**Call for evidence**

We are calling for evidence on options available to reduce greenhouse gas emissions over the period 2022 to 2035.

**Why are we doing this?**

The Interim Climate Change Committee is the precursor to the proposed Climate Change Commission, expected to be established in late 2019 under the Zero Carbon Bill[[1]](#footnote-1). The Bill provides a framework to help New Zealand deliver on the objectives of the Paris Agreement.

A key part of the proposed Commission’s work will be to advise the Government on emissions budgets.

Emissions budgets set the total emissions of all greenhouse gases permitted in the relevant budget period. The Government will set emissions budgets based on the proposed Commission’s advice.

**Why are we doing this now?**

We are running this call for evidence now as foundation work for the proposed Climate Change Commission to enable it to start work immediately as soon as it is set up.

It will help identify relevant information for developing these emissions budgets, and to maintain a broad, robust and transparent approach in developing the proposed Commission’s evidence base.

We have been asked to do this through our [Terms of Reference](https://www.iccc.mfe.govt.nz/assets/PDF_Library/57c3716753/AMENDED-Terms-of-Reference-for-the-Interim-Climate-Change-Committee-May-Dec-2019.pdf). This work is also outlined in our letter to the Minister for Climate Change on 7 May 2019 [here](https://www.iccc.mfe.govt.nz/our-news/updates-from-the-chair/iccc-work-programme-from-1-may-2019/).

**What are we looking for?**

We are looking for high-quality, credible, evidence that will support the proposed Commission’s work on emissions budgets. This is likely to include knowledge and evidence of technologies and options to reduce emissions, and the economic, environmental, cultural and social impacts of them. We are not looking for personal views or opinions.

**What if I have already made submissions on similar topics?**

If you have already submitted evidence as part of consultation run by Government agencies, such as the Zero Carbon Bill or the Ministry of Transport’s Clean Car Standard and Discount, then we are happy for you to point us to those submissions, noting the key information or material that relates to our call for evidence.

**What will we do with the evidence we gather?**

We will use this information to inform our initial work on emissions budgets and add to the evidence base the proposed Commission will draw upon.

**Confidentiality and data protection**

All or part of any written response (including the names of respondents) may be published on our website [www.iccc.mfe.govt.nz](http://www.iccc.mfe.govt.nz). Unless you clearly specify otherwise, we will consider that you have consented to both your name and response being published.

Please be aware that any responses may be captured by the Official Information Act 1982. Please advise us if you have any objection to the release of any information contained in your response, including commercially sensitive information, and in particular which part(s) you consider should be withheld, together with the reason(s) for withholding the information. We will take into account all such objections when responding to requests for copies of, and information on, responses to this document under the Official Information Act.

The Privacy Act 1993 applies certain principles about the collection, use and disclosure of information about individuals by various agencies, including the Interim Climate Change Committee. It governs access by individuals to information about themselves held by agencies. Any personal information you supply to the Committee in the course of making a response will be used by the Committee only in relation to the matters covered by this document. Please clearly indicate in your response if you do not wish your name to be included in any summary of responses that the Committee may publish.

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**Call for evidence: response form**

We are looking for responses that are evidence-based, with data and references included where possible. Please limit your response to each question to a maximum of 400 words, plus links to supporting evidence, using the template provided. Please answer only those questions where you have particular expertise or experience.

We recommend that you refer to the Climate Change Response (Zero Carbon) Amendment Bill when considering your answers, which can be found [here](http://www.legislation.govt.nz/bill/government/2019/0136/latest/LMS183736.html).

If you have any questions about completing the call for evidence, please contact us via [feedback@ICCC.mfe.govt.nz](https://tepuna.mfe.govt.nz/otcsdav/nodes/11968990/feedback%40ICCC.mfe.govt.nz). Please include a contact number in case we need to talk to you about your query.

Please email your completed form by **12 noon, Friday 15 November 2019** to [feedback@ICCC.mfe.govt.nz](https://tepuna.mfe.govt.nz/otcsdav/nodes/11968990/feedback%40ICCC.mfe.govt.nz).We may follow up for more detail where appropriate.

 **Contact details**

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| *Name and/or organisation* | *New Zealand Green Building Council* |
| *Postal Address* |  |
| *Telephone number* |  |
| *Email address* |  |

**Submissions on similar topics**

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| *Please indicate any other submissions you have made on relevant topics, noting the particular material or information you think we should be aware of.*  |
| *The New Zealand Green Building Council (NZGBC)* [*submitted*](https://www.parliament.nz/resource/en-NZ/52SCEN_EVI_87861_EN7764/2997f9e6dd1f9f30aaecba789dc031a84230bc81) *on the Climate Change Response (Zero Carbon) Amendment Bill. We also presented our submission in person to the Environment Select Committee in Auckland on 19 August 2019. During our submission to the Committee we presented ‘*[*A Zero Carbon Road Map for Aotearoa’s Buildings*](https://www.nzgbc.org.nz/zerocarbon/Attachment?Action=Download&Attachment_id=2527)*’ – a warning to Government that it will fail to reach its climate change targets if it doesn’t improve buildings, whilst laying out the significant milestones and steps the Government and industry must take to decarbonise New Zealand’s buildings. Please also see the* [*NZGBC submission*](https://12253-console.memberconnex.com/Attachment?Action=Download&Attachment_id=1676) *outlining a number of steps and providing evidence for the Productivity Commission’s draft report on transitioning to a low-emissions economy* |

**Commercially sensitive information**

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| *Do you have any objection to the release of any information contained in your response, including commercially sensitive information?**If yes, which part(s) do you consider should be withheld, together with the reason(s) for withholding this information.* |
| *No* |

**Questions for consideration:**

 **Section A The first three emissions budgets**

Under the proposed Zero Carbon Bill, the proposed Commission will have to provide advice to government on the levels of emissions budgets over the coming decades.

Currently, the Zero Carbon Bill requires budgets to be set from 2022-2035 (three separate budgets covering 2022-2025, 2026-2030, and 2031-2035). When preparing this advice the proposed Commission will have to consider the implications of those budgets for meeting the 2050 target. The Commission will also need to consider the likely economic effects (positive and negative) of its advice.

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| *Question 1:**In your area of expertise or experience, what are the specific proven and emerging options to reduce emissions to 2035? What are the likely costs, benefits and wider impacts of these options? Please provide evidence and/or data to support your assessment.* |
| *Emissions from New Zealand’s construction industry have* [*increased by 66 percent*](https://www.stats.govt.nz/information-releases/environmental-economic-accounts-2019-data-to-2017) *in the decade to 2017. A report by* [*thinkstep*](https://www.thinkstep.com/content/carbon-footprint-new-zealands-built-environment-hotspot-or-not) *found the construction and operation of New Zealand’s buildings and infrastructure is responsible for 20% of New Zealand’s domestic emissions (net of emissions from traded goods) – a value that highlights the built environment as a key hotspot in our national carbon footprint.* *Globally, buildings construction and operations accounted for 36% of global final energy use and 39% of energy‐related carbon dioxide (CO2) emissions in 2017 according to the* [*International Energy Agency*](https://webstore.iea.org/2018-global-status-report)*.**Solutions already exist within the sector but remain under-deployed – strongly suggesting there’s huge opportunity to slash emissions, while also benefiting the economy, households, the health system, Government departments, businesses, as well as the environment. Many of these can be found outlined in* [*the Zero Carbon Road Map*](https://www.nzgbc.org.nz/zerocarbon/Attachment?Action=Download&Attachment_id=2527) *created alongside Toitū Envirocare (formerly Enviro-Mark Solutions). The* [*IPCC has outlined a number*](https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf) *of building specific policy instruments in its Fifth Assessment report, and in* [*a contributing report*](file:///C%3A//Users/tom/Downloads/ipcc_wg3_ar5_final-draft_postplenary_chapter9.pdf) *specifically about buildings.* *Energy Efficiency**The International Energy Agency recently found that by 2050 the world* [*can cut 87% of greenhouse gas emissions*](https://www.iea.org/publications/reports/PerspectivesfortheCleanEnergyTransition/) *from buildings by pairing energy efficiency with clean electricity technologies that are already available. The same report found waiting another ten years to act on high-performance buildings construction and renovations would result in more than 2 gigatonnes of additional CO2 emissions from 3,500 million tonnes of oil equivalent of unnecessary energy demand to 2050, increasing global spending on heating and cooling by USD 2.5 trillion.”**Electricity demand in New Zealand is projected* [*to grow between 18-78% by 2050*](https://www.mbie.govt.nz/dmsdocument/5977-electricity-demand-and-generation-scenarios) *– illustrating the need for energy efficiency to keep a lid on it.**In Australia the energy efficiency rating and improvement tool NABERS is mandatory for large commercial buildings under the Building Energy Efficiency Disclosure Act 2010. Office buildings using NABERS have on average improved their emissions by 11.5%, are 9% more water efficient - saving a total of 257,000 tonnes of CO2 and 1,100 megalitres of water every year. Over the life of the program, Australian businesses and workplaces have saved approximately* [*6 million tonnes of CO2 emissions*](https://www.nabers.gov.au/about/our-story)*. That's around AUS$870 million in energy bills saved by users.* *In New Zealand the Government’s own Energy Efficiency and Conservation Authority is licensed for the New Zealand adaption of NABERS – NABERSNZ, which is administered by the NZGBC. However, its use is not mandatory. On average, building energy performance could* [*be improved by 20-25%*](https://www.nabersnz.govt.nz/about-nabersnz/background/)*. In future the Government must require energy-efficiency labelling on existing buildings when they’re sold or leased, and it can lead the way by requiring it for Government leases. Having a verified tool to measure impact helps create a roadmap as well as demonstrating and communicating progress towards zero-carbon targets.**Internationally other jurisdictions that have already moved towards zero carbon buildings include the UK which is* [*requiring CO2 emission*](https://ec.europa.eu/energy/sites/ener/files/documents/2014_neeap_united-kingdom.pdf) *reductions in regulation. NZGBC, in partnership with Toitū Envirocare, is in the process of rolling out a* [*zero-carbon certification*](https://www.nzgbc.org.nz/zerocarbon/buildingoperations) *for building owners to measure current carbon emissions more formally, manage their carbon footprint, and offset any unavoidable emissions. NZGBC is also asking owners to transparently report the results of their building's energy bills over a 12-month period. NZGBC intends to provide a web portal for emissions reporting in early 2020. This site will provide benchmark energy and carbon data for different building types.**Building Better**As well as measuring and benchmarking energy efficiency, improving the quality of construction and cutting embodied emissions is possible. Efforts are already underway with developers and organisations getting their buildings certified to sustainable standards like* [*Green Star*](https://www.nzgbc.org.nz/GreenStar) *and* [*Homestar*](https://www.nzgbc.org.nz/homestar)*.* *This is necessary in the face of a regulatory framework that doesn’t reflect sustainable standards, and that will require change if New Zealand is to reach its zero-carbon future.*[*A report by the Royal Society of New Zealand*](https://royalsociety.org.nz/assets/documents/Report-Transition-to-Low-Carbon-Economy-for-NZ.pdf) *notes the “majority of buildings that will exist in New Zealand by 2050 have already been built. Therefore improving the energy efficiency performance of the current building stock by retro-fitting is an important action. Energy efficiency benefits in building design and use are included in the NZ Building Code clause on Energy Efficiency but this is weak and gives only minimum requirements.”*[*In 2006 the UK Government*](https://www.ukgbc.org/wp-content/uploads/2017/09/Final20Zero20Carbon20Non20Dom20201920Task20Group20report.pdf) *adapted their building regulations to be based on carbon performance, requiring new buildings not to exceed a maximum carbon emissions budget. All new homes were required to be zero carbon by 2016, and all other new buildings by 2020. As part of this adaption they planned a three-yearly cycle of Building Code improvements. The current New Zealand code means that when comparing London and Christchurch, which have similar heating degree days, New Zealand’s buildings are only required to have half the insulation levels and air tightness, and a fifth of the floor insulation. They therefore require greater heating and are far less efficient from the point of build, as well as contributing to poorer health outcomes.**Building to higher standards such as Green Star increases efficiency both in terms of power and water usage, whilst also mandating sustainable steps such as reducing construction waste.**A 2013 report found Green Star certified buildings in Australia had* [*62% lower greenhouse gas emissions*](https://www.gbca.org.au/uploads/194/34754/The_Value_of_Green_Star_A_Decade_of_Environmental_Benefits.pdf) *than average buildings, 65% less electricity, 51% less potable water, and sent 54% less construction and demolition waste to landfill (construction waste* [*contributes half of New Zealand’s landfill waste*](https://eunomia.co.nz/wp-content/uploads/2017/06/WDL-Final-Report-30-05-17.pdf) *and much of it can be* [*diverted*](http://www.level.org.nz/material-use/minimising-waste/)*).**As an example,* [*12 Madden Street*](https://www.nzgbc.org.nz/Story?Action=View&Story_id=505)*, a 5 Green Star rated building by Precinct Properties in Auckland, h*[*as shown substantial power and water usage*](https://www.precinct.co.nz/news/precinct-properties-green-buildings-deliver-environment-and-economic-benefits-for-occupiers) *reductions. Power use for a typical building is around 140KWh/m/annum, whereas 12 Madden is using only 68KWh/m/annum. Water usage for 12 Madden is only 8L per head a day, whereas standard office water consumption is around 50L per person a day.*[*Analysis of Green Star certified healthcare facilities*](https://www.nzgbc.org.nz/KNOWLEDGEHUB/Attachment?Action=Download&Attachment_id=1764) *shows hospitals and healthcare facilities certified in 2017 and 2018 had 57% lower greenhouse gas emissions than average healthcare buildings. There were also flow on effects in terms of better patient outcomes, better places to work, and fewer medical errors.**The cost of better building isn’t prohibitive.* [*Australian research in 2016*](https://www.nzgbc.org.nz/KNOWLEDGEHUB/Attachment?Action=Download&Attachment_id=2353) *indicated that, on average, developers and building owners were achieving Green Star ratings with 3% of their overall project budgets. In some cases, Green Star projects can be delivered for less than 1% of the overall project budget. Building residential homes to Homestar 6 level adds just 1.5% to the construction costs of a typical three-bedroom house, or nothing at all if the house is slightly smaller than today's larger homes. These costs are often surpassed by* [*energy and water bill savings*](https://12253-console.memberconnex.com/Attachment?Action=Download&Attachment_id=480)*.**Reducing the emissions associated with the building and construction sector would also have benefits throughout the economy, and for many New Zealanders. Warmer, healthier homes would save New Zealanders money in household bills, and have significant beneficial health impacts too. Poor housing is contributing to our high rates of respiratory disease which are estimated to cost the country* [*$7billion a year*](https://s3-ap-southeast-2.amazonaws.com/assets.asthmafoundation.org.nz/images/NZ-Impact-Report-2018_FINAL.pdf)*.**Preventable injuries and hospitalisations due solely to poor housing conditions in New Zealand could be costing* [*more than $145 million annually*](https://www.otago.ac.nz/news/news/otago706037.html) *in ACC claims and hospitalisation costs.* [*A stocktake report*](https://www.beehive.govt.nz/sites/default/files/2018-02/A%20Stocktake%20Of%20New%20Zealand%27s%20Housing.pdf) *commissioned by Minister of Housing and Urban Development Phil Twyford in November 2017 pools a lot of the research into the state and impact of New Zealand’s housing stock. If noted that only around two-thirds of New Zealand houses are even partially insulated, which makes the remainder cold, less energy efficient and more costly to heat, which has a direct effect on the health of occupants. Up to a third of New Zealand households struggled to afford their power bills, spent a larger part of their income on power, or often felt cold. Around two-thirds of low-income households experienced one or more energy hardship indicators and were three times more likely than all households to have three or more energy hardship. It noted that retrofitting homes with insulation produced health-related savings/benefits (including reductions in GP visits, reductions in time off work and school, reduced household level hospitalisation costs, pharmaceutical use costs, and reduced mortality for vulnerable elderly people) of $860 per year per household.* *“ Given that the OECD, presumably based on EECA data, estimated that at least one third of our 1.8 million private dwellings may be under-insulated, this suggests that if all dwellings were adequately insulated, New Zealand might gain ongoing annual health-related benefits of approximately $0.5 billion. The Housing, Heating and Health Study showed that retrofitting insulation and installing effective home heating decreased wheezing in children with asthma and reduced their number of sick days off school.”**Another thinkstep report published this year outlines the existing and future ways to cut down on building’s embodied carbon emissions. It found new-build construction and renovation emits* [*at least 2,900 kt of CO2-equivalent*](https://www.nzgbc.org.nz/KNOWLEDGEHUB/Attachment?Action=Download&Attachment_id=2453) *each year – more than 1 million passenger cars. The report lays out strategies such as specifying low-carbon concrete, and improving key building materials which could save approximately 1,200 kt CO2e per year - the equivalent to taking 460,000 passenger cars off the road permanently and 15% of New Zealand’s total light vehicle fleet.* |
| *Question 2:* *In your areas of expertise or experience, what actions or interventions may be required by 2035 to prepare for meeting the 2050 target set out in the Bill? Please provide evidence and/or data to support your assessment.* |
| *As outlined in our response to Question 1, the New Zealand Building code lags being many others in the OECD and fails to promote adequately sustainable, efficient building standards. The International Energy Agency says the Building Code is “*[*below the standards required in most other IEA countries with comparable climates*](https://www.iea.org/publications/freepublications/publication/EnergyPoliciesofIEACountriesNewZealand2017.pdf)*.” In its Environmental Performance Review of New Zealand in 2017 the OECD said the Government should consider modernising the Building Code as the building standards are “*[*less stringent than those of many other OECD member Countries*](https://www.oecd.org/newzealand/oecd-environmental-performance-reviews-new-zealand-2017-9789264268203-en.htm)*”.**New Zealand’s Building Codes* [*are lagging behind the rest of the world*](https://www.witpress.com/elibrary/sdp-volumes/12/2/1460) *and are pre 1995 England and pre 1997 Ireland code for minimum thermal performance of building envelope.* *The IPCC have said* [*market forces alone*](https://www.researchgate.net/publication/262048802_Climate_Change_2014_Mitigation_Chapter_9_Buildings_Report_by_the_Intergovernmental_Panel_on_Climate_Change) *aren’t likely to achieve the necessary transformation so policy is essential. As the IPCC point out, the EU is already requiring its member states to introduce building codes set at the cost optimal point using a lifecycle calculation, both for new buildings and those undergoing major renovation. As a result, by the end of 2020, all new buildings must be nearly zero energy by law. Many Member States (e.g., Denmark, Germany) have announced progressive building codes to gradually reduce the energy consumption of buildings towards nearly net zero levels**“Even if the most ambitious of currently planned policies are implemented, approximately 80% of 2005 energy use in buildings globally will be ‘locked in’ by 2050 for decades, compared to a scenario where today's best practice buildings become the standard in new building construction and existing building retrofit. As a result, the urgent adoption of state‐of‐the‐art performance standards, in both new and retrofit buildings, avoids locking‐in carbon intensive options for several decades.”**The* [*Royal Society’s 2016 Transition to a Low-Carbon Economy for New Zealand report*](https://royalsociety.org.nz/assets/documents/Report-Transition-to-Low-Carbon-Economy-for-NZ.pdf) *said that “to encourage new building developers and owners to strive for improved thermal and lighting performance levels through, for example, higher R-value glazing and insulation, the current minimum energy efficiency requirements of the Building Code should be made far more stringent than they are currently are, given that a new building will be consuming energy over its 50 year or more lifetime.”**In addition, low emission, sustainable building verification standards such as Green Star and Homestar can be used to help encourage new building developers and owners to aim higher, and should be considered in Government procurement.* [*An economic analysis of 6 Homestar implementation in Kiwibuild*](https://www.nzgbc.org.nz/Attachment?Action=Download&Attachment_id=1621) *(at the initial 100,000 home target) found an estimate $331m of total net benefits if KiwiBuild adopts Homestar 6, compared to the current code. $191m of that would be in private benefits and $139m in social benefits. If the cost premium closed after five years and adoption of the standard increases by a modest 10,000 homes outside KiwiBuild, the total benefit would increase to $682m.**NZGBC is in the process of rolling out a zero carbon certification off the back of the Zero Carbon Roadmap.* [*Research by the World Resources Institute*](https://wriorg.s3.amazonaws.com/s3fs-public/accelerating-building-decarbonization.pdf) *shows that zero carbon building policies are already feasible in multiple markets and climates.**Action will also be needed in order to measure and set benchmarks for sustainable buildings.**In the Royal Society’s report it makes the case that “*[*there is limited up-to-date knowledge on how energy is used in residential or commercial buildings in New Zealand so if this sector is to play a greater mitigation role, this knowledge gap needs to be addressed.*](https://royalsociety.org.nz/assets/documents/Report-Transition-to-Low-Carbon-Economy-for-NZ.pdf)*”**“The maxim ‘if you can’t measure it, you can’t manage it’ applies very strongly in this sector. The lack of timely data for all building sectors makes planning mitigation for buildings and urban development difficult. Until this knowledge is available, the efficacy of mitigation actions within the New Zealand building sector will remain unknown.”* *As outlined in the response to Question 1, Australia has already established a data gathering tool and cut emissions and energy consumption through its mandatory NABERS rating. The tool has been adapted for New Zealand but is voluntary. The International Energy Agency* [*has already recommended New Zealand adopt*](https://www.iea.org/publications/freepublications/publication/EnergyPoliciesofIEACountriesNewZealand2017.pdf) *this mandatory approach:**“The government is a large stakeholder as it rents commercial buildings and is a major tenant in the market with the ability to set the standards. The government should consider taking the lead in the public sector by making NABERSNZ mandatory for all large public buildings, with a view to a further roll-out of NABERSNZ or alternative assessments across the commercial, industrial and residential sectors over time. This would encourage the market to factor in energy efficiency into property and rental prices.”**Further steps are laid out in* [*our Zero Carbon Road Map*](https://www.nzgbc.org.nz/Attachment?Action=Download&Attachment_id=2528)*.* |
| *Question 3:**In your areas of expertise or experience, what potential is there for changes in consumer, individual or household behaviour to deliver emissions reductions to 2035? Please provide evidence and/or data to support your assessment.* |
| *There is a lot of potential for changes in consumer behaviour, both in reducing their emissions through action, but also through driving market change towards more sustainable and efficient building. Part of the potential comes from raised awareness and benchmarking through sustainable, or zero carbon, verification. As illustrated in the answer to Question 1, the use of the NABERS tool in Australia has created a marked change in behaviour. Having the knowledge of how a building performs leads to improvements, with Australian office buildings using NABERS* [*reducing their emissions by 11.5%, and being 9% more water efficient.*](https://www.nabers.gov.au/about/what-nabers/why-nabers) *Uptake of NABERSNZ is currently voluntary. NZGBC also runs a residential check* [*HomeFit*](https://www.homefit.org.nz/) *to help people understand how healthy and efficient their home is and support them to make the necessary changes. The tool has been live for approximately a year, in which time more than 24,000 people have assessed their own home or rental, suggesting an appetite for improvement. It also demonstrates and points to areas in which consumers can reduce their emissions, for example 46% of those who have completed a HomeFit self-assessment said they needed to upgrade some or all lights to LED or Compact Fluorescent Lights (CFL).**Consumers can demand zero carbon and more sustainable buildings when building new or taking on new leases to encourage uptake of higher standards. Recent* [*Stats NZ figures from the 2018 census*](https://www.stats.govt.nz/news/one-in-five-homes-damp) *show one in five New Zealand homes are damp, showing much more can be done to provide safer, healthier, more sustainable homes. The use of more efficient heating, insulation, and ventilation can be driven by performance standards and labelling. This is in line with efficiency transformations in other areas, for example as laid out in the* [*New Zealand Energy Efficiency and Conservation Strategy 2017-2022*](https://www.mbie.govt.nz/assets/346278aab2/nzeecs-2017-2022.pdf)*:**“MEPS [minimum energy performance standards] and labelling contributes to the Government’s policy priorities of innovative and efficient use of electricity by improving the energy performance of products, such as fridges, freezers and heat pumps. This makes it easier for businesses and households to make energy efficient investments that lead to energy savings. Choosing more efficient products is an example of the one of actions the Strategy includes which will encourage businesses, individuals, and public sector agencies to help us to unlock our renewable energy, and energy efficiency and productivity potential, to the benefit of all New Zealanders.”**The approach could be taken with New Zealand buildings and homes to drive consumer behaviour. There’s an appetite for sustainable labelling and features – in Australia,* [*2018 research*](https://www.prd.com.au/research-hub/your-green-guide-residential-real-estate-2018/) *found homes considered to be sustainable sell for 10 per cent more and 13 days faster than non-sustainable properties.* |

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| *Question 4:* *When advising on the first three emissions budgets and how to achieve the 2050 target, what do you think the proposed Commission should take into account when considering the balance between reducing greenhouse gas emissions and removing carbon dioxide from the atmosphere (including via forestry)?* |
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| *Question 5:* *What circumstances and/or reasons do you think would justify permitting the use of offshore mitigation for meeting each of the first three emissions budgets? And if so, how could the proposed Commission determine an appropriate limit on their use?*  |
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**Section B Emissions reduction policies and interventions**

The proposed Commission will also need to consider the types of policies required to achieve the budgets it proposes. This consideration should include:

* sector-specific policies (for example in transport or industrial heat) to reduce emissions and increase removals, and
* the interactions between sectors and the capability of those sectors to adapt to the effects of climate change.

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| *Question 6:* *What sector-specific policies do you think the proposed Commission should consider to help meet the first emissions budgets from 2022-35? What evidence is there to suggest they would be effective?* |
| *See previous answers regarding the improvement of the Building Code, requiring energy efficiency testing and ratings of buildings, and Government commitment to building standards/ratings.*  |

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| *Question 7:* *What cross-sector policies do you think the proposed Commission should consider to help meet the first emissions budgets from 2022-35? What evidence is there to suggest they would be effective?*  |
| *See previous answers regarding the improvement of the Building Code, requiring energy efficiency testing and ratings of buildings, and Government commitment to building standards/ratings.*  |

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| *Question 8:* *What policies (sector-specific or cross-sector) do you think are needed now to prepare for meeting budgets beyond 2035? What evidence supports your answer?* |
| *See previous answers re: Zero-carbon and energy ratings included in Government procurement policy. Improvements to the Building Code and mandatory zero carbon building benchmarks.* |

**Section C Impacts of emissions budgets**

The proposed Commission will need to consider the potential social, cultural, economic and environmental impacts of emission budgets on New Zealanders, including how any impacts may fall across regions and communities, and from generation to generation. Potential impacts may be either positive or negative.

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| *Question 9:* *What evidence do you think the proposed Commission should draw upon to assess the impacts of emissions budgets?*  |
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| *Question 10:* *What policies do you think the proposed Commission should consider to manage any impacts of meeting emissions budgets? Please provide evidence and/or data to support your assessment.* |
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**Section D Other considerations, evidence or experience**

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| *Question 11:* *Do you have any further evidence which you believe would support the future Commission’s work on emissions budgets and emissions reduction policies and interventions?*  |
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Please email your completed form to [feedback@ICCC.mfe.govt.nz](https://tepuna.mfe.govt.nz/otcsdav/nodes/11968990/feedback%40ICCC.mfe.govt.nz) by **12 noon, Friday 15 November 2019.**

If you have any questions about completing the call for evidence, please contact us via [feedback@ICCC.mfe.govt.nz](https://tepuna.mfe.govt.nz/otcsdav/nodes/11968990/feedback%40ICCC.mfe.govt.nz).

1. Climate Change Response (Zero Carbon) Amendment Bill: <http://www.legislation.govt.nz/bill/government/2019/0136/latest/LMS183736.html>. [↑](#footnote-ref-1)