



G R E S B<sup>®</sup>

2019

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# Resilience Assessment

# Contents

Introduction

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GRESB Resilience Indicators

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## **Disclaimer: 2019 GRESB Resilience Module Assessment Document**

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# Introduction

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The GRESB Resilience Module is an optional supplement to the GRESB Real Estate and Infrastructure Assessments. It has been developed in response to organizations that are developing a capacity to assess, manage and adapt in the face of social and environmental shocks and stressors.

Worldwide, the frequency, size and cost of disasters is increasing, driven by climate change, population growth, rapid urbanization, and other factors. Sustainability efforts are critical in helping mitigate these factors, including action to reduce greenhouse gas emissions; increase the use of clean, renewable energy sources; conserve water resources; and plan safe, equitable communities. These efforts are essential and must be continued and expanded. At the same time, businesses or communities must prepare for the changes that lie ahead. Organizations need to identify hazards, assess risks, and systematically adapt to a changing climate and changing world.

Long-term, global trends including population growth, urbanization, and climate change ensure that efforts to manage property and infrastructure in the future cannot entirely rely on past experience. Scientific evidence points to significant change, along with great uncertainty about local and regional impacts. The challenges of this dynamic future are daunting, but they also provide significant business opportunities. Scientists can already make reliable predictions about many types of impacts, along with information needed to identify the most vulnerable places and people. In parallel, new technologies and strategies are emerging that can mitigate local hazards, reduce risks, and protect life and property. The availability of this understanding and opportunities for positive action create the need to understand how property and infrastructure companies are acting to use these tools to manage risk and, in some cases, seize business opportunities.

These circumstances have motivated the development of the GRESB Resilience Module. The Module has two primary goals:

1. Meet investor demand for information about the resilience of property and infrastructure companies and funds; *and*
2. Provide more information about strategies used by property and infrastructure companies to assess and manage climate risks and resilience.

## Definitions

The Resilience Module addresses two fundamental dimensions of climate risk and resilience identified by the Financial Stability Board's [Task Force on Climate-related Financial Disclosures](#) (TCFD) recommendations, including:

1. Transition risk
2. Physical risk

*Transition risk* is a set of vulnerabilities related to the ongoing shift to a low carbon economy necessary to achieve the goals of the United Nation [Paris Agreement](#). This transition will create new opportunities for companies capable of providing low-carbon solutions, such as energy efficient buildings powered by renewable energy. This transition may also create new liabilities for companies reliant on inefficient, carbon-intensive technologies. Companies with these liabilities may be at risk from future regulation and competitive disadvantages (e.g., U.K. Minimum Energy Efficiency Standards for leased property).

Physical risk are associated with a myriad of shocks and stresses, such as those addressed by the global [100 Resilient Cities](#) program. Resilience to these issues includes both preparation for changing conditions and short-term responses to disruptive shocks (e.g., fire, flood events) and chronic stresses (e.g., changing heating and cooling degree days, precipitation levels ).

While the Resilience Module has a primary focus on climate risk and resilience, it takes a broader perspective than TCFD. The Resilience Module provides opportunities to report and score other resilience-related factors beyond transition and physical climate risk. Notably, the Module provides indicators related to social resilience and physical security, categorized as Social risks. Improvements to the Real Estate and Infrastructure Assessments may allow these indicators to be removed from the Resilience Module after 2019.

For the purpose of 2019 reporting, the Resilience Module provides relevant, actionable information related to transition, physical, and social risks and opportunities facing real estate and infrastructure companies around the world.

## Scope and Purpose

The Resilience Module seeks to provide investors with information needed to understand how real estate and infrastructure companies and funds are preparing for potentially disruptive events and changing conditions, assessing long-term trends, and becoming more resilient over time. The Module seeks to evaluate the capacity of organizations to assess and respond to risks and opportunities related to climate, environmental, social, economic, technological and geopolitical changes through asset resilience and the organization's management capacity.

The Resilience Module does not attempt to assess or communicate specific risks to individual assets, such as homes or buildings. The Resilience Module provides a framework to report on the processes used to conduct such risk assessments and the results from these assessments. Stakeholders interested in asset-level risk assessment and management are referred to a growing number of tools such as those identified in the [GRESB \(2018\) Special Report on Real Assets and Resilience](#).

## Timeline

The GRESB Resilience Module is designed as a three-year effort to improve reporting and benchmarking for climate risk and resilience by property and infrastructure companies. The 2019 Module makes incremental improvements in reporting indicators based on first-year experience with an emphasis on increasing alignment with recommendations from the TCFD. Changes to the 2019 Module also attempt to provide more quantitative and objective indicators that can be more easily compared across participants. After 2020, selected climate risk and resilience indicators are anticipated to migrate into the core Real Estate and Infrastructure Assessments.

- 2018: An initial high-level screen intended to raise awareness, motivate internal discussion, and provide a basic level of transparency for investors. Results from 2018 Real Estate and Infrastructure Assessments are available in the GRESB (2018) report [Real Assets & Resilience](#).
- 2019: Build upon the high-level criteria with more rigor with respect to the contents and quality of evidence. Increase alignment with TCFD recommendations. Open Resilience Module for participation by Infrastructure Funds.
- 2020: Increase stringency of validation, test additional performance indicators, and, where appropriate, align indicators and evidence requirements with industry standards and guidelines. This is the last year a distinct Resilience Module will be offered.
- 2021: Migrate selected indicators to the core GRESB assessments. Climate risk and resilience will be scored and reported as part of the core GRESB assessments.

## Structure

The 2019 Resilience Module is organized in four sections broadly aligned with recommendations from the Task force on Climate-related Financial Disclosure:

1. Leadership and Governance
2. Risk Assessment
3. Business Strategy
4. Performance Metrics and Targets

The 10 indicators in the module will be supplemented by information from the core GRESB assessments to generate an overall Resilience score (e.g., Real Estate RO3.1, RO3.2 and Infrastructure Asset Assessment, MA1, PD1, RO1, and ME2).

New in 2019, the Resilience Module is also available for use with the Infrastructure Fund Assessment.

The Resilience Module contains indicator structures familiar to users of GRESB Real Estate or Infrastructure. Each item consists of a "Yes or No" question. Either choice provides the option of providing additional text

comments. Selecting "Yes" provides a set of sub-questions to refine the response and the option to provide supporting evidence in the form of an uploaded document or hyperlink.

## Data Access

Participants in the Resilience Module can control access to Module results via the GRESB Portal by checking a box to confirm whether they wish to share their Module results with their investors. If a participant shares its Module results, these will appear as a separate section in that participant's Scorecard and Benchmark Report. If a participant does not share its results, Resilience Module results will not appear in the Scorecard and Benchmark Report. This selection can be changed upon request to [info@gresb.com](mailto:info@gresb.com). Aggregated information from all Resilience Module participants will be used as the basis for a market report and related research.

# GRESB Resilience Indicators

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**RS0** Would you like to participate in the Resilience Module?

- Yes
- No

**RS1** Does the organization have a senior employee responsible for climate risk and other resilience-related issues associated with this entity?

- Yes

The most senior employee responsible for resilience is:

- The same individual as the senior decision-maker responsible for sustainability (identified in the Management Aspect of the main GRESB Assessment).
- A different individual(s) from the senior decision-maker responsible for sustainability.

Provide the details for the most senior of these employees

Name: \_\_\_\_\_

Job title: \_\_\_\_\_

E-mail: \_\_\_\_\_

LinkedIn profile (optional): \_\_\_\_\_

Describe the individual's resilience-related qualifications (maximum 250 words)

\_\_\_\_\_

- No

Provide additional context for the answer provided (maximum 250 words)

\_\_\_\_\_

**RS2 Does the organization have a systematic process for communication and review of resilience-related information by the most senior governance body with responsibility for the entity?**

Yes

Climate-related transition risks

- The process is in routine use across the organization
- The process informs the highest level decision maker or decision making body with responsibility for the entity
- The process is documented
- The process includes (select all that apply)
  - Written communications
  - Presentations or briefings
  - Briefing documents for review by the Board of Directors
  - Other: \_\_\_\_\_

Physical risks

- The process is in routine use across the organization
- The process informs the highest level decision maker or decision making body with responsibility for the entity
- The process is documented
- The process includes (select all that apply)
  - Written communications
  - Presentations or briefings
  - Briefing documents for review by the Board of Directors
  - Other: \_\_\_\_\_

Social risks

- The process is in routine use across the organization
- The process informs the highest level decision maker or decision making body with responsibility for the entity
- The process is documented
- The process includes (select all that apply)
  - Written communications
  - Presentations or briefings
  - Briefing documents for review by the Board of Directors
  - Other: \_\_\_\_\_

**UPLOAD** or URL\_\_\_\_\_

Indicate where in the evidence the relevant information can be found\_\_\_\_\_

No

Provide additional context for the answer provided (maximum 250 words)

\_\_\_\_\_

**Does the organization have a systematic process to assess the entity's exposure to climate-related transition risk?** Yes

- The process is in routine use across the organization
- The process is documented
- The process is based on a science-based target
- The process considers scenarios (select all that apply)

 Representative Concentration Pathway 2.6 Representative Concentration Pathway 4.5 Representative Concentration Pathway 8.5 Other: \_\_\_\_\_

- The process evaluates climate-related transition opportunities and risk factors including (select all that apply)

 Policy and legal issues (select all that apply)

- Increased pricing of GHG emissions, natural gas or electricity
- Enhanced environmental-reporting obligations
- Increasingly stringent building and energy codes (e.g., EPC requirements)
- Other: \_\_\_\_\_

 Technology issues (select all that apply)

- Write-offs and early retirement of inefficient building attributes
- Capital investments to replace "brown" or inefficient equipment (e.g., installation of a heat pump)
- Other: \_\_\_\_\_

 Market issues (select all that apply)

- Reduced investor demand for assets with low scoring energy labels/ratings and/or green building certifications
- Abrupt and/or unexpected shifts in energy costs
- Re-pricing of "brown" assets
- Reduction in capital availability
- Other: \_\_\_\_\_

 Asset labels and certifications (select all that apply)

- Building energy labels/ratings
- Building certifications

Other: \_\_\_\_\_

Other: \_\_\_\_\_

The process evaluates potential outcomes including (select all that apply)

Risk to asset value;

Risk to tenants;

Risk to communities (particularly vulnerable populations);

Risk to continuity of operations;

Risk to individuals working with or for the entity

Other

-

\_\_\_\_\_

Results from the risk assessment are available for investors (select all that apply)

At the entity level

At the asset level

For some assets

For all assets

**UPLOAD** or URL \_\_\_\_\_

Indicate where in the evidence the relevant information can be found \_\_\_\_\_

No

Provide additional context for the answer provided (maximum 250 words)

\_\_\_\_\_

**RS4 Does the organization have a systematic process to assess the entity's exposure to social risks?**

Yes

- The process is in routine use across the organization
- The process is documented
- The process is based on a science-based target
- The process considers scenarios
  - Representative Concentration Pathway 2.6
  - Representative Concentration Pathway 4.5
  - Representative Concentration Pathway 8.5
  - Other: \_\_\_\_\_
- The process evaluates social factors including (check all that apply)
  - Physical security
  - Cybersecurity
  - Social disruption
  - Public health
  - Poverty
  - Modern slavery
  - Other: \_\_\_\_\_
- The process considers outcomes including (check all that apply)
  - Risk to asset value
  - Risk to tenants/customers
  - Risk to communities (particularly vulnerable populations)
  - Risk to continuity of operations
  - Risk to individuals working with or for the entity
  - Other: \_\_\_\_\_
- Results from the risk assessment are available for investors (select all that apply)
  - At the entity level
  - At the asset level
    - For some assets
    - For all assets

**UPLOAD** or URL\_\_\_\_\_

Indicate where in the evidence the relevant information can be found\_\_\_\_\_

No

Provide additional context for the answer provided (maximum 250 words)

\_\_\_\_\_

**Does the organization have a systematic process to assess the entity's exposure to physical environmental risks?** Yes

- The process is in routine use across the organization
- The process is documented
- The process is based on a science-based target
- The process considers scenarios

 Representative Concentration Pathway 2.6 Representative Concentration Pathway 4.5 Representative Concentration Pathway 8.5 Other: \_\_\_\_\_ The process evaluates environmental factors including (check all that apply) Biological Climatological Geophysical Hydrological Meteorological Other: \_\_\_\_\_ The process considers outcomes including (check all that apply) Risk to asset value Risk to tenants/customers Risk to communities (particularly vulnerable populations) Risk to continuity of operations Risk to individuals working with or for the entity Other: \_\_\_\_\_ Results from the risk assessment are available for investors (select all that apply) At the entity level At the asset level For some assets For all assets

**UPLOAD** or URL \_\_\_\_\_

Indicate where in the evidence the relevant information can be found \_\_\_\_\_

No

Provide additional context for the answer provided (maximum 250 words)

\_\_\_\_\_

**RS6 Has the organization implemented resilience-related business strategies covering its assets during the last four years?**

Yes

Please select asset type related strategies to manage risk and/or create value (select all that apply):

- New construction projects
  - Transition risk and value creation strategies
    - Energy demand management
    - Energy efficiency
    - Energy supply
    - Energy storage
    - Other: \_\_\_\_\_
  - Social risk and value creation strategies
    - Physical security
    - Cybersecurity
    - Social disruption
    - Public health
    - Poverty
    - Modern slavery
    - Other: \_\_\_\_\_
  - Physical risk and value creation strategies
    - Biological
    - Climatological
    - Geophysical
    - Hydrological
    - Meteorological
    - Other: \_\_\_\_\_
- Standing investments
  - Transition risk and value creation strategies
    - Energy demand management
    - Energy efficiency
    - Energy supply

Energy storage

Other: \_\_\_\_\_

Social risk and value creation strategies

Physical security

Cybersecurity

Social disruption

Public health

Poverty

Modern slavery

Other: \_\_\_\_\_

Physical risk and value creation strategies

Biological

Climatological

Geophysical

Hydrological

Meteorological

Other: \_\_\_\_\_

New acquisitions

Transition risk and value creation strategies

Energy demand management

Energy efficiency

Energy supply

Energy storage

Other: \_\_\_\_\_

Social risk and value creation strategies

Physical security

Cybersecurity

Social disruption

Public health

Poverty

Modern slavery

Modern slavery

Other: \_\_\_\_\_

Physical risk and value creation strategies

Biological

Climatological

Geophysical

Hydrological

Meteorological

Other: \_\_\_\_\_

**UPLOAD** or URL \_\_\_\_\_

Indicate where in the evidence the relevant information can be found \_\_\_\_\_

No

Not Applicable

Provide additional context for the answer provided (maximum 250 words)

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**RS7 Did the entity have specific climate risk and resilience targets or goals during the reporting period?**

Yes

Please describe

Transition risk and value creation

Targets or goals: \_\_\_\_\_

Social risk and value creation

Targets or goals: \_\_\_\_\_

Physical risk and value creation

Targets or goals: \_\_\_\_\_

**UPLOAD** or URL \_\_\_\_\_

Indicate where in the evidence the relevant information can be found \_\_\_\_\_

No

Not Applicable

Provide additional context for the answer provided (maximum 250 words)

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**RS8 How did the entity measure resilience-related performance and/or outcomes during the last four years?**

Yes

Please describe metrics used to track outcomes during the last four years;  
See also TCFD Guidance on this

Transition outcomes and performance measures

Describe metrics tracked: \_\_\_\_\_

Social risk measurement, select all that apply

Describe metrics tracked: \_\_\_\_\_

Physical risk measurement

Describe metrics tracked: \_\_\_\_\_

**UPLOAD** or URL \_\_\_\_\_

Indicate where in the evidence the relevant information can be found \_\_\_\_\_

No

Not Applicable

Provide additional context for the answer provided (maximum 250 words)

\_\_\_\_\_