



SUSTAINABILITY ACCOUNTING STANDARD  
INFRASTRUCTURE SECTOR

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# REAL ESTATE OWNERS, DEVELOPERS & INVESTMENT TRUSTS

## Sustainability Accounting Standard

Sustainable Industry Classification System™ (SICS™) #IF0402

Prepared by the  
Sustainability Accounting Standards Board®

March 2016  
Provisional Standard

# REAL ESTATE OWNERS, DEVELOPERS & INVESTMENT TRUSTS

## 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 79 industries in 10 sectors.

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## INTRODUCTION

### Purpose & Structure

This document contains the SASB Sustainability Accounting Standard (SASB Standard) for the Real Estate Owners, Developers & Investment Trusts 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<sup>1</sup> and referenced in AT 701<sup>2</sup>, 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 Real Estate Owners, Developers & Investment Trusts industry (the “Real Estate industry”) is composed of companies that own, develop, and generally operate income-producing real estate assets. Companies in this industry are commonly structured as real estate investment trusts (REITs) and operate in a wide range of segments within the real estate industry, including residential, retail, office, health care, industrial, and hotel properties. REITs typically focus on the direct ownership of real estate assets, thereby providing investors with the opportunity to obtain real estate exposure without direct asset ownership and management. Although REITs are often

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<sup>1</sup> [http://pcaobus.org/Standards/Attestation/Pages/AT101.aspx#at\\_101\\_fn7](http://pcaobus.org/Standards/Attestation/Pages/AT101.aspx#at_101_fn7)

<sup>2</sup> <http://pcaobus.org/Standards/Attestation/Pages/AT701.aspx>

concentrated in one segment of the real estate industry, many REITs are diversified through investment in multiple property types.

For tax purposes, real estate companies in the U.S. often prefer to be structured as REITs. To be classified as a REIT, companies must maintain most of their assets in real estate, derive most income from these assets, and distribute a minimum threshold of their annual taxable income to shareholders as dividends, among other requirements. Most U.S.-listed companies in the industry operate exclusively within the U.S., while some companies have broadened their real estate portfolio exposure internationally.

## Guidance for Disclosure of Sustainability Topics in SEC Filings

### 1. Industry-Level Sustainability Topics

For the Real Estate Owners, Developers, & Investment Trusts industry, SASB has identified the following sustainability disclosure topics:

- Energy Management
- Water Management
- Management of Tenant Sustainability Impacts
- Climate Change Adaptation

### 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.”<sup>3,4</sup>

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.”

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<sup>3</sup> TSC Industries v. Northway, Inc., 426 U.S. 438 (1976).

<sup>4</sup> C.F.R. 229.303(Item 303)(a)(3)(ii).

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.”<sup>2</sup>

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.
- 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, companies should consider making disclosure on sustainability topics in the MD&A, in a sub-section titled “**Sustainability Accounting Standards Disclosures**.”<sup>5</sup>

#### 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.

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<sup>5</sup> [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.”

- **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/>.

## Guidance on Accounting for Sustainability Topics

For each sustainability topic included in the Real Estate Owners, Developers & Investment Trusts 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<sup>6</sup>—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 \(SICSTM\)](#). 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.

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<sup>6</sup> 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.”

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),<sup>7</sup> 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. 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.

## 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;<sup>8</sup>
- 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

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<sup>7</sup> 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.

<sup>8</sup> See US GAAP consolidation rules (Section 810).

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).

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.<sup>9</sup>

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<sup>9</sup> *Improving Business Reporting: Insights into Enhancing Voluntary Disclosures*, FASB Business Reporting Research Project, January 29, 2001.

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 assets, by property subsector <sup>10</sup>	Quantitative	Number	IF0402-A
Leasable floor area, by property subsector <sup>11</sup>	Quantitative	Square feet (ft <sup>2</sup> )	IF0402-B
Percentage of indirectly managed assets, by property subsector <sup>12</sup>	Quantitative	Percentage (%) by floor area (ft <sup>2</sup> )	IF0402-C
Average occupancy rate, by property subsector <sup>13</sup>	Quantitative	Percentage (%)	IF0402-D

## 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.

<sup>10</sup> Note to **IF0402-A**—Number of assets shall include the number of distinct real estate property or building assets and is aligned with the 2016 GRESB Real Estate Assessment Reference Guide. Number of assets shall be disclosed separately for each portion of the registrant’s portfolio where properties are classified into subsectors that are aligned with the FTSE NAREIT Classification System. The total number of assets reported across all subsectors can exceed the actual number of assets due to the fact that mixed-use assets can be reported in multiple subsectors.

<sup>11</sup> Note to **IF0402-B**—Leasable floor area shall be disclosed separately for each portion of the registrant’s portfolio where properties are classified into subsectors that are aligned with the FTSE NAREIT Classification System. Number of units may be used in place of floor area in the Apartments and Lodging/Resorts property subsectors when floor area is not available.

<sup>12</sup> Note to **IF0402-C**—The definition of “indirectly managed assets” is solely based on the landlord/tenant relationship and is aligned with the 2016 GRESB Real Estate Assessment Reference Guide: “Where a single tenant has the sole authority to introduce and implement operating and/or environmental policies and measures, the tenant should be assumed to have operational control, so [the asset] should be considered to be an Indirectly Managed Asset.” Percentage of indirectly managed assets shall be disclosed separately for each portion of the registrant’s portfolio where properties are classified into subsectors that are aligned with the FTSE NAREIT Classification System.

<sup>13</sup> Note to **IF0402-D**—Average occupancy rate shall be disclosed separately for each portion of the registrant’s portfolio where properties are classified into subsectors that are aligned with the FTSE NAREIT Classification System.

## 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."

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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	Energy consumption data coverage as a percentage of floor area, by property subsector	Quantitative	Percentage (%) by floor area (ft <sup>2</sup> )	IF0402-01
	Total energy consumed by portfolio area with data coverage, percentage grid electricity, and percentage renewable, each by property subsector	Quantitative	Gigajoules (GJ), Percentage (%)	IF0402-02
	Like-for-like change in energy consumption of portfolio area with data coverage, by property subsector	Quantitative	Percentage (%) by gigajoules (GJ)	IF0402-03
	Percentage of eligible portfolio that (1) has obtained an energy rating and (2) is certified to ENERGY STAR <sup>®</sup> , by property subsector	Quantitative	Percentage (%) by floor area (ft <sup>2</sup> )	IF0402-04
	Description of how building energy management considerations are integrated into property investment analysis and operational strategy	Discussion and Analysis	n/a	IF0402-05
Water Management	Water withdrawal data coverage as a percentage of total floor area and percentage in regions with High or Extremely High Baseline Water Stress, each by property subsector	Quantitative	Percentage (%) by floor area (ft <sup>2</sup> )	IF0402-06
	Total water withdrawn by portfolio area with data coverage and percentage in regions with High or Extremely High Baseline Water Stress, each by property subsector	Quantitative	Cubic meters (m <sup>3</sup> ), Percentage (%)	IF0402-07
	Like-for-like change in water withdrawn for portfolio area with data coverage, by property subsector	Quantitative	Percentage (%) by cubic meters (m <sup>3</sup> )	IF0402-08
	Discussion of water management risks and description of strategies and practices to mitigate those risks	Discussion and Analysis	n/a	IF0402-09

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

TOPIC	ACCOUNTING METRIC	CATEGORY	UNIT OF MEASURE	CODE
<b>Management of Tenant Sustainability Impacts</b>	Percentage of new leases that contain a cost recovery clause for resource efficiency-related capital improvements and associated leased floor area, by property subsector	Quantitative	Percentage (%) by floor area (ft <sup>2</sup> ), Square feet (ft <sup>2</sup> )	IF0402-10
	Percentage of tenants that are separately metered or submetered for (1) grid electricity consumption and (2) water withdrawals, by property subsector	Quantitative	Percentage (%) by floor area (ft <sup>2</sup> )	IF0402-11
	Description of approach to measuring, incentivizing, and improving sustainability impacts of tenants	Discussion and Analysis	n/a	IF0402-12
<b>Climate Change Adaptation</b>	Area of properties located in FEMA Special Flood Hazard Areas or foreign equivalent, by property subsector	Quantitative	Square feet (ft <sup>2</sup> )	IF0402-13
	Description of climate change risk exposure analysis, degree of systematic portfolio exposure, and strategies for mitigating risks	Discussion and Analysis	n/a	IF0402-14

# Energy Management

## Description

Real estate assets consume significant amounts of energy, primarily related to space heating, ventilating, air conditioning, water heating, lighting, and equipment and appliance use. Type of energy used, magnitude of consumption, and strategies for energy management are highly dependent on the real estate asset class, among other factors. Generally, grid electricity consumption is the predominant form of consumed energy, though on-site fuel combustion also serves an important role. Energy costs may be borne by companies in the industry and/or the property occupants; either way, energy management is a significant industry issue. To the extent that the real estate owner assumes direct responsibility for energy costs, such costs often represent significant operating costs, inherently indicating the importance of energy management. Energy pricing volatility and a general trend of electricity price increases, energy-related regulations, wide variations in energy performance across the existing building stock, and opportunities for efficiency improvements through economically attractive capital investments all further point to the importance of energy management. Energy costs assumed by occupants, either in whole or in part, are nonetheless likely to significantly impact companies in the industry, albeit through differing channels. Building energy performance is a notable driver of tenant demand, as it allows them to control operating costs, mitigate the environmental impacts of operations, and, often just as importantly, maintain a reputation for resource conservation. Additionally, real estate owners may be exposed to energy-related regulations even when energy costs are the responsibility of occupants. Overall, companies in the industry that effectively manage the energy performance of their assets may see reduced operating costs and regulatory risks, as well as increased tenant demand, rental rates, and occupancy rates, all of which drive revenue and asset value appreciation. Improving the energy performance of assets is highly dependent on property type and location, target tenant market, local building codes, physical and legal opportunities to deploy distributed renewable energy, ability to measure consumption, and performance of existing building stock, among other factors.

## Accounting Metrics

### IF0402-01. Energy consumption data coverage as a percentage of floor area, by property subsector

.01 Energy consumption data coverage shall be disclosed as a percentage and calculated as the total portfolio gross floor area with complete energy consumption data coverage divided by the total portfolio gross floor area for which energy is used, where:

- Gross floor area is defined according to the U.S. Environmental Protection Agency (EPA) ENERGY STAR® [definition](#) as “the total property square footage, measured between the principal exterior surfaces of the enclosing fixed walls of the building(s).”
- Floor area is considered to have complete energy consumption data coverage when energy consumption data (i.e., energy types and amounts consumed) is obtained by the registrant for all types of energy consumed in the relevant floor area during the fiscal year, regardless of when such data was obtained.
  - If such data is not available for one or more types of energy consumed, the relevant floor area shall not be considered to have energy consumption data coverage.

.02 The scope of energy includes:

- Energy purchased from sources external to the registrant and its tenants or produced by the registrant or its tenants themselves (self-generated).
- Energy from all sources, including direct fuel usage, purchased electricity, and heating, cooling, and steam energy.

.03 The registrant may choose to discuss the comprehensiveness of data coverage if coverage variations by energy type exist (e.g., if a portion of floor area consumes electricity and natural gas and the registrant has energy consumption data coverage for electricity but not natural gas, the registrant does not have complete energy consumption data coverage but may choose to disclose the portion of total portfolio gross floor area with partial energy consumption data coverage).

.04 The registrant may choose to describe the variations in energy consumption data coverage, including the factors that influence it.

- Variations in energy consumption data coverage may occur based on distinctions including, but not limited to, the following:
  - Base Building, Tenant Space, and Whole Building;
  - Energy purchased by the landlord and energy purchased by tenants;
  - Managed assets and indirectly managed assets; and
  - Geographical markets.
- Relevant factors that influence energy consumption data coverage may include, but are not limited to:
  - Geographical markets and the applicable enabling or inhibiting laws, regulations, and policies within such markets, including those policies of utilities;
  - Administrative or logistical barriers to obtaining energy consumption data (e.g., lack of integration of utilities' data reporting systems);
  - Tenant demands around the privacy or proprietary nature of energy consumption data;
  - Property subsectors or other more nuanced classifications of property types;
  - Lease structures, including the length in time of leases, the terms applicable to the access of energy consumption data by the registrant, and the ability of the registrant to influence energy management performance of tenant spaces; and
  - The registrant's perception that its obtainment of tenant space energy consumption data may negatively impact tenant demand.

- .05 The following terms are defined according to the [2016 GRESB Real Estate Assessment Reference Guide](#):
- Base Building is defined as “Energy consumed in supplying central building services to lettable/leasable areas and common areas.”
  - Tenant Space is defined as “Lettable floor area (both vacant and let/leased areas).”
  - Whole Building is defined as “Energy used by tenants and base building services to lettable/leasable and common spaces. This should include all energy supplied to the building for the operation of the building and the tenant space.”
  - Purchased by Landlord is defined as “Energy purchased by the landlord, but consumed by the tenant. This can include energy purchased by the landlord but used for vacant space.”
  - Purchased by Tenant is defined as “Energy purchased by the tenant. Typically this is data that is not within the participants' immediate control...”
  - Managed Assets and Indirectly Managed Assets are defined as follows: “This definition of Managed assets and the definition of Indirectly Managed assets are solely based on the landlord/tenant relationship. [Managed and Indirectly Managed Assets are] assets or buildings for which the landlord is determined to have 'operational control' where operational control is defined as having the ability to introduce and implement operating and/or environmental policies and measures. In case both the landlord and tenant have the authority to introduce and implement any or all of the policies mentioned above, the asset or building should be reported as a Managed asset. Where a single tenant has the sole authority to introduce and implement operating and/or environmental policies and measures, the tenant should be assumed to have operational control, so it should be considered to be an Indirectly Managed asset.”
- .06 Leasable floor area may be used in place of gross floor area when gross floor area is not available for the relevant area of the portfolio (e.g., if a building with an unknown gross floor area has complete energy consumption data coverage, the leasable floor area may be added to the numerator and denominator for the relevant building in the above calculation in place of gross floor area).
- .07 Number of units may be used in place of floor area in the Apartments and Lodging/Resorts property subsectors when floor area is not available.
- .08 The registrant shall disclose energy consumption data coverage separately for each portion of its portfolio where properties are classified into subsectors that are aligned with the FTSE NAREIT Classification System and include the following: Health Care, Self Storage, Industrial, Office, Apartments, Manufactured Homes, Single Family Homes, Shopping Centers, Regional Malls, Free Standing, Lodging/Resorts, Specialty, Data Centers, and Other (any other property type(s) that cannot be classified to any of the previous property subsector classifications).
- .09 The registrant shall consider the 2016 GRESB Real Estate Assessment Reference Guide as a normative reference, thus any updates made year-on-year shall be considered updates to this guidance.

**IF0402-02. Total energy consumed by portfolio area with data coverage, percentage grid electricity, and percentage renewable, each by property subsector**

- .10 The registrant shall disclose total energy consumption by the portfolio area for which there is energy consumption data coverage as an aggregate figure in gigajoules or their multiples, where:
- Energy consumption data shall be disclosed by (1)(a) Base Building and (b) Tenant Space or (2) Whole Building, or a combination of these.
  - The scope includes all property area in the registrant’s portfolio for which there is energy consumption data coverage, regardless of whether energy is consumed by the Tenant Space or Base Building (including outdoor, exterior, and parking areas) and which party pays for energy expenses.
  - The scope excludes the portion of energy consumed by property area in the registrant’s portfolio for which energy consumption data is unavailable.<sup>14</sup>
    - If energy consumption data is not available for Tenant Space or Whole Building for a property but is available for the Base Building, then the registrant shall disclose this energy consumption data.
  - The scope of energy includes:
    - Energy purchased from sources external to the registrant and its tenants or produced by the registrant or its tenants themselves (self-generated).
    - Energy from all sources, including direct fuel usage, purchased electricity, and heating, cooling, and steam energy.
- .11 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).
- .12 The registrant shall disclose grid electricity consumption as a percentage of total energy consumption.
- .13 The registrant shall disclose renewable energy consumption as a percentage of total energy consumption.
- .14 The scope of renewable energy includes renewable fuel the registrant and its tenants consume and renewable energy the registrant and its tenants directly produce, purchase 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 or its tenants in order for the registrant to claim them as renewable energy.

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<sup>14</sup> SASB recognizes that there may be property area in the registrant’s portfolio for which energy consumption data coverage is unavailable, in which case IF0402-02 will not reflect the entirety of energy consumption within the portfolio.

- For renewable PPAs, the agreement must explicitly include and convey that RECs be retained and retired on behalf of the registrant or its tenants 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 and its tenants is excluded from disclosure.<sup>15</sup>
  - Renewable energy is defined as energy from sources that are replenished at a rate greater than or equal to their rate of depletion, consistent with U.S. EPA definitions, such as geothermal, wind, solar, hydro, and biomass.
- .15 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.
- .16 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 The registrant shall disclose total energy consumed separately for each portion of its portfolio where properties are classified into subsectors that are aligned with the FTSE NAREIT Classification System and include the following: Health Care, Self Storage, Industrial, Office, Apartments, Manufactured Homes, Single Family Homes, Shopping Centers, Regional Malls, Free Standing, Lodging/Resorts, Specialty, Data Centers, and Other (any other property type(s) that cannot be classified to any of the previous property subsector classifications).
- .18 The registrant may choose to describe the variations in energy consumption.
- Variations in energy consumption data coverage may occur based on distinctions including, but not limited to, the following:
    - Base Building, Tenant Space, and Whole Building;
    - Energy purchased by the landlord and energy purchased by tenants;

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<sup>15</sup> SASB recognizes that RECs reflect the environmental attributes of renewable energy that have been introduced to the grid.

- Managed assets and indirectly managed assets; and
- Geographical markets.

.19 The following terms are defined according to the [2016 GRESB Real Estate Assessment Reference Guide](#):

- Base Building is defined as “Energy consumed in supplying central building services to lettable/leasable areas and common areas.”
- Tenant Space is defined as “Lettable floor area (both vacant and let/leased areas).”
- Whole Building is defined as “Energy used by tenants and base building services to lettable/leasable and common spaces. This should include all energy supplied to the building for the operation of the building and the tenant space.”
- Purchased by Landlord is defined as “Energy purchased by the landlord, but consumed by the tenant. This can include energy purchased by the landlord but used for vacant space.”
- Purchased by Tenant is defined as “Energy purchased by the tenant. Typically this is data that is not within the participants' immediate control...”
- Managed Assets and Indirectly Managed Assets are defined as follows: “This definition of Managed assets and the definition of Indirectly Managed assets are solely based on the landlord/tenant relationship. [Managed and Indirectly Managed Assets are] assets or buildings for which the landlord is determined to have 'operational control' where operational control is defined as having the ability to introduce and implement operating and/or environmental policies and measures. In case both the landlord and tenant have the authority to introduce and implement any or all of the policies mentioned above, the asset or building should be reported as a Managed asset. Where a single tenant has the sole authority to introduce and implement operating and/or environmental policies and measures, the tenant should be assumed to have operational control, so it should be considered to be an Indirectly Managed asset.”

.20 The registrant shall consider the 2016 GRESB Real Estate Assessment Reference Guide as a normative reference, thus any updates made year-on-year shall be considered updates to this guidance.

**IF0402-03. Like-for-like change in energy consumption of portfolio area with data coverage, by property subsector**

- .21 Like-for-like change in energy consumption shall be disclosed as a percentage and calculated as the total energy consumption in the fiscal year divided by the total energy consumption in the immediately prior fiscal year, where:
- The scope of energy consumption included in calculation of “like-for-like change” shall be aligned with that outlined in the [2016 GRESB Real Estate Assessment Reference Guide](#) (“Like-for-like Comparison”) as including all energy consumed by properties that were in the registrant’s portfolio for both the full fiscal year and the immediately prior full fiscal year.
    - Energy consumed by properties that have been acquired, disposed of, under development or have undergone a major renovation during the fiscal year or the immediately prior fiscal year shall be excluded.
    - No correction for changes in the occupancy rate is needed and buildings with a high variation in vacancy rates should be included.
  - The scope excludes the portion of energy consumed by property area in the registrant’s portfolio for which energy consumption data is unavailable for the full fiscal year and/or the immediately prior full fiscal year.<sup>16</sup>
- .22 Like-for-like change in energy consumption shall be disclosed by (1)(a) Base Building and (b) Tenant Space or (2) Whole Building, or a combination of these.
- If like-for-like change in energy consumption data is not available for Tenant Space or Whole Building for a property but is available for the Base Building, then the registrant shall disclose this like-for-like change in energy consumption data.
- .23 The scope, methodology, and calculations of energy consumption shall be consistent with IF0402-02.
- .24 The registrant shall disclose like-for-like change in energy consumption separately for each portion of its portfolio where properties are classified into subsectors that are aligned with the FTSE NAREIT Classification System and include the following: Health Care, Self Storage, Industrial, Office, Apartments, Manufactured Homes, Single Family Homes, Shopping Centers, Regional Malls, Free Standing, Lodging/Resorts, Specialty, Data Centers, and Other (any other property type(s) that cannot be classified to any of the previous property subsector classifications).
- .25 The registrant should disclose the floor area, in square feet, included in the scope of like-for-like change in energy consumption if the scope significantly diverges from the floor area of energy consumption data coverage.

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<sup>16</sup> SASB recognizes that there may be property area in the registrant’s portfolio for which energy consumption data coverage is unavailable, in which case IF0402-03 will not reflect the entirety of energy consumption within the portfolio.

- .26 “Like-for-like” data collection, analysis, and disclosure may be consistent with the approach with which the registrant discloses its financial reporting data.
- If the registrant discloses its financial reporting data using a concept and methodology similar to “Like-for-Like Comparison,” the registrant shall describe divergences between the scope of assets and/or floor area used in its financial reporting and its like-for-like change in energy consumption. For example, if additional assets are excluded from the like-for-like change in energy consumption relative to like-for-like financial reporting as a result of data coverage limitations, such inconsistencies shall be described.
- .27 The registrant may choose to additionally present like-for-like change in energy consumption on a normalized basis.
- Normalization factors and methodologies may include, but are not limited to, the following which are presented in the [2016 GRESB Real Estate Assessment Reference Guide](#):
    - Occupancy rate;
    - Footfall;
    - Operational hours;
    - Weather conditions;
    - Degree days;
    - Air conditioning and/or natural ventilation;
    - Building age; and/or
    - Other.
  - If the registrant chooses to additionally disclose normalized “like-for-like” change in energy consumption, the registrant shall provide a brief description of the normalization factor and methodology or its use of a third-party methodology (e.g., “Weather Normalized Energy” as provided by ENERGY STAR Portfolio Manager®).
- .28 The registrant may choose to describe the variations in like-for-like change in energy consumption.
- Variations in energy consumption may occur based on distinctions including, but not limited to, the following:
    - Base Building, Tenant Space, and Whole Building;
    - Energy purchased by the landlord and energy purchased by tenants;
    - Managed assets and indirectly managed assets; and
    - Geographical markets.

.29 The following terms are defined according to the [2016 GRESB Real Estate Assessment Reference Guide](#):

- Base Building is defined as “Energy consumed in supplying central building services to lettable/leasable areas and common areas.”
- Tenant Space is defined as “Lettable floor area (both vacant and let/leased areas).”
- Whole Building is defined as “Energy used by tenants and base building services to lettable/leasable and common spaces. This should include all energy supplied to the building for the operation of the building and the tenant space.”
- Purchased by Landlord is defined as “Energy purchased by the landlord, but consumed by the tenant. This can include energy purchased by the landlord but used for vacant space.”
- Purchased by Tenant is defined as “Energy purchased by the tenant. Typically this is data that is not within the participants' immediate control...”
- Managed Assets and Indirectly Managed Assets are defined as follows: “This definition of Managed assets and the definition of Indirectly Managed assets are solely based on the landlord/tenant relationship. [Managed and Indirectly Managed Assets are] assets or buildings for which the landlord is determined to have 'operational control' where operational control is defined as having the ability to introduce and implement operating and/or environmental policies and measures. In case both the landlord and tenant have the authority to introduce and implement any or all of the policies mentioned above, the asset or building should be reported as a Managed asset. Where a single tenant has the sole authority to introduce and implement operating and/or environmental policies and measures, the tenant should be assumed to have operational control, so it should be considered to be an Indirectly Managed asset.”

.30 The registrant shall consider the 2016 GRESB Real Estate Assessment Reference Guide as a normative reference, thus any updates made year-on-year shall be considered updates to this guidance.

**IF0402-04. Percentage of eligible portfolio that (1) has obtained an energy rating and (2) is certified to ENERGY STAR®, by property subsector**

.31 The registrant shall disclose the percentage of the portfolio that has a valid or current energy rating, by gross floor area, where:

- The percentage shall be calculated as the total portfolio gross floor area that obtained an energy rating divided by the total portfolio gross floor area.
- Gross floor area is defined according to the [EPA ENERGY STAR®](#) definition as “the total property square footage, measured between the principal exterior surfaces of the enclosing fixed walls of the building(s).”

- An energy rating is defined according to the [2016 GRESB Real Estate Assessment Reference Guide](#) as a scheme that measures the energy performance of buildings, including schemes solely concerned with measuring energy performance as well as cases in which an energy rating is an element of a broader scheme measuring environmental performance.
  - The scope of energy rating schemes includes:
    - ENERGY STAR® for operations in the U.S. and Canada.
    - E.U. Energy Performance Certificates (EPC) for operations in the European Union.
    - NABERS Energy for operations in Australia.
    - NABERSNZ for operations in New Zealand.
    - Other energy rating schemes that can be demonstrated to have substantially equivalent criteria, methodology, and presentation of results as those schemes above.
  - The scope of disclosure is aligned with the [2016 GRESB Real Estate Assessment Reference Guide](#) in that it “only include[s] energy ratings that were awarded before or during the reporting period (pre-assessments or other unofficial forms of pre-certification are not valid). Some energy ratings are valid for a limited period only—the rating should be effective and official during the reporting period.”
- .32 The registrant may additionally disclose the percentage by energy rating scheme (i.e., by country).
- .33 The registrant shall disclose the percentage of the portfolio that is certified to ENERGY STAR®.
- The percentage shall be calculated as the total portfolio gross floor area that is certified to ENERGY STAR® in the United States divided by the total portfolio gross floor area in the United States.
    - If property is located in Canada, the registrant may separately disclose the percentage of the portfolio in Canada that is certified to ENERGY STAR®.
  - For a property to qualify as certified to ENERGY STAR®, the certification must be effective and official during the reporting period (as aligned with the [2016 GRESB Real Estate Assessment Reference Guide](#)).
- .34 The registrant may exclude from the scope the property area that is ineligible to receive an energy rating or certification based on the property subsector, location (e.g., located in a region in which energy ratings are not a commercially available service), or other specific use characteristics.
- .35 The registrant shall consider the 2016 GRESB Real Estate Assessment Reference Guide as a normative reference, thus any updates made year-on-year shall be considered updates to this guidance.

#### **IF0402-05. Description of how building energy management considerations are integrated into property investment analysis and operational strategy**

- .36 The registrant shall describe its strategic approach and the operational processes it uses to integrate energy-related considerations into its analysis of current and future property investments.
- .37 The registrant shall discuss the following elements of its strategic approach, where relevant:
- The use of energy-reduction targets and performance against those targets;
  - The integration of property energy performance into its property acquisition due diligence process, such as if these measures are qualitative in nature (e.g., whether or not the building has an energy performance certification) or quantitative in nature (e.g., the registrant adjusts occupancy rate projections based on energy performance data); and
  - Entity-level energy consumption and management policies, applicable across the registrant’s portfolio (aligned with 2016 GRESB Real Estate Assessment Q8).
- .38 The registrant shall discuss the operational processes it uses, which may include, but are not limited to:
- Management of the technical energy performance of its portfolio; and
  - The integration of renewable energy into its portfolio.
- .39 Relevant elements of its technical approach may include, but are not limited to:
- Use of technical building assessments to identify energy efficiency opportunities, including whether such assessments are in-house or external and the general portfolio coverage of such assessments during the last three years (aligned with 2016 GRESB Real Estate Assessment Q16);
  - Measures implemented to improve the energy efficiency of the portfolio, including specific measures taken, general portfolio coverage of such measures, and estimated energy savings (aligned with 2016 GRESB Real Estate Assessment Q17);
  - Approach to retrocommissionings, including their applicability to the registrant’s portfolio, the comprehensiveness of retrocommissionings conducted, general portfolio coverage, and estimated energy savings;
  - Use of environmental management systems to measure, manage, and improve the energy performance of buildings and such systems’ alignment with third-party standards or verification (aligned with 2016 GRESB Real Estate Assessment Q21, “Environmental Management Systems”); and
  - Use of data management systems to monitor, analyze, and benchmark energy performance of individual buildings, and such systems’ alignment with third-party standards or verification (aligned with 2016 GRESB Real Estate Assessment Q22, “Data Management Systems”).

- .40 The registrant shall discuss its strategies relating to energy ratings, benchmarking, and certifications, including their impact on tenant demand within the registrant’s target market(s); their relevance to the property types in its portfolio, such as the subsector(s), locations, and construction (new versus existing stock); and the costs and benefits associated with obtaining and maintaining an energy rating, benchmark, and certification.
- If applicable, the registrant shall discuss whether it prefers certifications that are based on ongoing performance (e.g., ENERGY STAR®) or those based on performance-modeled design objectives.
- .41 If the registrant participates in new construction or major renovations, it shall discuss whether and how it incorporates energy efficiency strategies into design and development.
- .42 The registrant shall describe its approach to renewable energy generation, which may include, but not is not limited to:
- The relevance of on-site and off-site renewable energy generation to the portfolio and energy management strategy;
  - Technical or legal limitations on the ability to incorporate renewable energy into the portfolio and energy management strategy; and
  - The energy generated from on-site and off-site renewable energy (aligned with 2016 GRESB Real Estate Assessment Q25.3).
- .43 The registrant shall consider the 2016 GRESB Real Estate Assessment as a normative reference, thus any updates made year-on-year shall be considered updates to this guidance.

# Water Management

## Description

Buildings consume significant amounts of water in their operations, through water fixtures, building equipment, appliances, and irrigation. Operating costs resulting from water consumption may represent significant costs depending on property type, tenant operations, geographical locations, and other factors. Companies in the industry can be responsible for a building's water costs, or common area water costs, though it is common to allocate all, or a portion, of these costs to occupants. In these arrangements, water management continues to play an important role through tenant demand and regulatory exposure. Tenants may assess the water efficiency of real estate assets in an effort to control operating costs, mitigate environmental impacts of operations, and, often just as importantly, develop a reputation for resource conservation. Additionally, real estate owners may be exposed to water-related regulations even when water costs are the responsibility of occupants. Overall, companies in the industry that effectively manage water efficiency of assets, even when they don't face direct exposure to water costs, may see reduced operating costs and regulatory exposure, as well as increased tenant demand, rental rates, and occupancy rates, all of which drive revenue and asset value appreciation. Long-term historic increases in the costs of water, and expectations around continued increases due to overconsumption and constrained supplies resulting from population growth and shifts, pollution, and climate change, indicate the heightened importance of water management. The ability to improve asset water efficiency is highly dependent on the property type, locational water availability, target tenant market, local building codes, the ability to measure consumption, and the level of current efficiency of existing building stock, among other factors.

## Accounting Metrics

### **IF402-06. Water withdrawal data coverage as a percentage of total floor area and percentage in regions with High or Extremely High Baseline Water Stress, each by property subsector**

- .44 Water withdrawal data coverage shall be disclosed as a percentage and calculated as the total portfolio gross floor area with complete water withdrawal data coverage divided by the total portfolio gross floor area for which water is used, where:
- Gross floor area is defined according to the [EPA ENERGY STAR®](#) definition as “the total property square footage, measured between the principal exterior surfaces of the enclosing fixed walls of the building(s).”
  - Floor area is considered to have complete water withdrawal data coverage when water withdrawal data (i.e., amounts withdrawn) is obtained by the registrant in the relevant floor area during the fiscal year, regardless of when such data was obtained.
- .45 The scope of water withdrawals is aligned with the [2016 GRESB Real Estate Assessment Reference Guide](#), and includes water that was withdrawn from all sources, where:
- Water sources include surface water (including water from wetlands, rivers, lakes, and oceans), groundwater, rainwater collected directly and stored by the registrant, wastewater obtained from other entities, municipal water supplies, or supply from other water utilities.

- .46 The registrant shall disclose the percentage of water withdrawal data coverage in regions with High or Extremely High Baseline Water Stress as classified by the World Resources Institute's (WRI) Water Risk Atlas tool, Aqeduct (publicly accessible online [here](#)).
- The percentage shall be calculated as the total portfolio gross floor area with water withdrawal data coverage in regions with High or Extremely High Baseline Water Stress divided by the total portfolio gross floor area for which water is used in regions with High or Extremely High Baseline Water Stress.
- .47 The registrant may choose to describe the variations in water withdrawal data coverage, including the factors that influence it.
- Variations in water withdrawal data coverage may occur based on distinctions including, but not limited to, the following:
    - Base Building, Tenant Space, and Whole Building;
    - Water purchased by the landlord and water purchased by tenants;
    - Managed assets and indirectly managed assets; and
    - Geographical markets.
  - Relevant factors that influence water withdrawal data coverage may include, but are not limited to:
    - Geographical markets and the applicable enabling or inhibiting laws, regulations, and policies within such markets, including those policies of utilities;
    - Geographical markets and the applicability of risks related to water scarcity (and related current or future regulations);
    - Administrative or logistical barriers to obtaining water withdrawal data (e.g., lack of integration of utilities' data reporting systems);
    - Tenant demands around the privacy or proprietary nature of water withdrawal data;
    - Property subsectors or other more nuanced classifications of property types;
    - Lease structures, including the length in time of leases, the terms applicable to the access of water withdrawal data by the registrant, and the ability of the registrant to influence water management performance of tenant spaces; and
    - The registrant's perception that its obtainment of tenant space water withdrawal data may negatively impact tenant demand.

- .48 The following terms are defined according to the [2016 GRESB Real Estate Assessment Reference Guide](#):
- Base Building is defined as water “consumed in supplying central building services to lettable/leasable areas and common areas.”
  - Tenant Space is defined as “Lettable floor area (both vacant and let/leased areas).”
  - Whole Building is defined as water “used by tenants and base building services to lettable/leasable and common spaces. This should include all [water] supplied to the building for the operation of the building and the tenant space.”
  - Purchased by Landlord is defined as water “purchased by the landlord, but consumed by the tenant. This can include [water] purchased by the landlord but used for vacant space.”
  - Purchased by Tenant is defined as water “purchased by the tenant. Typically this is data that is not within the participants' immediate control...”
  - Managed Assets and Indirectly Managed Assets are defined as follows: “This definition of Managed assets and the definition of Indirectly Managed assets are solely based on the landlord/tenant relationship. [Managed and Indirectly Managed Assets are] assets or buildings for which the landlord is determined to have 'operational control' where operational control is defined as having the ability to introduce and implement operating and/or environmental policies and measures. In case both the landlord and tenant have the authority to introduce and implement any or all of the policies mentioned above, the asset or building should be reported as a Managed asset. Where a single tenant has the sole authority to introduce and implement operating and/or environmental policies and measures, the tenant should be assumed to have operational control, so it should be considered to be an Indirectly Managed asset.”
- .49 Leasable floor area may be used in place of gross floor area when gross floor area is not available for the relevant area of the portfolio (e.g., if a building with an unknown gross floor area has complete water withdrawal data coverage, the leasable floor area may be added to the numerator and denominator for the relevant building in the above calculation in place of gross floor area).
- .50 Number of units may be used in place of floor area in the Apartments and Lodging/Resorts property subsectors when floor area is not available.
- .51 The registrant shall disclose water withdrawal data coverage separately for each portion of its portfolio where properties are classified into subsectors that are aligned with the FTSE NAREIT Classification System and include the following: Health Care, Self Storage, Industrial, Office, Apartments, Manufactured Homes, Single Family Homes, Shopping Centers, Regional Malls, Free Standing, Lodging/Resorts, Specialty, Data Centers, and Other (any other property type(s) that cannot be classified to any of the previous property subsector classifications).
- .52 The registrant shall consider the 2016 GRESB Real Estate Assessment Reference Guide as a normative reference, thus any updates made year-on-year shall be considered updates to this guidance.

**IF0402-07. Total water withdrawn by portfolio area with data coverage and percentage in regions with High or Extremely High Baseline Water Stress, each by property subsector**

.53 The registrant shall disclose the total amount of water (in thousands of cubic meters) that was withdrawn by the portfolio area for which there is water withdrawal data coverage, where:

- Water withdrawal data shall be disclosed by (1)(a) Base Building and (b) Tenant Space or (2) Whole Building, or a combination of these.
- The scope includes all property area in the registrant’s portfolio for which there is water withdrawal data coverage, regardless of whether water is consumed by the Tenant Space or Base Building (including outdoor, exterior, and parking areas) and which party pays for water expenses.
- The scope excludes the portion of water consumed by property area in the registrant’s portfolio for which water withdrawal data is unavailable.<sup>17</sup>
  - If water withdrawal data is not available for Tenant Space or Whole Building for a property but is available for the Base Building, then the registrant shall disclose this water withdrawal data.
- The scope of water withdrawal is aligned with the [2016 GRESB Real Estate Assessment Reference Guide](#), and includes water that was withdrawn from all sources, where:
  - Water sources include surface water (including water from wetlands, rivers, lakes, and oceans), groundwater, rainwater collected directly and stored by the registrant, wastewater obtained from other entities, municipal water supplies, or supply from other water utilities.

.54 The registrant shall analyze all of its operations for water risks and identify activities that withdraw water in locations with High (40–80%) or Extremely High (>80%) Baseline Water Stress as classified by the WRI’s Water Risk Atlas tool, Aqueduct (publicly accessible online [here](#)).

.55 The registrant shall disclose its water withdrawn in locations with High or Extremely High Baseline Water Stress as a percentage of the total water withdrawn.

.56 The registrant shall disclose total water withdrawn separately for each portion of its portfolio where properties are classified into subsectors that are aligned with the FTSE NAREIT Classification System and include the following: Health Care, Self Storage, Industrial, Office, Apartments, Manufactured Homes, Single Family Homes, Shopping Centers, Regional Malls, Free Standing, Lodging/Resorts, Specialty, Data Centers, and Other (any other property type(s) that cannot be classified to any of the previous property sub sector classifications).

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<sup>17</sup> SASB recognizes that there may be property area in the registrant’s portfolio for which water withdrawal data coverage is unavailable, in which case IF0402-07 will not reflect the entirety of water withdrawals within the portfolio.

.57 The registrant may choose to describe the variations in water withdrawn.

- Variations in water withdrawn may occur based on distinctions including, but not limited to, the following:
  - Base Building, Tenant Space, and Whole Building;
  - Water purchased by the landlord and water purchased by tenants;
  - Managed assets and indirectly managed assets; and
  - Geographical markets.

.58 The following terms are defined according to the [2016 GRESB Real Estate Assessment Reference Guide](#):

- Base Building is defined as, water “consumed in supplying central building services to lettable/leasable areas and common areas.”
- Tenant Space is defined as, “Lettable floor area (both vacant and let/leased areas).”
- Whole Building is defined as, water “used by tenants and base building services to lettable/leasable and common spaces. This should include all [water] supplied to the building for the operation of the building and the tenant space.”
- Purchased by landlord is defined as, water “purchased by the landlord, but consumed by the tenant. This can include [water] purchased by the landlord but used for vacant space.”
- Purchased by tenant is defined as, water “purchased by the tenant. Typically this is data that is not within the participants' immediate control...”
- Managed Assets and Indirectly Managed Assets are defined as, “This definition of Managed assets and the definition of Indirectly Managed assets are solely based on the landlord/tenant relationship. Assets or buildings for which the landlord is determined to have 'operational control' where operational control is defined as having the ability to introduce and implement operating and/or environmental policies and measures. In case both the landlord and tenant have the authority to introduce and implement any or all of the policies mentioned above, the asset or building should be reported as a Managed asset. Where a single tenant has the sole authority to introduce and implement operating and/or environmental policies and measures, the tenant should be assumed to have operational control, so it should be considered to be an Indirectly Managed asset.”

.59 The registrant shall consider the 2016 GRESB Real Estate Assessment Reference Guide as a normative reference, thus any updates made year-on-year shall be considered updates to this guidance.

**IF0402-08. Like-for-like change in water withdrawn for portfolio area with data coverage, by property subsector**

.60 Like-for-like change in water withdrawals shall be disclosed as a percentage and calculated as the total water withdrawals in the fiscal year divided by the total water withdrawals in the immediately prior fiscal year, where:

- The scope of water withdrawn included in calculation of “like-for-like change” shall be aligned with that outlined in the [2016 GRESB Real Estate Assessment Reference Guide](#) (“Like-for-like Comparison”) as including all water withdrawn by properties that were in the registrant’s portfolio for both the full fiscal year and the immediately prior full fiscal year.
  - Water withdrawn by properties that have been acquired, disposed of, under development or have undergone a major renovation during the fiscal year or the immediately prior fiscal year shall be excluded.
  - No correction for changes in the occupancy rate is needed and buildings with a high variation in vacancy rates should be included.
- The scope excludes the portion of water withdrawn by property area in the registrant’s portfolio for which water withdrawal data is unavailable for the full fiscal year and/or the immediately prior full fiscal year.<sup>18</sup>

.61 Like-for-like change in water withdrawals shall be disclosed by (1)(a) Base Building and (b) Tenant Space or (2) Whole Building, or a combination of these.

- If like-for-like change in water withdrawal data is not available for Tenant Space or Whole Building for a property but is available for the Base Building, then the registrant shall disclose this like-for-like water withdrawal data.

.62 The scope, methodology, and calculations of water withdrawals shall be consistent with IF0402-07.

.63 The registrant shall disclose like-for-like change in water withdrawn separately for each portion of its portfolio where properties are classified into subsectors that are aligned with the FTSE NAREIT Classification System and include the following: Health Care, Self Storage, Industrial, Office, Apartments, Manufactured Homes, Single Family Homes, Shopping Centers, Regional Malls, Free Standing, Lodging/Resorts, Specialty, Data Centers, and Other (any other property type(s) that cannot be classified to any of the previous property subsector classifications).

.64 The registrant should disclose the floor area, in square feet, included in the scope of like-for-like change in water withdrawals if the scope significantly diverges from the floor area of water withdrawal data coverage.

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<sup>18</sup> SASB recognizes that there may be property area in the registrant’s portfolio where water withdrawal data coverage is unavailable, in which case IF0402-08 will not reflect the entirety of water withdrawals within the portfolio.

.65 “Like-for-like” data collection, analysis, and disclosure may be consistent with the approach with which the registrant discloses its financial reporting data.

- If the registrant discloses its financial reporting data using a concept and methodology similar to “Like-for-Like Comparison,” the registrant shall describe divergences between the scope of assets and/or floor area used in its financial reporting and its like-for-like change in water withdrawn. For example, if additional assets are excluded from the like-for-like change in water withdrawn relative to like-for-like financial reporting as a result of data coverage limitations, such inconsistencies shall be described.

.66 The registrant may choose to additionally present like-for-like change in water withdrawals on a normalized basis.

- Normalization factors and methodologies may include, but are not limited to, the following which are presented in the [2016 GRESB Real Estate Assessment Reference Guide](#):
  - Occupancy rate;
  - Footfall;
  - Operational hours;
  - Weather conditions;
  - Degree days;
  - Air conditioning and/or natural ventilation;
  - Building age; and/or
  - Other.
- If the registrant chooses to additionally disclose normalized “like-for-like” change in water withdrawn, the registrant shall provide a brief description of the normalization factor and methodology or its use of a third-party methodology.

.67 The registrant may choose to describe the variations in like-for-like change in water withdrawn.

- Variations in water withdrawn may occur based on distinctions including, but not limited to, the following:
  - Base Building, Tenant Space, and Whole Building;
  - Water purchased by the landlord and water purchased by tenants;
  - Managed assets and indirectly managed assets; and
  - Geographical markets.

.68 The following terms are defined according to the [2016 GRESB Real Estate Assessment Reference Guide](#):

- Base Building is defined as water “consumed in supplying central building services to lettable/leasable areas and common areas.”
- Tenant Space is defined as “Lettable floor area (both vacant and let/leased areas).”
- Whole Building is defined as water “used by tenants and base building services to lettable/leasable and common spaces. This should include all [water] supplied to the building for the operation of the building and the tenant space.”
- Purchased by Landlord is defined as water “purchased by the landlord, but consumed by the tenant. This can include [water] purchased by the landlord but used for vacant space.”
- Purchased by Tenant is defined as water “purchased by the tenant. Typically this is data that is not within the participants' immediate control...”
- Managed Assets and Indirectly Managed Assets are defined as follows: “This definition of Managed assets and the definition of Indirectly Managed assets are solely based on the landlord/tenant relationship. [Managed and Indirectly Managed Assets are] assets or buildings for which the landlord is determined to have 'operational control' where operational control is defined as having the ability to introduce and implement operating and/or environmental policies and measures. In case both the landlord and tenant have the authority to introduce and implement any or all of the policies mentioned above, the asset or building should be reported as a Managed asset. Where a single tenant has the sole authority to introduce and implement operating and/or environmental policies and measures, the tenant should be assumed to have operational control, so it should be considered to be an Indirectly Managed asset.”

.69 The registrant shall consider the 2016 GRESB Real Estate Assessment Reference Guide as a normative reference, thus any updates made year-on-year shall be considered updates to this guidance.

**IF0402-09. Discussion of water management risks and description of strategies and practices to mitigate those risks**

.70 The registrant shall discuss its risks associated with water withdrawals.

.71 The registrant shall discuss, where applicable, risks to the availability of adequate, clean water resources.

- Relevant information to provide may include, but is not limited to:
  - Environmental constraints, such as operating in water-stressed regions, drought, interannual or seasonal variability, and risks due to the impact of climate change.
  - External constraints, such as volatility in water costs, stakeholder perceptions and concerns related to water withdrawals (e.g., those from local communities, non-governmental organizations, and regulatory agencies), direct competition with and impact from the actions of

other users (commercial and municipal), restrictions to withdrawals due to regulations, and the ability to obtain and retain water rights or permits.

- How risks may vary by withdrawal source, including wetlands, rivers, lakes, oceans, groundwater, rainwater, municipal water supplies, or supply from other water utilities.

.72 The registrant should include a discussion of the potential impacts that these risks may have on its operations and the timeline over which such risks are expected to manifest.

- Impacts may include, but are not limited to, those associated with costs, revenues, liabilities, continuity of operations, and reputation.

.73 The registrant shall provide a description of its short-term and long-term strategy or plan to manage these risks, including the following, where relevant:

- Any water management targets it has set, and an analysis of performance against those targets.
  - Water management targets can include water management goals that the registrant prioritizes to manage its risks and opportunities associated with water withdrawals, consumption, or discharge.
  - Targets can include, but are not limited to, those associated with reducing water withdrawals, reducing water consumption, reducing water discharges, and improving water discharge quality.
- The scope of its strategy, plans, or targets, such as whether they pertain differently to different business units, geographies, or water-consuming operational processes.
- The activities and investments required to achieve the plans and targets, and any risks or limiting factors that might affect achievement of the plans and/or targets.

.74 For water management targets, the registrant shall additionally disclose:

- The percentage reduction or improvements from the base year, where:
  - The base year is the first year against which water management targets are evaluated toward the achievement of the target.
- Whether the target is absolute or intensity based, and the metric denominator if it is an intensity-based target.
- The timelines for the water management plans, including the start year, the target year, and the base year.

- The mechanism(s) for achieving the target, including:
  - Efficiency efforts, such as the use of water recycling, closed-loop systems, and/or efficiency-driven equipment and appliance upgrades;
  - The planning and design for the water requirements of outdoor areas and irrigation;
  - The use of tools and technologies (e.g., the [World Wildlife Fund Water Risk Filter](#), [WRI/WBCSD Global Water Tool](#), and [Water Footprint Network Footprint Assessment Tool](#)) to analyze water use, risk, and opportunities; and
  - Collaborations or programs in place with the community or other organizations.
  
- .75 Disclosure of strategies, plans, and targets shall be limited to activities that were ongoing (active) or reached completion during the fiscal year.
  
- .76 The registrant may choose to discuss if its water management decisions and practices incorporate consideration of any additional lifecycle impacts or environmental tradeoffs for the registrant, including tradeoffs associated with land-use impacts, energy consumption, and greenhouse gas (GHG) emissions.

# Management of Tenant Sustainability Impacts

## Description

Real estate assets generate significant sustainability impacts, including resource consumption—namely energy and water—waste generation, and impacts on occupant health through indoor environmental quality. While companies in the industry own real estate assets, it is the tenant operations of such assets that is a dominant driver of sustainability impacts produced by the built environment. Tenants may design and construct leased spaces according to their operating needs. In turn, their operations consume significant amounts of energy and water, generate waste, and impact the health of those living, working, shopping, or visiting the properties. While these sustainability impacts are often generated by tenant operations and activities, real estate owners have an important role in influencing tenant sustainability impacts. The manner in which companies in the industry structure their agreements, contracts, and relationships with tenants is instrumental in effectively managing the sustainability impacts of their tenants, and ultimately, the impacts of their assets. Managing tenant sustainability impacts may include mitigating the problem of split incentives by aligning both parties' financial interests and sustainability outcomes, establishing systematic measurement and communication of resource consumption data, creating shared performance goals, and mandating minimum sustainability performance or design requirements, among other strategies. Effective management of tenant sustainability impacts, particularly related to energy, water, and indoor environmental quality, may drive asset value appreciation, increase tenant demand and satisfaction, decrease direct operating costs, and/or decrease risks related to building codes and regulations.

## Accounting Metrics

### **IF0402-10. Percentage of new leases that contain a cost recovery clause for resource efficiency-related capital improvements and associated leased floor area, by property subsector**

.77 The percentage shall be calculated as the total portfolio newly leased floor area associated with leases that contain a cost recovery clause for resource efficiency-related capital improvements divided by total portfolio newly leased floor area, where:

- A cost recovery clause for resource efficiency-related capital improvements is defined as a clause in a lease agreement that allows the registrant to invest in capital improvements to the energy efficiency and/or water efficiency of properties, while recovering all or a proportion of associated expenditures from tenants, regardless of the mechanism of cost recovery.<sup>19, 20</sup>

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<sup>19</sup> The definition of cost recovery clause for resource efficiency-related capital improvements is generally aligned with the [Green Lease Leaders](#) application: "Tenant cost recovery clause that can be used for energy efficiency-related capital improvements. This typically means that the list of operating expenses is expanded to include capital expenses intended to save energy, with the annual pass-through amount most often determined either by an amortization schedule or projected savings."

<sup>20</sup> The definition of cost recovery clause for resource efficiency-related capital improvements is generally aligned with the 2016 GRESB Real Estate Assessment Reference Guide: "Cost recovery clause for energy efficiency-related capital improvements: Allows the landlord to implement energy-efficiency measures during the lease and to recover a proportion or all of those costs from the tenant."

- .78 The scope of disclosure includes all of the properties in the registrant's portfolio that were newly leased during any part of the fiscal year, and for which the associated lease was executed between the registrant and the tenant.
- If the registrant executed lease amendments or letter agreements during the fiscal year that contain a cost recovery clause for resource efficiency-related capital improvements, the associated leased floor area shall be included within the scope of disclosure and shall be added to the numerator and denominator.
- .79 The registrant shall disclose the total portfolio newly leased floor area that is associated with leases that contain a cost recovery clause for resource efficiency-related capital improvements in square feet.
- .80 The registrant shall disclose the percentage of new leases that contain a cost recovery clause for resource efficiency-related capital improvements and the associated leased floor area separately for each portion of its portfolio where properties are classified into subsectors that are aligned with the FTSE NAREIT Classification System and include the following: Health Care, Self Storage, Industrial, Office, Apartments, Manufactured Homes, Single Family Homes, Shopping Centers, Regional Malls, Free Standing, Lodging/Resorts, Specialty, Data Centers, and Other (any other property type(s) that cannot be classified to any of the previous property subsector classifications).
- .81 Number of units may be used in place of floor area in the Apartments and Lodging/Resorts property subsectors when floor area is not available.
- .82 The registrant should provide a brief description of instances when such cost recovery clauses were exercised, including the extent throughout the portfolio and the financial implications.
- .83 The registrant should describe whether its standard lease contracts include a cost recovery clause for resource efficiency-related capital improvements (aligned with 2016 GRESB Real Estate Assessment Q39).
- .84 The registrant may choose to additionally disclose the percentage of all leases in effect as of the last day of the fiscal year that contain a cost recovery clause for resource efficiency-related capital improvements, calculated in a manner consistent with the above percentage.
- .85 The registrant may choose to additionally disclose the amount (in U.S. dollars) of actual capital expenditures associated with resource efficiency-related capital improvements that were recovered from tenants during the fiscal year through the use of cost recovery clauses in leases.
- .86 The registrant shall consider the 2016 GRESB Real Estate Assessment and the 2016 GRESB Real Estate Assessment Reference Guide as normative references, thus any updates made year-on-year shall be considered updates to this guidance.

**IF0402-11. Percentage of tenants that are separately metered or submetered for (1) grid electricity consumption and (2) water withdrawals, by property subsector**

- .87 The registrant shall disclose the percentage of tenants that are separately metered or submetered for the grid electricity usage resulting from their exclusive electricity consumption.
- The percentage shall be calculated as the total leasable floor area leased to tenants that are separately metered or submetered for their exclusive grid electricity consumption divided by the total portfolio leasable floor area.
- .88 The registrant shall disclose the percentage of tenants that are separately metered or submetered for the water usage resulting from their exclusive water withdrawals.
- The percentage shall be calculated as the total leasable floor area leased to tenants that are separately metered or submetered for the water usage resulting from their exclusive withdrawals divided by the total portfolio leasable floor area.
- .89 The registrant shall disclose the percentage of tenants that are separately metered or submetered for their exclusive grid electricity consumption and water withdrawals separately for each portion of its portfolio where properties are classified into subsectors that are aligned with the FTSE NAREIT Classification System and include the following: Health Care, Self Storage, Industrial, Office, Apartments, Manufactured Homes, Single Family Homes, Shopping Centers, Regional Malls, Free Standing, Lodging/Resorts, Specialty, Data Centers, and Other (any other property type(s) that cannot be classified to any of the previous property subsector classifications).
- .90 Number of units may be used in place of floor area in the Apartments and Lodging/Resorts property subsectors when floor area is not available.

**IF0402-12. Description of approach to measuring, incentivizing, and improving sustainability impacts of tenants**

- .91 The registrant shall describe its strategy and process for integrating considerations of sustainability into its leases and tenant relationships (e.g., tenant communication, voluntary initiatives, selection of a third-party property manager, if applicable, etc.) in order to measure, incentivize, and improve impacts.
- .92 For the purposes of this disclosure, the scope of sustainability topics includes the following: energy management, water management, and the impacts of properties on tenant health, including indoor environmental quality.
- .93 Relevant strategies to discuss include, but are not limited to:
- The following components of the 2016 GRESB Real Estate Assessment Q39.1:
    - Whether the registrant has agreements with its tenants to mutually share energy consumption and/or water withdrawal data.

- Whether the registrant has shared energy consumption and water withdrawal targets.
- Whether the registrant establishes requirements that any tenant works should meet standards provided by the registrant related to energy consumption, water efficiency, and indoor environmental quality.
- Whether the registrant establishes requirements that its tenants provide accurate information required for mandatory energy rating schemes.
- Whether the registrant has the ability to prioritize sustainability requirements over minimizing the costs of improvements and adjustments.
- Whether the registrant prioritizes separately metering or submetering tenant energy consumption and water withdrawals, and if so, if the registrant also prioritizes its own ability to measure the energy consumption and water withdrawals by its tenants.
- Whether the registrant prioritizes lease structures that require tenants to pay grid electricity and water utility expenses that are directly based on their actual and exclusive consumption of such resources.

.94 The registrant shall include a discussion of its support, participation, and usage of third-party initiatives concerning green leases.

- Third-party initiatives concerning green leases include, but are not limited to, green lease templates, principles, requirements, strategies, and educational programs provided by organizations.
- Examples of third-party initiatives concerning green leases include, but are not limited to:
  - Green Lease Leaders and Green Lease Library (programs jointly operated by the Institute for Market Transformation and the U.S. Department of Energy's Better Building Alliance);
  - Building Owners and Managers Association International, "Commercial Lease: Guide to Sustainable and Energy Efficient Leasing for High-Performance Buildings;"
  - Natural Resources Defense Council, "Energy Efficiency Lease Guidance;"
  - Corporate Realty, Design & Management Institute, "Model Green Lease;"
  - U.S. General Services Administration, "Green Lease Policies and Procedures;"
  - California Sustainability Alliance, "Green Leases Toolkit;"
  - Real Property Association of Canada, "Green Office Leases;" and
  - U.S. Green Building Council, "Green Office Guide: Integrating LEED into Your Leasing Process" and "Greening Your Lease."

- .95 The registrant shall describe whether third-party initiatives concerning green leases are integrated into its standard lease contracts (generally aligned with GRESB Real Estate Assessment Q39.1).
- .96 The registrant shall discuss how the lease types it uses (e.g., triple-net, full-service) and their provisions (e.g., cost recovery clauses, tenant fit out guides, utility information sharing, mandatory participation in energy ratings, etc.) may influence or incentivize tenant behavior related to sustainability impacts.
- The registrant may provide a discussion of how such lease structures may impact property values, including tenant demand and the associated rental rates and occupancy rates, over the long term.
- .97 The registrant shall consider the 2016 GRESB Real Estate Assessment as a normative reference, thus any updates made year-on-year shall be considered updates to this guidance.

# Climate Change Adaptation

## Description

Climate change affects companies in the industry via frequent or high-impact extreme weather events and changing climate patterns. The manner in which a company's business model is structured to incorporate ongoing assessments of climate change risks, and the adaptation to such risks, is likely to be increasingly connected to company value over the long term. More specifically, investment strategies with assets located on floodplains and in coastal regions that are exposed to inclement weather may have increased needs around risk mitigation and business model adaptation to climate change over the long term. These strategies are especially important in light of the long-term challenges associated with flood insurance rates, the financial stability of government-subsidized flood insurance programs, and financing stipulations or other creditor concerns. Besides insurance, other risk mitigation measures include improvements to physical asset resiliency and lease terms that transfer risk to tenants, although these measures can create their own costs and risks for real estate companies. To ensure long-term growth and protection in shareholder value, companies need to implement climate change adaptation strategies that are comprehensive, account for trade-offs between various risk mitigation strategies, and integrate consideration of all projected costs and benefits over the long term.

## Accounting Metrics

### **IF0402-13. Area of properties located in FEMA Special Flood Hazard Areas or foreign equivalent, by property subsector**

- .98 The registrant shall disclose the total leasable floor area of properties in the registrant's portfolio that are located in special flood hazard areas, where:
- FEMA Special Flood Hazard Areas (SFHA) are defined as land areas covered by the floodwaters of the base flood on National Flood Insurance Program (NFIP) maps. An SFHA is an area where the NFIP's floodplain management regulations must be enforced and where the mandatory purchase of flood insurance applies. The SFHA includes Zones A, AO, AH, A1-30, AE, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, VO, V1-30, VE, and V. Examples of SFHAs include coastal floodplains, floodplains along major rivers, and areas subject to flooding from ponding in low-lying areas.
  - The scope of disclosure includes properties located in the U.S. that are designated by FEMA as SFHA, as well as properties located outside of the U.S.
  - For non-U.S. properties that fall outside of the scope of FEMA, the foreign equivalent is the area that will be inundated by a flood event that has a one-percent chance of being equaled or exceeded in any given year (i.e., the 100-year floodplain).
- .99 Number of units may be used in place of floor area in the Apartments and Lodging/Resorts property subsectors when floor area is not available.

- .100 The registrant shall disclose the area of properties located in FEMA SFHAs separately for each portion of its portfolio where properties are classified into subsectors that are aligned with the FTSE NAREIT Classification System and include the following: Health Care, Self Storage, Industrial, Office, Apartments, Manufactured Homes, Single Family Homes, Shopping Centers, Regional Malls, Free Standing, Lodging/Resorts, Specialty, Data Centers, and Other (any other property type(s) that cannot be classified to any of the previous property subsector classifications).
- .101 The registrant should separately provide the planned leasable floor area of properties under development or construction that are located in FEMA SFHAs.
- .102 The registrant may disclose its risk perception and potential impacts resulting from reclassification of FEMA SFHAs, including the risk of expansion of such areas into real estate property owned by the registrant.

**IF0402-14. Description of climate change risk exposure analysis, degree of systematic portfolio exposure, and strategies for mitigating risks**

- .103 The registrant shall discuss the risks and/or opportunities that are presented to its portfolio by climate change scenarios, including, where relevant:
- Identification of the risks presented by climate change, including, but not limited to, availability of water, extreme weather events, evolving regulation and legislation, impacts on regional infrastructure, and impacts on local economies and populations, regardless of the impact of physical risks presented to the registrant's portfolio.
  - Discussion of the scenarios used to determine the risks and opportunities presented by climate change.
  - Discussion of how such scenarios will manifest (e.g., effects directly on the registrant or effects on the registrant's tenants).
  - The timeline over which such risks and opportunities are expected to manifest.
  - How risks and strategies may differ by property subsector.
  - How risks and strategies may differ by region.
- .104 The registrant shall discuss efforts to assess and monitor the impacts of climate change and the related strategies to alleviate and/or adapt to any risks and/or utilize any opportunities, where:
- Alleviation strategies include, but are not limited to, use of property insurance, flood insurance, lease structures, and lease durations.
  - Adaptation strategies include, but are not limited to, physical asset resiliency and contingency plans.

.105 The registrant's discussion shall include a differentiation between physical asset risk and financial risk in order to focus on the risks and alleviation and/or adaptation strategies that are most likely to impact company value.

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