



New Zealand Construction Industry Council Submission

Te hau mārohi ki anamata

Transitioning to a low-emissions and climate-resilient future

Introduction

The New Zealand Construction Industry Council (NZCIC) is the peak construction industry association representing 35 member organisations involved in the delivery of our built environment. Members include designers and specifiers (architects, engineers etc.), contractors and suppliers (manufacturers, distributors, builders etc.) and a range of other building professionals (compliance, research, surveyors, developers etc.).

The NZCIC purpose is to be the cohesive voice driving industry well-being and performance for a better built environment for New Zealand.

Consultation questions

70. [The Commission recommended the Government improve the energy efficiency of buildings by introducing mandatory participation in energy performance programmes for existing commercial and public buildings. What are your views on this?](#)

NZCIC supports the mandatory implementation of improvements of energy efficiency for public and new commercial buildings.

NZCIC supports a staged approach to existing commercial buildings beginning by applying mandatory requirements to buildings over 2000m² which are more energy intensive and are well placed to achieve economies of scale. Later, the requirements should be extended to buildings above 1000m² and to other building types such as hotels, hospitals, and retail buildings.

- 71 [What could the Government do to help the building and construction sector reduce emissions from other sectors, such as energy, industry, transport and waste?](#)

Building construction and demolition are large contributors to landfill waste and many industry led initiatives are already underway such as reducing packaging, recycling material offcuts and upcycling materials from dismantled buildings; and development products with lower embodied carbon such as low carbon concrete.

Government is the largest procurer of construction services and can support initiatives for reducing carbon in the construction sector through its procurement decisions. Specifying products such as low carbon concrete or mass wood (e.g., cross laminated timber) where possible on government projects would ensure there is a viable market for the product and potentially reduce the price to the overall market through economy of scale.

A whole of life, future focused approach to the design of government buildings will enable repurposing of buildings as future requirements change, or the recycling (upcycling) of building components when the building is dismantled.

NZCIC has previously submitted in our submission on the exposure draft Natural and Built Environments Bill that “The National Planning Framework and Natural and Built Environment Plans should ensure a consistent national approach to planning and resource allocation wherever possible, while considering regional, iwi and hapu needs. Consideration should be given to maximising supply chain efficiencies within environmental limits, as well as the more obvious needs to improve the supply and affordability of housing”.

Improvements to insulation values and incorporating building systems which reduce heat loss has potential to heavily offset peak winter demand for space heating. A recent University of Otago study suggests peak demand for electricity could be reduced by 75% of current usage by 2050 through rapid uptake of best practice standards for energy efficient housing.

- 72 The Building for Climate Change programme proposes capping the total emissions from buildings. The caps are anticipated to reduce demand for fossil fuels over time, while allowing flexibility and time for the possibility of low-emissions alternatives. Subsequently, the Commission recommended the Government set a date to end the expansion of fossil gas pipeline infrastructure (recommendation 20.8a). What are your views on setting a date to end new fossil gas connections in all buildings (for example, by 2025) and for eliminating fossil gas in all buildings (for example, by 2050)? How could Government best support people, communities and businesses to reduce demand for fossil fuels in buildings?

NZCIC supports reducing the use of fossil fuels, however we recognise that Aotearoa New Zealand does not have sufficient renewable electricity supply to meet all our electricity requirements, especially over winter periods following dry summers. Electricity is not a practicable alternative to bottled gas used for off-grid residences, including motor homes, tiny homes, cabins and baches. In addition, we need our businesses and industries to be able to access their energy requirements at competitive costs.

Alternative gaseous energy sources such as renewable LPG, biogas, biomethane, and green hydrogen are viable substitutes for LPG and natural gas that meet the Climate Change Commission’s requirements for carbon- neutral fuels. Several industry-led initiatives are already underway that are attempting to bring these fuels to market by 2050.

- 73 The Government is developing options for reducing fossil fuel use in industry, as outlined in the Energy and industry section. What are your views on the best way to address the use of fossil fuels (for example, coal, fossil gas and LPG) in boilers used for space and water heating in commercial buildings?

As for question 71, alternative gaseous energy sources such as renewable LPG, biogas, biomethane, and green hydrogen are viable substitutes for LPG and natural gas that meet the Climate Change Commission’s requirements for carbon- neutral fuels. Several industry-led initiatives are already underway that are attempting to bring these fuels to market by 2050.

- 74 Do you believe that the Government’s policies and proposed actions to reduce building- related emissions will adversely affect any particular people or groups? If so, what actions or policies could help reduce any adverse impacts?

Government policies on carbon on a production /consumption basis can have a significant impact on manufacturers in Aotearoa New Zealand if embodied carbon in imported product is not properly accounted for. Our manufacturing sector must already compete with products from countries with significantly lower compliance and labour costs leading to production being moved offshore. A strong manufacturing sector is vital to having a resilient supply chain, strong skills base and overall vibrant economy in New Zealand.

Reducing fossil gases without providing a similar alternative such as biogas or green hydrogen will impact the gasfitting industry and may disadvantage consumers in colder areas and people living off grid.

- 75 How could the Government ensure the needs and aspirations of Māori and iwi are effectively recognised, understood and considered within the Building for Climate Change programme?

Improved energy efficiency and warmer, dryer housing, including Māori housing will make homes healthier and cheaper to live in. Government must work with iwi, hapu and Māori to ensure the delivery of housing that fits the needs of Māori and is warm, dry and energy efficient.

The principles of Te Tiriti should be embedded in the planning and implementation of infrastructure and urban development and housing. Building and planning regulations currently do not recognise Māori housing aspirations, for example development of papakāinga is difficult in many areas leading to outcomes such as occupation of building types not intended for occupation which are damp, difficult to heat or cool and lead to poor health outcomes.

- 76 Do you support the proposed behaviour change activity focusing on two key groups: consumers and industry (including building product producers and building sector tradespeople)? What should the Government take into account when seeking to raise awareness of low-emissions buildings in these groups?

Raising awareness and providing reliable information on products and systems is critical. Consistent methods of measurement are an important element and mandating NABERSNZ for commercial and public buildings as well as Energy Performance Certificates for residential buildings would be a practical way to achieve this.

Certification of buildings materials with low-embedded emissions is also important and it is critical that government urgently established a consistent method for measuring and comparing embodied carbon, that also recognises the risk of “carbon leakage” at the border.

- 77 Are there any key areas in the building and construction sector where you think that a contestable fund could help drive low-emissions innovation and encourage, or amplify, emissions reduction opportunities? Examples could include building design, product innovation, building methodologies or other?

Funding development of technologies and systems to retrofit existing buildings to efficiently reduce energy use to near zero could make a significant difference to overall emissions and greatly improve housing standards for low income and other sectors of society who are less likely to inhabit new dwellings.

Increased support for the circular economy and technologies/frameworks to support greater uptake of material re-use and repurposing. For example, HERA is developing Australasia’s first material passport (https://en.wikipedia.org/wiki/Material_passport) for steel. This framework and associated digital technology could be rolled out more broadly for all materials and start to transform our building stock to form a bank of materials for future applications.

- 78 The Ministry of Business, Innovation and Employment (MBIE) is considering a range of initiatives and incentives to reduce construction waste and increase reuse, repurposing and recycling of materials. Are there any options not specified in this document that you believe should be considered?

As well as our suggestions in the answer to question 71, NZCIC supports investigation of waste to energy combustion systems for large scale combustible wastes such as wood, paper, plants and plastic based materials which are not suitable or economic to recycle or repurpose. These systems have potential to reduce fossil fuel use and reduce waste to landfill.

79 What should the Government take into account in exploring how to encourage low- emissions buildings and retrofits (including reducing embodied emissions), such as through financial and other incentives?

There is a huge opportunity to reduce emissions through improving the existing building stock, especially residential housing. Retrofitting existing buildings to a near zero energy standard by 2050 will have a far greater impact than lifting the standards of new buildings alone.

Funding development of technologies and systems to retrofit existing buildings as well as incentives/subsidies for owners will significantly improve energy performance and have a broad range of societal benefits.

80 What should the Government take into account in seeking to coordinate and support workforce transformation, to ensure the sector has the right workforce at the right time?

There are multiple projects in flight researching the future skills and workforce needs required to transition to low carbon buildings and infrastructure. The construction industry has long standing skills shortages which is predicted to worsen with the effects of an aging population, lowered numbers of new entrants due to falling birth rates and changes to immigration.

Considerable investment is required to upskill our workforce to meet both growing and changing demand for skills. Development of skills is required in parallel with the development of new products and systems. Development of new skill sets needs to happen across the system, including at schools, the vocational and tertiary education systems and workplace learning. NZCIC credits the government for the initiatives and efforts going into construction industry vocational training and skills development.

81 Our future vision for Aotearoa includes a place where all New Zealanders have a warm, dry, safe and durable home to live in. How can we ensure that all New Zealanders benefit from improved thermal performance standards for our buildings?

NZCIC supports this vision for the future. As well as progressively lifting standards for new houses, an extensive programme is required to retrofit existing housing stock to bring it up to near energy zero standard. Making this dream a reality will require a system approach including settings for building standards and regulations, urban planning and development and resource management while balancing housing affordability.

82 Are there any other views you wish to share on the role of the building and construction sector in the first emissions reduction plan?

To achieve the governments ambitious targets for reducing emissions we will need a systems approach from government and industry which combines strategies across building, planning and resource management. Government must leverage its influence as a client to support the commercial arrangements and innovations need to make the target reductions in emissions.

The residential building sector is driven by consumer demand, While some changes will be influenced by incentives and education, systemic change will require legislative interventions.

Contact

For any inquires about this submission or for further NZCIC input please contact

Graham Buke

NZCIC Executive Director

E graham@nzcic.co.nz

P 021 249 3459