SUSTAINABILITY ACCOUNTING STANDARD
RESOURCE TRANSFORMATION SECTOR

ELECTRICAL & ELECTRONIC EQUIPMENT
Sustainability Accounting Standard

Sustainable Industry Classification System™ (SICS™) #RT0202
Prepared by the
Sustainability Accounting Standards Board®

MARCH 2015
Provisional Standard

www.sasb.org

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 non-profit 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 the Electrical & Electronic Equipment industry.

SASB Sustainability Accounting 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 Standards identify sustainability topics at an industry level, which may constitute material information—depending on a company's specific operating context— for a company within that industry. SASB Standards are intended to provide guidance to company management, which is ultimately responsible for determining which information is material and should therefore be included in its Form 10-K or 20-F and other periodic SEC filings.

SASB Standards provide companies with standardized sustainability metrics designed to communicate performance on industry level sustainability topics. When making disclosure on sustainability topics, companies can use SASB Standards to help ensure that disclosure is standardized and therefore decision-useful, relevant, comparable, and complete.

SASB Standards are intended to constitute "suitable criteria" as defined by AT 101.23 -. 32[1] and referenced in AT 701[2], as having the following attributes:

- *Objectivity*—Criteria should be free from bias.
- *Measurability*—Criteria should permit reasonably consistent measurements, qualitative or quantitative, of subject matter.
- *Completeness*—Criteria should be sufficiently complete so that those relevant factors that would alter a conclusion about subject matter are not omitted.
- *Relevance—Criteria should be relevant to the subject matter.*

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. These include non-structural commercial and residential building equipment, such as Heating, Ventilation, and Air Conditioning (HVAC) systems, lighting fixtures, security devices, and elevators; electrical power equipment, including traditional power generation and transmission equipment and renewable energy equipment; industrial automation controls; measurement instruments; and electrical components used for industrial purposes, including coils, wires, and cables. Companies in this industry operate globally and generate a significant portion of their revenue from outside the country of their domicile.

[1] http://pcaobus.org/Standards/Attestation/Pages/AT101.aspx#ftn.at_101_fn7
[2] http://pcaobus.org/Standards/Attestation/Pages/AT701.aspx

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
- Hazardous Waste Management
- Product Safety
- Product Lifecycle Management & Innovation for Environmental Efficiency
- Business Ethics & Competitive Behavior
- Materials Sourcing

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."[3, 4]

SASB has attempted to identify those sustainability topics that are reasonably likely to have a material effect on the financial condition or operating performance of companies within each SICS industry. SASB recognizes, however, that each company is ultimately responsible for determining what information should be disclosed within the context of Regulation S-K and other guidance.

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."

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]

The SEC has provided guidance for companies to use in determining whether a trend or uncertainty should be disclosed. The two-part assessment –prescribed by the SEC, based on probability and magnitude, can be applied to the topics included within this standard:

- 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.

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[3] TSC Industries v. Northway, Inc., 426 U.S. 438 (1976).

[4] C.F.R. 229.303(Item 303)(a)(3)(ii).

- 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.

3. Sustainability Accounting Standard Disclosures in Form 10-K

a. Management's Discussion and Analysis

For purposes of comparability and usability, that companies should consider making disclosure on sustainability topics in the MD&A, in a sub-section titled "**Sustainability Accounting Standards Disclosures**."[5]

b. Other Relevant Sections of Form 10-K

In addition to the MD&A section, it may be relevant for companies to disclose sustainability information in other sections of Form 10-K, including, but not limited to:

- **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/.

[5] 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 for Material Sustainability Topics

For each sustainability topic included in the Electrical & Electronic Equipment Industry Sustainability Accounting Standard, SASB identifies accounting metrics.

SASB recommends that each company consider using these sustainability accounting metrics when preparing disclosures on the sustainability topics identified herein;

As appropriate—and consistent with Rule 12b-20[6]—when disclosing a sustainability topic identified by this Standard, 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 **relative performance** with respect to its peers;
- 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 also consider sustainability topics that SASB has identified for those industries and disclose the associated SASB accounting metrics.

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.

Users of the SASB Standards

The SASB Standards are intended to provide guidance 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),[7] for use in SEC filings, including, without limitation, annual reports on Form10-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. 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.

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[6] 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."

[7] 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 that are consolidated for financial reporting purposes as defined by accounting principles generally accepted in the United States for consistency with other accompanying information within SEC filings[8]
- 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 the effect of sustainability topics on the company's financial condition or operating performance (typically, this disclosure would be limited to risks and opportunities associated with these entities).

Reporting Format

Use of Financial Data

In instances where accounting metrics, activity metrics, and technical protocols in this standard incorporate financial data (e.g., revenues, cost of sales, expenses recorded and disclosed for fines, etc.), such financial data shall be prepared in accordance with the accounting principles generally accepted in the United States of America ("US GAAP") and be consistent with the corresponding financial data reported within the registrant's SEC filings. Should accounting metrics, activity metrics and technical protocols in this standard incorporate disclosure of financial data that is not prepared in accordance with US GAAP, the registrant shall disclose such information in accordance with the SEC Regulation G.

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).

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[8] See US GAAP consolidation rules (Section 810).

Activity metrics disclosed should:

- Convey contextual information that would not otherwise be apparent from SASB accounting metrics.
- Be deemed generally useful for an investor relying on SASB accounting metrics 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.[9]

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[10]	Quantitative	Number	RT0202-A
Number of employees	Quantitative	Number	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 reliance on data from third-party reporting systems and technologies, 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 occur 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.

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[9] Improving Business Reporting: Insights into Enhancing Voluntary Disclosures, FASB Business Reporting Research Project, January 29, 2001.

[10] Note to **RT0202-A**—Production should be disclosed as number of units produced by product category, where relevant product categories include energy generation, energy delivery, and lighting and indoor climate control electronics.

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.

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."

The following sections contain the disclosure guidance associated with each accounting metric such as guidance on definitions, scope, accounting, compilation, and presentation.

The term "shall" is used throughout this document to indicate those elements that reflect requirements of the Standard. The terms "should" and "may" are used to indicate guidance, which, although not required, provides a recommended means of disclosure.

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 Waste Management	Amount of hazardous waste, percentage recycled	Quantitative	Metric tons (t), Percentage (%)	RT0202-02
	Number and aggregate quantity of reportable spills, quantity recovered[11]	Quantitative	Number, Kilograms (kg)	RT0202-03
Product Safety	Number of recalls and total units recalled[12]	Quantitative	Number	RT0202-04
	Amount of legal and regulatory fines and settlements associated with product safety[13]	Quantitative	U.S. Dollars ($)	RT0202-05
Product Lifecycle Management & Innovation for Environmental Efficiency	Percentage of products by revenue that contain IEC 62474 declarable substances[14]	Quantitative	Percentage (%) by revenue	RT0202-06
	Percentage of eligible products by revenue that meet ENERGY STAR® criteria	Quantitative	Percentage (%) by revenue	RT0202-07
	Revenue from renewable energy-related and energy efficiency-related products	Quantitative	U.S. Dollars ($)	RT0202-08
	Total energy cost savings achieved through energy performance contracts	Quantitative	U.S. Dollars ($)	RT0202-09
Business Ethics & Competitive Behavior	Description of the management system for prevention of corruption and bribery throughout the value chain	Discussion and Analysis	n/a	RT0202-10
	Amount of legal and regulatory fines and settlements associated with charges of bribery or corruption[15]	Quantitative	U.S. Dollars ($)	RT0202-11
	Amount of legal and regulatory fines and settlements associated with anti-competitive practices[16]	Quantitative	U.S. Dollars ($)	RT0202-12
Materials Sourcing	Percentage of materials costs for products containing critical materials	Quantitative	Percentage (%)	RT0202-13
	Percentage of tungsten, tin, tantalum, and gold smelters within the supply chain that are verified conflict-free	Quantitative	Percentage (%)	RT0202-14
	Discussion of the management of risks associated with the use of critical materials and conflict minerals	Discussion and Analysis	n/a	RT0202-15

[11] Note to **RT0202-03**—The registrant shall discuss its long-term activities to remediate spills that occurred in years prior to the reporting period but for which remediation activities are ongoing.

[12] Note to **RT0202-04**—The registrant shall discuss notable recalls, such as those that affected a significant number of products or those related to serious injury or fatality.

[13] Note to **RT0202-05**—Disclosure shall include a description of fines and settlements and corrective actions implemented in response to events.

[14] Note to **RT0202-06**—Disclosure shall include a discussion of approach to managing the use of IEC 62474 declarable substances.

[15] Note to **RT0202-11**—Disclosure shall include a description of fines and settlements and corrective actions implemented in response to events.

[16] Note to **RT0202-12**—Disclosure shall include a description of fines and settlements and corrective actions implemented in response to events.

Energy Management

Description

Energy is a critical input for value creation for electrical and electronic equipment companies due to energy-intensive manufacturing processes. Purchased electricity represents the largest share of energy expenditures in the industry, followed by purchased fuels. As electricity production contributes significant GHG emissions and air pollution through combustion of fossil fuels at the utility level, the cost of grid electricity may increase due to mitigation efforts directed at utilities. Similarly, as the extraction, production, and use of fossil fuels contribute to significant GHG emissions and environmental externalities, the cost of purchased fuel may also increase due to mitigation efforts. The likelihood and magnitude of impact of climate change regulations on aerospace and defense manufacturers will vary depending on the location of manufacturing facilities in the U.S. and abroad. Aerospace and defense companies' energy mix, including the use of electricity generated on-site as opposed to grid-sourced electricity and the use of alternative energy, can play an important role in influencing the cost and reliability of energy supply, and ultimately their profitability and risk profile.

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), 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.

.05 The scope of renewable energy includes renewable fuel the registrant consumes and renewable energy the registrant directly produces, 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 on-site, 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.[17]
- 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.

.06 For the purposes of this disclosure, the scope of renewable energy from hydro and biomass sources is limited to the following:

- Energy from hydro sources that are certified by the Low Impact Hydropower Institute or that are eligible for a state Renewable Portfolio Standard.
- Energy from biomass sources is limited to materials certified to a third-party standard (e.g., Forest Stewardship Council, Sustainable Forest Initiative, Programme for the Endorsement of Forest Certification, or American Tree Farm System), materials considered "eligible renewables" according to the Green-e Energy National Standard Version 2.5 (2014), and materials that are eligible for a state Renewable Portfolio Standard.

.07 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 (for energy data including electricity from solar or wind energy).

[17] 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 Waste Management

Description

Electrical and electronic equipment companies face regulatory and operational challenges in managing their manufacturing waste, as many of these substances can be hazardous to human health and the environment and therefore are subject to hazardous waste regulations within the U.S. and internationally. For example, the Resource Conservation and Recovery Act (RCRA) regulates generation, transport, treatment, storage, and disposal of hazardous and solid waste within the U.S. Hazardous compounds used in electrical and electronic equipment operations include chromium, nickel, cobalt, trichloroethylene, lead, and glycol ethers. Proper processing and disposal of hazardous waste materials are essential to limiting the 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

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

- Hazardous waste includes both hazardous secondary materials, per 40 CFR 260.10, and waste that meets the definition of hazardous waste under Subtitle C of the U.S. Environmental Protection Agency's (EPA) Resource Conservation and Recovery Act (RCRA), per 40 CFR 261.3.

- Hazardous wastes include those that display the following characteristics: ignitability, corrosivity, reactivity, or toxicity.

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

- Reclaimed materials are defined as those processed to recover or regenerate a usable product, consistent with RCRA hazardous waste regulation. Common hazardous waste reclamation activities involve recovery of spent solvents (e.g., recovery of acetone) or metals (e.g., recovery of lead).

- 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.

- Materials sent for further recycling include those materials that are transferred to a third party for the express purpose of reuse, recycling, or refurbishment.

- 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 than 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.

- 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.

.10 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) with which the entities it has transferred e-waste are compliant.

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

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

- Reportable spills are defined as any release of a hazardous substance in an amount equal to or greater than the reportable quantity as listed in Table 302.4 in 40 CFR Part 302.4 of the U.S. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), including consideration of reportable quantities of mixtures and solutions as defined under 40 CFR Part 302.6 (b)(1).

- The number of reportable spills shall include any leaks, emissions, discharges, injections, disposals, and abandonment releases over time, counted once at the time identified, consistent with CERCLA definition of release (42 USC 9601(22)) and guidelines for reporting requirements (40 CFR Part 302).

- The aggregate quantity reported shall represent the total quantity of material released to the environment, and shall not be reduced by the amount of such hazardous substances that are subsequently recovered, evaporated, or otherwise lost.

- The scope of disclosure includes all spills, even those in jurisdictions that are not subject to regulation under CERCLA.

.12 The registrant shall calculate the quantity of spills recovered as the quantity of spilled 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.

.13 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.

.14 The registrant may choose to separately indicate spills that occurred in the past, such as those that resulted from abandoned, legacy, or decommissioned operations but which were identified and disclosed during the fiscal year.

Note to **RT0202-03**

.15 Where applicable, the registrant shall discuss its activities to remediate spills that occurred in years prior to the disclosure period but for which remediation activities are ongoing and long term.

.16 Relevant activities include, but are not limited to, land-use controls, site monitoring, site maintenance, and continued cleanup.

Additional References

For guidance on the "legitimate recycling" of hazardous waste see 40 CFR 260.43.

Product Safety

Description

Proper safety procedures, tests, and protocols for electrical equipment can help companies lower reputational risks associated with recalls, protect sales, and prevent injuries and even accidental death among users of electrical and electronic equipment. If current and future product quality and safety are not managed effectively, it can result in large product liability claims and potential regulation. Through proper design and testing, companies in this industry can improve performance on product safety. Companies with poor product quality and safety may experience revenue loss due to damaged reputation, redesign costs, recalls, litigations, or fines.

Accounting Metrics

RT0202-04. Number of recalls and total units recalled

.17 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, consistent with the definition established in the U.S. Consumer Product Safety Commission's Recall Handbook.
- The total number of units recalled is defined as the combined quantity of products that were recalled as part of any recall during the fiscal year.

.18 The scope of disclosure includes voluntary recalls initiated by the registrant as well as involuntary recalls mandated by governmental regulatory agencies, where:

- 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)

.19 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**

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

.21 For such recalls, the registrant should provide:

- Description and cause of the recall issue
- The total number of units recalled

- The 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, etc.)

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

.22 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
- Occupational Safety and Health Administration (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).

.23 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**

.24 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.

.25 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.

Additional References

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

Product Lifecycle Management & Innovation for Environmental Efficiency

Description

Electrical and electronic equipment companies face increasing challenges and opportunities associated with environmental externalities during the use phase of their products. On the down-side, regulation is pushing companies to avoid or limit the use of chemicals of concerns in their product. To a lesser extent regulatory and customer pressure in increasingly put pressure on companies to lower the environmental footprint of their products, mainly in terms of energy intensity. At the same time, electrical and electronic equipment companies that develop cost effective products and solutions for energy efficiency can benefit from increased revenues and market share, stronger competitive positioning, and enhanced brand value. Similarly, products and services that solve key environmental issues can represent a large market opportunities for early developers.

Accounting Metrics

RT0202-06. Percentage of products by revenue that contain IEC 62474 declarable substances

.26 The registrant shall calculate the percentage as: the revenue, in U.S. dollars, from products that contain declarable substances according to the International Electrotechnical Commission's IEC 62474—Material Declaration for Products of and for the Electrotechnical Industry, divided by total revenue.

.27 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 according to IEC 62474.

.28 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.

.29 The scope of disclosure includes all products, including products from a company not required to declare, or otherwise making declarations, according to IEC 62474.

Note to **RT0202-06**

.30 The registrant shall discuss its approach to managing its use of substances listed as declarable substance groups or declarable substances in IEC 62474, including a discussion of specific operational processes during which use of these substances is considered and a discussion of actions the registrant has taken to manage the use of these substances.

.31 Relevant management approaches and actions to describe include, but are not limited to, product design criteria for the exclusion of substances (e.g., banned substances lists), use of material substitution assessments, materials and parts procurement guidelines, product safety testing, product declarations (e.g., material safety data sheets), and product labeling.

.32 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.

RT0202-07. Percentage of eligible products by revenue that meet ENERGY STAR® criteria

.33 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, which includes the following electrical and electronic equipment product categories: uninterruptible power supply products, heating and cooling and ventilation equipment, and lighting and fans.

.34 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.

RT0202-08. Revenue from renewable energy-related and energy efficiency-related products

.35 The registrant shall disclose its total revenue from renewable energy-related and energy efficiency-related products.

.36 Renewable energy-related products are defined as products and/or systems that enable the incorporation of renewable energy into established energy infrastructure, where:

- Renewable energy is defined as energy derived from sources that are capable of being replenished in a short time through ecological cycles, such as geothermal, wind, solar, hydroelectric, and biomass (including ethanol, first-generation biofuels, and advanced biofuels).
- Examples of products and systems include, but are not limited to, turbine controllers, relays, switchgears, solar PV fuses, SCADA systems, interconnection technologies, and other balance of plant equipment designed for renewable energy applications.
- The scope of products and systems is limited to those that enable the integration of renewable energy into established energy infrastructure and grids; it excludes revenue from the sale and/or installation of renewable energy generation hardware such as wind turbines, solar photovoltaic modules, and solar thermal electricity generation equipment.

.37 A product shall be considered to have been designed to increase energy efficiency if documentation shows that the registrant has tested, modeled, or otherwise established the increase to energy efficiency its product delivers during its use phase.

- Examples of products that increase energy efficiency include, but are not limited to, smart grid technologies and infrastructure (e.g., demand response systems, distribution automation, smart inverters, advanced metering equipment, etc.), smart home and intelligent building control products, flexible alternating current transmission systems, and low-loss transformers.

  - Smart grid is defined as a modernization of the electricity delivery systems so as to monitor, protects, and automatically optimize the operation of its interconnected elements – from the central and distributed generation through the transmission network and the distribution system, to industrial users and building automation systems, and to energy storage installations and to end-use consumers, consistent with the National Institute of Standards and Technology (NIST) Smart Grid Interoperability Standards.

- The scope of disclosure includes products that impart an incremental improvement to energy efficiency, insofar as the registrant can demonstrate that the improvement is meaningful, such as through alignment with the milestones set forth in Section 5, "Key Sectors" of the European Commission's Road Map to a Resource Efficient Europe and/or with EU Directive 2012/27/EU; and/or through conformance with energy efficiency standards such as the International Electrotechnical Commission's (IEC) IE2 High Efficiency, IE3 Premium Efficiency, and IE4 Super Premium Efficiency.

- The scope of disclosure excludes products that impart improved resource efficiency in an ancillary, indirect, or minimal way (e.g., a conventional product that is slightly lighter than the previous generation of the product).

RT0202-09. Total energy cost savings achieved through energy performance contracts

.38 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 include contracts with the federal government, as well as those with state or local governments or private enterprises.

  - ECMs are defined as measures applied to a building or facility that improve energy efficiency, are lifecycle 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 the purposes of this definition, "improves energy efficiency" is not limited to a more efficient conversion of energy; rather, any instance when renewable energy is substituted for conventional energy fuels, resulting in reduced usage of conventional energy sources, such a substitution constitutes "improved energy efficiency." [18]

- Total energy cost savings includes both energy cost savings and energy-related cost savings achieved through energy performance contracts.

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[18] 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

- 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:
  - The implementation of energy conservation measure(s);
  - The lease or purchase of operating equipment, improvements, altered operations and maintenance, or technical services; or
  - An increase in 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 and 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 avoided capital expenditures for projects (e.g., equipment replacement) that, because of the energy performance contract project, become unnecessary.

.39 Energy cost savings and energy-related cost savings shall be calculated in aggregate, as the verified reduction in energy costs resulting from implementation of ECMs, consistent with methods outlined for the U.S. Department of Energy (DOE) Federal Energy Management Program's (FEMP) Energy Savings Performance Contracts (ESPC), or the equivalent.

.40 Energy cost savings shall be calculated on an annual (fiscal year) basis for each active energy performance contract consistent with the measurement and verification methods outlined by the DOE's FEMP M&V Guidelines: Measurement and Verification for Federal Energy Projects, Version 3.0, where:

- Active energy performance contracts are defined as those that have been accepted, commissioned, and installed, and are in their performance period until the contract term ends.

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

.42 The registrant may choose to discuss guaranteed savings as compared to verified savings.

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 anti-bribery laws, such as the Foreign Corrupt Practices Act (FCPA) and the U.K. Bribery Act. These anticompetitive and unethical practices may jeopardize future revenue growth due to reputational risks, and can result in significant legal costs, fines and litigation.

Accounting Metrics

RT0202-10. Description of the management system for prevention of corruption and bribery throughout the value chain

.43 The registrant shall discuss its management system and due diligence procedures for assessing and managing corruption and bribery risks both internally and associated with business partners in its value chain.

- Relevant business partners include customers, suppliers, contractors, subcontractors, and joint venture partners.

.44 Relevant aspects of a management system include employee awareness programs, internal mechanisms for reporting and following up on suspected violations, and anticorruption policies.

.45 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)

RT0202-11. Amount of legal and regulatory fines and settlements associated with charges of bribery or corruption

.46 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.*).

.47 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 **RT0202-11**

.48 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.

.49 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.

RT0202-12. Amount of legal and regulatory fines and settlements associated with anti-competitive practices

.50 The registrant shall disclose the amount (excluding legal fees) of all fines or settlements associated with anti-competitive 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.

.51 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 **RT0202-12**

.52 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.

.53 The registrant shall describe any corrective actions 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.

Materials Sourcing

Description

Electrical and electronic equipment companies are exposed to supply chain risks when rare earth or "conflict" minerals and metals are used in products. Proactive supply chain audits and management will help insulate companies from reputational and regulatory risk. Sourcing risks associated with rare earth metals and conflict minerals are due to a low substitution ratio, concentration of deposits in only a few countries, and geopolitical considerations. All of the conflict minerals—tin, tantalum, tungsten, and gold—are used in electronic equipment manufacturing, and could represent a significant cost for companies in order to comply with these new regulations. Companies in this industry also face competition due to increasing global demand for these minerals from other sectors, which can result in significant price increases and supply risks. Benefits could be gained by a company's ability to quickly reduce dependency on conflict and rare earth minerals and comply with all current and future forms of regulation relative to peers. Companies that are able to limit the use of critical and conflict materials, as well as securing their supply, will not only minimize environmental and social externalities related to extraction, but also protect themselves from supply disruptions and volatile input prices.

Accounting Metrics

RT0202-13. Percentage of materials costs for products containing critical materials

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

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

.55 A critical material is defined, consistent with the National Research Council's "Minerals, Critical Minerals, and the U.S. Economy", as one that is both essential in use and subject to the risk of supply restriction

.56 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); and
- 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).

RT0202-14. Percentage of tungsten, tin, tantalum, and gold smelters within the supply chain that are verified conflict-free

.57 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.

.58 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.

.59 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.

RT0202-15. Discussion of the management of risks associated with the use of critical materials and conflict minerals

.60 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, where:

- A critical material is defined, consistent with the National Research Council's "Minerals, Critical Minerals, and the U.S. Economy", as one that is both essential in use and subject to the risk of supply restriction. At a minimum, the scope of critical materials includes the following minerals and metals defined by the National Research Council:
  - Antimony, cobalt, fluorspar, gallium, germanium, graphite, indium, magnesium, niobium, tantalum, and tungsten;
  - Platinum group metals (platinum, palladium, iridium, rhodium, ruthenium, and osmium); and
  - 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).
- Conflict minerals are defined as tungsten, tin, tantalum, and gold.

.61 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.

.62 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.

.63 For conflict minerals, relevant strategies to discuss include due diligence practices, supply chain auditing, supply chain engagement, and partnerships with industry groups or nongovernmental development organizations.

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