

## **Building Officials Institute of New Zealand**

### **Submission on**

### **Building for Climate Change Programme**

The Building Officials Institute of New Zealand represents approximately 1300 members engaged in or related to Building Surveying, whether it be in Building Control, property inspection or specialised building inspection. In the private and public sectors, our members are vested in co-regulatory support across the building sector. Our Building Control members support Building Consent Authorities (BCAs) throughout the country in the daily employment in the roles they undertake to affect the right outcomes within regulatory intent.

More so than any other sector, our membership has a birds-eye perspective on the successes and failings of both the regulatory and operational inputs into the Built environment. The Institute is an independent party that does not have a financial interest in a building, and its membership can collectively provide impartial vision for the betterment of the sector. Through our educational resources are well placed to support our fellow stakeholders.

#### **We support the Building for Climate Change (BfCC) programme**

The Institute recognises a significant amount of New Zealand's carbon emissions emanate from its building and construction sector. We support a commitment to reducing greenhouse gas emissions both during the construction of buildings and while they are occupied.

A thirty year commitment to achieving Carbon Zero by 2050 will create challenges for all across the building chain, but challenges that are needed to secure solutions to counter the impacts of climate change for the wellbeing of future generations.

The Institute supports the legislative intent of both operational and embodied emissions reductions, and we would want to be regularly engaged with MBIE BSP so to contribute incisive and impactful considerations in terms of operational outcomes.

The Institute would recommend and support a bold legislative vision with a systematic approach that is well researched internationally and combined with strong local collaboration across the build chain.

When bringing in the legislation, consideration should carefully be given to trade-offs in respect of durability needs and technology limitations that may be better served by step-by-step processes ensuring impacts on time, cost and quality are minimised, as well as careful consideration to linkages with the building code. For example, some products may not perform well in terms of carbon emissions yet may be more durable and recyclable.

We are aware of separate pieces of work underway within MBIE related to improvements in performance requirements for a range of building code clauses. These include a number of code clauses relating to indoor environment quality including thermal performance, air quality, moisture management, sound transmission, accessibility and others. It is important to note that some of these measures may in fact require additional building elements to be incorporated into building design, and careful consideration needs to be taken at a holistic level to match the intended carbon targets to those potential revised code requirements.

It is suggested in the consultation document that a staged approach may be taken with public buildings being first candidates, and also new buildings before considering existing building upgrade. We believe there is careful thought needed around the whole end result before embarking on components. With regard to public buildings – are they considered as purely public owned, or include leased private buildings. With existing building stock what are the planned criteria for calculating an accurate baseline starting measurement, and how is that factored into an expected remainder of life calculation.

### **A systems view is needed, with all parties capable of playing their role – education is critical**

In respect of the whole-of-life embodied carbon emissions proposals, we are mindful that what is proposed is a new function and role for BCAs and other parties. Careful consideration needs to be given as to how product manufacturers, designers, engineers, builders and building officials are upskilled so that this new regulatory function operates smoothly. In particular, that each party has sufficient training, knowledge and incentives to do their bit. For example:

- Product manufacturers and suppliers need to provide accurate, simple and understandable information on the measurement of embodied carbon of their products. Will this become part of the proposed product certification scheme?
- Designers and engineers need to be sufficiently skilled to competently calculate the whole-of-life carbons in their designs using a yet-to-be developed methodology, and provide this information in an acceptable quality standard to enable building officials to efficiently process consents. Who does MBIE envisage will do this training and how will it know that designers and engineers are capable? Will this become a new requirement for designer/engineering registration regimes? Will it become a new competency for designers in the LBP scheme, and a focus of skills maintenance?
- Does MBIE see builders having a role in this new part of the consenting process? If so, what is it and what training will they need? For example, how will product substitution work going forward if both building code compliance and embodied carbon emission requirements must be met? There will need to be clear pathways so that product substitution is not viewed as a means of avoiding the new regulatory requirements. Refer below for additional issues around product substitution.
- In turn, building officials will be expected to process the information provided by designers, and 'have ways to ensure it is fit for purpose and of an acceptable standard'. The Institute considers that MBIE should consider:

- Who will decide what constitutes ‘fit for purpose’ and ‘an acceptable standard’? Will each of our members and the BCAs they work for have to form a view on these or does MBIE want to see a consistent approach across all of the BCAs? If the latter, how will this be achieved?
- How much additional time does MBIE expect will be added to the consenting process, and what this will mean for consenting processing costs to the building owner?
- What expertise will building officials need to be able to efficiently process consents, and how much training from the likes of our Institute will be needed?
- Will changes need to be made to the BCA accreditation scheme given this is a new regulatory function for BCAs?
- How would the requirements work for large commercial building projects where consents are staged rather than having one consent for the entire building? How will it work when the specific tenants or even Business type has not been finalised at the stage of Consent applications?

It is critical that all of the parties are clear on their role and responsibilities in the proposed new regulatory system. Does MBIE envisage these being made explicit in Section 14 of the Building Act?

#### **The operational efficiency proposals raise similar questions**

The proposed mandatory reporting of operational emissions, water use and indoor environmental quality at the building consent and code compliance stages raises similar issues and questions to those posed above.

#### **The Institute is well placed and willing to contribute on a number of levels**

Ultimately for the new regulatory systems to work, education and training are critical. MBIE needs to be mindful that this won't be able to be delivered overnight, BOINZ is well placed to play a role in delivering timely and fit for purpose training and looks forward to being involved in discussions on training needs going forward.

The Institute is also well positioned to become a working partner with MBIE to assist in ensuring *knock on effects* and unintended consequences are identified along with associated pathways to deliver appropriate outcomes. While we accept that the consultation is currently at a relatively high level we offer a number of potential examples on how we can assist in identifying issues for consideration.

- Electricians basically self-certify their work currently. There should be no reason they can't do this for plug load installations and rely on audits by their own peers to deliver compliance. This would eliminate a need for extra expertise to be brought in at the CCC check stage by BCAs.
- Will there be an opportunity for people to apply for plug load waivers? What if a house requires specialist equipment for specialist care of people? Would dialysis, ventilator or similar machinery be given a waiver? Who assesses and provides the waiver? Could it be the BCA and under what conditions? For example, a waiver might only affect the current tenant and not future occupiers.
- Imported products include modular units: These will need to have a clear framework for providing evidence of the systems installed and more importantly product validation to the

required controls. Are there going to be comparable international standards we can use when assessing overseas product and modules. If not, does this give rise to a potential for NZ product domination? Does a BCA have to start calculating carbon fuel loads on products used that are imported into NZ?

- Re-using water: We have a gap in knowledge in the industry around prevention of contamination to potable water supplies. If tanks are topped up from town supply, the addition of backflow prevention will introduce maintenance requirements and of course associated added costs. Many across industry do not realise that most backflow devices are designed to fit into a BWOFF type annual inspection and maintenance regime. They are not designed to be left unseen and untouched for years.
- Our experience would indicate passive house designs on small sites can produce tolerance issues for grey water disposal unless for example a neighbouring property is a swamp.
- Product substitution is currently a normal practice on construction sites. There are many different products available depending on the builder's supplier. For example, we see products such as building wraps changed depending on a builder supplier choice. Substitutions of this type are dealt with on site as minor variations. Should guidelines be developed for managing this type of substitution to retain the current flexibility in the industry or is it reasonable to stop all minor site variations which in turn could create a backlog of consenting amendment applications?
- There are currently several industry change initiatives under consideration, and we would support a holistic approach in respect of costs impacts on the build. We would suggest for example there be established practical links around universal design and the building for climate change proposals to ensure an affordability factor as opposed to cost blow-outs.
- With the framework proposing two categories of buildings (Small and Large) how for example, will exempt buildings up to 300sqm be managed? Detail on this will need to be worked through carefully.

The Institute appreciates the offer to submit on the Building for Climate Change consultations and looks forward to working with MBIE as the initiatives to progressing change in the areas of Embodied and operational carbon evolve.

Yours Faithfully,



**Nicholas W Hill**

Chief Executive