

# OP 2: Building Operations and Maintenance

## Rationale

This credit recognizes institutions that operate and maintain their existing buildings in accordance with green building standards.

## Applicability

Applicable to all institutions.

## Points available

A maximum of 5 points are available for this credit.

## Criteria

### 2.1 Percentage of existing buildings managed for sustainability performance

An institution earns 5 points when 100 percent of its existing buildings are A) managed under a green cleaning program, B) individually assessed for energy performance, C) individually assessed for indoor environmental quality (IEQ) performance, D) managed or individually assessed for water performance, and E) third party certified to a **green building standard**, as detailed in Table I. Incremental points are available and earned as outlined in Table II.

Table I. Building operations and maintenance criteria

Criterion	Requirements
A. Managed under a green cleaning program	To qualify, building space must be: <ul style="list-style-type: none"><li>Managed under a written green cleaning policy that meets or exceeds the minimum criteria specified in a green building standard</li></ul> AND/OR <ul style="list-style-type: none"><li>Maintained by a cleaning service that is third party certified to the International Sanitary Supply Association (ISSA) Cleaning Industry Management Standard for Green Buildings (CIMS-GB), Green Seal's Environmental Standard for Commercial Cleaning Services (GS-42), or local equivalent in countries where these standards are not available.</li></ul>
B. Individually	To qualify, energy performance must be tracked and assessed at the building

assessed for energy performance	level on at least an annual basis to inform ongoing improvements. Appropriate tools to support these assessments include benchmarking platforms (e.g., ENERGY STAR Portfolio Manager), energy management systems, green building rating tools (e.g., Arc), building performance dashboards, and locally developed benchmarking systems.
C. Individually assessed for IEQ performance	<p>To qualify, indoor environmental quality must be tracked and assessed on at least an annual basis to inform ongoing improvements. The assessment must be in the form of:</p> <ul style="list-style-type: none"> <li>• A building-level indoor air quality evaluation that addresses inorganic contaminants (e.g., carbon dioxide) and/or volatile organic compounds (VOCs)</li> </ul> <p>AND/OR</p> <ul style="list-style-type: none"> <li>• An occupant satisfaction survey that meets or exceeds the minimum criteria specified in a green building standard.</li> </ul> <p>Passive methodologies such as tracking occupant complaints do not qualify in the absence of active monitoring and measurement.</p>
D. Managed or individually assessed for water performance	<p>To qualify:</p> <ul style="list-style-type: none"> <li>• Building space must meet or exceed the minimum criteria for water efficient fixtures, fittings, and equipment specified in a green building standard</li> </ul> <p>AND/OR</p> <ul style="list-style-type: none"> <li>• Water performance must be tracked and assessed at the building level on at least an annual basis to inform ongoing improvements. Appropriate tools to support these assessments include benchmarking platforms (e.g., ENERGY STAR Portfolio Manager), green building rating tools (e.g., Arc), and locally developed benchmarking systems.</li> </ul>
E. Third party certified to a green building standard	To qualify, a certification must be considered valid by the certifying body. A building that was certified to a standard for design and construction, but has not maintained certification as an existing building does not qualify, for example.

Table II. Points earned for indicator 2.1

Criterion	Floor area of existing buildings that meet	Gross floor area of existing building	Factor	Points earned
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	the criteria		space				
A. Managed under a green cleaning program		÷		×	1	=	
B. Individually assessed for energy performance		÷		×	1	=	
C. Individually assessed for IEQ performance		÷		×	1	=	
D. Managed or individually assessed for water performance		÷		×	1	=	
E. Third party certified to a green building standard		÷		×	1	=	
<b>Total points earned →</b>							

**Measurement**

Report on the current status of the institution’s buildings. Building space that is unoccupied (e.g., parking structures), temporary and mobile structures, very small buildings (e.g., less than 500 square meters in size), and new construction and major renovation projects reported in the Building Design and Construction credit may be excluded.

For further guidance and an updated list of qualifying green building standards, see the [STARS Help Center](#).

**Documentation**

Report the following information in the online Reporting Tool, with floor area figures provided in square meters. To convert square feet, multiply by 0.09290304.

- **Gross floor area of existing building space** (required). Square meters.
- Floor area of existing buildings managed under a green cleaning program (required). Square meters.

*If greater than zero, at least one of the following three fields is also required:*

- Online location of the institution’s green cleaning policy. Website URL.
- Copy of the institution’s green cleaning policy. Upload.

- Description of the institution’s certified green cleaning service. Include the specific green cleaning standards to which the service is certified.
- Floor area of existing buildings individually assessed for energy performance (required)

*If greater than zero, the following field is also required:*

- Narrative outlining how building-level energy performance is assessed and how the results are used to improve performance. For example, the assessment tools used to track and benchmark performance and how automation settings or efficiency upgrades are informed by the resulting data.
- Floor area of existing buildings individually assessed for indoor environmental quality (IEQ) performance (required). Square meters.

*If greater than zero, the following field is also required:*

- Narrative outlining how building-level IEQ is assessed and how the results are used to improve performance. For example, the assessment tools used to track and benchmark performance and how policies, processes, or infrastructure upgrades are informed by the resulting data.
- Floor area of existing buildings managed or individually assessed for water performance (required). Square meters.

*If greater than zero, at least one of the following three fields is also required:*

- Online location of the institution’s minimum standards for water efficient fixtures, fittings, and equipment. Website URL.
- Copy of the institution’s minimum standards for water efficient fixtures, fittings, and equipment. Upload.
- Narrative outlining how building-level water performance is assessed and how the results are used to improve performance. For example, the assessment tools used to track and benchmark performance and how policies, processes, or infrastructure upgrades are informed by the resulting data.
- Floor area of existing buildings third party certified to a green building standard (required). Square meters.

*If greater than zero, at least one the following two fields is also required:*

- List of the institution’s existing buildings and their green building certifications
- Inventory of the institution’s existing buildings and their green building certifications. Upload.

The Reporting Tool will automatically calculate the following five figures:

- Percentage of existing buildings managed under a green cleaning program

- Percentage of existing buildings assessed for energy performance
- Percentage of existing buildings assessed for IEQ performance
- Percentage of existing buildings managed or assessed for water performance
- Percentage of existing buildings third party certified to a green building standard

## Glossary

**Green building rating systems** – Tools and certifications used to assess and recognize buildings that meet sustainability 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. An extensive – but non-comprehensive – list of green building rating tools may be found on the [World Green Building Council](#) (WorldGBC) website.

**Green building standards** – Formal sets of criteria that go beyond minimum code requirements to raise the bar for energy efficiency, water efficiency, and other sustainability attributes. Green building standards may be administered by government entities, non-governmental organizations, higher education institutions, and/or professional research bodies and typically include third party certification or verification of compliance. Examples include:

- Green building rating systems, including – but not limited to – those administered by World Green Building Council (WorldGBC) member organizations
- Green building codes such as the International Green Construction Code (IgCC) and the California Green Building Standards Code (CALGreen Code)
- Standards such as ASHRAE Standard 189.1 for the Design of High-Performance Green Buildings, CEN/TC 350 standards for sustainable construction, ENERGY STAR, Nearly Zero Energy Buildings (NZEB), and Passive House
- Custom green building standards adopted by the institution, e.g., minimum criteria that are linked to a green building rating system

**Gross floor area of building space** – The total amount of building space that is included within the institutional boundary. Any standard definition of building space may be used (e.g., ASHRAE, ANSI/BOMA, IECC) as long as it is used consistently. Unless otherwise specified, unoccupied buildings and parking structures are excluded. Buildings within the overall STARS boundary that the institution leases entirely (i.e., the institution is the only tenant) should be included. 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 and in which the institution is a tenant; an institution 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.