AIRAH

HVAC&R FOR A BETTER WORLD

February 27, 2026

Streamlining and modernising the National Construction Code

AIRAH appreciates the work Treasury is doing to improve the National Construction Code, and we are grateful for the opportunity to provide input.

As a leading membership organisation for professionals working in HVAC&R building services, AIRAH has a keen interest in how the NCC is developed and implemented. In their jobs as engineers and technicians, our members refer to the code on a daily basis. As an organisation, we are aligned with the purpose of the NCC as a pathway to more sustainable and resilient buildings that improve the wellbeing of occupants. AIRAH is a member of the Building Codes Committee and Standards Australia, and we support the implementation of the code by delivering technical resources and industry training. AIRAH members also provide expert advice to the ABCB. Individually and collectively, the NCC is a vital document for us.

As a member of ASBEC, AIRAH supports the comments in the ASBEC submission to this consultation. Below, we have responded to the consultation questions in more detail according to the areas where our members work.

We would be happy to discuss any aspect of our response in more detail.

Many thanks,

Mark Vender

Advocacy and Policy Manager

AIRAH

1. **Does the current ABCB governance model work? Why or why not? What should change, if anything?**

The board-based governance model is not effective. The NCC is developed by the ABCB, but then applied inconsistently across jurisdictions, leading to a fragmented implementation of a "national" code. Under the current model, larger stakeholders with resources for lobbying can influence the application of the NCC at a local level in ways that are not aligned with the ABCB's objectives.

An alternative model – for example, a commission with a clear mandate, independence, and an expert advisory role embedded in legislation – should be considered. The development of this model should be a dedicated process, separate from this consultation. While this work is going on, updates to the NCC should continue.

AIRAH recommends a review of the Intergovernmental Agreement (IGA), in particular to ensure funding is aligned with the scale and importance of the ABCB's remit, including technical advice and industry education and training.

Consideration should also be given to building the working relationships between the ABCB and state and territory bodies responsible for regulating building and construction work, such as the Queensland Building and Construction Commission, Building Commission NSW, and the Building and Plumbing Commission in Victoria. This collaboration could improve education, compliance and may also reveal opportunities for funding.

2. **How effective is the current model at facilitating adequate stakeholder engagement? How could it be improved?**

AIRAH members have pointed to limitations in the Proposals for Change (PFC) process. The current process may be appropriate in principle; however, in practice the evidentiary and administrative burden can discourage participation from smaller practices and individual practitioners. These practitioners often have direct, practical experience of how the code operates on real projects and are therefore well placed to provide informed input on its strengths and shortcomings.

Engagement is also complicated by jurisdictional fragmentation. Engineers experience this regularly in design and certification, where registration regimes and board interpretations differ across jurisdictions.

AIRAH recommends:

- A clearer and more transparent PFC pathway, including practical guidance and examples
- Greater alignment between jurisdictions before public consultation
- Clear feedback loops showing how stakeholder input has materially influenced outcomes.

AIRAH members also highlighted the need to manage input from stakeholders with vested interests.

3. **What is the best governance model to ensure independent and quality advice is provided to Ministers as the final decision makers of the NCC and related matters?**

According to the IGA, Building Ministers are to provide "strategic policy direction" rather than be the final decision-makers on the provisions in the NCC. This is especially important when the minister is qualified in areas other than construction and building and there is potential for misdirection or dilution of the NCC.

AIRAH believes that independent and quality advice relies on an effective governance model (for independence) and adequate funding (for technical expertise). In terms of technical expertise, AIRAH members noted that this should be international rather than just local within the framework and funding of the ABCB. Tender procurement of skills has not brought a wide enough range of stakeholders to the table; Australia would benefit from international experience and experts acknowledged as leaders in their field of construction or building science. In this way we could learn lessons from those who are already ahead of us.

We support the proposal of Engineers Australia to establish a National Chief Engineer. Although several states have established Chief Engineer or Chief Scientist roles, there is currently no dedicated National Chief Engineer embedded within the Australian government to provide independent, cross-portfolio engineering advice on matters such as building regulation and infrastructure performance.

Given the technical complexity of the NCC and its interaction with structural integrity, fire safety, energy systems, ventilation, moisture management, resilience and long-term infrastructure performance, AIRAH believes consideration should be given to establishing a National Chief Engineer role. Such a role would provide independent, engineering-led advice to ministers and strengthen confidence that regulatory decisions are technically robust, nationally consistent and informed by real-world delivery experience.

In addition, formal input from the building certification profession should be considered, ensuring that compliance pathways are practical, enforceable and aligned with how projects are assessed on the ground.

At the same time, AIRAH recognises the work and importance of the Building Codes Committee in bringing together experts from different disciplines and stakeholder groups. AIRAH supports the continuation of this mechanism.

4. **What is the optimum cadence for making changes to the NCC and what is the best way of introducing changes to the NCC?**

Assuming a reworking of the structure of the NCC and accessing appropriate technical expertise, the three-year cycle avoids the code falling behind. Smaller changes to the code with clear cost benefit and minimal impact on industry should be implemented immediately, between cycles. Consideration could be given to allowing different jurisdictions and markets the freedom to choose whether to adopt these changes, harmonising again at the next major cycle.

AIRAH sees that disruption and loss of productivity currently comes less from the frequency of updates and more from inconsistency and delay. By making adoption dates consistent across jurisdictions, allowing adequate transition time and clearly communicating a roadmap, a three-year cadence could be smooth and effective.

Some stakeholders have proposed a long pause on changes to the NCC, but it is unrealistic to believe that the NCC will remain static. Society's needs and technology are constantly changing, and the code will need to respond.

5. **What should the role of the NCC be? Are there opportunities for the NCC to set minimum standards but provide pathways that effectively encourage the adoption of best practice?**

The NCC is a performance-based code that sets minimum standards. Industry consistently highlights that it is not aspirational and that we "should do better". But what does this mean in practice?

When the NCC sets a minimum, the system currently rewards delivering the minimum because it costs less. If that minimum is not considered adequate from a societal, safety or performance perspective, then the minimum itself should be raised – rather than expecting developers, installers, designers or building owners to voluntarily exceed it at their own cost.

One of our members offered the analogy of buying a car:

> *If you are buying a car for yourself, you choose the best you can reasonably afford. If you are purchasing a car for someone else and the only requirement is that it has a roadworthy certificate – and you personally retain the financial difference between a barely compliant vehicle and a premium one – very few people will select the premium option. Some may choose something reasonable; however, most will select the cheapest compliant option.*
>
> *This is not a moral judgement – it is an economic reality. Incentives drive behaviour.*
>
> *Building delivery is no different. Where the NCC establishes a minimum and makes improvement voluntary, most projects will deliver the minimum. If society expects better*

building performance, whether in energy efficiency, ventilation, durability or resilience, that expectation must be embedded in the defined minimum standard.

In line with the above comment, AIRAH believes the NCC needs to be clear and deliberate about what "minimum" represents. If it is intended to reflect contemporary acceptable performance rather than bare compliance, it should be set accordingly.

6. What parts of the NCC could be improved to remove complexity, ambiguity or duplication?

AIRAH believes the current approach to regulating mechanical systems (air conditioning and ventilation) in Section J is overly granular for a National Construction Code. For example, specifying detailed pressure limits on individual components such as grilles moves into design-level prescription rather than establishing performance intent. By prescribing component-level design parameters, this bottom-up regulatory approach is inconsistent with the principles of a performance-based code, which should establish performance outcomes rather than dictate detailed design solutions.

In AIRAH's view, the NCC should instead:

- Establish building classification–level energy performance thresholds (for example, HVAC system energy use expressed in W/m^2 or similar whole-of-system performance metrics)
- Develop and reference a dedicated national technical efficiency standard for mechanical systems that sets out detailed compliance methodologies
- Avoid regulating at individual component level unless there is a clear safety or public health imperative.

This would mirror the structure already used for ventilation, where the NCC references AS 1668.2 for detailed technical requirements. A similar framework for HVAC energy efficiency – analogous to the approach taken in ASHRAE standards – would provide greater coherence and clarity, while preserving the intent of a performance-based framework. Moving the overly granular content into separate referenced documents would also decouple updates from the NCC's own revision cadence, allowing technical changes to occur more quickly and then be added to the alternative reference list.

The current component-level approach is time-consuming to assess and, in practice, applied inconsistently across projects. A higher-level performance framework, supported by a clearly defined technical standard, would likely improve compliance outcomes, simplify enforcement and reduce unnecessary administrative burden while maintaining accountability for overall building performance.

7. **How can affordability and productivity implications be better considered in the NCC process (e.g., alternative approaches to presenting regulatory impact analysis)?**

AIRAH supports ASBEC's position that any analysis used to test NCC changes should better reflect whole-of-life costs, opportunity costs related to climate change, public benefits and equity outcomes.

AIRAH has seen that regulatory impact analysis can stop important conversations, for example, making changes to ventilation requirements that would incur upfront building costs but would improve the health and wellbeing of occupants. In these cases, the burden of producing a cost-benefit analysis to support a PFC is too great, even for larger organisations.

It is also important to consider the economics of the supply chain in Australia as a relatively small market. The economic impact assumes the cost is related to quanta rather than recognising that a reduction in compliant options to simple singular minimums may allow the supply chain to rationalise inventory and as a result drive greater compliance as "there is only one option on the shelf".

Insulation is an example where there is a multitude of options depending on climate zone and jurisdictional differences that results in an increase in inventory costs and latitude for non-compliance. More sophisticated economic impact assessment appears an opportunity for improvement of productivity outcomes.

When considering the impact of changes, this should also include the impact on national alignment. Does the change make national consistency better or worse?

8. **Do you find it difficult or costly to comply with the NCC? If so, what would make it easier and more cost effective to comply without compromising building quality and safety?**

Although AIRAH members have not indicated that compliance with the NCC is particularly difficult, certain provisions – particularly those for fan and pump efficiency – are not well understood, are administratively time-consuming, and add significant documentation burden.

In practice, where enforcement is limited and calculations are not independently audited, the detailed assessments are often deferred to later project stages or reduced to contractor compliance declarations. Certifiers collect documentation confirming compliance; however, there is generally no technical verification of the existence, accuracy or real-world performance of the calculations.

This creates a structural vulnerability in the compliance framework. Where a process is onerous and its benefit is not clearly measurable or enforced, parts of the industry will inevitably treat it as a

documentation exercise rather than a genuine performance requirement. Those who undertake full and rigorous assessment may become commercially uncompetitive against those who adopt a more superficial approach. Over time, this dynamic risks eroding standards through market pressure rather than deliberate policy change.

The NCC must therefore apply rigour selectively and strategically, focusing on areas where outcomes are measurable, benefits are demonstrable, and enforcement mechanisms are credible. Otherwise, complexity increases without corresponding improvement in building performance, and compliance risks becoming procedural rather than substantive.

AIRAH also notes that development and deployment of digital tools that automate processes and compliance aspects of the NCC rather than individuals and companies needing to create these (energy efficiency provisions for example) could significantly boost productivity. These tools could also include "best practice" commentary guidance to provide understanding of where the opportunities for improvement in performance lie.

9. How do state and territory variations impact cost and productivity? Which of these variations have the greatest impact?

Variations in the code add costs to supply chains, as noted above, and represent a barrier to providing services across state and territory boundaries.

10. How could the NCC be improved to make it easier to understand and use?

Some AIRAH members have commented that the online NCC interface is extremely difficult to use and that the downloaded PDF version is far easier to search and navigate.

If usability is a priority, the digital interface needs significant improvement. Search functionality is critical for practitioners working under time pressure.

11. How could the NCC better interact with regulations that sit outside the NCC (e.g. with international standards and Australian Standards referenced in the NCC)?

AIRAH would support a review of the standards referenced in the NCC, particularly where these standards can be better aligned with international standards.

We welcome the approach used in NCC 2025 of enabling use of selected revisions of standards, rather than a standard from a particular year.

AIRAH would support sponsored digital access to building and construction standards. If done well and funded properly, this could have benefits for the functioning of Standards Australia and the standards development process.

12. **How do you access the NCC (e.g. on a device or via a printed copy)? Do you find it easy to locate and use? What would make it easier to use?**

The members we surveyed predominantly use a downloaded PDF version, with limited use of the less problematic parts of the online NCC.

13. **How could the NCC better incentivise innovative ways of building? Does the performance solution pathway adequately promote innovation and new approaches or are there other approaches to more effectively encourage these outcomes?**

The performance pathway is intended to support innovation. In theory, it allows alternative solutions to exceed minimum requirements and incorporate more efficient or creative approaches.

In practice, however, the minimum (Deemed-to-Satisfy) pathway requires no additional justification, while alternative solutions require additional design effort, modelling, documentation and certification risk. Where the minimum standard is relatively low-cost, any alternative must not only demonstrate superior performance but also absorb additional professional fees and approval uncertainty. In most commercial settings, this is not feasible.

AIRAH believes two approaches could address this imbalance.

One would be to raise the minimum standard to reflect contemporary acceptable performance, reducing reliance on voluntary uplift.

Another would be to strengthen the link between operational building performance and the parties responsible for design and capital investment decisions.

For example, if reliable national data establishes the average energy use for a particular building type, that benchmark could be used as a reference point for operational performance.

Under such a framework, a tenant could reasonably expect to pay for energy use around the benchmark level. If the building consistently consumes significantly more energy than the benchmark due to base-building design decisions – such as inefficient plant selection, poor control strategies, or inadequate system design – the excess cost should not fall solely on the tenant. Instead, there could be a mechanism whereby the building owner, who was responsible for the original design and capital investment decisions, shares responsibility for the additional operating cost.

This would create a clearer link between design decisions and long-term operational performance. Aligning financial accountability with those making capital decisions is likely to influence behaviour more effectively than adding further prescriptive design requirements.

Mandatory performance disclosure and reporting frameworks are intended to improve transparency and encourage market-led improvement. However, transparency alone may not be sufficient to shift behaviour if the economic consequences of underperformance are not shared by those making the design and investment decisions. In AIRAH's view, incentive alignment is more likely to produce meaningful outcomes than additional documentation requirements.

Experience also suggests that the risk apportionment within the industry design and compliance (building surveyors) aspects may need legislative review in support of the performance approach.

14. How could the NCC better support diverse types of housing (e.g., medium density, commercial retrofits)?

AIRAH believes that changing local government planning frameworks would be more effective than changing the NCC. The current system of building classes is well understood and works for industry.

15. Are there barriers to introducing new building products and methods? What are they and how could the NCC be improved to support their uptake by the construction industry?

AIRAH members have indicated there are barriers. New products face:

- Certification uncertainty
- Insurance hesitation
- Performance risk
- Documentation burden.

The main barrier to innovation is not necessarily the absence of a pathway – the existing performance pathway is reasonably well established – but rather the commercial and cultural environment in which it operates.

Engineering is, appropriately, a conservative profession. Practitioners carry professional liability and are therefore cautious about adopting new products or alternative methods unless the regulatory, evidentiary and insurance settings are clear and proportionate.

More significantly, where the minimum performance standard is relatively low, there is little commercial incentive to pursue alternative approaches. If the Deemed-to-Satisfy pathway achieves compliance at lower cost and lower approval risk, most projects will select that route.

If minimum performance standards were set at a higher, more contemporary level, and alternative methods could demonstrably deliver equal or better performance in a cost-effective manner, innovation would become more commercially attractive. In other words, incentive structures – not pathway availability – are likely the more influential driver of change.

In line with our comments in question three about technical expertise, our members also highlighted the potential benefits of accessing more international materials and methods.