

Energy Source

Positive

Credit: 23

Points: 5

Outcome

The building's energy comes from renewables.

Strategy

Registering from 2024 onwards	4 Star	Meets the <i>Minimum Expectation</i>
	5 Star	
	6 Star	Meets the <i>Credit Achievement</i>
Registering from 2026 onwards	4 Star	Meets the <i>Minimum Expectation</i>
	5 Star	Meets the <i>Credit Achievement</i>
	6 Star	
Registering from 2028 onwards	All ratings	Meets the <i>Credit Achievement</i>
Certified after 1 st January 2030, regardless of registration date	All certifications	Meets the <i>Credit Achievement</i>

Criteria

Minimum Expectation	Nil	<ul style="list-style-type: none"> Direct use of fossil fuels on site is limited. The building provides a Zero Carbon Action Plan.
Credit Achievement	2 points	<p>– Climate Positive Pathway –</p> <p>In conjunction with the <i>Minimum Expectation</i>:</p> <ul style="list-style-type: none"> 100% of the building's energy is supplied from electricity or other sources of renewable energy.
Exceptional Performance	3 points	<p>In conjunction with the <i>Credit Achievement</i>.</p> <ul style="list-style-type: none"> 100% of the building's electricity is generated from renewables on-site.

Additional information

Stage implementation

Strategy Brief Concept Design Tender Construction Handover Use

Synergies with other credits

- Verification and Handover
- Life Cycle Impacts
- Energy Use
- Climate Change Resilience
- Operations Resilience

Sustainable Development Goals

- Goal 7 (Affordable and Clean Energy)
- Goal 13 (Climate Action)

Relevant reporting initiatives

- GRESB
- TCFD

Climate Positive Pathway – Leadership point

This credit is part of the Climate Positive Pathway in Green Star Buildings. When the pathway is achieved, a *Leadership Challenge* point is awarded to the building for a total of 14 points for this path.

Requirements

Minimum Expectation

The project must comply with both of the following criteria:

- Direct Fossil Fuel Use is Limited
- Zero Carbon Action Plan

Fossil Fuel Use

Project teams must also demonstrate that they have limited direct fossil fuel sources. The Proposed Building shall be limited to the below proportion of its annual energy consumption from direct fossil fuel use on site. As per the table above, these requirements will become more stringent over time.

Rating Targeted	Direct Fossil Fuel Use as a proportion of total energy use (Proposed Building)
4 Star	10%
5 Star	5%
6 Star	0%

Zero Carbon Action Plan

The project team must develop a Zero Carbon Action Plan for the building. The plan must be signed off by the building owner or developer and included in any operational documents for the building. This requirement is considered to be met for fully electric buildings.

The Zero Carbon Action Plan must include a target date by when the building is expected to operate as fossil fuel free. The Zero Carbon Action Plan must cover all energy consumption, procurement, and generation and cannot rely on procuring renewable fuels as its only solution. It must also include infrastructure provided for tenants or future occupants such as gas installations for cooking.

The Zero Carbon Action Plan must be done prior to the tender phase of the project. The plan must:

- Quantify the building's scope 1 (including refrigerants) and 2 emissions between now and 2050 without any interventions
- Quantify the building scope 1 (including refrigerants) and 2 emissions in 2050 once all interventions have occurred
- Describe the changes the building is required to undertake to be climate positive as the distinct parts of the building's systems reach end of life
- Identify spatial considerations and physical interventions needed to replace fossil fuel using equipment, refrigerants, and infrastructure
- Perform a cost analysis of the potential costs and savings if the building was designed to be climate positive
- Be signed-off by the building owner or the developer

It must also outline, if relevant:

- A description of energy-consuming electrical, mechanical, or hydraulic systems and any refrigerants used.
- Any future spatial requirements or changes to plant rooms stemming from changes to existing building systems.
- Any additional capacity built into the building, substations, or building systems to enable any proposed changes. This may include the capacity to accommodate any future additional loads, energy storage or demand response solutions which may occur or be implemented during the life of the building.
- An upgrade or replacement timeline for the distinct systems, or system components, describing the point at which they are to be replaced with the appropriate alternatives.

The outcomes of the Zero Carbon Action Plan must be integrated with other Green Star credits targeted during certification. For example, any performance targets or activities relating the Zero Carbon Action Plan should be outlined in the *Verification and Handover* credit.

Credit Achievement

In conjunction with the *Minimum Expectation*, the project must comply with the following criteria:

- Exclusion of Fossil Fuels On-site

Exclusion of Fossil Fuels On-site

Fossil fuels cannot be used on site for any domestic hot water, space heating or cooking under any circumstances regardless of base build or tenant use. Fossil fuels for industrial processes are excluded from the assessment. Energy sources supplied to tenants such as gas lines that result in fossil fuels being used on site are included in the credit scope and therefore not allowed. Commitment to lease clauses that preclude tenants from introducing non-renewable energy sources such as LPG cylinders must be provided.

Any fossil fuels used for emergency power or laboratory equipment must be less than 1% of the total building energy consumption and be offset for the first five years of operation. The amount of carbon emissions to be offset should be based on estimated fuel use from regular scheduled testing and predicted peak shaving events (where it is anticipated systems will be deployed for this use).

Refer to the *Climate positive buildings and our net zero ambitions* document for more information on suitable options recognised by Green Star.

Exceptional Performance

In conjunction with the *Credit Achievement*, the project must comply with the following criteria:

- Exclusion of Fossil Fuels On-site

Renewable Electricity

All electricity under the control of the building owner or operator must be accounted for and sourced from renewables.

Electricity use for tenant loads is excluded from this credit.

Only on-site (or directly connected) renewables are acceptable.

Refer to the *Climate positive buildings and our net zero ambitions* document for more information on suitable options recognised by Green Star.

Submission content

Submissions for this credit must contain:

- **Submission form**
- **Evidence** to support claims made in the submission

Recommended evidence:

- Zero Carbon Action Plan with supporting evidence
- Public commitment to the Global Commitment for Net Zero Carbon Buildings managed by WorldGBC

Alternate documentation can also be used by project teams to demonstrate compliance.

The recommended evidence listed above is applicable to the as built submission. See the *Design assessment documentation* section in the Introduction for more information on submitting evidence for the Design assessment.

The key requirement is that evidence is provided to support each claim made within the Submission form.

Guidance

Applicability

This credit applies to all building sectors. For industrial buildings and other building types where the building owner doesn't retain operational control of the site, the scope is all electricity and energy as required to be accounted for in the *Energy Use* credit.

Exceptions

This credit does not address gas use for manufacturing or research purposes. NZGBC encourages project teams to look at how to decarbonise these loads as part of the development of the project. However, as these aren't building loads, these are not eligible for a market transformation claim.

A small amount of fossil fuels can be allowed in extenuating circumstances, such as a laboratory or emergency purposes. A Technical Question must be submitted to the NZGBC for approval, prior to submission, outlining how there are no viable commercial alternatives.

In this case, the building applicant must buy carbon offsets equal to 5 years of fossil fuel emissions. See the *Climate Positive buildings and our net zero ambitions* for more information on acceptable offsets.

The NZGBC notes that gas cooking for retail has viable commercial alternatives.

Offsets

See *Climate positive buildings and our net zero ambitions* document available from Green Star resources for more information on acceptable offsets.

Renewable electricity

The building is considered to have all of its electricity supplied from renewables if the renewable electricity generated on-site is equal to, or greater than, the total electricity use of the building annually.

Supporting information

The following resources support this credit:

- GBCA's *Climate positive buildings and our net zero ambitions* [to be updated with NZ references]
- [GBCA's Climate Positive Roadmap](#) [to be updated with NZ references]
- World GBC's [Net Zero Carbon Buildings Commitments](#)