# 20 Grid Resilience

**Positive**

## Submission information

Provide the following information for the submission

|  |  |
| --- | --- |
| **Submission type** | Choose an item. |
| **Performance level targeted** | Credit Achievement |
| Exceptional Performance |
| **Points Targeted** | Click or tap here to enter text. |

#### Technical Questions

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| --- | --- |
| There are project-specific technical questions for this credit and all responses received from the NZGBC are included in the submission. | Choose an item. |

#### Discussion

Narratives will help the Assessors understand how the project complies with the credit. Please include a narrative below, but note that simply listing the credit requirements is not helpful. Instead, outline any other issues that need to be considered by the Assessment Panel.

Click or tap here to enter text.

#### Changes between Rounds

If applicable, please use the text box below to explain any changes between Round 1 and Round 2. This is an opportunity for the GSAP to describe how they have addressed the Assessors comments in Round 2.

Click or tap here to enter text.

## Submission template

### Credit Achievement

|  |  |
| --- | --- |
| **The project meets the requirements for the targeted star in the registered year** | Choose an item. |

#### Active Generation and Storage Systems

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| --- | --- |
| **The building has the capacity to reduce its electricity peak demand by 10% of the building’s annual peak electricity demand for at least a one-hour period.** | Click or tap here to enter text. |
| **Indicate where the following requirements have been outlined in electricity demand reduction achieved by using on-site generation or electricity storage (provide references to documentation):** | |
| * The system (generation or storage) incorporates switch gear and transfer switches to enable it to operate in the event of grid outage or grid demand response event. | Click or tap here to enter text. |
| * The system works in a long-term paralleling with the grid mode, such that the generator can export back to the grid. | Choose an item. |
| * The system works in island mode to power the building, or to power critical building system. | Choose an item. |
| * The building has approvals in place with the electricity utility company to operate as a peak reduction system and to have the capacity to become part of a network load demand system or to operate in island mode should it be required. | Click or tap here to enter text. |
| * Unless a separate agreement exists with the network operator, the generator must not export more than 30% of electricity generated to the grid during peak solar generation periods. | Click or tap here to enter text. |
| **The building management system (BMS) includes a demand management dashboard.** | Click or tap here to enter text. |
| **The BMS shows the peak demand target, current, historical demand, alongside the critical performance characteristics.** | Choose an item. |
| **The BMS has the capacity to accept external control signals to enable signing up to current or future demand response programs.** | Choose an item. |
| **The active demand management strategies are tested and commissioned prior to occupancy, assuming a full load profile on a peak day.** | Click or tap here to enter text. |

#### Supporting documentation

Identify where evidence supporting the information provided can be found in the documentation.

|  |  |  |
| --- | --- | --- |
| Document name | Document description | Page number(s) |
| Click or tap here to enter text. | Click or tap here to enter text. | Click or tap here to enter text. |
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#### Demand Response

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| **The demand response strategy shows how at least 10% of the building’s annual peak electricity demand is being shed without affecting occupant amenity (comfort, lighting, movement) for at least 4 hours.** | Click or tap here to enter text. |
| **Outline how the plans and infrastructure of the building manage the demand responses (provide references to documentation):** | |
| * Ensuring the building’s automated management system has forward predictive capabilities to alert building management to a potential event. | Click or tap here to enter text. |
| * Having a demand management dashboard that shows the peak demand target, current, historical demand, the demand shedding priorities and enabling button alongside the critical performance characteristics (usually comfort temperature). | Choose an item. |
| * Having the building management system provide an automated way to start their load shedding strategy and enable communication to relevant parties. | Choose an item. |
| * Having the ability for the building’s automated management system to accept external control signals to enable signing up to current or future demand response programs. | Click or tap here to enter text. |
| **The demand response strategy is tested, and occupants and the building management system are aware what the implications are.** | **Click or tap here to enter text.** |
| **Indicate where the following requirements are addressed in the demand response strategy (provide references to documentation):** | |
| * Including load shedding responses in the scope of work for the commissioning activities | Click or tap here to enter text. |
| * Including the load shedding strategy in the relevant building management manuals and training | Click or tap here to enter text. |
| * Introducing a communication strategy to outline to occupants how they will be impacted on the day of a potential event. | Click or tap here to enter text. |
| * Where the building is tenanted, introducing language in leasing contracts outlining the load shedding strategies and what impacts these may have on tenants | Click or tap here to enter text. |

#### Supporting documentation

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|  |  |  |
| --- | --- | --- |
| Document name | Document description | Page number(s) |
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#### Passive Design Solutions

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| **The building’s facade demonstrates a 10% improvement of the peak electricity demand over a reference building modelled to NZBC Clause H1, or the version of the code applicable to the building’s construction, whichever is later.** |  |

#### Supporting documentation

Identify where evidence supporting the information provided can be found in the documentation.

|  |  |  |
| --- | --- | --- |
| Document name | Document description | Page number(s) |
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### Exceptional Performance

#### Renewable Electricity

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| **The project has complied with at least one of the following criteria (provide references to documentation):** | |
| * Active Generation and Storage Systems | Click or tap here to enter text. |
| * Demand Response | Click or tap here to enter text. |
| **The overall reduction is 10% of the building’s total electrical load in addition to the Credit Achievement requirements.** | Click or tap here to enter text. |
| **This additional 10% is met through the one of these 2 options, and unlike the Credit Achievement are not met through Passive Design Solutions.** | Click or tap here to enter text. |
| **Demonstrate that the reduction occurs during times of Grid Maximum Demand.** | Click or tap here to enter text. |

#### Supporting documentation

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## Declaration

Provide the following details as confirmation that the information provided in this document is truthful and accurate at the time of completion.

|  |  |
| --- | --- |
| **Name** | Click or tap here to enter text. |
| **Position** | Click or tap here to enter text. |
| **Email** | Click or tap here to enter text. |
| **Date** | Click or tap to enter a date. |