EASTERN ALLIANCE
FOR GREENHOUSE ACTION

C/O - MAROONDAH CITY COUNCIL
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Australian Building Codes Board (ABCB)
Federal Department of Industry, Science, Energy and Resources

Via ABCB's consultation website.

Re: Consultation Regulatory Impact Statement - Proposed NCC 2022 residential energy efficiency provisions

The Eastern Alliance for Greenhouse Action (EAGA) welcomes the opportunity to provide input into the National Construction Code (NCC) 2022 Consultation Regulatory Impact Statement (CRIS).

EAGA is a formal Alliance of eight councils in Melbourne's East, committed to delivering mitigation and adaptation projects and advocating for initiatives that support sustainable, low carbon communities. Our members include:

- City of Boroondara
- Glen Eira City Council
- Knox City Council
- Maroondah City Council
- City of Monash
- City of Stonnington
- City of Whitehorse
- Yarra Ranges Council

This submission provides feedback on the proposed energy efficiency changes for new residential buildings regulated by the NCC.

The CRIS presents three Policy Options for consideration into the revised NCC 2022:

- **Business as Usual** - involving no changes to the energy efficiency requirements for new residential buildings in the NCC 2022.
- **Option B** - involving:
    - increasing the thermal energy performance level of new, residential building shells from 6 to 7 stars (NatHERS); and
    - applying a maximum energy usage budget to new residential buildings by increasing the minimum energy efficiency standards for heating and cooling appliances, to be met using a performance standard.
- **Option A** - this approach would apply an energy usage budget that is 70% of that proposed in Option B, which can be achieved through a combination of thermal improvements to the building shell, equipment or the installation of solar PV.

EAGA urges the Australian Building Codes Board to adopt Option A outlined in the CRIS for the reasons outlined below.

Emissions reductions

Increasing the thermal efficiency standards of the NCC by implementing Policy Option A, will help Australia significantly reduce its residential energy consumption and associated greenhouse gas emissions, and assist with meeting our Paris climate targets.

A report commissioned by Renew modelled the carbon emissions outcomes roughly aligned with the different policy options presented in the CRIS. The modelling shows that a 7 star home (NatHERS) with a strong energy budget (under Option A) would reduce carbon emissions for a Melbourne home to -3 tonnes per year, compared with +6 tonnes per year for a 6 star home with no energy budget (BAU).

Extrapolating this data out to 2025 using projected housing construction data shows the different emissions outcomes under the CRIS's BAU versus Option A policy pathways[1]:

- BAU - if all new homes in Melbourne were built to 6 stars with no energy budget, average carbon emissions per year would be 211,277 tonnes, or just over 1MT cumulatively to 2025
- Option A - if all new homes in Melbourne were built to 7 stars with a strong energy budget, we would see a net reduction in carbon emissions of -112,681 tonnes per year, which equates to approximately -563,404 tonnes cumulatively to 2025.

Clearly, Option A will allow jurisdictions like Melbourne to more significantly reduce their carbon emissions from the residential sector compared with the business as usual pathway.

Financial savings

Option A would also deliver the most significant financial savings to households by minimising energy consumption in new homes and therefore, reducing energy bills for new occupiers.

Renew's modelling shows that increasing the requirement to build to 7 stars (NatHERS) with a strong energy budget (Option A) compared with the current 6 stars (BAU), would save a Melbourne, dual fuel home $1,043 per year in energy bills, with a 10.4 year payback period[2]. Significantly, the savings to households would begin accruing in year one, saving households $24 per month[3].

[1] These projections are based on construction rates of new dwellings in Victoria and Victorian planning permit approvals. See spreadsheet for calculations.
[2] Renew 2021, Households Better Off: Lowering energy bills with the 2022 National Construction Code, pp. 3-4.
[3] Ibid p.8.

At a higher level, delaying increased energy efficiency improvements in the NCC would cost $2 billion in wasted household energy bills to 2030, according to research by ClimateWorks Australia and ASBEC[4].

Public health and other benefits

Improved residential energy efficiency not only reduces carbon emissions and energy bills through avoided energy usage, but also makes our homes more comfortable, more resilient during extreme weather, and safer to live in. Research has shown if the energy star rating of existing homes was increased to just 5.4 stars, heat related deaths could be reduced by 90 percent[5]. Adopting Option A for the NCC 2022 would thus maximise the health and wellbeing benefits associated with improved residential energy performance.

EAGA therefore urges the adoption of Policy Option A for the NCC 2022, as this represents the more ambitious policy option in terms of greenhouse gas emission reductions, cost savings for households, and public health and wellbeing outcomes.

In addition, we would like to highlight that the proposed NCC 2022 fails to deal with the significant issue of embodied carbon and energy in new buildings. According to the Green Building Council of Australia (GBCA) and *thinkstep-anz,* embodied carbon comprised 16 per cent of Australia's built environment emissions in 2019[6]. This figure is projected to increase to 85 per cent by 2050 without action. Given the NCC regulates the construction of new buildings, failure to regulate embodied carbon and energy in new buildings will lock our built environment onto a path of increasing greenhouse gas emissions[7]. Thus, we call for standards regulating for a downward trajectory in embodied carbon and energy in the revised NCC.

If you have any questions of queries relating to this letter, please contact Scott McKenry, EAGA Executive Officer, on scott.mckenry@maroondah.vic.gov.au or 03 9298 4250**.**

Yours sincerely,

Cr Marijke Graham
Executive Committee Chair
Eastern Alliance for Greenhouse Action
Councillor, Maroondah City Council

This submission has been approved through EAGA's formal governance structure as described in the EAGA Memorandum of Understanding 2021-25. The submission may not have been formally considered by individual member councils.

[4] Climate Works and ASBEC 2018, Built to Perform: An industry led pathway to a zero carbon ready building code.
[5] Centre for Sustainable Infrastructure 2018, Swinburne University of Technology, Submission 9, pp. 3–4.
[6] GBCA and thinkstep-anz 2021, Embodied Carbon and Embodied Energy in Australia's Buildings. Sydney: Green Building Council of Australia and thinkstep-anz.
[7] ibid