

# Guideline to Kāinga Ora Homestar® version 5 Transition Standard

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CA-GDL-013

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## Purpose

This guideline provides a comprehensive explanation of the Kāinga Ora Homestar® version 5 Transition Standard to the relevant internal Kāinga Ora teams below:

- Homestar® team
- Delivery teams
- Quality Assurance Construction team
- Design Quality team

## Disclaimer

Any reference in this disclaimer to Homestar includes a reference to 6 Homestar version 4.1, the Kāinga Ora Homestar version 5 transitional standard and the 6 Homestar version 5 standard.

All the information in this paper is true and accurate to the best of the author's knowledge. However, information in this paper should only be used as a guide. Kāinga Ora is not an expert on any matter related to design, Homestar and/or the New Zealand Green Building Council.

No liability is assumed by Kāinga Ora, or any entity related to Kāinga Ora, for losses suffered by any person or organisation relying directly or indirectly on the information published in this paper. For the avoidance of doubt, this includes any and all liability arising out of, or related to, compliance with, and/or implementation of, the requirements of Homestar and/or the New Zealand Green Building Council.

Kāinga Ora does not assess or approve compliance with any Homestar standard. Reference should always be made to the New Zealand Green Building Council's Homestar® v5 Technical Manual in the first instance. It is assumed that any or all inconsistencies, errors or omissions in the information provided in this guideline will be superseded by the correct information set out in the New Zealand Green Building Council's Homestar® v5 Technical Manual.

## What is Homestar®?

Homestar® is a rating tool owned and operated by the New Zealand Green Building Council (NZGBC), a not-for-profit, independent organisation set up to advocate for more comfortable and sustainable homes for New Zealanders.

NZGBC created Homestar® as a quality assurance tool for assessing the health, efficiency, and sustainability of homes across Aotearoa New Zealand. It awards ratings to homes that meet high building standards across multiple areas of performance, including thermal comfort, energy and water use, waste minimisation, daylighting and sustainable materials. Upon success, a home is awarded a rating between 6 and 10. A 6 Homestar® rating means the home has been built to standards over and above that set out in the New Zealand Building Code, and has scored well in the performance areas set out above, whilst a 10 Homestar® rating recognises that world leading standards have been achieved.



The Homestar® Scale (Source: NZGBC Retrieved from: <https://www.nzgbc.org.nz/homestar>)

### Why does Kāinga Ora build to Homestar®?

In 2019, the Kāinga Ora Public and Supporting Housing Programme committed to ensuring at least 90% of our redevelopment homes are designed and built to meet the requirements needed to be certified for achieving a 6 Homestar rating.

This is significant for:

- Our customers:
  - Homes built using Homestar® are warm, dry, healthy and energy efficient.
- Our commitment to sustainability:
  - Homes use more sustainable building materials and have less construction waste than a typical home built to the New Zealand Building Code.

Homestar® allows Kāinga Ora to demonstrate that we are achieving these outcomes – it is evidence of our quality.

## What is changing?

The Homestar® rating scheme is periodically updated by the NZGBC. The fifth version has recently been released and will replace version 4.1, which Kāinga Ora currently designs and builds to.

Due to funding constraints Kāinga Ora is unable to transition its build programme to the new 6 Homestar® version 5 rating in time for the expiry of version 4.1 on 31 January 2023. Instead, Kāinga Ora has worked in partnership with the NZGBC to develop an interim registration standard and pathway. This will allow us to continue to verify and report on the performance level of our homes until we are funded to make a full transition to 6 Homestar® version 5 or an equivalent performance.

The interim Kāinga Ora rating is to be referred to as the Kāinga Ora Homestar® version 5 Transition Standard (or internally as the 'Transition Standard') and is comprised of:

- the current Kāinga Ora standard under 6 Homestar® version 4.1;
- the inclusion of the Building Code Clause H1 5<sup>th</sup> Edition insulation and glazing requirements; and
- the adoption of the tools and processes associated with designing to (but not building to) 6 Homestar® version 5.

From 1 January 2023, the Transition Standard will be adopted for all projects briefed by Investment Planning and accepted by the Construction and Innovation Group for the Public and Supported Housing Redevelopment programme. Any projects which were briefed prior to this date and are still in progress can continue to register under Homestar® version 4.1.

The Transition Standard allows Kāinga Ora to prepare itself, and our industry partners, as best as possible, for a potential transition to 6 Homestar® version 5, without incurring additional, unfunded build costs. The Transition Standard adopts the tools and processes of 6 Homestar version 5 so Kāinga Ora and our industry partners will be well placed to make the full transition once funding is secured.

## What are the key changes?

By using the Kāinga Ora Homestar® version 5 Transition Standard we will deliver good quality homes that are warmer, drier and more energy efficient than ever. In adopting Homestar® version 5 tools and processes, the key changes include:

### Key Changes

Category	6 Homestar® version 4.1	Kāinga Ora Homestar® version 5 Transition Standard
Scorecard	<ul style="list-style-type: none"> <li>Homestar® version 4.1 Scorecard</li> </ul>	<ul style="list-style-type: none"> <li>Homestar® version 5 Project Scorecard</li> </ul>
Thermal performance (Specification)	<ul style="list-style-type: none"> <li>Follow R-values specified in the Homestar® version 4.1 Technical Manual</li> </ul>	<ul style="list-style-type: none"> <li>Follow R-values specified in the Building Code H1 Fifth Edition Schedule Method or equivalent (i.e. Calculation or Modelling Methods achieve the same performance outcome as the Schedule Method)</li> </ul>
Thermal Performance (Evidence of Compliance)	<ul style="list-style-type: none"> <li>Schedule or Calculation Method</li> </ul>	<ul style="list-style-type: none"> <li>Energy &amp; Carbon Calculator for Homes (ECCHO)</li> <li>ECCHO is a tool to prove compliance using the modelling method</li> <li>Other outputs include: energy use, winter comfort, summer comfort and renewable energy</li> </ul>
Water Use	<ul style="list-style-type: none"> <li>Homestar® version 4.1 Water Calculator</li> </ul>	<ul style="list-style-type: none"> <li>Homestar® version 5 Water Calculator</li> </ul>
Natural Lighting	<ul style="list-style-type: none"> <li>Homestar® version 4.1 Lighting Calculator</li> </ul>	<ul style="list-style-type: none"> <li>Homestar® version 5 Daylighting Calculator</li> </ul>

The fundamental change captured in the table above is the move to a performance-based tool, as a project measures its thermal performance using the Modelling Method. By using the modelling tools and process of Homestar® version 5, Kāinga Ora can:

- Calculate and report on the lifecycle carbon impact of the redevelopment programme, fulfilling part of Kāinga Ora’s participation in the Carbon Neutral Government Programme.
- Prepare Kāinga Ora and the industry to meet the Ministry of Business Innovation and Employment’s (MBIE) Building for Climate Change embodied carbon and energy use caps, which will be introduced in updates to the New Zealand Building Code
- Prepare Kāinga Ora for an easier transition to 6 Homestar® version 5

A home built to the Transition Standard will achieve an outcome which is less than 6 stars and therefore will not be certified. In place of issuing a Homestar® Certification, the NZGBC will provide:

- **Statement of Design Performance** – to be issued prior to Building Consent issuance.

- **Statement of Built Performance** – to be issued at Practical Completion.

## Who is impacted?

The way we design, think, and incorporate design-decisions under the Kāinga Ora Homestar® version 5 Transition Standard will differ, as the prescriptive approach of Homestar® version 4.1 will no longer be suitable. As such, the roles and responsibilities for individuals will change.

Due to the nature of the Kāinga Ora build programme, there will be projects briefed to different Homestar® standards running simultaneously. To find the standard a project has been briefed to, the Ara asset management database will have a field showing the briefed Homestar® version.

The following sets out which teams will be impacted by the Transition Standard:

Impacted Teams	
<p><b>Development Managers</b></p> <ul style="list-style-type: none"> <li>• When engaging a Design Partner, you both need to understand the added documentation requirements. Refer to <b>Guideline to Kāinga Ora Homestar® version 5 Transition Standard - Targeted Point and Evidence Required (CA-GDL-014)</b></li> <li>• Ensure that costing for external consultants to complete the Homestar® assessment and verification process has been approved.</li> </ul>	<p><b>Design Partners</b></p> <ul style="list-style-type: none"> <li>• Design Partners need to complete the Homestar Design Assessment and verification process, including the Scorecard, ECCHO, Water and Daylighting Calculators and evidence collection.</li> <li>• The design must comply with 6 Homestar® version 4.1 standard, plus the new Building Code Clause H1 Fifth Edition.</li> <li>• Design Partners must become qualified Homestar® Designers or Assessors, or engage and work with a qualified Homestar® version 5 consultant from the start of the project (these courses are managed by the NZGBC).</li> <li>• There will be passive solutions which can be incorporated into a design which improve the performance of a home. For instance, an advantage of using ECCHO is that Design Partners can explore how to achieve better performance outcomes through good design without increasing build costs.</li> </ul>

<p><b>Homestar® Team</b></p> <ul style="list-style-type: none"> <li>• As the performance assessment will be integrated in the design process, the Kāinga Ora Homestar® Team will no longer complete the Homestar® assessments.</li> <li>• The Homestar® Team’s role will shift to regulating the Homestar® process, supplying technical advice and supporting the industry as they upskill. To do so, the team will utilise a ‘Trusted Partner Model’. The intent of this approach is to support the design industry towards handling their own Homestar® Assessments, without the expectation that everyone needs to move at the same rate.</li> <li>• No matter the level of understanding a Design Partner has, or the complexity of the project, the Homestar® Team is available with technical advice.</li> </ul>	<p><b>Design Quality Team</b></p> <ul style="list-style-type: none"> <li>• Early involvement can see successful integration of no-cost passive design strategies being incorporated into the design to improve the performance of a home. As such, the Design Quality Team is best positioned to provide advice prior to Resource Consent, when decisions start getting ‘locked in’.</li> <li>• The team is trained to have a high-level understanding of the impact of design attributes on the performance of a building.</li> </ul>
<p><b>Programme and Project Managers</b></p> <ul style="list-style-type: none"> <li>• Programme and Project Managers and the QA Construction Team require the Homestar® Handover Document for clarity on the requirements for a project to comply. Either the Kāinga Ora Homestar® Team or the external assessor will provide this prior to construction beginning on site</li> </ul>	<p><b>QA Construction</b></p> <ul style="list-style-type: none"> <li>• Programme and Project Managers and the QA Construction Team require the Homestar® Handover Document for clarity on the requirements for a project to comply. Either the Kāinga Ora Homestar® Team or the external assessor will provide this prior to construction beginning on site.</li> <li>• Whilst the standard we are building to is not changing, the adoption of the tools and processes require the evidence collated for the Homestar® Built Submission to be under the Homestar® version 5 categories.</li> </ul>

## When is this happening?

The phased approach to the full adoption of 6 Homestar® version 5 will be based on when a project is briefed by Investment Planning and accepted by the Construction and Innovation Group for the Public and Supported Housing Redevelopment programme. The table below

outlines this phased approach and clarifies which Homestar® standard a project will need to follow and when registration is due.

Projects Briefed and Accepted	Homestar® Standard	Registration Cut off
To 31 Dec 2022	6 Homestar® version 4.1	30 Jun 2023
1 Jan – 30 Jun 2023	Kāinga Ora Homestar® version 5 Transition Standard	31 Dec 2023 (pending funding approval)
1 Jul 2023 – onwards (pending funding approval)	6 Homestar® version 5	N/A



Whilst we cannot pre-empt Government decisions, the dates around our interim rating are based on achieving the required funding, and if unsuccessful we will work with the NZGBC on a revised approach.

## Supporting information

### Processes

- [Carry out design stages for Homestar® version 5 Transition Standard - Bespoke Process \(CA-PRO-251\)](#)
- [Carry out design stages for Homestar® version 5 Transition Standard Design Stages - Volume Assessed Process \(CA-PRO-252\)](#)
- [Carry out construction stages for Homestar® version 5 Transition Standard C \(CA-PRO-253\)](#)

### Guidelines

- [Guideline to Kāinga Ora Homestar® version 5 Transition Standard - Targeted Point and Evidence Required \(CA-GDL-014\)](#)

### User guide



- [How to guide for Development Managers – Kāinga Ora Homestar® version 5 Transition Standard \(CA-USG-003\)](#)
- [How to guide for Project Managers – Kāinga Ora Homestar® version 5 Transition Standard \(CA-USG-004\)](#)
- [How to guide for QA Construction Assessors – Kāinga Ora Homestar® version 5 Transition Standard \(CA-USG-005\)](#)

## Document control

### Version release

Current and previous versions of this document are stored in our document management system, and are managed by the Technical Writing team. For any queries contact [busdoc@kaingaora.govt.nz](mailto:busdoc@kaingaora.govt.nz).

Version	Reason for change
x1.0	Initial version created – Sep 2022
x1.1	Content updated and links provided – Nov 2022
1.0	Converting document to Kāinga Ora document standard

### SME review

Name	Designation	Date
Lauren Denny	Manager - Homestar®	24/11/2022
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