actions (e.g., civil judgments or settlements), regulatory proceedings (e.g., penalties, disgorgement, or restitution), and criminal actions (e.g., criminal judgment, penalties, or restitution) brought by any entity (e.g., governmental, business, or individual).

5 The scope of monetary losses shall exclude legal and other fees and expenses incurred by the entity in its defense.

Note to **IF-EN-510a.2**

1 The entity shall briefly describe the nature (e.g., judgment or order issued after trial, settlement, guilty plea, deferred prosecution agreement, non-prosecution agreement) and context (e.g., violations of conflicts of interest disclosures) of all monetary losses as a result of legal proceedings.

2 The entity shall describe any corrective actions it has implemented as a result of the legal proceedings. This may include, but is not limited to, specific changes in operations, management, processes, products, business partners, training, or technology.

IF-EN-510a.3. Description of policies and practices for prevention of (1) bribery and corruption, and (2) anti-competitive behavior in the project bidding processes

1 The entity shall describe its management system and due diligence procedures for assessing and managing risks related to (1) bribery and corruption, and (2) anti-competitive behavior, throughout its project bidding and approval processes.

1.1 The scope of corruption and bribery includes practices relating to the abuse of entrusted power for personal gain, including payments to government officials to assist in obtaining or retaining business.

1.2 The scope of anti-competitive behavior includes practices relating to conflicts of interest, accuracy of data, fraud, price fixing, antitrust behavior, complementary bidding, bid-pooling, and other similar practices that limit competition.

1.2.1 Complementary bidding is defined as the practice of submitting an artificially high or unacceptable bid for a contract that the bidder does not intend to win. Complementary bidding is also referred to as "cover bidding," "cover pricing," and "courtesy bidding."

1.2.2 Bid-pooling is defined as the practice of coordinating to split contracts and assure each bidder is awarded a certain amount of work.

1.3 Relevant aspects of a management system to describe may include employee awareness programs, anti-corruption policies, training, internal mechanisms for reporting and following up on suspected violations, and implementation of codes of ethics as well as investigations, enforcement, and disciplinary procedures relating to:

1.3.1 Management of conflicts of interest, including mitigation and transparency of potential or perceived conflicts;

1.3.2 Maintenance and reporting of accurate data;

1.3.3 Protection of confidential business information, including accuracy, retention, and destruction of business records and documents;

1.3.4 Avoidance of corruption, including identification of suspicious activities and implementation of whistleblower protection programs;

1.3.5 Privacy guidelines and security clearances for gaining access to sensitive and classified data;

1.3.6 Employee training on relevant regulations;

1.3.7 Mechanisms for internal reporting about violations or concerns regarding business ethics or compliance; and

1.3.8 Disciplinary actions for violations of business ethics policies.

2 Where relevant, the entity may describe the implementation of the following third-party guidelines, principles, and/or codes in its value chain:

2.1 International Chamber of Commerce: Rules of Conduct and Recommendations to Combat Extortion and Bribery

2.2 Key Organization for Economic Co-operation and Development guidelines

2.3 Transparency International: Business Principles for Countering Bribery

2.4 United Nations Global Compact: 10th Principle

2.5 World Economic Forum: Partnering Against Corruption Initiative

3 The scope of disclosure includes assessing and managing the relevant risks associated with the entity's business partners, including, but not limited to, customers, suppliers, contractors, and subcontractors.

4 The entity may describe its compliance with industry best practices, including codes of conduct and codes of ethics, as a measure of its management approach to ensuring quality of work and professional integrity.

SASB STANDARDS

Now part of IFRS Foundation

sasb.org/contact