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Ministry for the Environment
Environment House
23 Kate Sheppard Place
Thorndon
Wellington 6011

Re: Feedback on the Draft National Adaptation Plan
Submitted via Email - adaptation@mfe.govt.nz

Acknowledgement

Thank you for the opportunity to submit our feedback on the Draft National Adaptation Plan to Te Manatū Mō Te Taiao - Ministry for the Environment.

New Zealand Green Building Council

The New Zealand Green Building Council (NZGBC) is a not-for-profit industry organisation dedicated to promoting a sustainable built environment. We're a team of people who are passionate advocates for better homes and buildings, because we know that better homes and buildings mean healthier, happier Kiwis.

We do this by working alongside politicians, industry, and other businesses to bring change.

We also run trusted, robust authentication schemes, such as Homestar and Green Star, that highlight the many buildings that have proven their low carbon resilience credentials. And we provide education for hundreds of New Zealanders every year that are keen to learn about the technical aspects behind better more resilient buildings. We also run NABERSNZ on behalf of central Government.

Above everything else, we are collaborators. We believe that lasting change for the better, for a sustainable Aotearoa, can only happen working together alongside others.

Our vision is for all homes and buildings in Aotearoa to be green and sustainable, making healthier, happier New Zealanders.

We have over 600 companies and organisations amongst our members, including banks, energy companies, insurers, government departments, publicly listed property companies, project managers, manufacturers, construction companies, architects, developers, designers, and tertiary education institutions. This includes many of the NZX50. These members have a combined market turnover of $40bn. We also work with local government members, representing over 60% of Aotearoa's population.

New Zealand's dual crisis – housing and climate

Housing

New Zealand has both a worsening housing crisis and ongoing climate crisis. Neither are subsiding and have become further compounded by record inflation brought on by domestic and international uncertainty.

40 percent of New Zealand's existing homes are damp and mouldy. New Zealand's current housing stock is inadequately insulated and further subject to a suboptimal building code that consistently ranks as one of the lowest in the OECD.

30,000 children are hospitalised from issues related to poor housing.[1] And, in these cold damp homes, a staggering twenty-nine percent of households (that's a third of Kiwi families) have struggled to afford their power bills.[2] Each of these sobering facts are characteristic of housing insecurity that millions of Kiwis experience regularly. Housing quality is low, while the cost of rent and energy bills go up.

It's simple - where you live and whether you survive or thrive should not come down to a postcode lottery. This was well documented by Leilani Farha, UN Special Rapporteur on the Right to Adequate Housing in 2020.[3]

Climate

The housing sector represents a huge opportunity for improving energy efficiency and reducing the nation's energy demand. If New Zealand significantly improves energy efficiency in new homes, it will help to reduce peak demand, free up energy capacity for modern technologies such as electric cars and lessen the urgency for developing new energy generation.

New Zealand has a clear and legislated goal of achieving a net zero carbon economy by 2050. If New Zealand is to achieve its emissions reduction targets, it must make drastic improvements to energy efficiency in its homes therefore reducing carbon emissions related to the housing sector.

The Climate Change Commission stated in its recent advice to the New Zealand Government that 'actions to improve the energy efficiency of buildings, alongside decarbonising the energy used for heating, hot water and cooking, will be important for meeting the 2050 targets'[4]

We know that our sector is responsible for 20 percent of New Zealand's carbon footprint. This is borne out in how we build BRANZ research finds that the average home currently being built are five times more than what is needed to meet New Zealand's carbon budget.

The Climate Change Commission recommended significant actions to decarbonise NZ's buildings and homes including that:

"Aotearoa needs low emissions, energy-efficient, warm, healthy homes, and workplaces. Buildings should be constructed using designs and products that lower emissions and improve New Zealanders'

[1] NZ Herald. Child deaths linked to unhealthy housing 'unacceptable' – health minister. https://www.nzherald.co.nz/nz/childdeaths-linked-to-unhealthy-housing-unacceptable-healthmin

[2] A Stocktake of New Zealand's Housing.pdf (beehive.govt.nz)

[3] 'They allowed the perfect storm': UN expert damns New Zealand's housing crisis | New Zealand | The Guardian

[4] Ibid, p. 110.

health and wellbeing. There must be standards and legislation to support this. Our advice recommends:

- Considered and continued upgrades of minimum Building Code requirements to overcome key barriers that lead to buildings that are not low emissions or as energy efficient and healthy as possible.
- Encouraging construction based on low-emissions designs and practices, because embodied emissions represent a significant proportion of building sector emissions.
- Scaling up energy efficiency assistance to low-income households, so that low-income households can benefit from lower emissions, lower energy costs and healthier buildings.
- Mandating participation in energy performance programmes for existing commercial and public buildings."

Framing our comments

The Green Building Council believes this Draft National Adaptation Plan is a step in the right direction to help kiwis adapt to our changing climate. We note within the past year the worsening effects of weather on Aotearoa has been significant.

Our submission will focus on the Homes, Buildings and Places section of the draft Plan, with a particular focus on energy efficiency, which we think has been underserved in the document.

Adaptation of the built environment will be necessary as the impacts of climate change increase. These will range from investing in new defences against sea level rise and severe weather events, to adapting how we go about new construction and renovations to improve the efficiency, resilience, and sustainability of buildings.

We support the current and proposed actions, with the following additions:

- A greater focus on efficiency (both energy and water) as a path to climate resilience for individual buildings, communities, and the country as a whole.
- Changes to our building code and planning rules so as to require buildings to take into account flood risk/stormwater dissipation, water shortages and heatwave scenarios.
- Local authorities should provide incentives for buildings, homes and communities that are resilient to climate change above required standards. This can be done through development contributions, lower rates, and/or fast-track consenting
- Provision of guidance to stakeholders on how to manage existing buildings, homes and communities so as to help them improve resilience, reduce surface water runoff, overheating, and water shortages.

Focus on efficiency

We think that the Plan requires a greater emphasis on efficiency in the built environment. We usually think of efficiency as an emissions reduction strategy – less energy needed for heating, less embodied carbon, less waste, less water use all lead to reductions in emissions from the built environment. New Zealand should be working to rapidly improve the efficiency of its building stock anyway – to save households and businesses money, to improve Kiwis' health, and to free up electricity for other sectors.

However, more efficient buildings are also more resilient to the effects of climate change.

A more thermally efficient building is less costly to cool as temperatures rise. A built environment of more thermally efficient buildings means reduced electricity demand spikes during the more frequent winter storms and summer heatwaves that climate change will bring.

Buildings that use water more efficiently will create less demand on increasingly stressed water supplies. More energy efficient buildings overall reduce the baseload on the electricity system, making it less vulnerable to weather-induced outages and dry years.

The techniques and technologies to achieve these efficiencies are well-developed and proven. The NZGBC routinely sees homes built at 20-40% less water use per day. This delivers carbon and water savings and will delay the need for large infrastructure projects to take water from other regions as Auckland is doing.

The issue is with the level of uptake. The construction industry tends to take the legal minimum as the standard. So, to improve the efficiency of buildings, we need the Government to lift legal minima. This needs to happen rapidly. While we delay improvements to new build standards, we continue to construct buildings that are inefficient, and will need costly retrofits in the future. There is also a huge opportunity to improve the energy efficiency of existing homes.

Actions

- Government needs to stick to the timetable for the insulation changes to H1 and bring these higher insulation standards into the Building Code from November 2022
- Government needs to develop a plan to retrofits of existing buildings and homes to bring them up to a Near Zero Energy standard.

The Government should view buildings as major energy consumers and an opportunity to make large energy savings freeing up electricity for the transport sectors move to EVs hugely helping to decarbonise Aotearoa. Many projects to decarbonise New Zealand cost vast amounts of money. Improving the energy efficiency of buildings delivers something very rare – carbon reductions and substantial financial returns (reduced energy bills). It is a double win.

Severe weather event mitigation design

The draft Plan refers to integrating nature-based solutions into the urban environment to help reduce the impact of extreme weather events. We support this and would like to see the concept expanded with a focus on how construction choices impact wider communities. For instance, if an existing or new build site incorporates porous ground coverings and greater sustainable urban drainage this can significantly reduce the amount of water runoff, reducing flooding further downstream.

Similarly, construction and vegetation choices can reduce the heat island effect and provide natural cooling, reducing the need for active cooling that requires energy and produces waste heat. Requirements for new and renovated buildings to incorporate these mitigations should be written into building and planning laws.

Local incentives for sustainable construction

Local councils have the ability to provide tightly targeted incentives that respond to particular local needs for adaptation. For example, water-stressed areas could provide incentives for greater water efficiency in new construction than is required by national rules, while flood-prone areas could incentivise reduced run-off. Council planning rules can achieve these goals too, in theory, but will often

be constrained by local opposition to tight constraints, and construction will inevitably tend towards treating the minimum as the standard. Incentives can increase implementation of solutions that exceed standards.

This can include amending section 18 of the Building Act, to enable local authorities to set higher than code energy efficiency standards. Additionally, Government can create a measurement of the health and energy efficiency of homes and ensure these are listed on LIMs when homes are sold and on tenancy agreements when leased.

Finally, a mechanism can be created to incentivise lower carbon buildings and homes with marketing material, enabling listings of better performing homes on LIMs, reduced development contributions or faster building consent. Wellington City Council for instance has lower development contributions for buildings that are Green Star

Larger community projects could have take up and measure how well they are building resilient, liveable low carbon communities by benchmarking against international best practice with schemes such as Green Star Communities.

Action

- Local authorities could be directed to incentivise homes and buildings that are lower carbon and more resilient to our changing climate. For instance, those buildings that achieve resilience credits and Green Star or Homestar certification could be given faster consents or lower development contributions.

- Master planned communities over 10 hectares could be encouraged to undertake Green Star Communities rating including the adaptation to climate change and liveability credits.

Informing stakeholders

Information is a powerful tool. Often the difference between efficient and inefficient designs, or ones that are resilient to severe weather events and those that aren't, is not a matter of cost. More efficient and resilient choices can often by cheaper to implement and operate.

Designers and builders are just using approaches they are used to, and clients do not know what options they have. Educating people in the construction sector can help make them comfortable with more sustainable options, and education to clients can help them become able to request more sustainable choices.

NZGBC already has proven models for this education approach that we have been undertaking for years, and we are happy to cooperate with government agencies on expanding this work.

Using measurement for adaptation and mitigation

The NZGBC was created by the construction industry to develop and administer independent sustainability rating tools for use in infrastructure planning, delivery, and operation.

These are:

Green Star - assesses the important elements of a project's sustainability across key categories. Categories includes benchmarks for a lower-carbon, healthy projects and resilience to climate change. Green Star ratings are available for every building type; from schools and hospitals to office buildings, shopping centres, and industrial warehouses.

Green Star Communities - This is of key importance to the future of infrastructure in New Zealand. Green Star Communities is a rating that benchmarks the sustainability of communities against international best practice on liveability, resilience to climate change, stakeholder engagement, and economic prosperity.

Green Star Communities assesses the planning, design and construction of large-scale development projects including precincts, neighbourhoods and entire communities. It helps everyone from property developers through to policy makers to assess and promote the development of sustainable communities.

Homestar - a rating tool for assessing the health, efficiency, and sustainability of homes. It includes measures to reduce overheating in homes, to improve water efficiency and reduce surface water run off.

HomeFit – a straightforward way to check if a home is warm, safe and dry.

Carbon Zero Building - to receive full carbon zero building certification, buildings will have to meet minimum carbon performance standards through either NABERSNZ or the greenhouse gas emission credits in Green Star Performance.

The Green Star and Homestar programmes are overseen 36 professionals from the property and construction industry, including many engineers and other professionals with expertise in resilience.

Final comment

We hope this has been of use. Our team at NZGBC is happy to provide further feedback on this submission. We look forward to our continued collaboration.

Sincerely,

Andrew Eagles,
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