

Key points

The focus of changes being considered for the 2022 version of the National Construction Code (NCC 2022) include:

1. increasing the stringency of the energy efficiency provisions for residential buildings, and
2. developing quantified Performance Requirements and compliance pathways enabling compliance using a whole-of-house approach.

The Australian Building Codes Board (ABCB) will also seek to refine the provisions for commercial buildings updated in 2019 and seek to ensure all buildings can accommodate the future installation of on-site renewable energy equipment and electric vehicle charging.

Rationale

In early 2019, the former Council of Australian Governments Energy Council requested that Building Ministers update the NCC energy efficiency provisions in consideration of the Council's *Trajectory for Low Energy Buildings*¹ (the Trajectory). In addition to the Trajectory's aims of:

- reduced energy bills
- reducing energy demand
- reduce need for new generators
- improve comfort and potentially health, and
- improve resilience

Its main goal is to help achieve Australia's national and international commitments to reducing greenhouse gas emissions and increasing energy productivity. One of the ways to do this is through ongoing improvements to the energy efficiency provisions for new buildings in the NCC.

In response to this request, and in addition to the commercial buildings energy efficiency amendments included in NCC 2019, in July 2019 Building Ministers directed the ABCB to investigate possible NCC changes, with a particular focus

¹ See <http://coagenergycouncil.gov.au/publications/trajectory-low-energy-buildings>

on residential buildings for 2022. The changes are to be informed by the Trajectory which, for residential buildings, suggests increasing the thermal performance and introducing an annual energy usage budget for space conditioning, heated water, lighting and pool and spa pumps.

The ABCB released a scoping study in August 2019 to seek public comment on a proposed scope and approach to this task. One hundred and thirty-five responses were subsequently received and used to develop an outcomes report, as well as refine the project. Both the scoping study and outcomes report are available on the [ABCB website](#).

Scope: Residential buildings (Class 1 buildings, Class 2 SOUs² and Class 4 parts of buildings)

The ABCB is exploring 2 possible options for residential buildings in NCC 2022.

Option One

This option involves provisions that achieve a thermal comfort level equivalent to 7 stars under the Nationwide House Energy Rating Scheme (NatHERS) and establish an annual energy use budget for the regulated building services (i.e. space conditioning, heated water, lighting and pool and spa pumps). To achieve the annual energy use budget, on-site renewable energy may be installed to offset the energy use of less efficient services.

Option Two

This option involves provisions that achieve a thermal comfort level equivalent to 7 stars NatHERS and an increased annual energy use budget for the regulated building services (roughly 30 per cent higher than Option One).

Development of the two options include:

- new quantified Performance Requirements
- a holistic review of current Deemed-to-Satisfy (DTS) Provisions and Verification Methods

² Sole-Occupancy Units

- consideration of whole-of-home software tools as new compliance pathways
- a new reference building Verification Method, and DTS Provisions for Class 2 SOUs and Class 4 parts of buildings, and
- an investigation into provisions that will facilitate the future installation of on-site renewable energy equipment and electric vehicle charging, conducted in parallel with the work on commercial buildings (see below).

The two options are the subject of regulation impact analysis, to help determine the most appropriate option for adoption in NCC 2022. The project also involves consideration of related issues, such as condensation management.

Note, the version of Option One described above does not specifically appear in the ABCB's 2019 scoping study. This is because it was only developed in late 2020 in response to concern about the stringency of the original first option and its reliance on on-site renewables.

Scope: Commercial buildings (Class 2 common areas, Class 3 buildings and Class 5 to 9 buildings)

Recognising that substantial changes were made to the energy efficiency provisions for commercial buildings in NCC 2019, for NCC 2022 this project will primarily involve refining the existing provisions. Work will also occur in areas with co-benefits for residential buildings, such as on-site renewables and electric vehicle charging (as mentioned above).

Consultation and analysis

Importantly, all of the changes that the ABCB is considering will be subject to extensive industry consultation and economic analysis.

Regular consultation on technical matters with working groups, which include both government and industry members, will continue to occur. Targeted industry consultation on specific matters also occurred in 2020 and early 2021, with full public consultation on the draft NCC 2022 changes occurring around mid-to-late 2021.

Regulation impact analysis is being undertaken to ensure all potential changes to the NCC are underpinned by a rigorously tested rationale, are effective and

proportional to the issue and generate a net societal benefit. This is a requirement of the ABCB's Inter-Governmental Agreement (IGA), as well as the Government's Principles for Best Practice Regulation. This includes considering possible unintended consequences, such as any fire safety or structural implications arising from the proposed new provisions.