Housing energy efficiency – thermal breaks

What are the proposed changes?

We're proposing changes to the Housing Provisions Standard[1] (Housing Provisions) to clarify and align the thermal break requirements for roofs and walls.

These changes include:

- Updating the thermal break provisions for both metal-framed roofs and metal-framed walls (13.2.3(7) and 13.2.5(5)).
- Clarifying the requirements for walls constructed from insulated sandwich panels (13.2.5(6)).

Why are these changes proposed?

Thermal breaks

The current NCC wording suggests there is a difference between the existing thermal break DTS Provisions for roofs and walls. This is not the case since the intent and overarching Functional Requirement is the same – to reduce heat flow across the metal frame.

The proposed changes aim to clarify that a thermal break is required between the external cladding and internal lining in the following instances:

1. When they are each fixed to different elements of the roof or wall frame.
2. When they are fixed to non-structural elements of the frame, such as metal battens.
3. When they are fixed to an element of the frame structure that is not specifically listed in the provision, through the addition of the term 'or the like'.

[1] The Housing Provisions are referenced in NCC Volume Two and apply to houses (Class 1 buildings).

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Thermal bridging

The proposed changes also aim to provide a clear DTS pathway for walls constructed from insulated sandwich panels. A similar DTS pathway was introduced for roofs constructed from insulated sandwich panels in NCC 2022. Together, these provisions for both walls and roofs constructed from insulated sandwich panels aim to recognise that thermal bridging is limited in this construction type.

How were the changes developed?

These changes primarily stem from Proposals to Change the NCC we received from NCC users. They asked us how the thermal break and thermal bridging mitigation requirements introduced in NCC 2022 worked together.

We engaged a consultant to undertake research on the current requirements. They recommended the thermal break provisions be used in combination with the thermal bridging mitigation requirements, and if the wording aligned, could result in improved outcomes.

Who has been involved?

We also consulted with members of our peak technical committee the Building Codes Committee.

What are the impacts?

These changes clarify the intent of the current NCC DTS Provisions and will contribute to improved compliance with the residential energy efficiency requirements.

More information and relevant links

This technical report was commissioned to support the development of the Public Comment Draft and Consultation Regulatory Impact Assessment. The report explores a variety of options and was not the only input considered in developing the Public Comment Draft. As a result, not all of the content of the report is reflected in the provisions of the Public Comment Draft. Views expressed in the report are the views of the consultants and do not represent the views or policy of the Australian Building Codes Board.

- A review of thermal bridging provisions and thermal break provisions in NCC 2022
- UTNCC- Thermal bridging in residential buildings

To read the full details of the changes, please review the NCC 2025 Housing Provisions PCD and Section A.

Want to provide feedback?

Responses to the Public Comment Draft are invited until **11:59 PM AEST Monday 1 July 2024**.

In line with the ABCB's process for undertaking public consultation, comment will only be accepted through the ABCB's online Consultation Hub.

To access the Public Comment Draft and response form:

1. Download the NCC volume(s) you wish to view and provide comment. You can also download the supporting information PDF for detailed information on the more significant/complex changes.
2. Download the response form.

Once you've reviewed the draft, complete the response form, and include your feedback on the suggested changes to the NCC.

To submit your comments:

1. Enter our Public Comment Draft consultation hub.
2. Start by agreeing to the privacy statement.
3. Let us know if you'd like your submission published publicly.
4. Enter your contact details.
5. Upload your completed form in .doc format (please make sure each file is under 25MB) and submit.