



SUSTAINABILITY ACCOUNTING STANDARD
RESOURCE TRANSFORMATION SECTOR

ELECTRICAL & ELECTRONIC EQUIPMENT

Sustainability Accounting Standard

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Sustainable Industry Classification System™ (SICS™) #RT0202

Prepared by the
Sustainability Accounting Standards Board®

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EXPOSURE DRAFT FOR PUBLIC COMMENT

ELECTRICAL & ELECTRONIC EQUIPMENT

Sustainability Accounting Standard

About SASB

The Sustainability Accounting Standards Board (SASB) provides sustainability accounting standards for use by publicly listed corporations in the U.S. in disclosing material sustainability information for the benefit of investors and the public. SASB standards are designed for disclosure in mandatory filings to the Securities and Exchange Commission (SEC), such as the Form 10-K and 20-F. SASB is an independent 501(c)3 nonprofit organization. Through 2016, SASB is developing standards for more than 80 industries in 10 sectors.

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INTRODUCTION

Purpose & Structure

This document contains the SASB Sustainability Accounting Standard (SASB Standard) for Electrical & Electronic Equipment industry.

SASB Standards are comprised of **(1) disclosure guidance and (2) accounting standards on sustainability topics** for use by U.S. and foreign public companies in their annual filings (Form 10-K or 20-F) with the U.S. Securities and Exchange Commission (SEC). To the extent relevant, SASB Standards may also be applicable to other periodic mandatory filings with the SEC, such as the Form 10-Q, Form S-1, and Form 8-K.

SASB's disclosure guidance identifies sustainability topics at an industry level, which may be material— depending on a company's specific operating context— to a company within that industry.

Each company is ultimately responsible for determining which information is material and is therefore required to be included in its Form 10-K or 20-F and other periodic SEC filings.

SASB's accounting standards provide companies with standardized accounting metrics to account for performance on industry-level sustainability topics. When making disclosure on sustainability topics, companies adopting SASB's accounting standards will help to ensure that disclosure is standardized and therefore useful, relevant, comparable, and auditable.

Industry Description

The Electrical & Electronic Equipment industry includes companies that develop and manufacture a broad range of electric components, including power generation equipment, energy transformers, electric motors, switchboards, automation equipment, heating and cooling equipment, lighting, and transmission cables. This industry is characterized by large and highly complex supply chains, as many of these companies compete globally and source materials from all over the world. The electrical equipment industry has a large opportunity going forward as demand for new energy-efficient products increases and as aging electric infrastructure needs replacement. Companies will have to navigate key competitive pricing trends, along with specific regulations, significant environmental issues, and social issues affecting the industry or its customers.

Guidance for Disclosure of Material Sustainability Topics in SEC Filings

1. Industry-Level Sustainability Disclosure Topics

For the Electrical & Electronic Equipment industry, SASB has identified the following sustainability disclosure topics:

Energy Management	Product Lifecycle Management & Innovation
Hazardous Materials Management	Business Ethics & Competitive Behavior
Product Safety	Materials Sourcing
Employee Health & Safety	

2. Company-Level Determination and Disclosure of Material Sustainability Topics

Sustainability disclosures are governed by the same laws and regulations that govern disclosures by securities issuers generally. According to the U.S. Supreme Court, a fact is material if, in the event such fact is omitted from a particular disclosure, there is “a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the ‘total mix’ of the information made available.”^{1,2}

SASB has attempted to identify those sustainability topics that it believes may be material for all companies within each SICS industry. SASB recognizes, however, that each company is ultimately responsible for determining what is material to it.

Regulation S-K, which sets forth certain disclosure requirements associated with Form 10-K and other SEC filings, requires companies, among other things, to describe in the Management’s Discussion and Analysis of Financial Condition and Results of Operations (MD&A) section of Form 10-K “any known trends or uncertainties that have had or that the registrant reasonably expects will have a material favorable or unfavorable impact on net sales or revenues or income from continuing operations. If the registrant knows of events that will cause a material change in the relationship between costs and revenues (such as known future increases in costs of labor or materials or price increases or inventory adjustments), the change in the relationship shall be disclosed.”²

Furthermore, Instructions to Item 303 state that the MD&A “shall focus specifically on material events and uncertainties known to management that would cause reported financial information not to be necessarily indicative of future operating results or of future financial condition.”²

In determining whether a trend or uncertainty should be disclosed, the SEC has stated that management should use a two-part assessment based on probability and magnitude:

First, a company is not required to make disclosure about a known trend or uncertainty if its management determines that such trend or uncertainty is not reasonably likely to occur.

Second, if a company’s management cannot make a reasonable determination of the likelihood of an event or uncertainty, then disclosure is required unless management determines that a material effect on the registrant’s financial condition or results of operation is not reasonably likely to occur.

¹ TSC Industries v. Northway, Inc., 426 U.S. 438 (1976).

² C.F.R. 229.303(Item 303)(a)(3)(ii).

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3. Sustainability Accounting Standard Disclosures in Form 10-K

a. Management's Discussion and Analysis

Companies should consider making disclosure on sustainability topics as a complete set in the MD&A, in a sub-section titled "**Sustainability Accounting Standards Disclosures.**"³

b. Other Relevant Sections of Form 10-K

In addition to the MD&A section, companies should consider disclosing sustainability information in other sections of Form 10-K, as relevant, including:

Description of business—Item 101 of Regulation S-K requires a company to provide a description of its business and its subsidiaries. Item 101(c)(1)(xii) expressly requires disclosure regarding certain costs of complying with environmental laws:

Appropriate disclosure also shall be made as to the material effects that compliance with Federal, State and local provisions which have been enacted or adopted regulating the discharge of materials into the environment, or otherwise relating to the protection of the environment, may have upon the capital expenditures, earnings and competitive position of the registrant and its subsidiaries.

Legal proceedings—Item 103 of Regulation S-K requires companies to describe briefly any material pending or contemplated legal proceedings. Instructions to Item 103 provide specific disclosure requirements for administrative or judicial proceedings arising from laws and regulations that target discharge of materials into the environment or that are primarily for the purpose of protecting the environment.

Risk factors—Item 503(c) of Regulation S-K requires filing companies to provide a discussion of the most significant factors that make an investment in the registrant speculative or risky, clearly stating the risk and specifying how a particular risk affects the particular filing company.

c. Rule 12b-20

Securities Act Rule 408 and Exchange Act Rule 12b-20 require a registrant to disclose, in addition to the information expressly required by law or regulation, "such further material information, if any, as may be necessary to make the required statements, in light of the circumstances under which they are made, not misleading."

More detailed guidance on disclosure of material sustainability topics can be found in the **SASB Conceptual Framework**, available for download via <http://www.sasb.org/approach/conceptual-framework/>.

³ SEC [Release Nos. 33-8056; 34-45321; FR-61] [Commission Statement about Management's Discussion and Analysis of Financial Condition and Results of Operations](#): "We also want to remind registrants that disclosure must be both useful and understandable. That is, management should provide the most relevant information and provide it using language and formats that investors can be expected to understand. Registrants should be aware also that investors will often find information relating to a particular matter more meaningful if it is disclosed in a single location, rather than presented in a fragmented manner throughout the filing."

Guidance on Accounting of Material Sustainability Topics

For sustainability disclosure topics in the Electrical & Electronic Equipment industry, SASB identifies accounting metrics.

SASB recommends that each company consider using these sustainability accounting metrics when disclosing its performance with respect to each of the sustainability topics it has identified as material.

As appropriate—and consistent with Rule 12b-20⁴—for each sustainability topic, companies should consider including a narrative description of any material factors necessary to ensure completeness, accuracy, and comparability of the data reported. Where not addressed by the specific accounting metrics, but relevant, the registrant should discuss the following, related to the topic:

- The registrant's **strategic approach** to managing performance on material sustainability issues;

- The registrant's competitive positioning;

- The **degree of control** the registrant has;

- Any measures the registrant has undertaken or plans to undertake to improve performance; and

- Data for the registrant's **last three completed fiscal years** (when available).

SASB recommends that registrants use SASB Standards specific to their primary industry as identified in the [Sustainable Industry Classification System \(SICS™\)](#). If a registrant generates significant revenue from multiple industries, SASB recommends that it consider the materiality of the sustainability issues that SASB has identified for those industries and disclose the associated SASB accounting metrics.

Users of the SASB Standards

The SASB Standards are intended for companies that engage in public offerings of securities registered under the Securities Act of 1933 (the Securities Act) and those that issue securities registered under the Securities Exchange Act of 1934 (the Exchange Act),⁵ for use in SEC filings, including, without limitation, annual reports on Form 10-K (Form 20-F for foreign issuers), quarterly reports on Form 10-Q, current reports on Form 8-K, and registration statements on Forms S-1 and S-3. Nevertheless, disclosure with respect to the SASB Standards is not required or endorsed by the SEC or other entities governing financial reporting, such as FASB, GASB, or IASB.

⁴ SEC Rule 12b-20: "In addition to the information expressly required to be included in a statement or report, there shall be added such further material information, if any, as may be necessary to make the required statements, in the light of the circumstances under which they are made, not misleading."

⁵ Registration under the Securities Exchange Act of 1934 is required (1) for securities to be listed on a national securities exchange, such as the New York Stock Exchange, the NYSE Amex, and the NASDAQ Stock Market, or (2) if (A) the securities are equity securities and are held by more than 2,000 persons (or 500 persons who are not accredited investors) and (B) the company has more than \$10 million in assets.

Scope of Disclosure

Unless otherwise specified, SASB recommends:

That a registrant disclose on sustainability issues and metrics for itself and for entities in which the registrant has a controlling interest and therefore are consolidated for financial reporting purposes (controlling interest is generally defined as ownership of 50% or more of voting shares);⁶

That for consolidated entities, disclosures be made, and accounting metrics calculated, for the whole entity, regardless of the size of the minority interest; and

That information from unconsolidated entities not be included in the computation of SASB accounting metrics. A registrant should disclose, however, information about unconsolidated entities to the extent that the registrant considers the information necessary for investors to understand its performance with respect to sustainability issues (typically, this disclosure would be limited to risks and opportunities associated with these entities).

Reporting Format

Activity Metrics and Normalization

SASB recognizes that normalizing accounting metrics is important for the analysis of SASB disclosures.

SASB recommends that a registrant disclose any basic business data that may assist in the accurate evaluation and comparability of disclosure, to the extent that they are not already disclosed in the Form 10-K (e.g., revenue, EBITDA, etc.).

Such data—termed “activity metrics”—may include high-level business data such as total number of employees, quantity of products produced or services provided, number of facilities, or number of customers. It may also include industry-specific data such as plant capacity utilization (e.g., for specialty chemical companies), number of transactions (e.g., for Internet media and services companies), hospital bed days (e.g., for health care delivery companies), or proven and probable reserves (e.g., for oil and gas exploration and production companies).

Activity metrics disclosed should:

Convey contextual information that would not otherwise be apparent from SASB accounting metrics.

Be deemed generally useful for users of SASB accounting metrics (e.g., investors) in performing their own calculations and creating their own ratios.

Be explained and consistently disclosed from period to period to the extent they continue to be relevant. However, a decision to make a voluntary disclosure in one period does not obligate a continuation of that disclosure if it is no longer relevant or if a better metric becomes available.

⁶ See U.S. GAAP consolidation rules (Section 810).
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Where relevant, SASB recommends specific activity metrics that—at a minimum—should accompany SASB accounting metric disclosures.

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of units produced by product category ⁷	Quantitative	Number	RT0202-A
Number of employees, percentage in manufacturing role	Quantitative	Number, Percentage (%)	RT0202-B

Units of Measure

Unless specified, disclosures should be reported in International System of Units (SI units).

Uncertainty

SASB recognizes that there may be inherent uncertainty when disclosing certain sustainability data and information. This may be related to variables such as the imperfectness of third-party reporting systems or the unpredictable nature of climate events. Where uncertainty around a particular disclosure exists, SASB recommends that the registrant should consider discussing its nature and likelihood.

Estimates

SASB recognizes that scientifically-based estimates, such as the reliance on certain conversion factors or the exclusion of *de minimis* values, may be necessary for certain quantitative disclosures. Where appropriate, SASB does not discourage the use of such estimates. When using an estimate for a particular disclosure, SASB expects that the registrant discuss its nature and substantiate its basis.

Timing

Unless otherwise specified, disclosure shall be for the registrant's fiscal year.

Limitations

There is no guarantee that SASB Standards address all sustainability impacts or opportunities associated with a sector, industry, or company, and therefore, a company must determine for itself the topics—sustainability-related or otherwise—that warrant discussion in its SEC filings.

Disclosure under SASB Standards is voluntary. It is not intended to replace any legal or regulatory requirements that may be applicable to user operations. Where such laws or regulations address legal or regulatory topics, disclosure under SASB Standards is not meant to supersede those requirements. Disclosure according to SASB Standards shall not be construed as demonstration of compliance with any law, regulation, or other requirement.

SASB Standards are intended to be aligned with the principles of materiality enforced by the SEC. However, SASB is not affiliated with or endorsed by the SEC or other entities governing financial reporting, such as FASB, GASB, or IASB.

⁷ Note to RT0202-A – The registrant shall indicate the number of units produced during the fiscal year, whether they were manufactured in its own facilities or they were produced by contract manufacturers or suppliers. Disclosure shall be made for each of the following production categories that apply, which correspond to Level 3 of the Bloomberg Industry Classification System (BICS) as mapped to the Resource Transformation sector in the Sustainable Industry Classification System (SICS): Commercial & Residential Building Equipment & Systems, Electrical Components, Industrial Automation Controls, Measurement Instruments, Power Generation Equipment, Power Transmission, Distribution, & Automation Equipment, and Utility Networks.

Forward-looking Statements

Disclosures on sustainability topics can involve discussion of future trends and uncertainties related to the registrant's operations and financial condition, including those influenced by external variables (e.g., environmental, social, regulatory, and political). Companies making such disclosures should familiarize themselves with the safe harbor provisions of Section 27A of the Securities Act and Section 21E of the Exchange Act, which preclude civil liability for material misstatements or omissions in such statements if the registrant takes certain steps, including, among other things, identifying the disclosure as "forward-looking" and accompanying such disclosure with "meaningful cautionary statements identifying important factors that could cause actual results to differ materially from those in the forward-looking statements."

Assurance

In disclosing to SASB Standards, it is expected that registrants disclose with the same level of rigor, accuracy, and responsibility as they apply to all other information contained in their SEC filings.

SASB encourages registrants to use independent assurance (attestation); for example, an Examination Engagement to AT Section 101.

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Table 1. Sustainability Disclosure Topics & Accounting Metrics

TOPIC	ACCOUNTING METRIC	CATEGORY	UNIT OF MEASURE	CODE
Energy Management	Total energy consumed, percentage grid electricity, percentage renewable	Quantitative	Gigajoules (GJ), Percentage (%)	RT0202-01
Hazardous Materials Management	Amount of hazardous waste, percentage recycled	Quantitative	Tons (t), Percentage (%)	RT0202-02
	Number and aggregate quantity of reportable releases and spills, quantity recovered	Quantitative	Number, Kilograms (kg)	RT0202-03
Product Safety	Number of recalls and total units recalled ⁸	Quantitative	Number	RT0202-04
	Amount of legal and regulatory fines and settlements associated with product safety ⁹	Quantitative	U.S. Dollars (\$)	RT0202-05
Employee Health & Safety	(1) Total Recordable Injury Rate (TRIR) and (2) Near Miss Frequency Rate	Quantitative	Rate	RT0202-06
	Discussion of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks	Discussion and Analysis	n/a	RT0202-07
Product Lifecycle Management & Innovation	Percentage of products by revenue that contain IEC 62474 declarable substances ¹⁰	Quantitative	Percentage (%) by revenue	RT0202-08
	Percentage of eligible products by revenue meeting ENERGY STAR [®] criteria	Quantitative	Percentage (%) by revenue	RT0202-09
	Percentage of products from remanufactured or reused parts	Quantitative	Percentage (%) by COGS	RT0202-10
	Total energy cost savings achieved through energy performance contracts	Quantitative	U.S. Dollars	RT0202-11

⁸ Note to RT0202-04 – Disclosure shall include a discussion of notable recalls, such as those that affected a significant number of units of one model or those related to a serious injury or fatality.

⁹ Note to RT0202-05 – Disclosure shall include a description of fines and settlements and corrective actions implemented in response to events.

¹⁰ Note to RT0202-08 – Disclosure shall include a discussion of approach to managing the use of IEC 62474 declarable substances.

Table 1. Sustainability Disclosure Topics & Accounting Metrics (cont.)

TOPIC	ACCOUNTING METRIC	CATEGORY	UNIT OF MEASURE	CODE
Business Ethics & Competitive Behavior	Description of the management system for prevention of corruption and bribery throughout the value chain	Discussion and Analysis	n/a	RT0202-12
	Amount of legal and regulatory fines and settlements associated with charges of bribery or corruption ¹¹	Quantitative	U.S. Dollars (\$)	RT0202-13
	Amount of legal and regulatory fines and settlements associated with anti-competitive practices ¹²	Quantitative	U.S. Dollars (\$)	RT0202-14
Materials Sourcing	Percentage of materials costs for items containing critical materials	Quantitative	Percentage (%) by COGS	RT0202-15
	Percentage of tungsten, tin, tantalum, and gold smelters within the supply chain that are verified conflict-free	Quantitative	Percentage (%)	RT0202-16
	Discussion of the management of risks associated with the use of critical materials and conflict minerals	Discussion and Analysis	n/a	RT0202-17

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¹¹ Note to RT0202-13 – Disclosure shall include a description of fines and settlements and corrective actions implemented in response to events.

¹² Note to RT0202-14 – Disclosure shall include a description of fines and settlements and corrective actions implemented in response to events.

Energy Management

Description

Fuel combustion onsite contributes to the Electrical & Electronic Equipment industry's direct (Scope 1) GHG emissions, while electricity purchases from the grid create indirect impacts on the climate through Scope 2 emissions. These firms are highly reliant on energy as an input for value creation due to their energy-intensive operations. Approximately half of the industry's energy need is fulfilled by electricity, while the rest is fulfilled by natural gas and other fuels. Since electricity consumption indirectly contributes to climate change and air pollution, the cost of grid electricity may increase to offset carbon tax on utilities. With manufacturing and assembly plants located in several regions, the likelihood and impact of climate change regulations will vary depending on the exact location of facilities. Companies that proactively limit their exposure to volatile energy prices and carbon prices, by fulfilling part of their energy needs from renewable sources, are likely to be better able to manage long-term regulatory risks.

Accounting Metrics

RT0202-01. Total energy consumed, percentage grid electricity, percentage renewable

- .01 The registrant shall disclose total energy consumption from all sources as an aggregate figure in gigajoules or their multiples.
- The scope includes energy purchased from sources external to the organization or produced by the organization itself (self-generated).
 - The scope includes only energy consumed by entities owned or controlled by the organization.
 - The scope includes energy from all sources, including direct fuel usage, purchased electricity, and heating, cooling, and steam energy.
- .02 In calculating energy consumption from fuels and biofuels, the registrant shall use higher heating values (HHV), also known as gross calorific values (GCV), and which are directly measured or taken from the Intergovernmental Panel on Climate Change (IPCC), the U.S. Department of Energy (DOE), or the U.S. Energy Information Administration (EIA).
- .03 The registrant shall disclose purchased grid electricity consumption as a percentage of its total energy consumption.
- .04 The registrant shall disclose renewable energy consumption as a percentage of its total energy consumption.
- The scope of renewable energy includes renewable fuel the registrant consumes, and renewable energy the registrant directly produces or purchases through a renewable power purchase agreement (PPA) that explicitly includes renewable energy certificates (RECs), or for which Green-e Energy Certified RECs are paired with grid electricity.
 - For any renewable electricity generated onsite, any RECs must be retained (i.e., not sold) and retired on behalf of the registrant in order for the registrant to claim them as renewable energy.
 - For renewable PPAs, the agreement must explicitly include and convey that RECs be retained and retired on behalf of the registrant in order for the registrant to claim them as renewable energy.

- The renewable portion of the electricity grid mix that is outside of the control or influence of the registrant is excluded from disclosure.¹³

.05 Renewable energy is defined as energy from sources that are capable of being replenished in a short time through ecological cycles, such as geothermal, wind, solar, hydro, and biomass.

- For the purposes of this disclosure, the scope of renewable energy from hydro and biomass sources are limited to the following:
 - Energy from hydro sources that are certified by the Low Impact Hydropower Institute.
 - Energy from biomass sources are limited to those that are considered “eligible renewables” according to the Green-e Energy National Standard Version 2.4 or eligible for a state Renewable Portfolio Standard.

.06 The registrant shall apply conversion factors consistently for all data reported under this disclosure, such as the use of HHVs for fuel usage (including biofuels) and conversion of kWh to gigajoules (including for electricity from solar or wind energy).

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¹³ SASB recognizes that RECs reflect the environmental attributes of renewable energy that have been introduced to the grid, and that a premium has been paid by the purchaser of the REC to enable generation of renewable energy beyond any renewable energy already in the grid mix, absent the market for RECs.

Hazardous Materials Management

Description

Electrical and electronic equipment manufacturing uses a wide variety of hazardous chemicals throughout their operations that are potential pollutants of the air, water, and soil. Examples of these hazardous compounds used in electrical equipment operations include chromium, nickel, cobalt, trichloroethylene, lead, glycol ethers, and various volatile organic compounds. These compounds are classified as hazardous substances and are, therefore, subject to EPA guidelines, such as the Resource Conservation and Recovery Act (RCRA), which regulates disposal and storage of hazardous and solid waste. Proper processing and disposal of hazardous waste materials are essential to limiting risk of remediation liabilities, fines, and regulations. In addition, companies that are able to limit the waste of input materials and recycle the waste generated may achieve significant cost savings and improve profitability.

Accounting Metrics

RT0202-02. Amount of hazardous waste, percentage recycled

.07 The amount of hazardous waste shall be calculated in metric tons, where:

- Waste is generally defined as anything for which the registrant has no further use and which would otherwise be discarded or released to the environment.
- Hazardous waste includes any Subtitle C Hazardous Waste as defined by the Resource Conservation and Recovery Act (RCRA) (40 CFR § 261). Hazardous wastes include those that display the following characteristics: ignitability, corrosivity, reactivity, or toxicity.

.08 The percentage recycled shall be calculated as the weight of waste material that was reused, plus the weight recycled, reclaimed, or remanufactured (through treatment or processing) by the registrant, plus the amount sent externally for further reuse, recycling, or remanufacturing, divided by the total weight of waste material, where:

- A hazardous waste is recycled if it is used, reused, or reclaimed. Furthermore, RCRA hazardous waste regulation makes an important distinction between materials that are used or reused without reclamation, and those that must be reclaimed before reuse. A material is reclaimed if it is processed to recover a usable product, or if it is regenerated. Common hazardous waste reclamation activities involve recovery of spent solvents (e.g., recovery of acetone) or metals (e.g., recovery of lead).¹⁴
- Reused materials are defined as those recovered products or components of products that are used for the same purpose for which they were conceived.
- Recycled and remanufactured materials are defined as waste materials that have been reprocessed or treated by means of production or manufacturing processes and made into a final product, or made into a component for incorporation into a product.
- The scope of recycled and remanufactured products includes primary recycled materials, co-products (outputs of equal value to primary recycled materials), and by-products (outputs of lesser value to primary recycled materials).
- Portions of products and materials that are disposed of in landfills are not considered recycled; only the portions of products that are directly incorporated into new products, co-products, or by-products shall be included in the percentage recycled.

¹⁴ <http://www.epa.gov/solidwaste/hazard/recycling/index.htm>

- Materials sent for further recycling include those materials that are transferred to a third party for the expressed purpose of reuse, recycling, or refurbishment.
- Materials incinerated, including for energy recovery, are not considered reused or recycled. Energy recovery is defined as the use of combustible waste as a means to generate energy through direct incineration, with or without other waste, but with recovery of the heat.

.09 Electronic waste material (e-waste) shall be considered recycled only if the registrant can demonstrate that this material was transferred to entities with third-party certification to a standard for e-waste recycling, such as Basel Action Network's e-Steward® standard or the U.S. EPA's Responsible Recycling Practices (R2) standard.

- The registrant shall disclose the standard(s) to which the entities it has transferred e-waste are compliant.

RT0202-03. Number and aggregate quantity of reportable releases and spills, quantity recovered

.10 The registrant shall disclose the total number and quantity (in kilograms) of reportable releases, where:

- Reportable releases are defined as any release of a hazardous substance in an amount equal to or greater than the reportable quantity as defined by the U.S. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).
- The number of releases shall represent any spills, leaks, emissions, discharges, injections, disposals, and abandonment releases over time, counted once at the time identified, consistent with CERCLA.
- The aggregate quantity reported shall represent the total estimated quantity released that reached the environment, and shall not be reduced by the amount of such hazardous substance subsequently recovered, evaporated, or otherwise lost, consistent with CERCLA.¹⁵

.11 The registrant may choose to disclose releases to soil and water separately. A release that qualifies as a release to both soil and water should be reported as a single release to water, with the volume properly apportioned to soil and water.

.12 The registrant shall calculate the quantity of releases recovered as the quantity of released hazardous substances (in kilograms) removed from the environment through short-term release response activities, excluding:

- Amounts that were recovered during longer-term remediation at spill sites.
- Amounts that evaporated, burned, or were dispersed.

¹⁵ <http://www.epa.gov/superfund/policy/release/rq/index.htm#info>

Product Safety

Description

Proper safety procedures, tests, and protocols for electrical equipment can help companies lower reputational risks associated with recalls, can protect sales, and can prevent injuries and even death from users of electric equipment. If current and future product quality and safety are not managed effectively, it can result in large product liability claims and potential regulation, costing companies millions of dollars. Disclosing product quality and safety metrics may provide investors with a better perspective of a company's total risk profile, and help them to gauge the magnitude and frequency of product quality and safety issues relative to industry peers.

Accounting Metrics

RT0202-04. Number of recalls and total units recalled

.13 The registrant shall disclose the number of recalls and the total number of units recalled, where:

- A recall is defined as any repair, replacement, refund, or notice/warning program intended to protect consumers from products that present a safety risk.¹⁶
- Total number of units recalled refers to the combined quantity of products that were recalled as part of any recall during the fiscal year.
- The scope of disclosure includes voluntary recalls initiated by the registrant, as well as involuntary recalls mandated by regulatory agencies. Excluded from the scope of disclosure are products provided to customers for the explicit purpose of testing.
- Involuntary recalls are those required by regulatory agencies, and are issued when a product does not comply with regulatory safety standards, or when there is a safety-related defect in a product.
- Governmental agencies with regulatory oversight include, but are not limited to, the following:
 - Consumer Product Safety Commission (CPSC)
 - Food and Drug Administration (FDA), (e.g. for electronic product radiation)
 - Occupational Safety & Health Administration (OSHA), (e.g. for industrial and commercial electrical and electronic products)

.14 The registrant may choose, in addition to total units recalled, to disclose the percentage of recalls that were (1) voluntarily and (2) involuntarily issued.

Note to RT0202-04

.15 The registrant shall discuss notable recalls, such as those that affected a significant number of products or those related to serious injury or fatality.

.16 For such recalls the registrant should provide:

- description and cause of the recall issue
- the total number of units recalled

¹⁶ Consistent with the U.S. Consumer Product Safety Commission's Recall Handbook, available online at: <http://www.cpsc.gov/PageFiles/106141/8002.pdf>

- cost to remedy the issue (in U.S. dollars)
- whether the recall was voluntary or involuntary
- corrective actions
- any other significant outcomes (e.g. legal proceedings, fatalities)

RT0202-05. Amount of legal and regulatory fines and settlements associated with product safety

.17 The registrant shall disclose the amount (excluding legal fees) of all fines or settlements associated with incidents relating to product safety, including, but not limited to, violations of the following:

- Consumer Product Safety Act
- Federal Food, Drug, and Cosmetic Act (e.g. the Electronic Product Radiation Control Provisions)
- U.S. National Electrical Code
- OSHA Safety Standards (e.g., requirements for testing and certification of electrical equipment by a Nationally Recognized Testing Laboratory [NRTL] under 29 CFR Part 1910, or by a Qualified Testing Laboratory [QTL] under 29 CFR Part 1926).

.18 Disclosure shall include civil actions (e.g., civil judgment, settlements, or regulatory penalties) and criminal actions (e.g., criminal judgment, penalties, or restitutions) taken by any entity (government, businesses, or individuals).

Note to RT0202-05

.19 The registrant shall briefly describe the nature (e.g., guilty plea, deferred agreement, or non-prosecution agreement) and context (e.g., inadequate testing or certification, etc.) of fines and settlements.

.20 The registrant shall describe any corrective actions it has implemented as a result of each incident. These may include, but are not limited to, specific changes in operations, management, processes, products, business partners, training, or technology.

.21 All disclosure shall be sufficient such that it is specific to the risks the registrant faces, but disclosure itself will not compromise the registrant's ability to maintain data privacy and security.

Employee Health & Safety

Description

Employees working in electrical and electronic equipment manufacturing facilities may be exposed to workplace health and safety risks. Ergonomic injuries can result from repeated movements. Mechanical hazards include risks to safety from moving parts and dangerous equipment. Workers are also at risk of inhaling toxic fumes or being in contact with hazardous substances that can have chronic health impacts as a result of repeated or prolonged exposure. Safety culture is critical to proactively guard against accidents or other incidents with negative environmental and social impacts. By maintaining a safe work environment and promoting a culture of safety, companies can minimize risks to their employees and, in turn, avoid direct and indirect costs associated with excessive medical expenses, litigation, work disruptions, and insurance fees.

Accounting Metrics

RT0202-06. (1) Total Recordable Injury Rate (TRIR) and (2) Near Miss Frequency Rate

- .22 For registrants whose workforce is entirely U.S.-based, the registrant shall disclose its total recordable injury rate (TRIR), as calculated and reported in the Occupational Safety and Health Administration's (OSHA) Form 300.
- OSHA guidelines provide details on determination of whether an event is a recordable occupational incident and definitions for exemptions for incidents that occurred in the work environment but are not occupational.
- .23 For registrants whose workforce includes non-U.S.-based employees, the registrant shall calculate its TRIR according to the U.S. Bureau of Labor Statistics [guidance](#) and/or using the U.S. Bureau of Labor Statistics [calculator](#).
- .24 The registrant shall disclose its Near Miss Frequency Rate (NMFR), where a near miss is defined as an incident in which no property or environmental damage or personal injury occurred, but where damage or personal injury easily could have occurred but for a slight circumstantial shift.
- The registrant should refer to organizations such as the National Safety Council (NSC) for guidance on implementing near miss reporting.
 - The registrant should disclose its process for classifying, identifying, and reporting near miss incidents.
- .25 The registrant shall disclose its TRIR and NMFR for each of the following categories of employee:
- Direct, full-time employees
 - Contract employees
- .26 The scope includes all employees, domestic and foreign.
- .27 Rates shall be calculated as: (statistic count / total hours worked) * 200,000.

RT0202-07. Discussion of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks

- .28 The registrant shall discuss efforts to assess, monitor, and reduce exposure of employees to human health hazards including, but not limited to, corrosives, sensitizers, hepatotoxins, nephrotoxins, and neurotoxins, as well as known

or suspected carcinogens, teratogens, mutagens and reprotoxins, as described by the Occupational Safety and Health Administration (OSHA).¹⁷

- The scope of disclosure shall focus on employees working in production facilities, but should include all employees as relevant.
- .29 Relevant efforts to discuss include, but are not limited to, risk assessments, participation in long-term health studies, completion of occupational exposure limit reviews, implementation of technology to control worker exposure, worker use of personal protective equipment, automation of processes, and phasing out, substituting, or using alternative materials.
- .30 The registrant may choose to discuss implementation of relevant management systems, including but not limited to, tracking safety and health metrics, management system metrics, and obtaining third-party verification.

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¹⁷ OSHA Hazard Communication Standard (29 CFR 1910.1200): <https://www.osha.gov/dsg/hazcom/ghd053107.html>
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Product Lifecycle Management & Innovation

Description

Electrical and electronic equipment companies face increasing challenges associated with environmental externalities attributed to product design, manufacturing, use, and disposal. Specifically, companies must address the environmental externalities associated with the use of toxic materials, their product's environmental efficiency during the use phase, and the impact that products have during disposal in their end-of-life stage. Furthermore, these companies can develop products that solve key economic and social issues that can create large opportunities for early developers. These innovations includes reduced toxicity, enhanced energy and water efficiency, reduced air and greenhouse gas emissions, and sustainable end-of-life disposal. Managing lifecycle impacts of products could contribute to shareholder value through improved competitive positioning, greater market share, lower regulatory demand, and reduced supply chain and health risks.

Accounting Metrics

RT0202-08. Percentage of products by revenue that contain IEC 62474 declarable substances

- .31 The registrant shall calculate the percentage as: the revenue, in U.S. dollars, from products that contain declarable substances according to International Electrotechnical Commission's IEC 62474 - Material Declaration for Products of and for the Electrotechnical Industry, divided by total revenue from electrical, electronic, and related technology products.
- .32 A product contains a declarable substance if, according to IEC 62474, it contains an amount of the substance above the "reporting threshold," is within the scope of the "reporting application" identified, and for which the "reporting requirement" is mandatory.
- .33 The IEC 62474 database of declarable substance groups and declarable substances may be [interactively queried](#), or the complete list may be downloaded as an Excel spreadsheet.

Note to RT0202-08

- .34 The registrant shall discuss its approach to managing the use of substances that appear as declarable substance groups or declarable substances in IEC 62474, including specific operational processes that take these substances into consideration.
- .35 Relevant operational processes may include, but are not limited to, product design, materials and parts procurement, product safety testing, product labeling, and product declarations (e.g. material safety data sheets).
- .36 Relevant actions to discuss may include the exclusion of substances (e.g. banned substances lists), use of material substitution assessments, product labeling, or any other methods considering usage of substances from these lists.
- .37 If the registrant assesses and manages the impact of known or potentially toxic substances with reference to other regulations, industry norms, or accepted chemical lists, it may choose to identify those practices, and it shall describe the degree of overlap with IEC 62474.

RT0202-09. Percentage of eligible products by revenue meeting ENERGY STAR® criteria

- .38 The registrant shall calculate the percentage as: the revenue, in U.S. dollars, from products meeting the requirements for ENERGY STAR certification, divided by total revenue from products eligible for ENERGY STAR certification.
 - Eligible products are those in a product category for which ENERGY STAR certification exists.

.39 The scope of disclosure includes products meeting the criteria of the most current version of the applicable ENERGY STAR standard.

- If the registrant has products certified to a previous version of an ENERGY STAR standard, it shall disclose this information, including the version of the standard to which its products are certified, a breakdown of how many products are certified to that version of the standard, and its timelines to achieve certification to the most current version of the standard.

RT0202-10. Percentage of products from remanufactured or reused parts

.40 The registrant shall disclose the percentage of its raw materials (by cost of goods sold) that are remanufactured or reused, where:

- Reused materials are defined as those recovered products, or components of products, that are used for the same purpose for which they were previously used.
- Remanufactured materials are defined as recovered products, or components of products, that have been reprocessed and made into a final product, or made into a component for incorporation into a product.
- Portions of products and materials that are disposed are not considered reused or remanufactured; only the portions of products or components that are directly incorporated into new products shall be included in the percentage from remanufactured or reused parts.
- The scope of disclosure is products sold during the fiscal year.

.41 The percentage from remanufactured or reused parts is calculated as the total cost of remanufactured or reused parts, divided by the total cost of goods sold for all products, including those products which do not contain any remanufactured or reused parts.

RT0202-11. Total energy cost savings achieved through energy performance contracts

.42 The registrant shall disclose total energy cost savings achieved through energy performance contracts in U.S. dollars (\$), where:

- Energy performance contracts are financing techniques that use cost savings from reduced energy consumption to repay the cost of energy conservation measures (ECMs). Energy performance contracts may include contracts with the federal government, as well as those with state or local governments or private enterprises.
- The scope of total energy cost savings includes both energy cost savings and energy-related cost savings achieved through energy performance contracts that follow a methodology substantially similar, or equivalent, to the U.S. Department of Energy (DOE), Federal Energy Management Program's (FEMP) Energy Savings Performance Contracts (ESPC).¹⁸
 - Energy Cost Savings are defined as a reduction in the cost of energy, water, or wastewater treatment from the baseline cost established in the contract as a result of: (1) installation of energy conservation measure(s); (2) the lease or purchase of operating equipment, improvements, altered operations and maintenance, or technical services; or (3) the increased efficient use of existing energy sources by cogeneration or heat recovery.
 - Energy-Related Cost Savings are defined as a reduction in expenses (other than energy cost savings) related to energy-consuming equipment, generally related to equipment operations, maintenance, renewal, replacement, or repair expenses. One-time energy-related cost savings can result from avoided expenditures of operations and maintenance (O&M) or repair and replacement (R&R) funds, or from

¹⁸ Practical Guide to Savings and Payments in FEMP ESPC Task Orders Rev. January 3, 2009, available online: http://energy.gov/sites/prod/files/2013/10/f3/practguide_sav_paymnts.pdf

avoided capital expenditures for projects (e.g., equipment replacement) that, because of the energy performance contract project, will not be necessary.

- Energy Conservation Measures (ECMs) are defined as measures applied to a building or facility that improve energy efficiency, are life cycle cost effective under 10 CFR Part 436, Subpart A, and involve energy conservation, cogeneration facilities, renewable energy sources, improvements in operation and maintenance efficiencies, or retrofit activities. For purposes of this definition, “improves energy efficiency” is not limited to a more efficient conversion of energy; rather, when renewable energy is substituted for conventional energy fuels, resulting in the reduced usage of conventional energy sources, such a substitution constitutes “improved energy efficiency.”¹⁹

.43 Energy cost savings and energy-related cost savings shall be calculated in aggregate, as the reduction in costs resulting from implementation of ECMs, consistent with methods outlined for the U.S. DOE’s FEMP ESPCs, or equivalent.²⁰

.44 Energy cost savings shall be calculated on an annual basis over the post-acceptance performance period for each related energy performance contract, consistent with the measurement and verification methods outlined by the U.S. DOE’s FEMP M&V Guidelines, or equivalent.²¹

.45 The registrant may choose to disclose the reduction in energy consumption, in gigajoules or its multiples, achieved through its use of ECMs under its energy performance contracts.

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¹⁹ U.S. Department of Energy, Indefinite Delivery Indefinite Quantity, Energy Savings Performance Contract guidance is available online: http://energy.gov/sites/prod/files/2013/10/f3/generic_idiq_espc_contract.pdf

²⁰ <http://energy.gov/eere/femp/resources-implementing-energy-savings-performance-contracts>

²¹ M&V Guidelines: Measurement and Verification for Federal Energy Projects, Version 3.0 guidance available online: http://www1.eere.energy.gov/femp/pdfs/mv_guidelines.pdf

Business Ethics & Competitive Behavior

Description

Electrical and electronic equipment manufacturers have been under increasing scrutiny by authorities over the use of anticompetitive business practices. In colluding to fix prices or conducting other anticompetitive behavior, companies may willingly or unknowingly act like a cartel, and violate antitrust laws in the U.S., E.U., or other countries. Similarly, companies have been found in violation of corruption and antibribery laws, such as the Foreign Corrupt Practices Act and the U.K. Bribery Act. Some companies have also been found to infringe on patents of other companies and faced significant fines for violating intellectual property rights in the countries where they operate. These anticompetitive and unethical practices may jeopardize future revenue growth due to reputational risks, and can result in significant fines and litigation costs that may be considered material to investors.

Accounting Metrics

RT0202-12. Description of the management system for prevention of corruption and bribery throughout the value chain

- .46 The registrant shall discuss its management system and due diligence procedures for assessing and managing corruption and bribery risks internally and associated with business partners in its value chain.
- Relevant business partners include customers, suppliers, contractors, subcontractors, and JV partners.
- .47 Relevant aspects of a management system include employee awareness programs, internal mechanisms for reporting and following up on suspected violations, and anticorruption policies.
- .48 The registrant may choose to discuss the implementation of one or more of the following:
- Key Organization for Economic Co-operation and Development (OECD) [guidelines](#)
 - International Chamber of Commerce (ICC): Rules of Conduct against Extortion and Bribery
 - Transparency International: Business Principles for Countering Bribery
 - United Nations Global Compact: 10th Principle
 - World Economic Forum (WEF): Partnering Against Corruption Initiative (PACI)

RT0202-13. Amount of legal and regulatory fines and settlements associated with charges of bribery or corruption

- .49 The registrant shall disclose the amount (excluding legal fees) of all fines or settlements associated with incidents relating to bribery and corruption, including, but not limited to, violations of the Foreign Corrupt Practices Act of 1977 (FCPA) (15 U.S.C. § 78dd-1, *et seq.*).
- .50 Disclosure shall include civil actions (e.g., civil judgment, settlements, or regulatory penalties) and criminal actions (e.g., criminal judgment, penalties, or restitutions) taken by any entity (government, businesses, or individuals).

Note to **RT0202-13**

- .51 The registrant shall briefly describe the nature (e.g., guilty plea, deferred agreement, or non-prosecution agreement) and context (e.g., bribing an official, etc.) of fines and settlements.

- .52 The registrant shall describe any corrective action it has implemented as a result of each incident. This may include, but is not limited to, specific changes in operations, management, processes, products, business partners, training, or technology.
- .53 All disclosure shall be sufficient such that it is specific to the risks the registrant faces, but disclosure itself will not compromise the registrant's ability to maintain data privacy and security.

RT0202-14. Amount of legal and regulatory fines and settlements associated with anti-competitive practices

- .54 The registrant shall disclose the amount (excluding legal fees) of all fines or settlements associated with anticompetitive behavior, such as those related to enforcement of U.S. laws and regulations on price-fixing, antitrust behavior (e.g., exclusivity contracts), patent misuse, or network effects and bundling of services and products to limit competition including violations of the Sherman Antitrust Act of 1890 and the Clayton Antitrust Act of 1914.
- .55 Disclosure shall include civil actions (e.g., civil judgment, settlements, or regulatory penalties) and criminal actions (e.g., criminal judgment, penalties, or restitutions) taken by any entity (government, businesses, or individuals).

Note to **RT0202-14**

- .56 The registrant shall briefly describe the nature (e.g., guilty plea, deferred agreement, or non-prosecution agreement) and context (e.g., price-fixing, patent misuse, antitrust, etc.) of fines and settlements.
- .57 The registrant shall describe any corrective action it has implemented as a result of each incident. This may include, but is not limited to, specific changes in operations, management, processes, products, business partners, training, or technology.

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Materials Sourcing

Description

Supply chain management for the Electrical & Electronic Equipment industry involves the sourcing and efficient use of critical and conflict-free minerals. There are also material sourcing risks related to rare earth minerals and metals due to a low substitution ratio, concentration of deposits in only a few countries, and geopolitical considerations. Electrical equipment companies also face competition from increasing global demand for these minerals from other sectors. Along with supply constraints, this can result in significant price increases and/or supply chain risks. All of the conflict minerals—tin, tantalum, tungsten, and gold—are used in electronic equipment manufacturing, and could represent a significant cost for companies to comply with these new regulations. Benefits could be gained by a company's ability and speed to reduce dependency on conflict and rare earth minerals, and to comply with all current and future forms of regulation relative to peers.

Accounting Metrics

RT0202-15. Percentage of material costs for items containing critical materials

.58 The registrant shall calculate the percentage as: the cost of raw materials that contain critical materials divided by total materials cost of goods sold.

- The scope of disclosure includes materials costs for parts, components, commodities, associated freight, and storage, and excludes those for overhead, labor, recalls, warranties, or other costs of goods sold.

.59 A critical material is defined as one that is both essential in use and subject to the risk of supply restriction.²²

.60 At a minimum, the scope of critical materials includes the following minerals and metals:

- Antimony, cobalt, fluorspar, gallium, germanium, graphite, indium, magnesium, niobium, tantalum, and tungsten;
- Platinum group metals (platinum, palladium, iridium, rhodium, ruthenium and osmium);
- Rare earth elements, which include: yttrium, scandium, lanthanum and the lanthanides (cerium, praseodymium, neodymium, promethium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, and lutetium).

RT0202-16. Percentage of tungsten, tin, tantalum, and gold smelters within the supply chain that are verified conflict-free

.61 The registrant shall calculate the percentage as: the number of tungsten, tin, tantalum, and gold smelters and/or refineries within its supply chain that are verified to be conflict-free, divided by the total number of tungsten, tin, tantalum, and gold smelters and/or refineries within its supply chain.

.62 A smelter or refiner is considered to be conflict-free if it can demonstrate compliance with:

- The Electronic Industry Citizenship Coalition (EICC) and Global e-Sustainability Initiatives (GeSI) Conflict-Free Smelter Program (CFSP) assessment protocols.
- The Responsible Jewellery Council's (RJC) Chain-of-Custody (CoC) Standard.

²² National Research Council. *Minerals, Critical Minerals, and the U.S. Economy*. Washington, DC: The National Academies Press, 2008.
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- .63 A smelter or refinery is considered to be within the registrant’s supply chain if it supplies, or is approved to supply, tungsten, tin, tantalum, or gold that is contained in any product the registrant manufactures or contracts to be manufactured.
- The scope includes smelters or refineries that supply material directly to the registrant as well as those that supply material to any of its suppliers of raw materials, components, or subassemblies.

RT0202-17. Discussion of the management of risks associated with the use of critical materials and conflict minerals

- .64 The registrant shall discuss its strategic approach to managing its risks associated with usage of critical materials and conflict minerals in its products, including physical limits on availability, access, price, and reputational risks.
- .65 The registrant should identify which materials and minerals present a risk to its operations, which type of risk they represent, and the strategies the registrant uses to mitigate the risk.
- .66 For critical materials, relevant strategies to discuss include diversification of suppliers, stockpiling of materials, expenditures in R&D for alternative and substitute materials, and investments in recycling technology for critical materials.
- .67 For conflict minerals, relevant strategies to discuss include due diligence practices, supply chain auditing, supply chain engagement, and partnerships with industry groups or non-governmental development organizations.

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