NZGBC
TE KAUNIHERA HANGANGA TAUTAIAO

greenstar

homestar®

Guidance for Green Star Buildings and Homestar v5.1 Certification of Mixed-Use Buildings That Contain Residential Areas

December 2025

Contents

Introduction

Industry has been calling for a means to achieve a Green Star rating on mixed use buildings that contain both residential and non-residential uses. Green Star certification typically applies to a whole building due to the eligibility requirements of this certification scheme. It is not suitable for certifying residential areas in Aotearoa and Homestar has been developed for this purpose. Therefore, to certify a whole mixed-use building that contains residential areas there needs to be a means of applying both Homestar and Green Star within that building. This document provides guidance around the application of these two certification tools within these types of developments.

Note that there remains the option to certify individual residential units within a building under Homestar without certifying the whole building under Green Star. This option may be most useful where a building is mostly residential with minimal non-residential areas such as limited ground floor retail. NZGBC does not therefore set minimum percentages of non-residential areas for eligibility under Green Star. The choice to rate the whole building under Green Star is entirely optional and at the discretion of the submitter.

Although mixed-use buildings can be used to identify any building with two or more different uses within it, this guidance document solely uses the term for identifying a building that contains residential with one or more non-residential uses.

This guide specifically deals with Green Star Buildings and Homestar version 5.1. Previous versions are available to deal with older versions of the tools.

This guide addresses the alignment of rating levels within mixed-use building projects looking to target both Green Star Buildings and Homestar v5.1. It presents the association between the different tool credits and provides guidance on which requirements need to be applied where and identifies where pre-defined innovations can and cannot be applied.

This documentation is intended for guidance purposes only. Where a project team has any uncertainties around the application of Homestar and Green Star within their mixed-use building they should contact the NZGBC team for more information.

Why is the Green Star eligibility important?

The eligibility for a Green Star rating has a ‘Spatial Differentiation' requirement as follows:

- *To meet the Spatial Differentiation criterion, the project must be clearly distinct. Only distinct projects are eligible for assessment; project components are not eligible.*
- *Shared building services (such as HVAC plant or water treatment) or amenities (such as waste rooms or bicycle facilities) do not affect the building's eligibility for Green Star assessment.*
- *Sub-tenancies are considered part of the fitout and cannot be excluded from the rating.*

These eligibility requirements ensure that it is clear to those outside of the project which areas are certified, and which areas are not. Meeting these criteria usually requires a Green Star rating to be sought for a whole building, unless it is clear there is a distinct delineation between the Green Star and non-Green Star parts of the building. A building with a podium retail area with tower residential above might fulfil this requirement as the non-residential part of the building is visibly distinct from the residential part by the change in building form between the two areas. Most mixed-use buildings built in Aotearoa would not meet this requirement and therefore a compliance pathway needed to be developed. Projects will be able to use the guidance within this document regardless of the proportion of non-residential to residential areas within the mixed-use building being certified. If you are unsure as to how this eligibility requirement impacts your project please contact the NZGBC team.

Unlike Green Star, Homestar certifications apply to individual units, so there is no whole building eligibility requirement for Homestar on multi-unit residential areas.

How should this guide be used?

Guidance provided in this document is intended only for Green Star and Homestar certifications of mixed-use buildings that contain residential area. There is no requirement for the size and/or ratio of residential and non-residential areas that must be achieved to be able to target Green Star certification in a mixed-use building containing residential area. If the building has a large majority of either residential or non-residential areas please contact the NZGBC to discuss if an alternate approach can be used. This is not a Submission Guidelines document or Technical Manual but should be read in conjunction with the Green Star Buildings Submission Guidelines and the Homestar v5.1 Technical Manual. This guide does not cover Green Star Interiors, however this could be targeted for the non-residential areas, or Green Star Communities.

This document has been developed as a guide and is therefore not prescriptive. Where project teams find the credit criteria are not suitable for their project or they are unsure of the application then they should submit a Technical Question to the NZGBC.

How was this guide developed?

The guidance within this document was first developed for Green Star Design & As Built through the engagement of a selection of industry experts who have a good understanding of both Green Star and Homestar rating tools. The engagement process began with discussions around identifying the correct pathway and lead to workshops to develop the detail. At key stages in the process two key organisations looking to use the guide were asked for feedback.

Several pathway options were considered however the pathway that was decided on and is presented here was deemed to be the best solution because:

- It recognises that residential and non-residential areas have very different requirements and as such Green Star and Homestar are very different tools, thereby tries to keep Homestar requirements predominantly for residential areas and Green Star requirements predominantly for non-residential area, and for building-wide and site-wide applications.
- It builds on existing tools without applying a whole new set of requirements that the industry would need to learn.
- It avoids the challenge of requiring the NZGBC to find certification reviewers that are both Green Star Assessors and Homestar Auditors. There is only a very small number of people in Aotearoa with these qualifications.
- It means residential units will be able to target Homestar ratings. Homestar ratings are already well known in the property industry. It is considered that a Green Star rating for residences would be confusing in Aotearoa's market.

The outcome of this solution is that it will require mixed-use buildings to apply for two certifications (Homestar and Green Star). Streamlining would be available on credits that are applied building-wide or site-wide and these should typically be presented for certification review within the Green Star submission but need not be included in the Homestar submission. This version of the guide has been updated to reflect the Green Star Buildings credits.

The GBCA has a multi-unit residential tool that was considered as part of this investigation. However, Homestar is already being used for multi-unit residential projects in Aotearoa, it is specific to this country and to housing, and has been developed to align with our building codes. Homestar has become a recognised and established rating tool for all housing typologies, providing consistency that enables comparison between dwellings for potential buyers.

If you have any suggestions or feedback related to this guide please contact us at greenstarnz@nzgbc.org.nz.

Sam Archer
Director of Market Transformation

Brad Crowley
Industry Relations Manager

Joe Quad
Technical Lead

Acknowledgements

NZGBC would like to acknowledge the following individuals for providing invaluable feedback and expertise during the development process of this document:

- Jo Woods – Revolve Energy
- Patrick Arnold – eCubed
- Warner Brunton - Mott MacDonald
- Ella Osborne – Beca
- Alex Reiche – Building Excellence Group
- Ting Li – NZGBC Independent consultant

Rating alignment

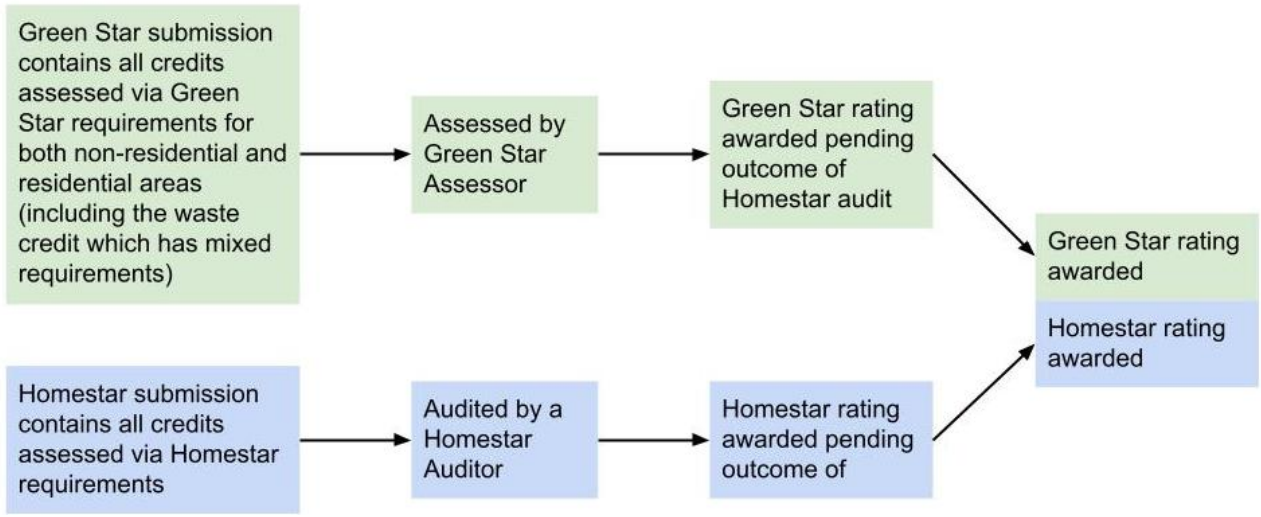
To maintain the integrity of the Green Star rating, the following rating alignment must be applied by project teams for mixed-use buildings:

- For any project looking to achieve a 4 Green Star then a 6 Homestar must be achieved for all the residential areas of the building.
- For any project looking to achieve a 5 Green Star then a 7 Homestar must be achieved for all the residential areas of the building.
- For any project looking to achieve a 6 Green Star then an 8 Homestar must be achieved for all the residential areas of the building.

Certification process

The project must register for both a Green Star and Homestar rating separately. Note that as the Green Star registration fee is linked to project value, the proportion of project value linked purely to the residential portion of the building, such as apartment fitouts, may be excluded for the purpose of the fee calculation.

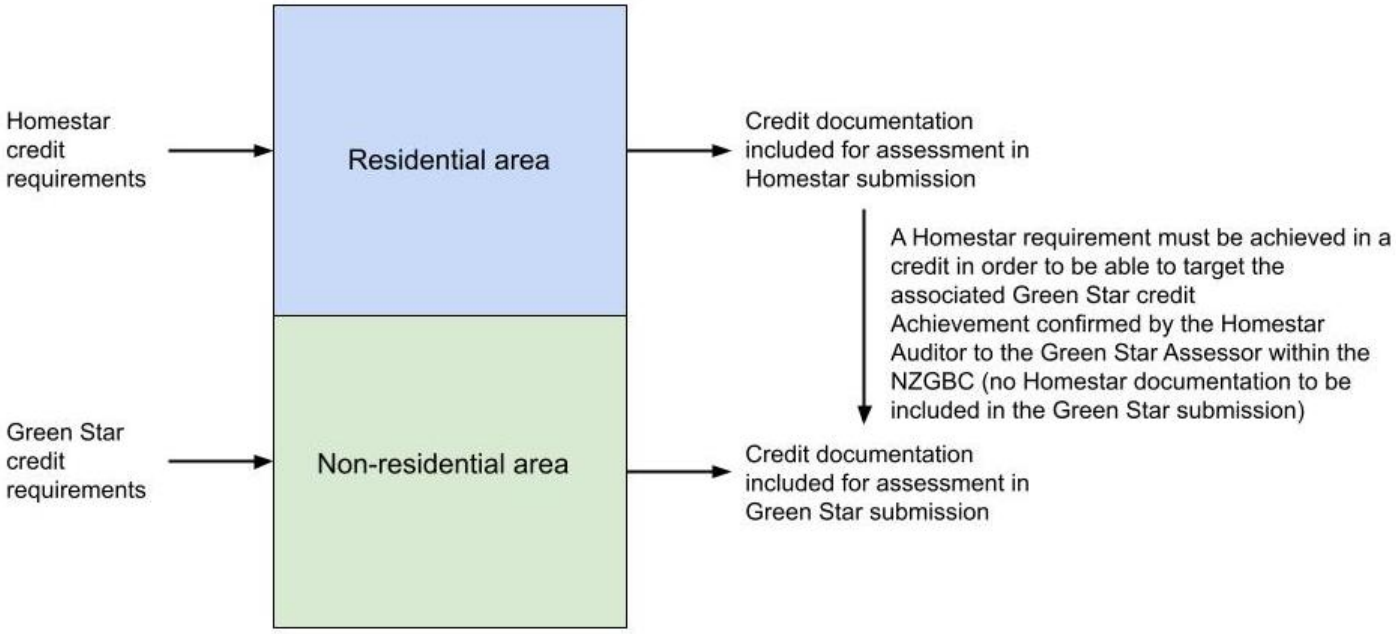
As the Green Star and Homestar certifications are inherently linked within a mixed-use development, the timing of the design and construction of the residential and non-residential areas in relation to each other impacts the certification process. Where the staging of the residential and non-residential areas is similar then the certification process will typically be as shown in the diagram below. Where the residential and non-residential areas are being designed and constructed in very different programmes then please contact the NZGBC to discuss how the certification process will work.



Associated credit requirements

The table below details the credit requirements where the following associations occur:

Linked: There is some alignment with the aim and/or requirements between the Green Star and Homestar credits. Green Star requirements must still be applied to non-residential areas and Homestar requirements to residential areas but linking requirements are also applied in order to achieve the Green Star rating of the whole building. These linking requirements include certain points under the Homestar credit that must be achieved in order to be able to target the Green Star credit.



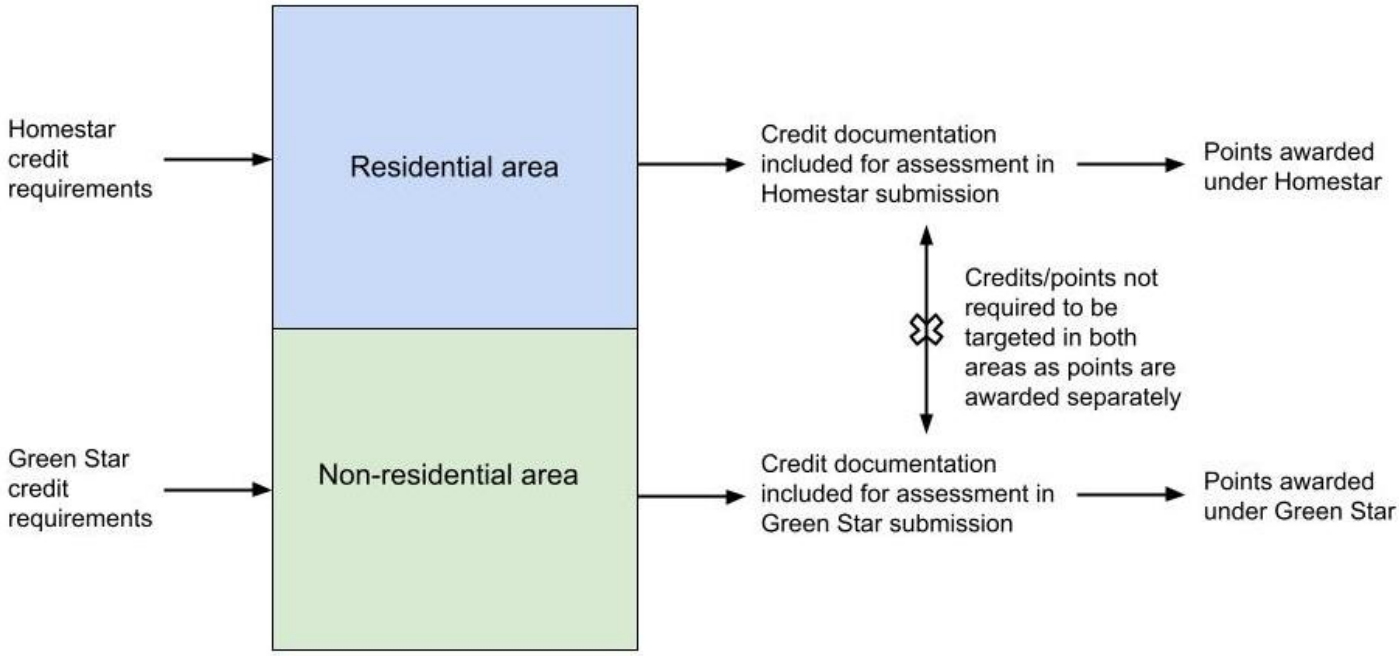
Optional crossover: There is some alignment with the aim and/or requirements between the Green Star and Homestar credits. There are two different pathways project teams can apply to these credits:

- The separate pathway where the Green Star requirements are applied to the non-residential and Homestar to the residential. There is no requirement to target the associated Homestar credit under the Homestar certification where the Green Star credit is targeted (or vice versa) under the Green Star certification, except where there are mandatory requirements that must be met under that respective tool.

OR

- The combined pathway where the same (Green Star) requirements are applied to both residential and non-residential areas.

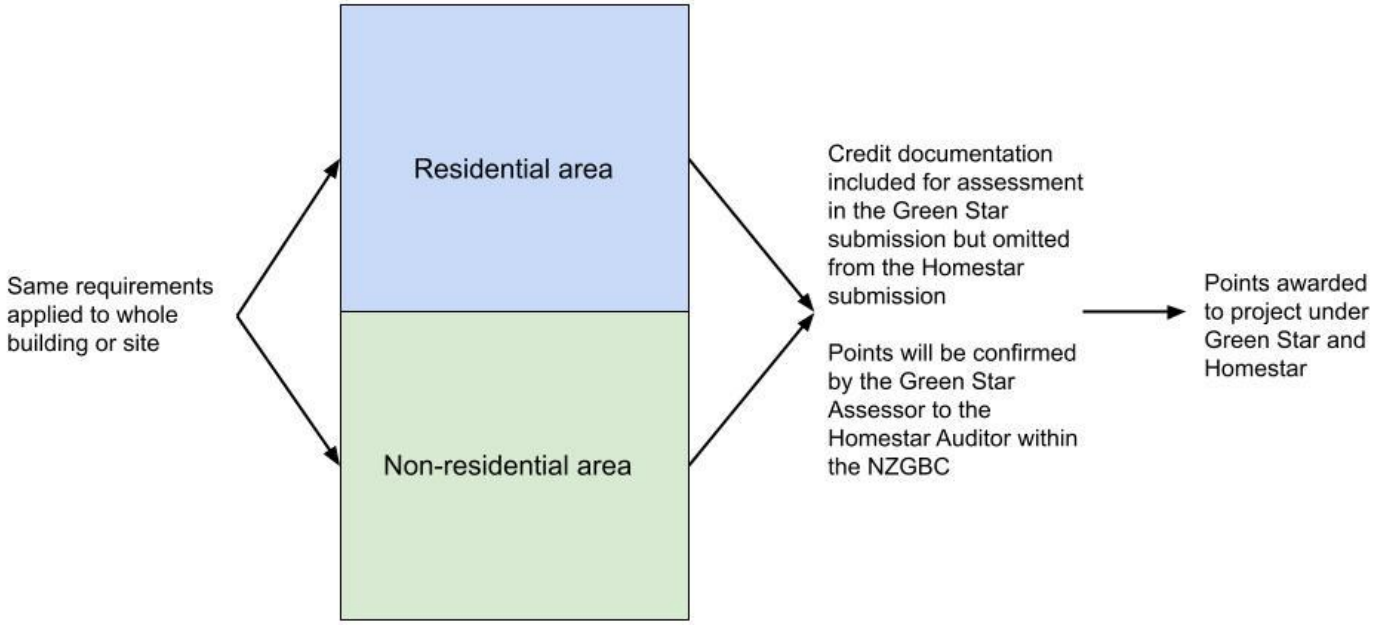
Separate Pathway



OR

through the Direct Crossover pathway presented below.

Direct crossover. One set of requirements must be applied to the whole project i.e. building-wide or site-wide. For most credits where direct crossover occurs the Green Star requirements take precedent. Some credits may have additional or alternative requirements, however, so please refer to the following table for details.



Green Star Buildings Credit	Homestar v5.1 Credit	Requirements
1 Industry Development •The project uses a GSAP. •The building owner discloses financial information. •The project markets sustainability achievements.	**EN6: Responsible Contracting** The contractor holds a recognized sustainability accreditation.	**Linked** 0.5 points are available to target under EN6 where a GSAP is a member of the construction team. The financial disclosure and sustainability marketing portions of the Green Star credit can be targeted as Innovation in Homestar.

Green Star Buildings Credit	Homestar v5.1 Credit	Requirements
2 Responsible Construction **Minimum Expectation** •Environmental management system •Environmental management plan •40% construction and demolition waste diverted from landfill **Credit Achievement** 1 point is available where the construction and demolition waste going to landfill is reduced by: Diverting 70% of waste from going to landfill. OR Minimizing the total amount of waste sent to landfill to less than 15kg/m^{2}GFA.	**EN4: Construction Waste** **Site Waste Management Plan** The contractor is required to prepare and implement a site waste management plan (SWMP) for the entire duration of the project. **Minimising Waste** The project must outline strategies integrated into the project to design out waste from major sources of construction waste as per the list below. The plan must also include a maximum total waste target in kg/m2 of GFA and design, product selection, procurement strategies or contractual requirements that focusses on minimising the following waste sources: - Offcuts from plasterboard, plywood or other interior wall and ceiling linings. - Offcuts from treated timber used for framing and cladding. - Packaging and polystyrene waste from purchased product and materials. - Any other major sources of waste particular to the project (e.g. masonry blocks). Where the total construction waste generated on site is: Less than 25kg/m^2 of GFA. – 1 point Less than 15kg/m^2 of GFA. – 2 points Less than 5kg/ m^2 of GFA. – 3 points **Waste Diversion** Where 50-69% of the total waste generated is reused and/or recycled and/or recovered for the whole construction/refurbishment project– 1 point Where 70% or more of the total waste generated is reused and/or recycled and/or recovered for the whole construction/refurbishment project – 2 points **EN6: Responsible Contracting** Environmental Management An Environmental Management Plan (EMP) is in place for the construction or renovation works in accordance with the Homestar template OR The contractor holds ISO14001 certification that covers the construction of the dwelling. - 0.5 points	**Direct Crossover** **Waste Management and Reporting Accuracy** Projects are required to provide a Site Waste Management Plan and meet the Green Star Reporting Accuracy requirements. **Waste Diversion** Where 50-69% of the total waste generated is reused and/or recycled and/or recovered for the demolition and construction – 1 point is awarded under Homestar. Where 70% or more of the total waste generated is reused and/or recycled and/or recovered for the demolition and construction – 2 points are awarded under Homestar and 1 point under Green Star (a maximum of 1 point is available under Green Star credit 2). A waste minimisation strategy must be implemented that uses design, product selection, procurement and/or contractual requirements to target major construction waste sources. **Environmental Management System** This is a minimum expectation under Green Star so 0.5 points are awarded for Homestar. **Note:** The kg/m^2 rates in Green Star refer to waste to landfill, whereas the Homestar rates refer to total waste. These are not interchangeable.

Green Star Buildings Credit	Homestar v5.1 Credit	Requirements
3 Verification and Handover: **Minimum Expectation** •The building has a metering and monitoring system •The building has been commissioned and will be tuned •The building is designed and tested for air tightness •Information is available to building users	**EF3: Water Use** Metering not required but does improve efficiency of water use in Water Calculator. **HC3: Ventilation** Ventilation system commissioning - 1 point **HC4: Moisture Control** Homes must be pressure tested and achieve the specified maximum air leakage. Mandatory requirement for 8 Homestar and above. **LV2: Occupant Amenities** Home User Guide - 1 point	**Linked** **Metering** Energy and water metering of the residential areas must be included for each individual dwelling and common areas (internal and external). Where common areas are shared then metering can be combined for residential and non-residential. Where services are shared metering must be configured to allow the split between residential and non-residential uses to be determined. **Commissioning** This is a minimum requirement under Green Star therefore,1 point for ventilation system commissioning must be achieved under Homestar HC3 Ventilation credit. Where the residential area contains a centralised ventilation system then this credit can be applied as a Direct Crossover and the Green Star commissioning requirements can be applied to achieve both the Green Star point and Homestar point. **Air Tightness** Testing is a minimum expectation under Green Star and must therefore be performed for the entire building. Points will only be awarded under Homestar if the required thresholds are met. **User Information** Providing information to building users is a minimum expectation under Green Star, therefore 1 point must be achieved for providing a Home User Guide under Homestar LV2 Occupant Amenities.
4 Responsible Resource Management: **Minimum Expectation** **Performance Pathway: Specialist Plan** A waste professional prepares and implements an Operational Waste Management Plan (OWMP) for the project. **Prescriptive Pathway: Facilities** Facilities are in place to collect and separate distinct waste streams, and where these facilities meet best practice access requirements for collection by the relevant waste contractor.	**LV3: Eco-friendly Living,** **Eco-Living Checklist** - Integrated, dedicated internal bins for separating rubbish and recycling and food bins. Communal facilities to sort and store rubbish, recycling, and food waste separately and away from pests, for collection by waste removal operator. AND The development is part of a community, commercial or local authority composting service. Maximum of 1 point available in total on this part of the credit.	**Direct Crossover** Green Star requirements take precedence, but food waste/organics collection must be included for residential areas. The Performance Pathway must be used to show compliance for GS credit 4 for mixed-use buildings. The 1 point would be awarded under Homestar credit LV3 Eco Living checklist where the GS Minimum Expectation is met For the remaining 2 points under credit LV3 for Safety Checklist, the Homestar requirements must be applied to the residential areas.

Green Star Buildings Credit	Homestar v5.1 Credit	Requirements
6-9 Responsible Products Up to 13 points are available across these 4 credits when a proportion of all materials used in the project meet transparency and sustainability requirements under the Responsible Products Framework. Points are calculated based on specified benchmarks for the percentage of compliant products used in the project.	**EN3: Sustainable Materials** Up to 10 points are available where at least 50% of the material content in a material category is reused, eco-preferred or responsibly sourced.	**Optional Crossover** These credits can either be targeted separately (meeting Green Star requirements for non-residential and Homestar for residential) or project teams have the option to streamline through targeting the Green Star credit for the whole building (residential and non-residential areas). Where the Green Star credit is sought for the whole building then points targeted/achieved in Green Star will also be applied to Homestar, up to a maximum of 10 points.
13 Exposure to Toxins **Minimum Expectation** **Paints, adhesives, sealants and carpets** At least 95% of all internally applied paints, adhesives, sealants and carpets meet stipulated 'Total VOC Limits', or, where no paints, adhesives, sealants or carpets are used in the building. **Engineered wood products** At least 95% of all engineered wood products meet stipulated formaldehyde limits or no new engineered wood products are used in the building. **Credit Achievement** On-site tests verify the building has low VOC and formaldehyde levels	**HC7: Healthy Materials** 1) 80% of applied coatings by volume (L) within the interior of the dwelling meet the VOC limits as specified by a NZGBC-recognised IAQ scheme or eco-label. - 1 point 2) 80% of floor coverings by area covered (m2) within the interior of the dwelling meet the VOC limits as specified by a NZGBC-recognised IAQ scheme or eco-label. - 1 point 3) All engineered wood used in shelving and cabinetry doors and carcasses and any other exposed engineered wood surfaces within the interior of the dwelling meet the VOC limits as specified by a NZGBC-recognised IAQ scheme or eco-label. - 1 point 4) 80% of adhesives and sealants by volume (L) used within the interior of the dwelling meet the VOC limits as specified by a NZGBC-recognised IAQ scheme or eco-label. - 1 point	**Direct Crossover** This is a minimum expectation for Green Star and must be met for the entire building. 4 points are awarded under Homestar. VOC testing may be used as an Innovation in Homestar
16 Climate Change Resilience **Minimum Expectation** The pre-screening checklist must be completed. **Credit Achievement** A risk assessment and adaptation plan has been developed and implemented.	**LV5: Adaptation and Resilience** To evaluate and prepare solutions that address the building's capacity to respond and adapt to changing conditions and extreme weather events.	**Direct Crossover** The checklist is a minimum expectation for Green Star and must be met for the entire building. 0.5 points are awarded under Homestar. If the Green Star Credit Achievement is met, 2 points are awarded under Homestar
21 Upfront Carbon Emissions The buildings upfront carbon emissions from materials and products have been reduced.	**EN2: Embodied Carbon** Up to 5 points are available for reductions in upfront carbon as follows: >10% 1 point >20% 2 points >30% 3 points >40% 4 points >50% 5 points	**Direct Crossover with additional guidance** These credits must be targeted together, and the assessment carried out on the whole building. The assessment must be carried out in accordance with the Green Star requirements. Points awarded under the Green Star rating will be based on the whole building being assessed using the comparative reference model approach and points awarded as per Green Star.

Green Star Buildings Credit	Homestar v5.1 Credit	Requirements
22 Energy Use The building has low energy consumption	**EF4 Energy Use** Maximum delivered electricity (kWh/m2/year) associated with operational energy (excluding appliances) for each star rating.	**Linked** Linking between these credits is set by the mandatory Green Star and Homestar rating requirements, i.e.: • For a 4 Green Star the mandatory minimums for credit 22 must be achieved and the mandatory minimum for 6 Homestar EF4 must be achieved. • For a 5 Green Star the mandatory minimums for credit 22 must be achieved and the mandatory minimum for 7 Homestar EF4 must be achieved. • For a 6 Green Star the mandatory minimums for credit 22 must be achieved and the mandatory minimum for 8 Homestar EF4 must be achieved. Where energy modelling of the whole building is carried out the non-residential areas and residential areas must be clearly defined. Non-residential areas must be modelled in accordance with the Green Star Energy Use Calculation Guide and residential areas in accordance with the Homestar Modelling Protocol. Homestar points under EF4 are awarded based on the specific energy use per dwelling, not the average energy use of the dwellings. Green Star points under credit 22 are awarded based on the standard Green Star approach but excluding the energy use of the residential areas. Where the building includes shared areas then the modelling and assessment approach taken for these areas must be discussed with the NZGBC beforehand.
23 Energy Source Electricity is generated from renewables on site.	**EN1: Renewable Energy** Energy must be generated on-site and can be used in the building and/or exported to the grid	**Optional Crossover** These credits can either be targeted separately (meeting Green Star requirements for non-residential and Homestar for residential) or project teams have the option to streamline through targeting the Green Star credit for the whole building (residential and non-residential areas). If 20% of electricity demand is generated on site, 1 point is awarded under Homestar and 2 points under Green Star. If targeted separately the renewable systems must be connected upstream of the meter serving either the residential or non-residential area, depending on which area is claiming the generation.
25 Water Use Up to 6 points are available based on the magnitude of the predicted reduction in potable water consumption, when the	**EF3: Water Use**	**Linked** In general, the Green Star requirements should be met for the non-residential

Green Star Buildings Credit	Homestar v5.1 Credit	Requirements
project is compared against a Reference Building.	Dwellings must not exceed the following indoor water consumption in litres per person per day: 6 Homestar - 145L/p/d 7 Homestar - 132L/p/d 8 Homestar - 120L/p/d 9/10 Homestar - 108L/p/d	areas and Homestar requirements for the residential areas. Where projects include a rainwater tank that supports both residential and non-residential areas then the project team must show compliance under both rating tools. The rainwater tank volume requirement should be calculated for residential areas in the Homestar calculator and non-residential in the Green Star calculator and the volume added together to determine the overall volume of the rainwater tank required. Common outdoor areas should be included in the Green Star calculation. Where projects include a rainwater tank that supports only the non-residential or residential area then the project team would only need to show compliance under the relevant rating tool.
26 Life Cycle Impacts The building has lower environmental impacts from resource use over the lifespan than a typical building.	**EN2: Embodied Carbon** One point is awarded for carrying out a full cradle-to-cradle lifecycle assessment of the greenhouse gas emissions associated with products and materials used to construct the home, calculated in accordance with ISO14040 and EN 15978.	**Direct Crossover** Green Star requirements take precedence. 1 point automatically awarded in Homestar if Green Star Credit Achievement criteria are met.
27 Movement and Place There is a minimum expectation for buildings to have end of trip facilities. 3 points are available where projects provide access to sustainable transport infrastructure which decreases greenhouse gas emissions from transport, decreases mental and social impacts of commuting, and encourages the uptake of healthier active transport options.	**LV4: Sustainable Transport** 1) Access to cycling and public transport networks - Up to 1 point 2) Cycle parking facilities - Up to 1.5 point 3) Provision of additional sustainable transport amenities - Up to 0.5 point 4) Electric vehicle charging - Up to 1 point **LV2: Occupant Amenities** Access to amenities - up to 1 point	**Optional Crossover** These credits can either be targeted separately (meeting Green Star requirements for non-residential and Homestar for residential) or project teams have the option to streamline through targeting the Green Star credit for the whole building (residential and non-residential areas). Where the Green Star requirements are met for the whole building, 3 points are awarded for Green Star and 5 points for Homestar (4 for LV4 and 1 for LV2). Where targeted together, showers and changing facilities need not be provided for residential occupants, but bicycle parking facilities must be sufficient for all building occupants.
34 Design for Inclusion The building is designed and constructed to be inclusive to a diverse range of people with different needs.	**LV1: Inclusive Design** A checklist and a third-party assessment pathway are available to encourage and recognise dwellings that are inclusive, visitable, easily adaptable and accessible.	**Optional Crossover** These credits can either be targeted separately (meeting Green Star requirements for non-residential and Homestar for residential) or project teams have the option to streamline through targeting the Green Star credit for the whole building (residential and non-residential areas).
36 Biodiversity Enhancement	**EN5: Site Water and Ecology**	**Direct Crossover** Green Star requirements take precedence.

Green Star Buildings Credit	Homestar v5.1 Credit	Requirements
Up to 4 points are awarded where the site includes landscaped areas with a diversity of native species	Pre-requisite: dwellings targeting any points in this credit may not use the following known heavy metal pollutants: • Known heavy metal polluting materials. • Uncoated zinc galvanised roofing • Copper guttering and drainage pipes 3) Native planting – Up to 1 point 4) Holistic design – 1 point (only available where 0.5 points has been achieved under Stormwater Management and 0.5 under Native Planting)	The pre-requisite requirement under EN5 must be applied to the whole building. Where the Credit Achievements requirements are met under Green Star, 1 point is awarded for Native Planting under Homestar. The Holistic design point under Homestar is only available where projects include WSUD within the development and the Homestar requirements have been achieved for this.
39 Waterway Protection The project demonstrates that post development peak ARI event discharge from the site does not exceed specified thresholds. Specified pollution reduction targets are met.	**EN5: Site Water and Ecology** Pre-requisite: dwellings targeting any points in this credit may not use the following known heavy metal pollutants: Known heavy metal polluting materials. Uncoated zinc galvanised roofing Copper guttering and drainage pipes Up to four points are available using one or more of the methodologies below: 2) Stormwater management – Up to 1.5 points 4) Holistic design – 1 point (only available where 0.5 points has been achieved under Stormwater Management and 0.5 under Native Planting)	**Direct Crossover** Green Star requirements take precedence. The pre-requisite requirement under EN5 must be applied to the whole building. If the Credit Achievement is met under Green Star, the 1.5 points for Stormwater Management are awarded under Homestar. The Holistic design point under Homestar is only available where projects include WSUD within the development and the Homestar requirements have been achieved for this.

Innovation/Leadership

Innovation/Leadership may be targeted on a whole building level and be applied to both the Green Star and Homestar rating tools, assuming that it is not something that is already clearly covered in the core credits of either tool.

Where targeted under Green Star the following credits could be targeted as an innovation under Homestar where applied site-wide:

- 18 Community Resilience
- 19 Heat Resilience
- 20 Grid Resilience
- 28 Enjoyable Places
- 29 Contribution to Place
- 30 Culture, Heritage and Identity
- 32 Tohu Mauri Ora
- 33 Procurement and Workforce Inclusion
- 37 Nature Connectivity
- 38 Nature Stewardship