

GREEN GLOBES FOR EXISTING BUILDINGS 2021

LEARNING OBJECTIVES

- Understand the Environmental Assessment Areas and point allocations for Green Globes for Existing Buildings 2021
- Recognize how Green Globes supports ESG and CSR reporting



ENVIRONMENTAL, SOCIAL, AND CORPORATE GOVERNANCE (ESG)



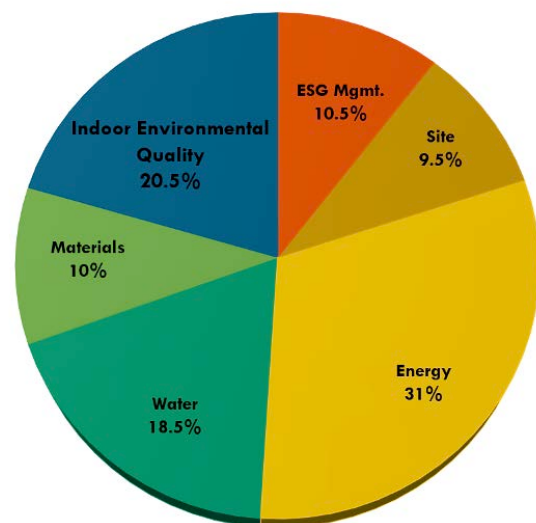
Green Globes can be used to evaluate Environmental, Social & Governance and Corporate Social Responsibility criteria. As many as 80% of companies globally now report on sustainability. It is likely that your clients are in the process of ESG or CSR reporting. Therefore, it is important for you to understand the metrics your clients are reporting on, and how Green Globes certification can help project teams evaluate and report on this data.

- Green Globes is recognized by GRESB as a Tier 1 Certification.
- In Green Globes for Existing Buildings 2021 there are Equity & Inclusiveness and Social & Governance criteria to value social involvement.
- In Green Globes for Existing Buildings 2021, Resilience criteria evaluate the risk factors of building site and planning for emergencies.
- Additionally, there are new Green Globes criteria in task force development incorporate additional, health, safety and wellness credits.
- Some Examples include incentivizing touchless technology, floor to ceiling toilet stalls, and addressing cleaning protocols during times of epidemic or pandemic.
- Additionally, Building owners and operators can track and benchmark building performance metrics (energy, water, waste, and emissions) through Green Globes Software.

ENVIRONMENTAL ASSESSMENT AREAS

SI	NC (CS)	EB
Project Management	Project Management	ESG Management
N/A	Site	Site
Energy	Energy	Energy
Water	Water	Water
Materials & Resources	Materials & Resources	Materials
Emissions	Emissions	N/A
Indoor Environment	Indoor Environment	Indoor Environment

The maximum points possible within Green Globes for Existing Buildings are distributed among six assessment areas. Just as in NC and SI, Energy has the largest percentage of points in the EB program. Indoor Environmental Quality and Water are the next two most heavily weighted areas.



ESG MANAGEMENT

ESG Management addresses environmental, social, and governance issues.

Under Operations & Management, the umbrella management process underpinning the criteria in this subsection is the environmental management system (EMS). Key EMS elements include updated written policies, training around the EMS, and plans for measuring performance. Operations and Maintenance training focuses on forming initial and recurring building operations and energy conservation trainings for facility staff; training for relevant staff on identifying, preventing, and solving IEQ issues; and education and training for staff who may be working with hazardous materials, chemicals, and toxic products.

Resilience is a new topical area to Green Globes for Existing Buildings 2021. Risk Assessment & Facility Adaptation evaluates current and future hazards as identified by the Disaster Resilience Scorecard for Industrial and Commercial Buildings. This is an adaptation of the United Nations Office for Disaster Risk Reduction (UNDRR)'s City Disaster Resilience Scorecard, and aligns the

Green Globes criteria with the guidelines that have been set by the United Nations to be used by owners, managers and operators of commercial, industrial and multi-residential buildings. This subsection includes a risk analysis for each of the climate changes that are associated with those risks and hazards for the specific building and location, and evaluating critical mission and functional requirements with the risk analysis. Emergency Procedures, Response, and Facility Upgrades, and Building Occupant Environmental Training & communications, address emergency response plans with documented procedures, staff trainings to provide assistance during emergencies, onsite equipment to handle environmental emergencies, and a site map that indicates environmentally significant features that could pose risks.

Under Social Management, there are two subsections: Equity & Inclusiveness and Social & Governance. Under these subsections, the Green Globes for Existing Buildings 2021 program evaluates if there are policies in place to support diversity, equity, and inclusion, through hiring practices, contracting, and requirements for representation among tenants. A focus on community investment further develops this subsection. For Social Governance, owners and stakeholders are awarded for engaging in best practices, including providing safe working conditions, fair living wages, ongoing governance and social training, and regular annual Corporate Social Responsibility (CSR) and/or Social Governance reporting.

SITE

This Environmental Assessment Area addresses site contamination and site improvement. It covers potential contamination of the site, and if contamination exists, what efforts are being taken to clean up the site. The subsection of Site Enhancements focuses on site improvement through an increase of indigenous species, the re-establishment of vegetation corridors including wildlife habitats, or filtration or reduction of stormwater runoff; development of a comprehensive site plan that includes all areas of site improvement, including access to walking trails, bike paths, outdoor respite and outdoor community spaces; and evaluates the use of permeable strategies to reduce water run-off from roofs and hardscaping. Site Improvement also addresses the existing site, evaluating transportation assessments, distance to public transit, ease of access to pedestrian walkways and transit stops, availability of public or private transit, and efforts to include amenities based on an occupant commute.

ENERGY

The prominence of energy performance and conservation related criteria is also demonstrated in Green Globes for Existing Buildings 2021, with 31% of all available credit allocated to energy topics. This area includes an energy performance criterion as well as prescriptive energy criteria.

Energy Performance

Path A: Improvement over Baseline (up to 100 points)

What is the building's energy reduction over 5-year or 6–10-year benchmarking baseline?

Path B: ENERGY STAR Benchmarking (up to 100 points)

What is the ENERGY STAR score for the building?

Path C: Alternative Building Energy Performance (up to 100 points)

What is the building's percent improvement over average performance for the building type?

If the building is eligible for an ENERGY STAR Score, then Path A (Improvement Over Baseline) or Path B (ENERGY STAR Score) must be pursued. If not, then Path C (Alternative Building Energy Performance) can be pursued. Please note, manufacturing/industrial plants are eligible for an ENERGY STAR Score.

Buildings may also make a regression to other sources of peer data such as CBECS, I2SL, or industry group data for an ENERGY STAR equivalency by pursuing Path C.

Prescriptive Energy Measures

The subsection Prescriptive Energy Measures evaluates envelope, lighting, building automation systems (BAS) and controls, cooling systems, heating systems, hot water, simultaneous heating & cooling, air handling equipment & ventilation, and vertical transportation.

Under Energy Maintenance & Management, teams are awarded points for the creation of an energy maintenance program, energy audits, commissioning, energy monitoring, policy, and Management.

The use of renewable and alternative energy is encouraged under the subsection of Sustainable Energy.

WATER

In a similar manner to Energy, Green Globes for Existing Buildings 2021 provides a focus on both whole building water performance, offering three pathways for measuring water consumption, and prescriptive water efficiency criteria, as well as a host of management topics. The whole building criteria awards performance credit based on actual water consumption.

Water Performance

Path A: Peer Benchmarking (65 points)

What is the building's current standing as compared to other similar building types?

Path B: EPA Water Score for Multifamily Housing (65 points)

What is the water score for your facility?

Path C: Prescriptive Water Performance (50 points)

What is the building's water reduction over 5-year benchmarking baseline?

Path B is for property types that are at least 75% multifamily and receive an EPA Water Score. Path A and Path C are for all other property types.

Prescriptive Water Measures

Under Water Conserving Features there are eight property specific pathways for assessing indoor water-conserving fixtures, with WaterSense labeling (Path A most heavily weighted).

Outdoor Water Consumption offers two pathways:

- No Irrigation – xeriscaping or urban sites with no need for irrigation
- Outdoor Water Conserving Features – rainwater, graywater, municipal reclaimed water, plants that require little watering, smart irrigation systems

Water Quality and Management addresses the creation of written policy to minimize water use, review monitoring and metering of water use, submetering, water audits, water usage policy including water reduction targets endorsed by senior management, Water systems (should conform with ASHRAE 188-2018), and risk management for building water systems, and analysis of water systems for hazards.

MATERIALS

Under the subsection Cycle Renovations there are two pathways for assessing cycle renovations:

- All building types, except healthcare settings
- Healthcare settings

This subsection addresses the development of product standards for cycle renovations; product selections that include sustainable comparison – third-party verified multiple attribute standard certifications, EPDs, NIST's BEES database; pre-consumer and post-consumer recycled content, biobased content, material reuse; safety data sheet or Health Product Declaration (HPD); and construction, renovation, and demolition waste management policy, procedure, and plan for cycle renovations.

Environmental Purchasing is evaluated, and facilities are encouraged to create a written environmental purchasing policy, and to use environmentally preferred products including energy saving equipment.

Recycling & Waste is addressed as well as Consumables/ Disposables with Waste Reduction and Recycling as subsections.

INDOOR ENVIRONMENTAL QUALITY

Health and wellness of occupants is emphasized under this environmental assessment area, and seen as a core concept of the Green Globes programs.

IEQ Systems and Measures addresses the ventilation system, filtration system, and control of pollutants at the source. There are three pathways for assessing filtration systems:

- **Path A: Offices, Higher Education, General Commercial Facilities**
- **Path B: Multifamily**
- **Path C: Healthcare**

IEQ Management addresses IAQ Management, Integrated Pest Management (IPM), and cleaning & disinfection.

Under Hazard Prevention, asbestos, radon, and lead are addressed, as well as health, safety, and management of chemicals and hazardous materials. There are two paths for assessing hazardous chemicals and chemical management: Path for Healthcare, Education, Laboratories, and Hospitality Facilities, and a separate path for other buildings.

Lighting evaluates daylighting, and lighting quality & management.

Comfort, Health, & Wellness addresses thermal comfort, acoustical privacy & comfort, access to potable water, and health and wellness.

RECOMMENDED DOCUMENTATION

- Corporate Social Responsibility (CSR) / Environmental Social Governance (ESG) Reports
- Energy and Water Audits
- Life Cycle Analysis
- Maintenance & Cleaning Schedules
- Building Environmental Management Plan
- Emergency Supply Lists
- Site Maps
- Emergency Preparedness Schedule
- Coordination Items
- Purchasing Policy
- Operations & Training Material
- Transportation Assessment
- Communique to Occupants & Visitors
- Materials Specs
- Commissioning Report
- Waste Management Policy