

NCC 2019 Energy Efficiency Project – Rationale and Scope

Rationale

The Australian Building Codes Board (ABCBC) is now almost twelve months into a project to update the energy efficiency provisions in the National Construction Code (NCC), although in reality its planning has been in development for more than 18 months. This project was formally initiated by Measure 31 of National Energy Productivity Plan (NEPP), which was agreed to by the Council of Australian Governments' Energy Council in December 2015.

Measure 31 of the NEPP notes that there is likely to be strong productivity and emissions reductions benefits from revising the NCC's energy efficiency provisions for both residential and commercial buildings. However, it also recognises that there is a need to gather more evidence around the effectiveness of the existing provisions, particularly in relation to residential buildings.

Measure 31 of the NEPP was informed by research commissioned by the former Department of Climate Change and Energy Efficiency in 2012¹. This research was updated in 2016 by the Department of the Environment and Energy². The updated research found that changes to the NCC could achieve energy savings of up to 53 per cent for commercial buildings, but only up to 18 per cent for residential buildings³.

On this basis, the ABCBC's project has been focussed on increasing the stringency of the energy efficiency provisions for commercial buildings in NCC 2019. For residential buildings, the aim is to improve interpretation and compliance with the current provisions, and establish a solid foundation for increasing the stringency beyond NCC 2019.

The Department of the Environment and Energy is carrying out research into the case for increasing residential stringency in the future.

Scope

There are four overarching elements to the ABCBC's planned changes to the commercial and residential energy efficiency provisions in NCC 2019. These are:

- quantifying the Performance Requirements;
- increasing the number of Verification Methods;
- improving the Deemed-to-Satisfy Provisions; and
- developing a suite of supporting education material.

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

In addition to increasing stringency, the planned changes for commercial buildings will:

- provide a clear target for those wishing to develop Performance Solutions;
- improve the current reference building Verification Method (JV3);

¹ Pitt & Sherry, *Pathway to 2020 for Increased Stringency in New Building Energy Efficiency Standards: Benefit Cost Analysis*, January 2012.

² Pitt & Sherry, *Pathway to 2020 for Increased Stringency in New Building Energy Efficiency Standards: Benefit Cost Analysis: Commercial Buildings: 2016 Update*, 10 May 2016; Pitt & Sherry, *Pathway to 2020 for Increased Stringency in New Building Energy Efficiency Standards: Benefit Cost Analysis: 2016 Update for Residential Buildings*, 13 May 2016.

³ Assuming a learning rate of 3 per cent per annum for 10 years.