OP 4: Building Operations and Maintenance

5 points available

Rationale

This credit recognizes institutions that operate and maintain their buildings in ways that protect the health of building occupants and the environment. An institution's existing building stock is typically the largest source of campus energy consumption and greenhouse gas emissions. By adopting and following a sustainable operations and maintenance framework, institutions can conserve energy and water, minimize impacts on the surrounding site, reduce waste and water consumption, promote indoor environmental quality, and support markets for environmentally preferable materials while providing healthy and productive work, learning, and living spaces. While other credits also capture many of the impacts of green buildings (e.g., on campus energy consumption and water use), this credit specifically recognizes institutions that have comprehensive sustainable operations and maintenance programs and that pursue third party certification for those programs.

Applicability

This credit applies to all institutions.

Criteria

Institution's buildings are operated and maintained in accordance with a sustainable management policy/program and/or a *green building rating system* focused on the operations and maintenance of existing buildings, e.g. LEED®: Building Operations + Maintenance (O+M).

Sustainable operations and maintenance policies/programs and rating systems may be:

- Multi-attribute - addressing water efficiency, energy and atmosphere, material and resources, and indoor environmental quality (e.g., BREEAM-In Use, LEED O+M, and similar programs); OR
- Single-attribute - focusing predominantly on one aspect of sustainability such as energy/water efficiency or indoor environmental quality (e.g., green cleaning, indoor air quality, and integrated pest management).

Building space that is third party certified under a multi-attribute green building rating system developed/administered by a WorldGBC member Green Building Council (GBC) is weighted more heavily for scoring purposes than space operated and maintained under other standards and policies/programs.For more information, see Examples of Multi-attribute and Single-attribute Building Frameworks.

Floor area operated and maintained under multiple O+M policies/programs and/or rating systems should not be double-counted.

Building space that is certified only under a green building rating system for new construction and major renovation does not count for this credit. For example, a building that is certified under LEED: Building Design + Construction (BD+C), but not LEED: Building Operations + Maintenance (O+M) should not be

counted as certified space. Sustainability in new construction and major renovation projects is covered in the Building Design and Construction credit.

Scoring

A institution earns the maximum of 5 points available for this credit by having all eligible building space certified at the highest achievable level under a multi-attribute, GBC rating system focused on the operations and maintenance of existing buildings, e.g., LEED O+M Platinum. Incremental points are awarded based on the percentage of building space that is certified at each level and/or maintained in accordance with a sustainable operations and maintenance policy/program (see table below). For example, an institution that has 100 percent of its eligible building space certified at the minimum level would earn 2.5 points for this credit, while an institution that has 50 percent of its eligible building space certified at the minimum level would earn 1.25 points.

Points are calculated automatically in the STARS Reporting Tool as follows:

Operations and maintenance (O+M) level	Factor		Floor area operated and maintained at each level		Total floor area of building space		Points earned
Certified at the highest achievable level under a multi-attribute GBC rating system (e.g., LEED O+M Platinum)	5	×	_____	÷	_____	=	
Certified at the 2nd highest level under a 4- or 5-tier, multi-attribute GBC rating system (e.g., LEED O+M Gold)	4		_____				
Certified at mid-level under a 3- or 5-tier, multi-attribute GBC rating system (e.g., BREEAM-In Use Very Good)	3.5		_____				
Certified at a step above minimum level under another 4 -or 5–tier, multi-attribute GBC rating system (e.g., LEED O+M Silver)	3		_____				
Certified at minimum level under a multi-attribute GBC rating system (e.g., LEED O+M Certified, BREEAM In-Use Pass)	2.5		_____				
Certified at any level under a non-GBC rating system or a single-attribute rating system focused on O+M	2.5		_____				
Operated and maintained in accordance with a multi-attribute sustainable management policy/program, but not certified	2		_____				

Operated and maintained in accordance with a single-attribute sustainable management policy/program, but not certified	1		———				
Total points earned →							**Up to 5**

Reporting Fields

Required

- □ Total floor area of existing building space (square metres or feet)
- □ Floor area of existing building space (square metres or feet):
    - ○ Certified at the highest achievable level under a multi-attribute, Green Building Council (GBC) rating system focused on the operations and maintenance of existing buildings (e.g., LEED O+M Platinum)
    - ○ Certified at the 2nd highest level under a 4- or 5-tier, multi-attribute, GBC rating system focused on the operations and maintenance of existing buildings (e.g., LEED O+M Gold)
    - ○ Certified at mid-level under a 3- or 5-tier, multi-attribute, GBC rating system focused on the operations and maintenance of existing buildings (e.g., BREEAM-In Use Very Good)
    - ○ Certified at a step above minimum level under a 4 -or 5–tier, multi-attribute, GBC rating system focused on the operations and maintenance of existing buildings (e.g., LEED O+M Silver)
    - ○ Certified at minimum level under a multi-attribute, GBC rating system focused on the operations and maintenance of existing buildings (e.g., BREEAM In-Use Pass or LEED O+M Certified)
    - ○ Certified at any level under a non-GBC rating system or single-attribute rating system focused on the operations and maintenance of existing buildings
    - ○ Operated and maintained in accordance with a multi-attribute, sustainable management policy/program, but not certified under an O+M rating system
    - ○ Operated and maintained in accordance with a single-attribute, sustainable management policy/program, but not certified under an O+M rating system□
- □ A brief description of the sustainable operations and maintenance policy/program and/or O+M rating system(s) used

Optional

- □ Website URL where information about the institution's sustainable operations and maintenance program is available
- □ Additional documentation to support the submission (upload)
- □ Data source(s) and notes about the submission
- □ Contact information for a responsible party (an employee who can respond to questions regarding the data once it is submitted and available to the public)

Measurement

Timeframe

Report on the current certification status of buildings at the time of submission.

Buildings for which O+M certification has lapsed should not be counted as certified space. Likewise, buildings for which certification is pending should not be counted as certified space; these buildings may be excluded from the calculations for this credit for up to two years following registration with a rating system. Finally, buildings that have been certified under a rating system that focuses on design and construction (e.g., LEED BD+C) may be excluded from the calculations for this credit for up to five years following the date of certification.

Sampling and Data Standards

Include all *eligible building space (operations and maintenance)* that is part of the institution's overall STARS institutional boundary. Reporting on a sample or subset of eligible building space is not allowed for this credit.

An institution may use any standard definition of floor area (e.g., ASHRAE, ANSI/BOMA, IECC), as long as it uses the same definition for both the total floor area of eligible building space and the floor area of building space that is certified and/or sustainably operated and maintained.

Buildings that are not owned by the institution and in which the institution is one of multiple tenants may be excluded. If the institution chooses to include such buildings, it must include all multi-tenant buildings that are included in the institution's overall STARS boundary (see Institutional Characteristics) and in which the institution is a tenant; institutions cannot choose to include some leased spaces and omit others. If an institution chooses to include leased spaces, the institution should count only the square footage of building space it occupies and not the entire building.

Buildings that the institution leases entirely (i.e., the institution is the only tenant) should be included.

Standards and Terms

Eligible building space (operations and maintenance)
"Eligible building space (operations and maintenance)" includes the total floor area of all building space that is eligible for certification under a rating system focused on the operations and maintenance of existing buildings. To be included, building space must meet the minimum program requirements of a rating system for existing buildings. See, for example, LEED O+M Minimum Program Requirements. Buildings that do not meet minimum program requirements and are therefore ineligible for certification under a green building rating system for existing buildings - e.g., impermanent structures and buildings with less than 93 square metres (100 square feet) of gross floor area - may be excluded.

Green building rating system
The World Green Building Council (WorldGBC) defines green building rating systems as tools and certifications "used to assess and recognize buildings which meet certain green requirements or standards". Rating systems vary in their approach and can be applied to the design and construction of new buildings and major renovations or to the operations and maintenance of existing buildings. Rating systems may also be categorized as multi-attribute (e.g., addressing location and transportation, sustainable sites, water efficiency, energy and atmosphere, material and resources, and indoor

environmental quality) or single-attribute (e.g., focusing predominantly on energy/water efficiency or human health and wellbeing).

Consistent with WorldGBC, STARS takes a neutral approach to individual rating systems, however comprehensive, multi-attribute certifications developed/administered by a WorldGBC member Green Building Council (GBC) are weighted more heavily for scoring purposes than single-attribute certifications and multi-attribute certifications that are not developed/administered by a GBC. Examples include, but are not limited to:

Building Design and Construction (OP-3)

Multi-attribute GBC rating systems	BREEAM, CASBEE, DGNB, Green Star, LEED BD+C, LEED ID+C, Living Building Certification, Parksmart
Multi-attribute non-GBC rating systems	Green Globes NC
Single-attribute rating systems	EDGE, Fitwell, Living Building Petal Certification, Net Zero Energy, Passive House / Passivhaus, WELL, ZCB-Design

Building Operations and Maintenance (OP-4)

Multi-attribute GBC rating systems	BREEAM-In Use, CASBEE for Existing Buildings, DGNB, Green Star Performance, LEED O+M, Parksmart Pioneer
Multi-attribute non-GBC rating systems	BOMA BEST, Green Globes EB
Single-attribute rating systems	EDGE, ENERGY STAR, Fitwell, TRUE, WELL, ZCB-Performance

Additional examples of GBC-administered rating systems are available at http://www.worldgbc.org/rating-tools.

Credit Example: Multi- and single-attribute operations and maintenance policies/programs and rating systems

Multi-attribute frameworks address water efficiency, energy and atmosphere, material and resources, AND indoor environmental quality, whereas single-attribute frameworks focus predominantly on one aspect of sustainability such as energy/water efficiency or indoor environmental quality.

Institution A has 40 existing buildings in its portfolio, including:

- 2 buildings certified under BREEAM-In Use. They are counted as “certified under a **multi-attribute**, GBC rating system.”
- 8 uncertified buildings managed under an internal operations and maintenance policy that is based on BREEAM-In Use. They are counted as “operated and maintained in accordance with a **multi-attribute**, sustainable management policy/program, but not certified.”

All 40 buildings are managed under a green cleaning program and an indoor air quality management protocol.

- The 30 buildings not reported in one of the other categories are reported as “operated and maintained in accordance with a **single-attribute**, sustainable management policy/program, but not certified.”