MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

COVERSHEET

Minister	Hon Chris Penk	**Portfolio**	Building and Construction
Title of Cabinet paper	Incentivising residential solar generation	**Date to be published**	September 2025

List of documents that have been proactively released		
Date	**Title**	**Author**
April 2025	Incentivising residential solar generation	Office of the Minister for Building and Construction
9 April 2025	Incentivising residential solar generation ECO-25-MIN-0054 Minute	Cabinet Office
April 2025	Regulatory Impact Statement: Incentivising residential solar generation	MBIE
August 2024	Energy Efficiency Requirements for Homes	Office of the Minister for Building and Construction
6 August 2024	Energy Efficiency Requirements for Homes EXP-24-MIN-0039 Minute	Cabinet Office
April 2025	Refocused climate work programme for building and construction	Office of the Minister for Building and Construction
9 April 2025	Refocused climate work programme for building and construction ECO-24-MIN-0312 Minute	Cabinet Office
14 August 2024	Briefing 2425-0569: Updating the building chapter of the First Emissions Reduction Plan to reflect your portfolio priorities	MBIE
18 September 2024	Briefing 2425-0886: Opportunities to include buildings in the Second Emissions Reduction Plan	MBIE

Information redacted **Yes**

Any information redacted in this document is redacted in accordance with MBIE's policy on Proactive Release and is labelled with the reason for redaction. This may include information that would be redacted if this information was requested under Official Information Act 1982. Where this is the case, the reasons for withholding information are listed below. Where information has been withheld, no public interest has been identified that would outweigh the reasons for withholding it.

- Confidential Advice to Government
- Privacy of Natural Persons
- Legal Professional Privilege
- Commercial Information

MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

BRIEFING

Opportunities to include buildings in the Second Emissions Reduction Plan

Date:	18 September 2024	**Priority:**	Medium
Security classification:	In Confidence	**Tracking number:**	2425-0886

Action sought		
	Action sought	**Deadline**
Hon Chris Penk **Minister for Building and Construction**	**Agree** to include a building chapter in the Second Emissions Reduction Plan and suggested actions to reduce emissions from buildings.	25 September 2024

Contact for telephone discussion (if required)			
Name	**Position**	**Telephone**	**1st contact**
Matthew McDermott	Manager, Building Performance and Resilience	Privacy of natural persons	✓
Jess Kikstra	Senior Policy Advisor, Building Performance and Resilience	Privacy of natural persons	

The following departments/agencies have been consulted
Ministry for the Environment, Ministry for Primary Industries

Minister's office to complete:

- ☐ Approved
- ☐ Noted
- ☐ Seen
- ☐ See Minister's Notes
- ☐ Declined
- ☐ Needs change
- ☐ Overtaken by Events
- ☐ Withdrawn

Comments

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BRIEFING

Opportunities to include buildings in the Second Emissions Reduction Plan

Date:	18 September 2024	**Priority:**	Medium
Security classification:	In Confidence	**Tracking number:**	2425-0886

Purpose

This briefing seeks your agreement to propose a building chapter for inclusion in the Second Emissions Reduction Plan (ERP2). It seeks your feedback on any actions you would like to include in ERP2 so content for the plan can be agreed and finalised by early October 2024.

Recommended action

The Ministry of Business, Innovation and Employment recommends that you:

a **Note** that the Minister of Climate Change is developing the Second Emissions Reduction Plan and following stakeholder consultation has invited you to include Government actions to reduce emissions from buildings from 2026-2030.

Noted

b **Agree** that MBIE develop a building chapter for proposed inclusion in the Second Emissions Reduction Plan.

Agree / Disagree

c **Agree** that the following actions are included in the proposed building chapter:

Action 1: Expand energy performance ratings for non-residential buildings.

Agree / Disagree

Action 2: Make it easier for people to retrofit buildings.

Agree / Disagree

Action 3: Improve emissions data for products, materials and buildings.

Agree / Disagree

d **Note** that if required, MBIE will provide you with an updated draft building chapter based on your direction above by 30 September 2024.

Noted

e **Note** that you have been invited to attend the Climate Priorities Ministers Group (CPMG) meeting on Monday 23 September 2024. This meeting provides you with an opportunity to discuss potential building ERP2 actions with your Ministerial colleagues.

Noted

f **Agree** to forward this briefing to the Hon Simon Watts, Minister of Climate Change and the Hon Simeon Brown, Minister for Energy.

Agree / Disagree

g **Note** the additional advice provided on opportunities to provide a building levy discount or waiver to encourage green buildings in Annex Four.

Noted

Matthew McDermott
Manager, Building Performance and Resilience
Building Resources and Markets, MBIE
17 / 9 / 24

Hon Chris Penk
Minister for Building and Construction

..... / ..... / .....

The Minister of Climate Change is developing the Second Emissions Reduction Plan

1. The *Climate Change Response Act 2002* (the Act) is the legal framework that supports New Zealand to meet its international climate change commitment to achieve net zero emissions by 2050. The Act establishes a series of emissions budgets which limit emissions in each budget period and act as stepping stones for New Zealand to achieve its 2050 target. The Act requires the Minister of Climate Change to publish an emissions reduction plan outlining how the Government will achieve the relevant emissions budget.

2. The Government is committed to achieving New Zealand's international climate change commitments. In April 2024, the Government made reducing net emissions and achieving the first and second emissions budgets one of its nine Government targets for the public sector.

3. The Minister of Climate Change is currently developing the Second Emissions Reduction Plan (ERP2) alongside relevant Ministers with portfolio responsibilities for sector policies. ERP2 will outline the actions the Government will take to achieve the second emissions budget from 2026- 2030. ERP2 must be published by the end of December 2024.

4. The Minister of Climate Change publicly consulted on an ERP2 discussion document between 17 July and 26 August 2024. The ERP2 discussion document proposed that the Government will take a net- based, market led and least cost approach to achieve New Zealand's climate change targets. This proposed approach aligns with the Government's Climate Change Strategy which was published earlier in the year.

5. The ERP2 discussion document focussed on strengthening the Emissions Trading Scheme (ETS), scaling up private investment, increasing non-forestry removals, and reducing emissions from the energy, transport, agriculture, forestry and wood processing, and waste sectors. It did not contain a dedicated chapter on buildings and their contribution to New Zealand's emissions. However, it did note in the Energy Chapter that the Government intends to support green building practices and that the Government is interested in exploring this further as part of ERP2.

6. Some of the actions proposed in the ERP2 discussion document have implications for the building sector. This includes proposals to:
    - Address regulatory barriers to make it easier to build with wood. This is outlined in the forestry chapter which notes that timber can replace emissions intensive construction materials and help to reduce gross emissions.
    - Make it easier for businesses and consumers to electrify by ensuring the security and affordability of New Zealand's electricity supply and enabling energy efficiency and a smarter electricity system. This is outlined in the energy chapter.
    - Review the industrial allocation settings[1]. Changes to industrial allocation settings will affect domestic producers of key building materials who receive an industrial allocation such as steel, cement, and aluminium producers.
    - Unlock private investment, including by working in partnership with the finance sector and industry to develop a sustainable finance taxonomy.

[1] Industrial allocation is the free provision of emissions units to help emissions-intensive and trade-exposed firms meet some of their emissions costs and mitigate the risk of emissions leakage.

You have been invited to include a building chapter in the Second Emissions Reduction Plan

7. The Minister of Climate Change has invited you to include a building chapter in ERP2 to demonstrate how the Government will reduce emissions from buildings during the second emissions budget period from 2026 to 2030. This is due to feedback received during public consultation on the ERP2 discussion document where some submitters strongly advocated for buildings to be included.

8. Relevant submissions noted that buildings contribute a reasonable amount towards New Zealand's emissions and suggested that the Government should have a coherent plan to reduce them. A summary of the feedback received from key building and construction sector stakeholders is provided in Annex Three.

9. An indicative draft building chapter is included at Annex Two. This draft chapter will be revised following your direction.

MBIE considers it would be beneficial to include a building chapter in the Second Emissions Reduction Plan

10. Buildings contribute to around twelve percent of New Zealand's gross domestic greenhouse gas emissions[2]. These emissions arise from the energy used to operate buildings (operational emissions) and the emissions associated with the materials used to construct buildings (embodied emissions).

11. Including a building chapter in ERP2 provides you with an opportunity to demonstrate that the Government is committed to reducing building related emissions and set out how you intend to achieve this.

12. You have previously indicated that you would be interested in including buildings in ERP2 [briefing 2324-2369 refers]. MBIE has worked alongside the Ministry for the Environment to develop actions that align with the Government's Climate Change Strategy and your priorities for the building and construction portfolio. The suggested actions are intended to:
    - Support the effective functioning of markets to drive the climate transition.
    - Remove barriers to enable households and businesses to make quicker, cheaper, and easier decisions to innovate and use low-emissions options.
    - Be cost-effective and have a low fiscal impact.
    - Deliver minor abatement to support New Zealand achieve the second emissions budget and lay the foundations to achieve future emissions budgets.
    - Deliver co-benefits and support wider Government priorities.

13. The suggested actions are set out below and described in detail in Annex One. The actions are focussed on:
    - Reducing operational emissions from energy use in buildings.
    - Reducing embodied emissions of buildings.

[2] Note that this figure includes biogenic methane. If biogenic methane is excluded buildings generate over 20 percent of New Zealand's emissions.

Actions to reduce operational emissions from energy use in buildings

Emissions profile and drivers

14. Operational emissions from buildings account for around nine percent (6.7Mt) of New Zealand's total annual emissions[3]. Around two-thirds of these operational emissions between now and 2050 will come from buildings that exist today.

15. Just over half (54 percent) of the operational emissions from buildings are from the electricity used to operate them. Around half of New Zealand's electricity is used in buildings. The remaining 46 percent of operational emissions are from the direct use of fossil fuels in buildings, such as coal and gas.

16. Energy prices alone do not typically incentivise people to improve the energy efficiency of their buildings. There are barriers that make it difficult for people to improve their building's energy efficiency and realise the associated cost savings and emission reductions. Barriers include:
    - A lack of information available on the relative energy performance of buildings to support building owners, buyers, and renters to make informed decisions.
    - High upfront costs and limited access to finance to improve the energy performance of existing and new buildings.
    - Split incentives where the building owner rents or leases out their building and has limited incentive to improve its energy efficiency.
    - The effort and inconvenience associated with retrofitting.

Suggested actions and associated benefits

17. MBIE has proposed actions that are intended to reduce operational emissions by improving information available on the relative energy performance of buildings, so people can make informed decisions. You could also consider opportunities to make it easier to retrofit buildings.

18. This approach aims to stimulate market demand for more energy efficient buildings by encouraging owners to improve the energy performance of their buildings, and those leasing buildings to demand higher energy performance. This can result in reduced energy bills for building occupants, improve health outcomes and support higher productivity and employment.

19. More energy efficient buildings can also support New Zealand's transition towards a renewable energy system by reducing energy demand and the amount of investment required in new renewable generation infrastructure to meet energy demand.

20. MBIE has identified the following potential actions that could be included in ERP2:
    - **Action 1: Expand energy performance ratings for non-residential buildings**.
      The New Zealand version of the National Australia Built Environment Rating Scheme (NABERSNZ) is currently limited in its scope to commercial buildings. A phased approach to increasing the uptake of energy performance ratings could begin by working with EECA to expand the NABERSNZ scheme to include more building typologies (such as shopping malls).

      Confidential advice to Government

[3] Based on 2021 data.

- **Action 2: Make it easier for people to retrofit.**
  Investigate options to streamline building regulatory compliance to make it easier for people to retrofit a building to improve its energy efficiency. This initiative was agreed by Cabinet in August 2024 [EXP-24-MIN-0039 refers].

Actions to reduce embodied emissions of buildings

Emissions profile and drivers

21. Embodied emissions of buildings account for just under four percent (2.8 Mt) of New Zealand's total annual emissions[4]. Embodied emissions of building products and materials produced overseas and imported into New Zealand contribute a similar amount to offshore emissions.

22. Building owners and occupants have relatively limited awareness of the embodied emissions of buildings. This is largely because embodied emissions are less visible than operational emissions and there is limited information available to enable people to understand embodied emissions.

23. Embodied emissions have a limited impact on construction costs, limiting the market's influence on people's decision making. Under the ETS settings, domestic producers of key building materials such as steel, concrete and aluminium receive an industrial allocation which reduces their emissions costs. This means that building owners and occupants have minimal incentive to reduce embodied emissions.

Suggested actions and associated benefits

24. To date, MBIE has supported the sector to reduce embodied emissions from buildings by developing a technical methodology that the sector can use to measure embodied emissions of buildings. MBIE has also partnered with the sector to establish a national embodied carbon data repository. These initiatives have helped to raise some awareness of embodied emissions and supported the sector to voluntarily measure embodied emissions in a consistent and credible way.

25. MBIE has developed actions to extend these initiatives and further improve people's understanding of embodied emissions of buildings. The actions can make it easier and cheaper for people to measure and reduce these emissions.

26. Improving people's understanding of embodied emissions can increase demand for low emissions building materials and incentivise low emissions practices. If the building sector and consumers have a better understanding of embodied emissions, they may be more likely to opt for low emissions options.

27. Increasing people's awareness of embodied emissions may also support the Government's priority to boost domestic wood processing by encouraging people to use more low-carbon products such as timber in buildings. MBIE will work alongside the Ministry for Primary Industries to ensure actions in this area are well aligned across the forestry and building portfolios.

28. MBIE has identified the following potential actions that could be included in ERP2:
    - **Action 3: Improve emissions data and tools for products and buildings by**:

[4] Based on 2021 data.

- Continuing to work with the sector to introduce and maintain a national embodied carbon database and improve the consistency and accessibility of embodied carbon guidance and tools.
- Supporting a pilot of a sector-led platform for building emissions assessments to be uploaded and shared. The pilot would be intended to inform further investigation of options to support reporting emissions from building designs.

Other opportunities to reduce emissions from buildings

29. We have undertaken to provide you with further advice on opportunities to provide a building levy discount or waiver to encourage green buildings.

30. Introducing a levy discount or waiver would have trade-offs and create potential legal and legislative implications. MBIE considers that further work is required in this area before this action could be included in ERP2. MBIE has provided analysis on the implications of providing a building levy discount or waiver in Annex Four.

You are required to consider the Climate Change Commission's advice on reducing emissions from buildings

31. In December 2023, the Climate Change Commission (the Commission) published advice on the policy direction for ERP2. The Minister of Climate Change is required to consider this advice when preparing ERP2.

32. The Commission specifically recommends two actions are implemented to reduce emissions from buildings during the second emissions budget period. These are:
    - Prevent the installation of new fossil gas infrastructure and connections in buildings except where there are no technically viable low emissions alternatives.
    - Accelerate comprehensive retrofits to deliver healthy, resilient, low emissions buildings.

33. MBIE considers that pursuing these recommendations is likely to be beneficial in reducing emissions and delivering wider co-benefits for the health and energy system. However, adopting both recommendations in the form envisaged by the Climate Change Commission is unlikely to align with the Government's preferred approach to reducing emissions.

34. Banning new fossil gas infrastructure is inconsistent with the Climate Change Strategy and is unlikely to align with the Minister for Energy's priorities for the energy system which are focussed around enhancing energy security by restoring confidence in the gas sector. Accelerating comprehensive retrofits is likely to require significant funding, although there may be alternative mechanisms that could be used to incentivise retrofitting.

35. Both actions are closely linked to the energy portfolio and implementing them would require support from the Minister for Energy.

36. Despite this, the actions suggested earlier in this briefing to reduce operational emissions from buildings may encourage people to retrofit their buildings and electrify in a way that more closely aligns with the Climate Change Strategy.

37. Although not included as a specific recommendation, the Commission also suggested that progressing actions to reduce emissions from buildings in the First Emissions Reduction Plan (ERP1) will be critical to achieve the second emissions budget. Key actions highlighted by the Commission include limiting embodied and operational carbon of new buildings and requiring buildings to have energy performance ratings and meet energy performance standards. The actions proposed in this briefing are consistent with the direction suggested

by the Commission. However, they do not go as far as the Commission recommends as mandatory limits do not align with the Climate Change Strategy.

Risks and proposed mitigations

Sufficiency

38. The Act requires the Minister of Climate Change to demonstrate that ERP2 will achieve the second emissions budget. The latest sufficiency modelling suggests New Zealand's net emissions over the second emissions budget period will be 1.3 Mt within the statutory limit of 305 Mt when the impact of policies in the ERP2 discussion document are included.

39. This suggests that meeting the second emissions budget is achievable. However, the margin is small, and emissions projections are inherently uncertain. It is difficult to anticipate the timing of emissions reductions under the Government's preferred enabling and ETS-led approach towards reducing emissions as it relies on market action rather than directly reducing emissions through subsidies or regulation. Emissions are also affected by factors outside of the Government's control such as the weather.

40. The Minister of Climate Change will provide an update on ERP2 sufficiency at the CPMG meeting on 23 September. This will provide Ministers with an opportunity to discuss whether it is desirable to develop additional actions to mitigate sufficiency risks. If further actions are required, this may require trade-offs against the Government's preferred approach to reducing emissions.

41. As noted earlier, MBIE has developed actions that align with your portfolio priorities and the Government's market-led and least cost approach to reducing emissions. The actions suggested are "enabling" actions which are intended to make it easier for people to reduce emissions.

42. If further actions are required to enable New Zealand to meet EB2, you may be asked to consider developing additional actions to reduce emissions from buildings. Additional actions may require trade-offs against your current portfolio priorities to make it easier and cheaper to build. As an example, additional actions could include requiring new buildings to measure their embodied and operational emissions and increasing the energy efficiency requirements of new buildings.

43. If additional actions are required MBIE can provide you with further advice on possible options to achieve greater emissions reductions from buildings and the likely trade-offs associated with pursuing these actions.

44. Despite this, even relatively small amounts of abatement from the building actions proposed in this briefing can still make a useful contribution towards achieving the second emissions budget and future emissions budgets.

Stakeholder concerns and reputational risks

45. During public consultation on ERP2 some stakeholders stated that they want the Government to take more ambitious action to reduce emissions from buildings. Stakeholders also raised concerns about a lack of certainty across electoral cycles, noting that it took time for industry and Government to reach a consensus on how building related emissions can be reduced.

46. Including a building chapter in ERP2 can partially mitigate this risk by demonstrating that the Government is committed to reducing emissions from buildings. Signalling the Government's

overall direction to reducing building related emissions also provides the sector with greater certainty and enables them to understand how they can play a role in achieving this.

Next steps

47. You have been invited to the Climate Priorities Ministerial Group meeting on 23 September 2024 to discuss ERP2. Key Ministers whose portfolios relate to Climate Change are likely to attend this meeting such as the Minister of Climate Change, the Minister for Energy, and the Minister for Transport. This meeting provides an opportunity to discuss ERP2 with your colleagues.

48. MBIE has proposed actions and a potential building chapter that is likely to align with your portfolio priorities. You may wish to discuss these actions at the CPMG meeting on 23 September. Officials will be available to provide support, if required.

49. Pending the results of this discussion and subsequent direction from this group of Ministers, MBIE will provide an updated draft ERP2 chapter for your consideration in subsequent bi-lateral discussions with the Minister of Climate Change.

50. MBIE would be required to provide a building chapter to the Ministry for the Environment by early October 2024 so that a final ERP2 can be brought to Cabinet in early November before being published in December.

51. MBIE recommends that you forward this briefing to the Hon Simon Watts, Minister of Climate Change and the Hon Simeon Brown, Minister for Energy so they are informed of the proposed approach and actions that you may consider including in ERP2.

Annexes

Annex One: Potential building actions for inclusion in the Second Emissions Reduction Plan

Annex Two: Draft indicative building chapter for the Second Emissions Reduction Plan

Annex Three: Summary of relevant submissions to the Second Emissions Reduction Plan discussion document

Annex Four: Providing a building levy discount for green buildings

Annex One: Potential building actions for inclusion in the Second Emissions Reduction Plan

Actions to reduce operational emissions- new and existing buildings		
Suggested action	**Suggested approach and phasing**	**Rationale and expected impact**
Action 1: Expand energy performance ratings for non-residential buildings	Confidential advice to • Expand the voluntary NABERSNZ scheme to apply to more building typologies beyond office buildings, such as shopping malls and hotels.	• Supported by some submitters on draft ERP2 and the Climate Change Commission. • Improves market credibility by providing people with better information to make informed decisions, encouraging them to pursue energy efficient and low emissions options. • Energy performance ratings provide verified sustainability data for businesses or property portfolios, enabling sustainable investment based on credible information. • Feasible, as builds on existing frameworks and processes used in Australia. • Cost effective: Cost benefit analysis of energy performance certificates for large commercial buildings found a cost benefit ratio of 1.7. Some improvements can lead to significant energy savings at a low cost, especially for buildings with lower energy performance. • Expect low- medium abatement impact.
Action 2: Make it easier for people to retrofit buildings	MBIE expects to commence work in 2025 to investigate options to streamline building regulatory compliance to make it easier for people to retrofit a building to improve its energy efficiency. This could include a review of building work that does not require a building consent (Schedule 1 exemptions).	• Actions to make it easier to retrofit buildings are supported by some submitters and the Climate Change Commission. • Level of potential emissions abatement depends on the scope of options pursued. The extent to which regulatory settings present barriers to retrofitting homes and other buildings is unclear at this point. Other barriers such as cost are likely to play a significant role. • However, any improvements in the uptake of retrofits can result in co-benefits for the health and energy system, as well as the wider economy. • Action 1 above is also likely to encourage people to retrofit non-residential buildings to improve their energy efficiency.
Actions to reduce embodied emissions- new buildings		
Suggested action	**Suggested phasing**	**Rationale and expected impact**
Action 3: Improve emissions data for products, materials and buildings	Confidential advice to • Continuing to work with the sector to introduce and maintain a national embodied carbon database and improving the consistency and accessibility of embodied carbon guidance and tools. Confidential • Supporting a pilot of a sector-led platform for building emissions assessments to be uploaded and shared. Confidential • The pilot would be intended to inform further investigation of options to support reporting of embodied emissions of buildings.	• Supported by some submitters and the Climate Change Commission. • Feasible, as it continues existing work in this area. • Supports market credibility by making it easier for people to understand and reduce embodied emissions. • Level of abatement impact depends on the scope of options pursued. Enabling voluntary emissions measuring and reporting is unlikely to have any notable impact on emissions reduction. • However, these actions would help to improve the ‘carbon literacy’ of the sector and could smooth a path to mandatory carbon reporting at a time when economic conditions are more favourable to do so.

Annex Two: Draft indicative building chapter for the Second Emissions Reduction Plan

Building and construction

Chapter summary box	
Lead Minister *(has portfolio responsibility for the actions in this chapter)*	Hon Chris Penk, Minister for Building and Construction
Relevant pillar(s) of New Zealand's climate strategy *(tick as relevant)*	☐ 1. Infrastructure is resilient and communities are well prepared. ☒ 2. Credible markets support the climate transition. ☐ 3. Clean energy is abundant and affordable. ☐ 4. World-leading climate innovation boosts the economy. ☐ 5. Nature-based solutions address climate change.
Why is your sector important within the context of ERP2 and New Zealand's climate change response? *(30–50 words max, 1–2 bullets)*	Building and construction is critical to economic growth and housing supply. Around twelve per cent of New Zealand's domestic emissions are building-related. Improving information for decisions on building materials, energy efficiency and design will help meet our emissions budgets and free up electricity for industry and transport.
Key actions or policies covered in the chapter *(list)*	Expand energy performance ratings for non-residential buildings; Make it easier for people to retrofit; Improve emissions data for products and buildings; Encourage reporting building emissions
Contribution to net emissions in the second emissions budget • Projected net emissions • Estimated emissions reductions from actions in the chapter	MfE to provide

Introduction

The Building and Construction sector plays a key role in meeting New Zealand's climate change targets. Around half of New Zealand's electricity is used in buildings, mostly for heating and cooling spaces and water heating. Around twelve per cent of New Zealand's domestic emissions come from buildings, emitted in the energy, waste, industry and transport sectors.

The Government has already taken action to remove barriers and improve competition by streamlining the building consent system. The focus on emissions reduction for the building and construction sector is to work alongside the Emissions Trading Scheme (ETS) and other policies in this plan to support informed decision-making on building emissions.

Proposed approach to reducing emissions from building and construction

Domestic building-related emissions are covered by the NZ ETS, so a credible carbon market is a key driver for emissions reduction in building and construction. Markets need information to function effectively and provide the right incentives. Households and businesses currently have limited information to make decisions on building emissions.

By removing barriers and improving information, the Government will enable households and businesses to make quicker, cheaper and easier decisions on lower emissions materials, designs and building uses.

Informed decisions on energy efficiency and building materials will help meet our emissions budgets, reduce demand on the energy grid and support the reliability and affordability of the energy system.

Emissions from energy use in buildings

Around nine per cent of New Zealand's domestic emissions are from the energy and water used by building occupants. Improving energy efficiency in buildings will free up electricity to be used to power industry and transport.

Market preferences can be a driver for homes and buildings that are more energy efficient and cheaper to run. One barrier to realising these market preferences is not having the right information. It can be difficult for buyers, lessees, and renters to know how energy efficient homes and buildings are.

Actions in the Energy chapter can help reduce emissions from energy use in buildings, like Electrify NZ and Warmer Kiwi Homes. However, there is a role for better information to help building owners and commercial tenants make decisions on energy efficiency and energy use.

Expand energy performance ratings for non-residential buildings

The NABERSNZ scheme is a system for rating the energy efficiency of buildings. The scheme can currently be used by owners and tenants of office buildings and public hospitals and is mandatory for some government agencies. A star rating under the scheme shows a building's energy performance compared to others.

In Australia, NABERS ratings are available for 11 building types. Commercial office buildings over 1,000 square metres are required to have a NABERS rating. Since NABERS became mandatory in 2010, rated buildings have on average reduced their energy use by over 50 per cent.

The Government proposes expanding energy performance ratings for non-residential buildings in New Zealand:

- Expand the NABERSNZ scheme to more building typologies (such as shopping malls and hotels).

Expanding the availability of energy performance ratings for different types of buildings will help businesses and property owners consider ways to improve the energy performance of their buildings. Some improvements can lead to significant energy savings at a low cost, especially for buildings with lower energy performance. Energy performance ratings provide verified sustainability data for businesses or property portfolios, enabling sustainable investment based on credible information.

Energy performance ratings can support landlords and developers to better value the energy benefits for their tenants, reducing the split incentive for energy efficiency investment. This can encourage building and retrofitting above the minimum regulatory requirements.

Make it easier for people to retrofit

MBIE's modelling suggests that around 70 per cent of New Zealand's building stock that will exist in 2050 has already been built. The Climate Change Commission recommended the Government consider accelerating comprehensive retrofits to deliver healthy, resilient, low emissions buildings.

The Government will investigate options to streamline building regulatory compliance to make it easier for people to retrofit a building to improve its energy efficiency.

Embodied emissions

Around four per cent of New Zealand's domestic emissions are from the materials that go into our buildings, also known as embodied emissions. These emissions can be reduced when making decisions on:

- the type and quantity of materials that are going into a building
- what happens after a building reaches the end of its life.

New Zealand's understanding of emissions from building materials has improved in recent years from a low base. However, data availability can be low and there are barriers to making informed decisions.

Other actions in this plan can help reduce emissions from building materials, like boosting domestic wood processing and investing in resource recovery through the Waste Minimisation Fund. However, there is a role for better information to help consumers and building designers make decisions on building designs, materials and disposal and reuse.

Improve emissions data for products and buildings

Reporting emissions from building designs can significantly improve the ability of building owners and designers to make informed decisions. This approach enables the market to find the best way to reduce building emissions.

One of the biggest barriers to understanding emissions from building materials is having the data available to make informed decisions. The Building Research Association of New Zealand (BRANZ) and Masterspec are developing a national online resource of carbon data for building materials and products. The carbon data used for this free resource will be maintained to ensure it is reliable and accurate.

Another challenge is understanding what good looks like for embodied emissions. The Government is supporting a pilot of a sector-led platform for building emissions assessments to be uploaded and shared. Based on the results of the pilot, the Government will investigate further options to support reporting emissions from building designs.

Alongside existing industry tools to assess emissions, these resources will help build an evidence base and improve sector capability to support decisions on emissions from building materials.

Annex Three: Summary of relevant submissions to the Second Emissions Reduction Plan discussion document

Feedback from building and construction sector stakeholders on the ERP2 discussion document[1]	
Topic	**Key points raised**
Role of the built environment in achieving the second emissions budget	• Submitters supported including the built environment in the second Emissions Reduction Plan (ERP2). • Many submitters supported implementation of MBIE's Building for Climate Change Programme. The submitters noted that it took time to achieve industry alignment and we need to maintain momentum and progress. Some suggested that action should be accelerated and expanded to ensure we achieve low carbon and energy efficient new and existing buildings. Submitters suggested incentives, regulations, and new standards could help us achieve this. • Several submitters said there is a need for a coordinated response to reduce emissions from the built environment. Building legislation and regulations need to align with this to reduce sector concerns about regulatory uncertainty.
Reducing emissions across the building system	• Submitters considered that consistent policy settings are necessary to guide long term investment decisions, and support innovation and continued progress. Submitters noted that buildings are long-lived assets. • Some submitters recommended that the Carbon Neutral Government Programme should continue. Submitters considered that government procurement can help to reduce building emissions by supporting investment at scale, promoting and incentivising sustainable building materials and products. • Several submitters considered that the development, approval, and citation of standards is too slow. This makes it hard for the sector to adopt and use new technologies, materials, and processes. Submitters suggested New Zealand standards need to keep up with international standards. The standards development process needs to be better resourced to support the adoption of innovative materials and low carbon building methods. These submitters suggested adoption of best practice needs to be actively encouraged as existing processes (including consenting) make low-carbon innovative products riskier and more expensive to use. • Similarly, a couple of submitters suggested more regulatory support is needed to support new construction methods such as modular housing. For example, more investment in developing deemed to comply pathways. • One submitter suggested the public sector needs to be better resourced to support the building and construction sector to change. • Two submitters suggested more educational resources to upskill the sector would be beneficial. For example, on sustainable building techniques, ecofriendly materials, and how to reduce building waste. • One submitter suggested the Government should provide more research and development funding for low-emissions technology.
Reducing operational emissions from new and existing buildings	• Many submitters recommended mandatory energy performance rating requirements should be introduced for both residential and commercial buildings. Submitters noted that energy performance ratings can incentivise retrofitting. • Many submitters suggested the Building for Climate Change Programme's proposed operational efficiency framework should be pursued. • A couple of submitters recommended that the energy efficiency requirements in the Building Code should be updated to align with the Climate Change Response Act 2004 and suggested higher energy efficiency standards are necessary. • Some submitters noted that the deemed to comply pathways for the H1 Energy Efficiency clause of the Building Code have widespread sector support. The current review of these deemed to comply pathways that MBIE is undertaking is creating uncertainty for industry. • Several submitters suggested New Zealand should shift away from the use of fossil fuels in residential buildings. Submitters suggested new gas infrastructure in buildings should be banned from 2026 in line with the Climate Change Commission's recommendation. Submitters noted that clear policy direction is required in this area. • Submitters strongly supported more action to support retrofitting to help people electrify and improve the energy efficiency of their buildings. Submitters suggested a range of ways this could be achieved including undertaking research and piloting retrofitting projects to ensure retrofitting is effective, developing guidance and direction to encourage retrofitting to reduce emissions, and developing a retrofitting standard. Submitters also considered that the Warmer Kiwi Homes Scheme should be expanded to support electrification and support the installation of hot water heat pumps. Some submitters thought people should be incentivised to replace gas appliances with electric ones when existing gas appliances reach the end of their life. • Two submitters suggested Government could do more to promote sustainable building practices, such as passive design principles.

[1] This feedback is from 20 key building and construction sector stakeholders. MBIE has not analysed all the ERP2 submissions that relate to buildings. The Ministry for the Environment will assess all ERP2 submissions.

Reducing embodied emissions from buildings	• Many submitters suggested the Building for Climate Change Programme's proposed embodied carbon framework should be pursued in ERP2. Several submitters noted that introducing embodied carbon reporting requirements would support economies of scale and reduce the cost of embodied carbon assessments. • Two submitters suggested that if the Government does not want to require all buildings to measure their embodied carbon, it could initially incentivise voluntary reporting through financial incentives such as tax rebates. • Some submitters noted that implementing the embodied carbon framework can help to encourage adaptive re-use and reduce construction waste. One submitter suggested material passports should be introduced to make it easier to use secondary materials. • Many submitters noted that a national embodied carbon database is critical. This will make it cheaper and easier to assess embodied carbon. • Two submitters suggested supporting material producers to obtain Environmental Product Declarations (EPDs), which would support better carbon measurement and transparency. • Two domestic material producers raised concerns that the reliance on the ETS without a Carbon Border Adjustment Mechanism (CBAM) or embodied carbon reporting requirements creates a risk of emissions leakage if domestic consumers opt to use cheaper and more emissions intensive imported products from countries that don't have emissions pricing. • Two submitters recommended encouraging and supporting industry-led certification schemes such as Living Building certification to promote sustainable practices. • Many submitters supported a greater role for timber in the built environment. However, at the same time, submitters noted that other building materials will continue to play an important role. • Submitters recommended that greater uptake of timber and engineered wood products can be supported by providing more regulatory certainty and deemed to comply pathways. Specifically, submitters suggested a verification method for cross laminated timber is needed, NZS AS 1720 Timber Structures needs to be developed and cited in deemed to comply pathways, and fire engineering design needs to be more consistent, including reviews by Territorial Authorities and Fire and Emergency New Zealand (FENZ); noting that regulatory barriers make it difficult to use internationally sourced timber products. • One submitter noted that improving seismic resilience can help to reduce embodied emissions. • Two submitters considered the Government should support greater re-use of secondary materials, or more sustainable end of life options if the materials are not suitable to be re-used in buildings. To support this, submitters recommended developing regulatory quality assurance standards such as strength grading for structural materials, and deemed to comply pathways to determine how and when secondary materials can be re-used. Submitters also suggested more support for sustainable end of life options such as the use of timber for biofuels would be beneficial. • Several submitters thought that the Waste Management Plans proposed under the Building for Climate Change Programme should be implemented. Submitters considered more support and incentives should be provided to encourage people to reduce construction waste.

Annex Four: Providing a building levy discount for green buildings

A building levy discount or waiver would have trade-offs and legislative implications

- Upfront costs can be a barrier for building owners choosing lower carbon and more resilient buildings. Financial incentives could increase uptake and offset some construction costs.
- Offering a building levy discount or waiver for green buildings could potentially provide a financial incentive without the use of Crown funding. However, there would be trade-offs, potential legal and legislative implications, and further work required to implement a discount or waiver.
- If you wish to direct officials to do further work on providing a building levy discount or waiver, it will have the following implications.

While the levy paid represents a small proportion of the value of building work, a discount or waiver may send the right signal

- A levy discount or waiver may send the right signal to encourage lower carbon and resilient buildings. This signal may be stronger for higher value projects that would otherwise incur high levy payments.
- The cost of the levy represents 0.175 per cent of the estimated value of building work above the prescribed threshold. For example, building work valued at $500,000 would incur a levy of $875.
- We are not aware of any evidence to suggest that the potential savings from a levy discount or waiver would significantly incentivise green outcomes for standalone houses. We estimate that a levy waiver would cover around 20 per cent of the certification fees for HomeStar. Note that meeting HomeStar standards may also mean a construction cost uptick beyond certification fees.
- The potential savings from a levy discount are more likely to offset the costs of green building certification for higher value projects. For example, we estimate that the levy paid is greater than Greenstar fees for projects valued at around $19 million and above (excluding any construction cost uptick).

Legislative change would be required

- The Building Act 2004 (the Building Act) provides for a building levy to be paid if a building consent is granted. The levy rate and threshold at which the levy is paid are set by the Building (Levy) Regulations 2019.
- Providing a levy discount or waiver would likely require changing the Building Act. Legal professional privilege
- New or amended regulations would likely be required to implement any changes to the Building Act
- MBIE would need to seek legal advice on the consistency of any changes with cost recovery guidelines, including guidance from the Legislative Design Advisory Committee, Treasury and the Office of the Auditor General.
- In general, levy powers should ensure that:
    - it is appropriate to use the levy to pay for the costs of the particular objective or function, and that the scope of the objective or function is clear; and
    - it is appropriate for the proposed levy payers to contribute money for the proposed purpose.

- One concern is that waiving the levy for some applicants may lead to cross-subsidisation. Treasury guidance suggests that cross subsidisation should generally be avoided as the costs are not borne by the beneficiaries of the services provided.

Implementing a levy discount or waiver would require clear eligibility criteria

- Building consent applicants and Territorial Authorities would need clear criteria to determine if a building project is eligible for a levy discount or waiver. Creating a suitable definition of low carbon and resilient buildings would require further technical and policy work.
- Commercial Information
- Other criteria could support the objective of improving information, such as providing a discount or waiver where a building owner assesses their building's emissions and shares the results. These options could build on existing work including MBIE's methodologies for assessing emissions and work underway to improve product carbon data and benchmark building emissions.
- The Ministry for the Environment is progressing sector-specific sustainable finance taxonomies to provide clarity of definitions for sustainable investment. MBIE understands that current priority sectors are agriculture and forestry. A green taxonomy for construction is being considered as a future priority sector and could provide the basis for eligibility criteria.

There would be trade-offs including making the system more complex

- Like GST, the building levy is a fair, simple, and efficient method of cost recovery. A building levy must be paid if a building consent is granted. Introducing a waiver or discount for some building consents would add to the complexity of the system.
- A clear rationale would also be required to justify why the owners of green buildings should benefit from a waiver, as opposed to other building owners such as community housing owners.
- Territorial Authorities collect the building levy on behalf of MBIE and retain three per cent of levy funds to cover administrative costs. A discount or waiver could reduce Territorial Authority revenue by a small amount. There would also be one-off costs to accommodate a waiver such as adjusting ICT systems and processes.
- Future levy rate reviews would need to consider the impacts of a levy discount or waiver on MBIE's revenue. We expect that the impact on MBIE's revenue is likely to be minor and could be absorbed by the current levy account surplus.