



### **COVERSHEET**

| Minister | Hon Chris Penk                             | Portfolio            | Building and Construction |
|----------|--|----------------------|---------------------------|
|          | 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   | Cabinet Office                                       |  |
|   | EXP-24-MIN-0039 Minute   |  |  |
| 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   | Cabinet Office                                       |  |
|   | ECO-24-MIN-0312 Minute   |  |  |
| 14 August 2024  | Briefing 2425-0569: Updating the building chapter of the First Emissions Reduction Plan to reflect your portfolio priorities | MBIE   |  |
| 18 September<br>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

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# Regulatory Impact Statement: Incentivising residential solar generation and sustainable buildings

| Decision sought        | Cabinet approval to amend the Building Act 2004 to provide for:  - fast track consents for residential solar generation and sustainable buildings; and - exempt retrofitting rooftop solar panels from consent requirements. |
|------------------------|--|
| Agency responsible     | Ministry of Business, Innovation and Employment (MBIE)   |
| Proposing<br>Ministers | Minister for Building and Construction   |
| Date finalised         | 3 April 2025   |

The average New Zealand household uses around 7,100 kWh of electricity per year. Demand for electricity is expected to increase significantly.

Buildings contribute around 11 per cent of gross domestic greenhouse gas emissions and are going to be increasingly vulnerable to the impacts of climate hazards.

The proposal is to incentivise the uptake of residential solar electricity generation and sustainable buildings.

The proposal is expected to support the Government's:

- Climate strategy: transitioning New Zealand to a low emissions economy in a market-led and cost-effective way
- · Housing priorities: making it easier to build a home
- Energy priorities: a modern, affordable and secure energy system.

### **Summary: Problem definition and options**

### What is the policy problem?

The average New Zealand household uses just under 10,000 kWh of energy per year. Around 7,100 kWh of that is electricity.<sup>2</sup> Demand for electricity is

<sup>&</sup>lt;sup>1</sup> https://www.level.org.nz/energy/

<sup>&</sup>lt;sup>2</sup> https://www.level.org.nz/energy/

expected to increase significantly by 2050 and meeting this demand will require a huge increase in investment in generation and network.

Ensuring security of supply and affordability as the energy system decarbonises is crucial. The Government's approach is to remove barriers, provide certainty and ensure incentives are aligned across the system.

Buildings contribute around 11 per cent of gross domestic greenhouse gas emissions. Sustainable buildings can reduce emissions and have benefits such as reducing power bills and energy use, increasing the efficient use of materials and better health outcomes for building occupants.

Buildings are going to be increasingly vulnerable to the impacts of climate hazards. Improving the resilience of buildings to climate hazards can save on rebuild costs and free up sector capacity by reducing the need to rebuild after climate events.

The benefits from solar generation and sustainable buildings can lead to significant savings over time, for example through lower power bills, but require an upfront investment. In some cases, the savings are enjoyed by people who do not directly pay the investment cost (tenants, future occupiers).

Additionally, some building owners and occupants are unaware of the benefits of sustainable buildings, or how to pursue this type of building. The building and construction sector offers few incentives for upskilling and specialising in designing and constructing sustainable buildings. This all contributes to a low uptake of sustainable buildings.

Whether or not retrofitting rooftop solar generation requires a building consent is left to BCA discretion. Consequently, solar panel installation is treated inconsistently by different BCAs, resulting in regulatory uncertainty and potentially unnecessary compliance costs.

### What is the policy objective?

The overall aim of this policy is to stimulate the voluntary uptake of residential solar electricity generation and sustainable buildings, which would in turn support the Government's climate, energy and housing priorities.

The policy aims to stimulate some demand by providing a faster consent processing timeframe for residential buildings that meet solar generation or sustainable criteria. This will provide greater certainty for building consent applicants and allow construction to begin sooner.

It is envisaged this policy will initially target new detached dwellings up to two storeys. This is because these buildings are generally less complex and easier and guicker to assess for Building Code compliance.

Success of the incentive would be demonstrated by more solar panels on residential buildings than there otherwise would have been. Uptake will be monitored to evaluate and assess the success of the incentive.

The baseline data for solar generation and sustainable buildings will be dependent on the performance criteria for the incentive (which are expected to be developed through secondary legislation). It is difficult to estimate this baseline data at this stage.

### What policy options have been considered, including any alternatives to regulation?

The scope of feasible options is limited to reducing consenting barriers for

buildings with solar panels. This has been limited by Cabinet and Ministerial direction [ECO-24-MIN-0312].

### **Option One - Status Quo**

Building consent applications for buildings with solar panels would continue to need to be processed within 20 working days. The current median timeframe to process consent applications for new residential builds up to two storeys is 13 days. BCAs would continue to have the option to operationally enforce a policy of faster consenting for buildings with solar panels (we are not aware of any such policies at this time).

### Option Two - Non-regulatory option: Minister letter of expectations

This option would involve the Minister of Building and Construction writing to BCAs setting out an expectation that building consent applications for buildings with solar panels are to be processed within 10 working days. This would be voluntary for BCAs to comply with.

# Option Three - Introduce a 10-working day timeframe to process a building consent for buildings with solar panels (Minister preferred)

Amend the Building Act to require building consents for buildings with solar panels to be processed within 10 working days. We expect that this option would require secondary legislation setting out minimum requirements for solar panels.

# Option Four - Introduce a 10-working day timeframe to process a building consent for sustainable buildings (Minister and MBIE preferred)

Amend the Building Act to require building consents for sustainable residential buildings to be processed within 10 working days. We expect that this option would require secondary legislation setting out performance criteria for the sustainable building incentives.

### Option Five - No consent required for retrofitting rooftop solar panels on homes (Minister and MBIE preferred)

Amend Schedule 1 of the Building Act to exempt retrofitting rooftop solar panels on existing homes from requiring a building consent.

### MBIE's preferred options are:

- Option Four Introduce a 10-working day timeframe to process a building consent for sustainable buildings
- Option Five No consent required for retrofitting rooftop solar panels on homes.

### The Minister's preferred options are:

- Option Three Introduce a 10-day timeframe to process a building consent for buildings with solar panels
- Option Four Introduce a 10-working day timeframe to process a building consent for sustainable buildings
- Option Five No consent required for retrofitting rooftop solar panels on homes

#### What consultation has been undertaken?

Due to time constraints, we have not undertaken public consultation. We have instead undertaken targeted engagements on the proposal to provide faster consent timeframes with sector groups, including the Building Advisory Panel<sup>3</sup>, a BCA, BRANZ, sustainable certification scheme providers and architect and designer peak bodies. They provided the following feedback:

- a reduction in consent timeframes to 10 days will be relatively small in the context of building a home and would not be enough of an incentive
- there will be a risk of gaming
- for BCAs, digital systems can be complex to update, and any changes would be resource dependent. An appropriate transition period would be required to implement any changes
- meeting sustainability criteria could be expensive and could outweigh savings from the incentives
- best practice in sustainable design is going to evolve and the system needs to be flexible enough to keep up
- aligning the criteria on what is a sustainable building with new or updated Building Code compliance pathways could provide clarity and support the faster processing of building consent applications by BCAs.

The above feedback does not indicate strong support for the preferred option. We expect that the select committee process will provide an opportunity to consult further on issues raised through the targeted consultation.

No consultation was undertaken on the retrofit exemption proposal due to time constraints.

### Is the preferred option in the Cabinet paper the same as preferred option in the RIS?

No. MBIE's preferred options are:

- Option Four Introduce a 10-working day timeframe to process a building consent for sustainable buildings
- Option Five No consent required for retrofitting rooftop solar panels on homes.

The Minister's preferred options are:

- Option Three Introduce a 10-day timeframe to process a building consent for buildings with solar panels
- Option Four Introduce a 10-working day timeframe to process a building consent for sustainable buildings
- Option Five No consent required for retrofitting rooftop solar panels on homes

<sup>&</sup>lt;sup>3</sup> The Building Advisory Panel is a statutory board appointed by the chief executive under the Building Act 2004. It provides independent strategic advice on issues facing the construction sector. The Panel's membership includes sector leaders across building, engineering, products and research.

The main reason for this difference is that MBIE considers that:

- Option Three has a higher risk of gaming compared to Option Four, because adding solar panels to a consent application is unlikely to have the same costs as meeting sustainable criteria at the consent stage (which may require some form of modelling, design assessment or precertification)
- Option Four is likely to increase uptake by providing information and a heuristic related to what is a sustainable building. MBIE considers that solar panel uptake will not benefit from information provision in the same way.

This means the balance of effectiveness versus the risk of gaming and complexity in the system is different for options three and four.

### Summary: Minister's preferred option in the Cabinet paper

### **Costs (Core information)**

Outline the key monetised and non-monetised costs, where those costs fall (e.g. what people or organisations, or environments), and the nature of those impacts (e.g. direct or indirect)

BCAs (through higher administrative burden) and other building consent applicants (through transferred consent processing days) face most of the costs.

Our initial analysis suggests that the additional administrative burden for BCAs will be low or minor and assumes that staff will be reprioritised, and extra resource is not required. However, this is heavily dependent on uptake. We have not been able to test uptake assumptions with BCAs.

### **Benefits (Core information)**

Outline the key monetised and non-monetised benefits, where those benefits fall (e.g. what people or organisations, or environments), and the nature of those impacts (e.g. direct or indirect)

Building consent applicants for dwellings that meet solar generation or sustainable criteria receive most of the benefits from this policy, through faster consent timeframes and in some cases avoided consent fees for retrofits. Because the incentive scheme is voluntary, these benefits will only occur if building owners choose to build to a higher design standard.

Our initial analysis suggests that at a 10 per cent uptake for faster consents for new buildings (around 1,600 consents), successful building consent applicants could avoid around 5,161 consenting days per year. This is around 3 days saved per consent.

It is expected that the provision of information about the incentives will improve awareness of the benefits of solar generation and sustainable buildings and increase uptake, leading to small reductions in power bills, emissions and demand on the national energy grid.

The potential for emissions reductions from the preferred option is unlikely to have a material impact on New Zealand's net emissions.

## Balance of benefits and costs (Core information) Does the RIS indicate that the benefits of the Minister's preferred option are likely to outweigh the costs?

The quantified and monetised benefits do not appear to outweigh the costs of the preferred option, given the benefits and costs are expected to be transferred between parties (for example, the time saved by consent applicants that meet solar generation or sustainable criteria will be offset by an approximately-equal increase in processing times for other consent applicants).

Nevertheless, these options would signal a step towards meeting the Government's energy and climate priorities.

Household benefits and the benefits of no consents for retrofits have not been quantified. However, there is clear evidence of the benefits of solar panels

#### including:

- Power bills saved: If you include the upfront costs, divided over the 30year lifetime of your solar panels, electricity from rooftop solar works out about 75% cheaper than electricity purchased from the grid (6c/kWh compared to 24c/kWh) when finance costs are excluded.
- Sell the excess: Occupiers with solar panels can sell the electricity they don't use to their retailer (although, this is typically for less than you'd pay to buy it from them).
- Zero emissions: Installing solar will reduce a home's emissions by utilising home-generated renewable energy, rather than grid electricity (which is around 80-85 per cent renewable).
- Increased energy resilience: when coupled with home batteries<sup>4</sup>.

There is also clear evidence of the benefits of sustainable and warm, healthy and dry homes. These include:

- reduced energy bills from greater energy efficiency
- greater occupant health from families living in warm, dry homes are less likely to present to hospital with preventable illnesses and have fewer trips to the doctor
- higher levels of household productivity from fewer sick days
- **climate resilience** greater climate resilience mean homes can better withstand the impacts of climate hazards
- **lower carbon** lower energy use means lower operational emissions, and smart design can lead to lower embodied carbon in building materials and less waste.

We expect these benefits will have a small but positive impact over time.

The Minister's preferred options may meet the objective of incentivising demand for solar generation and sustainable buildings. However, the incentive effect is not clear and expected to be minor. This is due to:

- the small difference in consent timeframes expected for the target building types (given the current median timeframe is 13 days)
- the cost of solar panels (around \$10,000 for a medium-sized installation which provides approximately half of the energy needs for an average household) or meeting sustainability criteria
- unclear levels of expected uptake (partly due to uncertainty around the performance criteria for the incentive). We expect the criteria may include one or more of energy efficiency, low embodied carbon, climate resilience and water efficiency and may initially target detached housing up to two storeys
- not all BCAs requiring a building consent for retrofitting solar panels currently.

Additional costs from purchasing and installing solar panels or meeting sustainability criteria would be incurred only if building owners choose to include solar panels in their home design or build to a higher standard.

<sup>&</sup>lt;sup>4</sup> https://www.genless.govt.nz/for-everyone/at-home/explore-solar-energy/rooftop-solar/

The following risks have been identified with the preferred options:

Confidential advice to Government

Risk of severe impacts from unexpectedly high uptake

Where the uptake is so high that it creates an excessive technical and administrative burden for BCAs to process consents within the shorter timeframe. This could lead to a longer median processing time for standard consents.

Work to develop criteria for solar generation or sustainable buildings in secondary legislation will seek to address this risk, including by limiting the building types to which the incentive applies.

Risk of poor outcomes from building work related to exempting the retrofitting of solar panels from a consent

Where the consent exemption leads to greater risk due to the lack of regulatory oversight.

MBIE considers this risk as minor because:

- energy work is regulated under the Electricity Act 1992. The building consent process relates only to the building work associated with installation
- the main risks from the building work associated with installation are structural and weathertightness risks:
  - Structural: conditions can be set on the exemption to ensure structure is not negatively impacted
  - Weathertightness: penetrations in roofs up to 300mm are already exempt

### **Implementation**

### How will the proposal be implemented, who will implement it, and what are the risks?

MBIE, as the central regulator, will be responsible for the implementation and ongoing operation of the incentive scheme. The implementation work will include producing guidance, making changes to the building.govt.nz website, promotional activity, awareness campaigns, and producing other educational collateral or resources to support the effectiveness of the new scheme.

BCAs will be responsible for assessing whether a building consent application is eligible for the solar generation or sustainable building incentive and processing those eligible consent applications within 10 working days. There may be risks associated with implementing this policy related to the timeliness of processing other consent applications, resourcing (particularly for smaller BCAs) and the cost and timing of software upgrades.

There is no funding available for implementation. We will seek to mitigate this by minimising the administrative burden on BCAs, including through the development of clear and accessible performance criteria which are quick and

easy to apply and implement. MBIE can implement the scheme using baseline funding.

The incentive scheme is planned to come into effect in early-2026. A transition period to assist BCAs to adjust their policies, procedures and systems to implement the scheme will be required.

### **Limitations and Constraints on Analysis**

We have limited information on the:

- number of solar panels on new homes and retrofitted under the status quo
- number of sustainable buildings consented under the status quo
- likely uptake of the incentives
- impact on BCA workload or the distribution of effort
- current treatment of solar panel retrofitting by BCAs in terms of whether they need a consent.

One reason it is difficult to estimate the likely uptake of incentives is because it depends heavily on the performance criteria for the incentives. These criteria are expected to be developed through secondary legislation.

To mitigate these data limitations, we have conducted a brief cost-benefit analysis using readily available data and scenario analysis. However, we have not been able to test this cost-benefit analysis with the sector.

We also intend to monitor the scheme's uptake and review the scheme within three years. The use of secondary legislation will provide some room to readily recalibrate the performance criteria and address any unintended consequences informed by regular monitoring and review.

Due to time constraints caused by Cabinet decision deadlines, we have not undertaken any public consultation. We have instead undertaken targeted engagements with limited sector groups.

Given this incentive scheme will be voluntary and is expected to have only minor impacts, we believe that Cabinet can still make an informed decision using the available analysis.

I have read the Regulatory Impact Statement and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the preferred option.

Responsible Manager(s) signature:
Matthew McDermott Manager Building Performance and Resilience 10/3/2025

### Quality Assurance Statement [Note this isn't included in

the four-page limit]

**Reviewing Agency:** MBIE **QA rating:** Partially meets

**Panel Comment:** 

The Regulatory Impact Analysis Review Panel at the Ministry of Business, Innovation and Employment (MBIE) has reviewed the Regulatory Impact Assessment *Incentivising residential solar generation and sustainable buildings*, and we have determined that the paper **Partially meets** the criteria.

### **Section 1: Diagnosing the policy problem**

### What is the context behind the policy problem and how is the status quo expected to develop?

The government's energy strategy

- 1. The average New Zealand household uses just under 10,000 kWh of energy per year. Around 7,100 kWh of that is electricity. Demand for electricity is expected to increase significantly by 2050 and meeting this demand will require a huge increase in investment in generation and network.
- 2. Ensuring security of supply and affordability as the energy system decarbonises is crucial. The Government's approach is to remove barriers, provide certainty and ensure incentives are aligned across the system.
- 3. Solar generation uptake is low compared to countries such as Australia, generally because of upfront costs and a lack of incentives. As at 28 February 2025, there were 64,807 residential solar connection points in New Zealand, whereas in Australia approximately four million households have solar generation.
- 4. There is an opportunity to help increase choices by providing incentives that encourage homeowners to demand solar panels and removing barriers to uptake.

The Government's climate strategy

- 5. The Government is committed to meeting New Zealand's climate change targets, which include:
  - a. reducing net greenhouse gas emissions by 2030 (Target 9)
  - b. New Zealand's Nationally Determined Contribution under the Paris Agreement by 2030
  - c. Net zero for long-lived gases by 2050 under Zero Carbon Act.
- 6. The New Zealand Emissions Trading Scheme (NZ ETS) is the government's main tool to reduce net emissions. All domestic building emissions fall under the NZ ETS. Emissions from imported building products do not fall under the NZ ETS.
- 7. Buildings contribute around 11 per cent of gross domestic greenhouse gas emissions<sup>5</sup>. Sustainable buildings can reduce emissions and have benefits such as reducing power bills and energy use, increasing the efficient use of materials and better health outcomes for building occupants.

 $<sup>^{5}</sup>$  'In 2022, we estimate the total domestic emissions for the building and construction industry to be 8,384 kt CO $_{\!2}$ -e, or 10.7 per cent of New Zealand's emissions. That breaks down to 5,885 kt CO $_{\!2}$ -e (7.5 per cent) for operational emissions (emissions associated with the use of energy and water in a building) and 2,499 kt CO $_{\!2}$ -e (3.2 per cent) for embodied emissions (emissions associated with the use of materials in a building and construction processes).

- 8. Buildings are going to be increasingly vulnerable to the impacts of climate hazards. Work to support any improvements to the resilience of buildings to climate hazards<sup>6</sup> will save on rebuild costs and free up sector capacity by reducing the need to rebuild after climate events such as flooding.
- 9. There are tools, data and design features available to improve the climate resilience of buildings and reduce building emissions. These tools are intended to help designers, engineers and architects make more informed choices about the climate impacts of building design and materials. One such tool is the BRANZ and Construction Information Limited's work to develop the National Carbon Data Repository.
- 10. There is already some momentum in the sector. For example, Fletcher Living's LowCO low-carbon home pilot<sup>7</sup> and Naylor Love's Mahana House social housing project<sup>8</sup> are designed to be lower carbon and cheaper to keep warm and dry.
- 11. However, despite the momentum in the sector and work already underway, uptake of sustainable buildings is relatively low. There is an opportunity to help leverage and support sector-led initiatives and the use of data and tools, by providing incentives that encourage homeowners to demand lower carbon and greater levels of energy efficiency and climate resilience.

### The building regulatory system

- 12. The *Building Act 2004* (the Act) ultimately aims to improve control of, and encourage better practices in, building design and construction to provide greater assurance to consumers. This includes setting clear minimum performance requirements buildings meet (through the Building Code), providing certainty that capable people are undertaking design, construction and inspections, and providing protection for homeowners through mandatory warranties.
- 13. One purpose of the Act is to provide for the regulation of building work to ensure that buildings are designed, constructed, and able to be used in ways that promote sustainable development.
- 14. Relevant principles under the Act include:
  - a. the need to facilitate the efficient use of energy and energy conservation and the use of renewable sources of energy in buildings:
  - b. the need to facilitate the efficient and sustainable use in buildings of—

electricity and water of a standard built home.

<sup>&</sup>lt;sup>6</sup> For example, raising the floor levels of the house higher than the predicted flood level may help reduce the impacts of flooding. For more information on strategies to improve the resilience of homes, see MBIE's quick guides for <u>flooding</u> and <u>higher temperatures</u>.

<sup>7</sup> According to Fletcher Living, the <u>LowCO</u> pilot uses seven times less carbon, and half the

<sup>&</sup>lt;sup>8</sup> According to Naylor Love, the <u>Mahana House</u> can be carbon neutral where the site doesn't require concrete foundations.

- i. building products (including building products that promote or support human health); and
- ii. material conservation;
- c. the need to facilitate the efficient use of water and water conservation in buildings

#### Building consents

- 15. The Act requires that a person must not carry out any building work except in accordance with a building consent (some exemptions apply). This supports buildings to be built to the Building Code in which buildings are healthy, safe and durable.
- 16. For most building consent applications, a BCA must process the application within 20 working days.
- 17. The Building Act exempts some building work from building consent requirements. These exemptions include:
  - a. Ground mounted solar arrays
  - b. Penetrations in a roof up to 300mm
  - c. Energy work including the electrical installation of solar panels.
- 18. Nevertheless, the building work (not electrical installation) associated with installing solar panels is not explicitly exempt in the Building Act. While we do not have good data on how many building consents have been issued for retrofitted solar panels, we know some BCAs require a building consent for this work and others do not., creating regulatory uncertainty.

Other initiatives that could help reduce the time and cost to build

- 19. This analysis is part of a wider work programme on streamlining building consent systems and processes to deliver housing growth. Cabinet has made decisions on the following initiatives as part of this programme:
  - a. The Building (Overseas Building Products, Standards, and Certification Schemes) Amendment Bill. This bill intends to improve competition in the building materials market by making it easier for overseas products to be used in New Zealand.
  - b. Exempting granny flats (standalone buildings up to 70m²) from requiring a building consent and strengthening occupational licensing regimes.
  - c. Amending regulations to clarify the definition of 'minor variation' to make product substitution more predictable and consistent, and defining 'minor customisation' for MultiProof to allow minor design changes without voiding a certificate.
- 20. The following initiatives are expected to be considered by Cabinet alongside the solar panel incentive proposal:

- a. Amending the *Plumbers, Gasfitters and Drainlayers Act 2006* and *Building Act 2004* to enable opt-in self-certification for simple residential work for plumbers and gasfitters and lead builders.
- b. Improving the efficiency of building inspections.
- 21. These work streams can all help to lower the time and cost to build by improving wait times, reducing delays, and enhancing consistency among and between BCAs.
- 22. We have not been able in the time available to analyse the cumulative effects of these initiatives underway. There may be some dilution of benefits for some consent applications (for example, a small dwelling with solar panels cannot take advantage of the benefits of both the granny flats and the solar panel incentive initiatives). However, these initiatives will provide greater choices to building consent applicants.

### What is the policy problem or opportunity?

- 23. We estimate that there will be around 16,400 consents for new detached houses which are two storeys or less in the year ended June 2025. We do not have good data to estimate how many of those houses will include solar panels.
- 24. Solar panels can lead to significant savings over time, through lower power bills, but require an upfront investment. In some cases, the savings are enjoyed by people who do not directly pay the investment cost (tenants, future occupiers).
- 25. Low uptake of sustainable buildings may be due to two barriers:
  - a. **Upfront cost:** there can be an additional cost associated with sustainable building (professional services fees, certification fees etc.). Many of the benefits of these buildings are long term or are enjoyed by people who do not directly pay the investment cost (tenants, future occupiers).
  - b. **Information:** Some building owners and occupants are unaware of the benefits of sustainable buildings, or once aware of the benefits are unclear how to pursue this type of building.
- 26. In turn, the limited homeowner demand for sustainable buildings means building companies have less incentive to provide such options on the market. This leads to another barrier in the form of a lack of skills by many designers and building practitioners on designing and constructing sustainable buildings.
- 27. These barriers mean that demand for sustainable buildings is low and uptake of solar in New Zealand has lagged behind global uptake in recent years. This may lead to greater emissions, higher energy bills, worse health outcomes and lower climate resilience.

- 28. There is an opportunity to leverage and support sector-led initiatives to promote sustainable buildings and the data and tools that can help homeowners and designers make informed decisions.
- 29. A full problem definition is provided below in Table 1.
- 30. Consent requirements for retrofitting solar panels are treated inconsistently by different BCAs. This introduces regulatory uncertainty and may result in unnecessary compliance costs. MBIE understands that this inconsistency stems from the existing exemptions related to solar panels in the Building Act, including the exemption for energy work.
- 31. If solar generation is planned for a new build, this will be in the building consent application. However, the solar installation component alone generally does not require a building consent unless specifically required by the BCA. While retrofitting solar panel installation is considered energy work under the Act, and so exempt from requiring a building consent, attaching anything with weight to a roof often requires a building consent to ensure structural integrity and weathertightness is maintained.

Population groups and special factors or obligations

- 32. MBIE does not consider that this problem disproportionately affects any specific population groups.
- 33. MBIE does not consider there are any special factors or obligations relating to Te Tiriti o Waitangi, human rights issues or constitutional issues regarding the proposals.

**Table 1: problem definition** 

| Market failure   | How the market failure applies to solar generation and sustainable buildings   | How the policy aims to stimulate voluntary uptake of solar generation and sustainable buildings  | Summary problem definition   |  |
|--|--|--|--|--|
| Principal-agent problem* Where there is a conflict in interests and priorities that arises when one person takes actions on behalf of another person     | Building consent applicants make decisions that affect future occupiers (future homeowners, tenants).  Developers are incentivised to reduce upfront costs, while it is in occupiers' best interests to maximise health outcomes and reduce energy bills.  | Providing an incentive for building consent applicants to build with solar panels or sustainable buildings to overcome their focus on designing to minimum code requirements and upfront costs at the expense of future occupiers.   |  |  |
| Externalities**  Where a cost or benefit is caused by one party but financially incurred or received by another  | Building consent applicants create emissions. The ETS signal may be weak because of industrial allocation <sup>9</sup> , the principal-agent problem above, and the fact that around half of embodied emissions are from imported products which are outside the ETS.  | Providing an incentive for building consent applicants to reduce emissions to overcome the fact that they tend not to directly see the costs imposed by the ETS and emissions from overseas products.                                | Upfront cost: there can be an additional cost associated with sustainable building (professional services fees, certification fees etc.). Many of the benefits of these buildings are long term or are |  |
| Myopia* A cognitive bias causing strong preferences for immediate outcomes, resulting from a person's limited ability to evaluate the distant future     | Buildings are long-lived. Owners aiming to reduce upfront costs can ignore the potential for long term benefits.  Buildings that are less energy efficient or less resilient can cost more in the long run, and the most effective and efficient time to improve is before the building is built (so high-quality construction can be designed in from the start).                         | Providing the dual benefits of a regulatory incentive and a financial incentive for building consent applicants to build with solar panels or sustainable buildings to help overcome their primary focus on immediate upfront costs. | enjoyed by people who do not directly pay the investment cost (tenants, future occupiers).   |  |
| Incomplete information**  Where one or more party in an arrangement does not have the information needed to act in their best interests                  | Building consent applicants do not always have the information required to make an informed decision on what is a sustainable building and how to design sustainable buildings.  | Providing information (through legislative criteria for a sustainable building) to raise awareness of sustainable buildings and support market and consumer-led choices.   |  |  |
| Bounded rationality**  Where people employ the use of heuristics (or 'rules of thumb') to make decisions rather than a strict rigid rule of optimisation | Building consent applicants face costs of gathering and processing information. This is due to the complexity of the situation, and their inability to process and compute the expected utility of every alternative action.  Many applicants are interested in sustainable buildings but do not know what to ask for. Building companies may be interested but do not know what to offer. | Providing a heuristic (through legislative criteria for a sustainable building) to support people's choices.   | Information: Some building owners and occupants a unaware of the benefits of sustainable buildings, or once aware of the benefits are unclear how to pursu this type of building.                      |  |

<sup>\*</sup>Applies to both solar generation and sustainable buildings

<sup>\*\*</sup>Applies mainly to sustainable buildings only

<sup>&</sup>lt;sup>9</sup> Industrial allocation is an allocation of emission units to industry for activities that are both emission-intensive and trade-exposed. It is a tool to manage emissions leakage: the shifting of production and emissions from firms subject to the ETS to jurisdictions with less stringent measures at no overall gain to the climate.

### What objectives are sought in relation to the policy problem?

- 34. The overall aim of this policy is to stimulate the voluntary uptake of solar generation in homes and sustainable buildings, which would in turn support the Government's energy and climate priorities.
- 35. The policy aims to achieve this by providing a faster consent processing timeframe for new homes with solar panels or sustainable buildings and removing the need for a consent for retrofitting solar panels, which will provide regulatory certainty.
- 36. The policy would also help to raise awareness of what a sustainable building is and improve information on how to pursue this type of building by providing performance criteria for these incentives.
- 37. Stimulating demand for solar generation and sustainable buildings will in turn help to support the growth of the solar panel market and an emerging market for resilient and high performing buildings that are lower carbon, energy efficient and climate resilient.
- 38. It is envisaged that this policy initially targets new detached dwellings up to two storeys.
- 39. Success of the incentive would be demonstrated by more solar panels on residential buildings than there otherwise would have been. Uptake of the incentive will be monitored to evaluate and assess the success of the incentive. However, depending on the performance criteria there may not be good baseline data.

#### Sustainable buildings

- 40. The options in this regulatory impact statement have been assessed assuming that performance criteria for sustainable buildings will be set by secondary legislation. In general, sustainability means the efficient use of resources, which in the context of building and construction means lower energy and water use and efficient use of building materials. The working definition we have used for sustainable buildings refers to buildings that are energy and water efficient, low carbon, and climate resilient.
- 41. The performance criteria are proposed to be set by secondary legislation to provide appropriate flexibility to:
  - a. allow the settings to respond to new information or sustainability advancements
  - b. influence the uptake (in either direction) if required.

### What consultation has been undertaken?

42. The Ministry for the Environment coordinated a submissions and consultation process for the second Emissions Reduction Plan, including releasing a discussion document on 17 July 2024. 149 submitters commented on perceived barriers for households and businesses to switch to more energy-efficient products or processes. Just over half of these (76)

- submitters) identified costs as the main barrier. Around 20–25% of submitters on this issue identified several other barriers, including: a lack of information or choices, changes in government policies, and a lack of incentive.
- 43. Due to time constraints, we have not publicly consulted on the proposals. We have instead undertaken informal and targeted engagements with sector groups.
- 44. This proposal is primarily for enabling legislation. Consultation will be undertaken as part of the select committee process. We expect that a greater level of consultation will occur when developing performance criteria, which are expected to be set by secondary legislation. In the absence of secondary legislation, the changes to the Building Act will have no effect as without criteria no buildings would qualify for the faster processing incentive.
- 45. Consultation on the secondary legislation will be important to better identify the costs, benefits and other impacts of specific proposals for eligible buildings, and to assess the level of expected uptake, for further regulatory impact analysis.
- 46. Our targeted engagements with sector groups included the Building Advisory Panel, a BCA, BRANZ, sustainable certification scheme providers and architect and designer peak bodies. The following feedback was provided on shorter consent timeframes:
  - a. a reduction in consent timeframes to 10 days will be relatively small in the context of building a home and would not be enough of an incentive
  - b. a risk of gaming is present in the proposals, undermining the integrity of the system **Confidential advice to Government**
  - c. for BCAs, digital systems can be complex to update, and any changes would be resource dependent. An appropriate transition period would be required to implement any changes
  - d. meeting sustainability criteria could be expensive and likely to outweigh any savings from the incentives.
  - e. best practice in sustainable design is going to evolve and the system needs to be flexible enough to recognise this.
  - f. aligning the criteria on what is a sustainable building with new or updated Building Code compliance pathways could provide clarity and support the faster processing of building consent applications by BCAs.
- 47. The above feedback does not indicate strong support for the preferred options. We expect that the select committee process will provide an

- opportunity to consult further on issues raised through the targeted consultation.
- 48. No consultation was undertaken on the retrofit proposal due to time constraints.

### Section 2: Assessing options to address the policy problem

### What criteria will be used to compare options to the status quo?

- 49. MBIE has considered the following key criteria in its assessment of options:
  - a. **Effectiveness (cost)**: To what extent will the option increase uptake by reducing the marginal cost of sustainable buildings or adding solar panels to new or existing buildings?
  - b. **Effectiveness (information)**: To what extent will the option increase uptake by improving information on and awareness of sustainable buildings?
  - c. **Simplicity**: To what extent is the option simple and practical to implement?
  - d. **Risk of gaming**: To what extent does the option mitigate against the risk of gaming? **Confidential advice to Government**
- 50. MBIE has weighted the effectiveness criteria higher to reflect that we consider the benefits to households of sustainable and warm, healthy and dry homes and cheaper power bills outweigh the trade-off in increased complexity in the system.

### What scope will options be considered within?

- 51. Regulatory and non-regulatory options within the building regulatory system are considered within scope of this analysis.
- 52. The scope of feasible options is limited by the Minister's direction and what Cabinet directed MBIE officials to provide advice on; how fast-tracking building consents could support the government's climate obligations [ECO-24-MIN-0312].
- 53. Options for performance criteria for sustainable building incentives are not in scope of this analysis. It is proposed that performance criteria are set by secondary legislation, and further impact analysis will be carried out during the development of that secondary legislation.

### What options are being considered?

### **Option One - Status Quo**

54. Building consent applications for sustainable buildings or buildings with solar panels would continue to need to be processed within 20 working days. The current median timeframe to process consent applications for new residential builds up to two storeys is 13 days. BCAs would continue to have the option to operationally enforce a policy of faster consenting for sustainable buildings or buildings with solar panels (we are not aware of any such policies at this time).

### Option Two - Non-regulatory option: Minister letter of expectations

55. This option would involve the Minister of Building and Construction writing to BCAs setting out an expectation that building consent applications for buildings with solar panels or sustainable buildings are to be processed within 10 working days. This would be voluntary for BCAs to comply with.

# Option Three - Introduce a 10-working day timeframe to process a building consent for buildings with solar panels (Minister preferred)

56. Amend the Building Act to require building consents for buildings with solar panels to be processed within 10 working days. We expect that this option would require secondary legislation setting out minimum requirements for solar panels.

# Option Four - Introduce a 10-working day timeframe to process a building consent for sustainable buildings (Minister and MBIE preferred)

Amend the Building Act to require building consents for sustainable residential buildings to be processed within 10 working days. We expect that this option would require secondary legislation setting out performance criteria for the sustainable building incentives.

### Option Five - No consent required for retrofitting rooftop solar panels on homes (Minister and MBIE preferred)

Amend Schedule 1 of the Building Act to exempt retrofitting rooftop solar panels on homes from the requirement to have a building consent

### MBIE's preferred options are:

- Option Four Introduce a 10-working day timeframe to process a building consent for sustainable buildings
- Option Five No consent required for retrofitting rooftop solar panels on homes.

#### The Minister's preferred options are:

- Option Three Introduce a 10-day timeframe to process a building consent for buildings with solar panels
- Option Four Introduce a 10-working day timeframe to process a building consent for sustainable buildings

• Option Five – No consent required for retrofitting rooftop solar panels on homes

Other options considered

### 57. The following options were also considered:

| Option  | Description  | Reasons for no regulatory analysis   |
|---|--|--|
| Require BCAs to<br>have policies,<br>procedures and<br>systems in place<br>to incentivise<br>sustainable<br>buildings | Amend the Building (Accreditation of BCA) Regulations 2006 to require that BCAs have policies in place to incentivise sustainable buildings, which could include faster consenting.  | <ul> <li>While this may encourage BCAs to incentivise sustainable buildings, it will still be voluntary for BCAs to do so and there is nothing stopping them from doing this now.</li> <li>BCAs may not have statutory grounds to penalise a noncompliant consent applicant after providing the incentive.</li> </ul>  |
| Introduce a fast-<br>track pathway<br>for sustainable<br>building<br>companies  | Amend the Building Act to provide for the accreditation of a building company to deliver sustainable buildings with fewer checks by the BCA. This option would include accreditation criteria to ensure quality assurance and liability risks are managed. | <ul> <li>This option will require participating building companies to meet and maintain entry criteria to the scheme and take on more risk.</li> <li>We do not expect many building companies will be incentivised enough to meet the accreditation criteria given currently low demand (beyond the ongoing self-certification workstream, which would neither exclude nor target sustainable buildings).</li> </ul> |

### How do the options compare to the status quo/counterfactual?

|                                | Option One - Status Quo | Option Two - Non-regulatory option: Minister letter of expectations   | Option Three - Introduce a<br>10-working day timeframe to<br>process a building consent<br>for dwellings with solar<br>panels                            | Option Four - Introduce a 10-<br>working day timeframe to<br>process a building consent<br>for sustainable buildings  | Option Five - No consent required for retrofitting rooftop solar panels on homes      |
|--------------------------------|-------------------------|---|--|---|---|
| Effectivene<br>ss<br>(cost)*   | 0                       | Given BCAs already have the option to process certain types of consent faster, and it would continue to be voluntary to do so, we do not expect that this option will increase uptake of solar panels by addressing the cost barrier. | +1  This option may have a minor incentivising effect for solar panels by reducing timeframes.   | +1 This option may have a minor incentivising effect for sustainable buildings by reducing timeframes and increasing certainty for successful building consent applicants on what is a sustainable building.                                  | +2 Removes direct costs of consent fees and the time taken to get a consent.          |
| Effectivene ss (informatio n)* | 0                       | Given that it will continue to be voluntary for BCAs to incentivise sustainable buildings, we do not expect that this option will increase uptake by improving information.   | 0 Unlikely to encourage uptake through providing more information about solar panels beyond what already exists.   | +1 Performance criteria will support informed decisions on sustainable building and increase awareness.   | 0 Unlikely to increase uptake through providing information.                          |
| Simplicity                     | 0                       | This option is easy to implement.  BCAs would be free to operationalise this in a way that suits their systems and processes.  BCAs could decide not to operationalise this if desired.   | -1 We expect this option to add only minor increases to BCA administrative processes. Clear guidance and implementation planning will support with this. | -1 We expect this option to add only minor increases to BCA administrative processes. Accessible performance criteria which is easy to verify sustainable buildings at the application stage will support administrative simplicity for BCAs. | +2 Improves simplicity and reduces administrative burden by removing consent process. |
| Risk of<br>gaming              | 0                       | 0  BCAs may not have statutory grounds to penalise a non- compliant consent applicant after they have received the incentive.   | Confidential advic   | ce to Government  | N/A   |
| Overall assessmen t            | 0                       | 0   | -1   | 0   | +4  |

<sup>\*</sup>MBIE has weighted the effectiveness criteria higher in this options assessment.

### Key for qualitative judgements:

- +2 much better than doing nothing/the status quo/counterfactual
- +1 better than doing nothing/the status quo/counterfactual
- 0 about the same as doing nothing/the status quo/counterfactual

- -1 worse than doing nothing/the status quo/counterfactual
- -2 much worse than doing nothing/the status quo/counterfactual

### What option is likely to best address the problem, meet the policy objectives, and deliver the highest net benefits?

- 58. The policy objective is to stimulate the voluntary uptake of solar panels on homes and sustainable buildings, which would in turn support the Government's energy and climate priorities.
- 59. While the results of the options analysis are marginal, MBIE has weighted the effectiveness criteria higher to reflect that we consider the benefits to households of sustainable and warm, healthy and dry homes outweighs the trade-off in increased complexity in the system. These household benefits include reduced energy bills, greater occupant health, higher levels of household productivity, climate resilience and lower carbon.
- 60. MBIE's preferred options are:
  - a. Option Four Introduce a 10-working day timeframe to process a building consent for sustainable buildings
  - b. Option Five No consent required for retrofitting rooftop solar panels on homes (however, we acknowledge that no consultation has occurred, and this view is subject to consultation with the sector).
- 61. The Minister's preferred options are:
  - a. Option Three Introduce a 10-day timeframe to process a building consent for buildings with solar panels
  - b. Option Four Introduce a 10-working day timeframe to process a building consent for sustainable buildings
  - c. Option Five No consent required for retrofitting rooftop solar panels on homes
- 62. The preferred options may meet the objective of incentivising solar panels and sustainable buildings. However, the incentivising effect is not clear and expected to be minor. This is due to unclear levels of expected uptake, the upfront costs of installing solar, and the small difference in consent timeframes expected for the target building types. Nevertheless, these options would signal a step towards meeting the Government's energy and climate priorities.
- 63. As shown in the next section, the quantified benefits do not appear to outweigh the costs for the Minister's preferred option, given that the quantified benefits and costs are expected to be transferred between parties (for example, the time saved by consent applicants with solar panels will be offset by an approximately-equal increase in processing times for other consent applicants).
- 64. Household benefits and the benefits of no consents for retrofits have not been quantified due to time constraints. However, there is clear evidence of the benefits of solar panels including:

- a. Power bills saved: If you include the upfront costs, divided over the 30-year lifetime of solar panels, electricity from rooftop solar works out about 75% cheaper than electricity purchased from the grid (6c/kWh compared to 24c/kWh) when finance costs are excluded.
- b. Sell the excess: Occupiers with solar panels can sell the electricity they don't use to their retailer (although, this is typically for less than the occupiers would pay to buy it from their retailer).
- c. Zero operational emissions: Installing solar will reduce a home's emissions by utilising home-generated renewable energy, rather than grid electricity (which is around 80-85 per cent renewable).
- d. Increased energy resilience: when coupled with home batteries<sup>10</sup>.
- 65. Additionally, household benefits of incentivising sustainable buildings have not been quantified due to the performance criteria still being developed<sup>11</sup>. However, there is clear evidence of the benefits of sustainable and warm, healthy and dry homes. These include:
  - a. reduced energy bills: from greater energy efficiency
  - b. greater occupant health: families living in warm, dry homes are less likely to present to hospital with preventable illnesses and have fewer trips to the doctor
  - c. higher levels of household productivity: from fewer sick days
  - d. climate resilience: greater climate resilience mean homes can better withstand the impacts of climate hazards
  - e. lower carbon: lower energy use means lower operational emissions, and smart design can lead to lower embodied carbon in building materials and less waste.
- 66. We expect that these benefits will have a small but positive impact over time. However, it is difficult to make an accurate judgment on the balance of benefits and costs at this stage given time constraints and limited consultation.
- 67. Building consent applicants for dwellings with solar or sustainable buildings receive most of the benefits through faster consenting timeframes. BCAs (through higher administrative burden) and other building consent applicants (through transferred consent processing days) face most of the costs.

#### **Risks**

68. The following risks have been identified with the preferred options:

#### Risk of gaming

https://www.genless.govt.nz/for-everyone/at-home/explore-solar-energy/rooftop-solar/
We expect the criteria may include one or more of energy efficiency, low embodied carbon, climate resilience and water efficiency and initially target detached housing up to two storeys. We expect criteria will be developed through secondary legislation.

Risk of severe impacts from unexpectedly high uptake

- 70. Where the uptake is so high that it:
  - a. creates an inappropriate level of technical and administrative burden for BCAs to process consents within the shorter timeframe. We expect that larger BCAs will be in a better position to process consents for eligible dwellings in the shorter timeframe. Smaller BCAs may have more limited technical capability and capacity.
  - b. leads to longer median processing time for standard consents.
- 71. This risk can be mitigated through design of the performance criteria, including to assess the likely levels of uptake. The secondary legislation will have to balance the desire to stimulate demand for solar panels and sustainable residential buildings with the capacity and constraints of BCAs. One mitigation could include ensuring there is enough flexibility to adjust the eligibility settings as information on uptake is received.

Risk of poor outcomes from building work related to exempting the retrofitting of solar panels from a consent

- 72. Where the consent exemption leads to greater risk due to the lack of regulatory oversight.
- 73. MBIE considers that this risk would be minor. This is because:
  - a. energy work is regulated under the Electricity Act 1992. The building consent process relates only to the building work associated with installation
  - b. the main risks from the building work associated with installation are structural and weathertightness risks:
    - i. Structural: conditions can be set on the exemption to ensure structure is not negatively impacted
    - ii. Weathertightness: penetrations in roofs up to 300mm are already exempt

### Is the Minister's preferred option in the Cabinet paper the same as the agency's preferred option in the RIS?

- 74. No. MBIE's preferred options are:
  - a. Option Four Introduce a 10-working day timeframe to process a building consent for sustainable buildings
  - b. Option Five No consent required for retrofitting rooftop solar panels on homes (however, we acknowledge that no consultation

has occurred, and this view is subject to consultation with the sector).

- 75. The Minister's preferred options are:
  - a. Option Three Introduce a 10-day timeframe to process a building consent for buildings with solar panels
  - b. Option Four Introduce a 10-working day timeframe to process a building consent for sustainable buildings
  - c. Option Five No consent required for retrofitting rooftop solar panels on homes
- 76. The main reason for this difference is that MBIE considers that:
  - a. Option Three has a higher risk of gaming compared to Option Four, because adding solar panels to a consent application is unlikely to have the same costs as meeting sustainable criteria at the consent stage (which may require some form of modelling, design assessment or pre-certification)
  - b. Option Four is likely to increase uptake by providing information and a heuristic related to what is a sustainable building. MBIE considers that solar panel uptake will not benefit from information provision in the same way.
- 77. This means the balance of effectiveness versus the risk of gaming and complexity in the system is different for options three and four.

What are the marginal costs and benefits of the preferred option in the Cabinet paper?

| Affected groups (identify)  | Comment nature of cost or benefit (e.g., ongoing, one-off), evidence and assumption (egg, compliance rates), risks.           | Impact<br>\$m present value<br>where appropriate,<br>for monetised<br>impacts; high,<br>medium or low for<br>non-monetised<br>impacts. | Evidence<br>Certainty<br>High, medium,<br>or low, and<br>explain<br>reasoning in<br>comment<br>column. |
|---|---|--|--|
| Additional costs of   | the preferred option  | n compared to takir  | ng no action   |
| Regulated groups  | Cost of solar or meeting sustainability criteria (applicants for eligible building consents or homeowners retrofitting solar) | Low  | Low –<br>depends on<br>voluntary<br>uptake   |
| Regulators  | Additional<br>administrative<br>burden (BCAs)   | Low  | Low - level of<br>uptake is not<br>clear (10 per<br>cent<br>assumed).<br>Data<br>limitations.          |
| Others (e.g., wider govt, consumers, etc.) For fiscal costs, both increased costs and loss of revenue could be relevant | Transferred consent processing days (other building consent applicants)   | \$2.11m per annum  | Low - level of<br>uptake is not<br>clear (10 per<br>cent<br>assumed).<br>Data<br>limitations.          |
| Total monetised costs   |   | \$2.11m per annum  |  |
| Non-monetised costs   |   | Low  |  |
| Additional benefits o   | f the preferred opti  | on compared to tak   | ing no action  |
| Regulated groups  | Consent processing days avoided (applicants for eligible building consents)   | \$2.11m per annum  | Low - level of<br>uptake is not<br>clear (10 per<br>cent<br>assumed).<br>Data<br>limitations.          |
| Regulators  |   |  |  |
| Others (wider govt, consumers, etc.)  | Reduced energy<br>bills and emissions   | Low  | Low –<br>depends on<br>voluntary<br>uptake   |
| Total monetised   |   | \$2.11 per annum   |  |

| benefits               |     |  |
|------------------------|-----|--|
| Non-monetised benefits | Low |  |

- 78. The calculations and assumptions used to reach these figures are at Annex 1.
- 79. We have assumed that the monetised benefits and costs of the Minister's preferred option are transferred.
- 80. We have assumed that BCA staff are reallocated from other applications to treat dwellings with solar panels or sustainable buildings as higher priority. Given that this would likely impact timeliness for other BCA work, this is assumed to result in an approximately equal increase in processing days for those other applications.
- 81. Annex 1 includes a range of indicative uptake scenarios for shorter consent timeframes from 1 per cent, 10 per cent and 25 per cent. The central uptake estimate is 10 per cent uptake that is, 10 per cent of building consents in scope (new standalone houses up to two storeys) include solar panels or meet sustainability criteria. An uptake of 10 per cent was chosen as an indicative central estimate only. While the results of the cost benefit analysis are highly sensitive to the uptake scenarios, the monetised costs and benefits will continue to be equal given the above transfer assumptions.
- 82. However, at higher levels of uptake, the identified risks are expected to have worse outcomes, such as the risk of creating too much technical and administrative burden on BCAs to process consents in the shorter timeframe.
- 83. We have not quantified the value or cost of any increase in solar panels or meeting sustainability criteria due to time constraints. However, we assume that, because the incentive is voluntary, the benefit of solar panels or sustainable buildings to homeowners will be at least equal to their cost.
- 84. We have not quantified the cost to MBIE of implementing and monitoring or to BCAs of operationalising this policy. We expect that these activities will fall under business-as-usual activities and be funded from existing baseline funding. We have not consulted with BCAs to test this assumption.

### Section 3: Delivering an option

### How will the proposal be implemented?

Legislative changes

85. The preferred options would see the Building Act amended through legislation to be introduced to the House of Representatives by the end of 2025.

86. There will be associated work to develop secondary legislation (criteria for the solar or sustainable building incentives). We expect this secondary legislation could be made by early 2026, pending consultation on transition periods required.

#### Role of MBIE

- 87. MBIE, as the central regulator, will be responsible for the implementation and ongoing operation of the incentive scheme. The implementation work will include producing guidance, making changes to the building.govt.nz website, promotional activity, awareness campaigns, and producing other educational collateral or resources to support the changes.
- 88. Key audiences for information and guidance will be homeowners, industry, BCAs and International Accreditation New Zealand (the accreditation body for BCAs). MBIE may work with professional bodies such as Certified Builders Association of New Zealand, Architectural Designers New Zealand, New Zealand Institute of Architects and the Registered Master Builders Association, BCA cluster groups and the Building Officials Institute of New Zealand to develop this guidance.
- 89. We assume there will be no new funding to implement these proposals. We expect implementation costs to be met through baseline funding.

#### Role of BCAs

- 90. BCAs will be responsible for assessing whether a building consent application is eligible for the fast-track incentives and processing those eligible consent applications within 10 working days.
- 91. We expect that larger BCAs will be in a better position to process consents for any more complex sustainable dwellings in the shorter timeframe. Smaller BCAs may have more limited technical capability and capacity. Limiting the scope of the incentives to simple detached dwellings will help mitigate this.
- 92. BCAs may require changes to their policies and IT systems, with associated costs to upgrade software. There are 67 BCAs which use different software providers.
- 93. If changes are required, a suitable transition period will be needed to support BCAs to update their IT systems.
- 94. There is uncertainty around the costs of operationalising the proposal. We have not tested the feasibility of implementing the preferred option with BCAs within the time available.
- 95. Confidential advice to Government

Communication of changes

- 96. The changes to legislation will be communicated through existing MBIE channels, paid publicity (search engine optimisation) and leveraging existing relationships to on-share information, particularly with homeowners who may be harder to reach.
- 97. Proactive and reactive engagement with stakeholders is expected including targeted engagement with local government and industry associations.

  MBIE intends to manage queries and gaps in knowledge by developing online user specific guidance alongside a public education and awareness campaign. This will help support:
  - homeowners to make informed decisions when building sustainable homes and dwellings with solar panels or retrofitting solar to their existing dwellings
  - b. BCAs to understand what their role in the building system is in relation to incentivising solar panels and sustainable buildings.

### How will the proposal be monitored, evaluated, and reviewed?

- 98. This proposal, if agreed to, will need to be integrated into the existing regulatory system. One of MBIE's key roles as the system steward and central regulatory agency is to monitor the performance of the building regulatory system.
- 99. MBIE intends to monitor:
  - a. the number of buildings that are consented under the scheme and average consent processing timeframes for buildings with solar panels or sustainable buildings, through Building Consent System Performance Monitoring quarterly reporting
  - b. the number of complaints raised, both through the determinations function and ad hoc communication with the sector and BCAs.
- 100. A draft intervention logic model was developed for this policy. While still in the scoping phase, this framework may be used to develop monitoring indicators. See Annex 2.

Information that may be difficult to collect

- 101. It may be difficult to determine how many solar panels are retrofitted, given they will no longer need a building consent.
- 102. It may be difficult to determine which performance criteria a building consent uses. This data would require additional BCA administrative activity. MBIE will work with BCAs to understand whether these can be collected as part of administrative data without adding an unreasonable burden to BCAs.
- 103. It may be difficult to estimate baseline data for solar panels in new buildings given they are not required by the Building Code. Additionally, the baseline data for sustainable buildings will be dependent on the performance criteria

for the incentive. This would make it difficult to evaluate the effectiveness of the incentives in inducing demand.

#### Timeframe for review

- 104. MBIE intends to review the arrangements within three years after commencement of the solar panel incentives. This will support MBIE to:
  - a. understand whether the solar panel and sustainability criteria continue to be fit for purpose
  - b. consider whether the solar panel and sustainability criteria and wider legislative provisions need to be amended (including to 'raise the bar' over time) or revoked.
- 105. MBIE will then provide the Government with advice on what, if any, changes are required.
- 106. This review timeframe will help mitigate any risks of BCA effort being diverted to dwellings with solar panels or sustainable buildings having a negative impact on timeliness for other building consents. MBIE will continue ad hoc monitoring and engagement with BCAs and International Accreditation New Zealand. If concerns are raised, this may trigger an earlier review of the incentive settings.

### **Annex 1: Cost-benefit analysis**

### Introduction

The average New Zealand household uses around 7,100 kWh of electricity per year. Demand for electricity is expected to increase significantly. Additionally, buildings contribute around 11 per cent of gross domestic greenhouse gas emissions and are going to be increasingly vulnerable to the impacts of climate hazards.

The proposal is to incentivise the uptake of solar panels for residential buildings as part of a modern, affordable and secure energy system and incentivise the uptake of sustainable buildings.

The proposal is expected to support the Government's:

- Climate strategy: transitioning New Zealand to a low emissions economy in a market-led and cost-effective way
- Housing priorities: making it easier to build a home
- Energy priorities: a modern, affordable and secure energy system.

This report provides an initial cost benefit analysis (CBA) for the above proposal. The purpose of this initial CBA is to support Cabinet decisions on the proposal to amend the Building Act 2004 to provide for the incentive scheme. It provides an indication of potential impacts under different uptake scenarios. This report does not estimate wider impacts.

### Cost benefit analysis (CBA) - methodology

CBA compares the costs and benefits of the proposal compared to the counterfactual (the likely scenario if the proposal does not go ahead). It typically involves:

- setting out the counterfactual
- quantifying and monetising the key costs and benefits of the proposal
- discounting future costs and benefits (to reflect that, for many people, a dollar today is worth more than a dollar in the future).

This last step has not been carried out for this CBA. This is because the quantified benefits and costs of this proposal are expected to be transferred (that is, any benefits to one party are offset by an approximately equal cost to another party).

The above approach means that the CBA results are expressed as an annual value, rather than a Net Present Value (NPV). Where all quantified benefits and costs are transferred between parties, the NPV will be zero and the Benefit Cost Ratio (BCR) will be one.

The results represent quantified and monetised costs and benefits only. The results should be considered alongside unquantified costs and benefits.

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<sup>12</sup> https://www.level.org.nz/energy/

### CBA for solar panel and sustainable building incentives proposal

This report compares the proposed solar panel and sustainable building incentives with the counterfactual:

- Counterfactual: no incentives for solar panels are introduced. Consent timeframes are approximately equal to those in 2024.
- Proposal: incentives, in the form of shorter consent timeframes for new sustainable buildings or dwellings with solar panels and a consent exemption for retrofitting rooftop solar, are introduced.

### **Assumptions**

We have made the following assumptions for the purpose of modelling the impacts of the proposal:

- The quantified benefits and costs of this proposal are expected to be transferred (that is, any benefits to one party are offset by an approximately equal cost to another party).
- There is no induced housing growth that is, any additional solar or sustainable buildings attributable to the incentive scheme simply take the place of ordinary Building Code-compliant buildings that would otherwise have been built.
- The central uptake estimate is 10 per cent uptake that is, 10 per cent of residential building consent applications for new detached dwellings up to two storeys include solar or meet sustainability criteria.

### **Limitations**

We have limited information on the:

- number of new dwellings with solar panels or sustainable buildings consented under the status quo
- likely uptake of incentives
- impact on BCA workload or the distribution of effort
- number of solar panels retrofitted.

We have identified several costs and benefits that we have not quantified or monetized. These have not been included in the quantified CBA due to the level of uncertainty around their scale at this stage in the policy process, or difficulty in collecting information to monetise some impacts in the time available.

To mitigate these data limitations, we have conducted a brief cost-benefit analysis using readily available data and scenario analysis. However, we have not been able to test this cost-benefit analysis with the sector.

#### Costs

Table 1 summarises the quantified and unquantified costs associated with the solar panel and sustainable building incentive proposal.

**Table 1: Costs** 

| Quantified costs  |  |   |  |
|---|--|---|--|
| Cost  | Description  | Who pays  |  |
| Transferred consent processing days                           | Increase in processing days for other applications. Building consent authority staff may be reallocated to building consent applications that meet the incentive criteria, which may lead to delays in processing other building consent applications that do not meet the incentive criteria. | Other building consent applicants   |  |
| Unquantified costs  |  |   |  |
| Additional administrative burden                              | Costs associated with checking consent applications for eligibility and verifying whether the building was built to meet the criteria for a 10-day consenting timeframe.   | Building consent<br>authorities   |  |
| Implementation costs  | Costs associated with building consent authorities complying with the proposal (such as modifying software)  | Building consent<br>authorities   |  |
| Costs of solar panels   | Costs associated with the purchase and installation of solar panels  | Applicants for eligible consents for new dwellings with solar; homeowners retrofitting solar panels |  |
| Costs of showing how applicants meet the performance criteria | Costs associated with showing that they meet the performance criteria (i.e. certifications, professional services fees)  | Applicants for eligible sustainable building consents   |  |

### **Benefits**

Table 2 summarises the quantified and unquantified benefits associated with the solar panel incentive proposal.

**Table 2: Benefits** 

| Quantified benefits   |   |  |  |
|---|---|--|--|
| Benefit   | Description   | Who benefits   |  |
| Consent processing days avoided                                     | Consent processing days avoided by including solar panels or meeting the sustainability criteria  | Applicants for eligible sustainable consents or consents for dwellings with solar                    |  |
| Unquantified benefits   |   |  |  |
| Benefits of greater<br>voluntary uptake of solar<br>panels          | Expected to include reduced emissions and energy bills  | Applicants for eligible consents for dwellings with solar; owners and occupiers of buildings with    |  |
|   | Stimulating demand for<br>and raising awareness of<br>solar panels will in turn<br>help to support the growth<br>of an emerging market for<br>solar panels on residential<br>buildings. | solar  |  |
| Benefits of greater<br>voluntary uptake of<br>sustainable buildings | Expected to include one or more of: reduced emissions and energy use, better health outcomes and higher level of building resilience.   | Applicants for eligible sustainable building consents; owners and occupiers of sustainable buildings |  |
|   | Stimulating demand for and raising awareness of sustainable buildings will in turn help to support the growth of an emerging market for resilient and high performing buildings.        |  |  |
| Consent fees avoided  | Fees avoided from clear consent exemption.  | Homeowners installing retrofitted solar panels   |  |

### **CBA** results

Table 3 below summarises the annual value of the quantified costs and quantified benefits.

Table 3: CBA results

|                                     | Annual value (\$m) |
|-------------------------------------|--------------------|
| Quantified costs                    |                    |
| Transferred consent processing days | 2.11               |
| Total annual costs                  | 2.11               |
| Quantified benefits                 |                    |
| Consent processing days avoided     | 2.11               |
| Total annual benefits               | 2.11               |
| Net annual value                    | 0                  |
| BCR                                 | 1                  |

### Sensitivity analysis

### **Uptake of the incentives**

The CBA results are highly sensitive to assumptions around uptake. It can be difficult to estimate the uptake expected from the incentive scheme because we are not clear on baseline data and have not been able to estimate uptake in the time available.

We have included three scenarios for the uptake of the incentive scheme in Table 4 below as part of our sensitivity analysis.

Table 4: Sensitivity analysis (faster consent timeframes for new dwellings proposal)

|                             | Lower uptake scenario | Central<br>estimate   | Higher uptake scenario |
|-----------------------------|-----------------------|-----------------------|------------------------|
| Description                 | 1 per cent uptake     | 10 per cent<br>uptake | 25 per cent<br>uptake  |
| Annual consent days avoided | \$211,250             | \$2,112,913           | \$5,282,488            |

### **Appendix A: Assumptions for central estimate**

| Description                     | Assumption   |                      |
|---------------------------------|--|----------------------|
| Modelling assumptions           |  |                      |
| Scope                           | Building consents for new detached dwellings up to two storeys   |                      |
| Time period                     | Annual only, given the benefits and costs are assumed to be transfers  |                      |
| Uptake                          | We do not have good evidence on which to forecast uptake. We have selected three uptake scenarios to provide an indication of potential impacts.                       |                      |
|                                 | The central uptake estimate is 10 per cent uptake – that is, 10 per cent of building consents in scope have solar panels or meet sustainable criteria.                 |                      |
|                                 | Uptake scenarios for sensitivity analysis: one per cent, 25 per cent   |                      |
| Consent processing days         |  |                      |
| Monetary value of one day saved | BRANZ SR259 (2012) estimated the cost of a delay for a builder at between \$1,000 and \$1,600 per project per week. <sup>13</sup>                                      |                      |
|                                 | Average = \$1,300 per week in 2012 dollars   |                      |
|                                 | Average = \$2047 per week in 2024<br>Q3 dollars <sup>14</sup>  |                      |
|                                 | Per working day = \$409.40 (MBIE calculation: \$2047 divided by five)  |                      |
| Number of days saved            | Modelling based on internal MBIE data received from building consent authorities. The data covers consent timeframes for 2024. Note this modelling is indicative only. |                      |
|                                 | Uptake   | Consent days avoided |
|                                 | 1 per cent   | 516                  |
|                                 | 10 per cent  | 5,161                |

<sup>&</sup>lt;sup>13</sup> BRANZ, 2012 <sup>14</sup> RBNZ (Wages inflation)

|                             | 25 per cent   12,903   |  |
|-----------------------------|--|--|
|                             |  |  |
|                             | <ul> <li>Assumptions include:         <ul> <li>The current processing time pattern doesn't change absent this intervention</li> </ul> </li> <li>We have correctly identified applications which are for new builds among the subset of applications which are for non-amendments</li> </ul>                      |  |
|                             |  |  |
|                             |  |  |
|                             | <ul> <li>The proportion of applications<br/>which are for new builds is the<br/>same among amendments as in<br/>non-amendments</li> </ul>  |  |
|                             | <ul> <li>There is no difference in the<br/>average processing days<br/>between alterations and new<br/>builds among building consent<br/>amendment applications</li> </ul>   |  |
|                             | <ul> <li>The proportion of applications<br/>which are for houses 2 storeys<br/>or less is equal to the<br/>proportion of houses which are<br/>2 storeys or less which are<br/>active on the District Valuation<br/>Roll and built since 2014</li> </ul>  |  |
|                             | Note this only applies to estimates of time saved for new dwellings.   |  |
| Transferred processing days | We have assumed that the reduction in consent processing days for eligible consents leads to an increase in processing days for other applications. This allows building consent authority staff to be reallocated to building consent applications that meet the incentive criteria.                            |  |
|                             | The alternative assumption is that building consent authorities may hire more staff to deliver the same service in the shorter timeframes. In this case, it is expected that any additional staff costs would be paid by the building consent authority and passed on to consent applicants through higher fees. |  |

# Draft logic map for solar generation and sustainable building incentives

### **Objectives**

To stimulate the voluntary uptake of solar panels and sustainable buildings, which would in turn support the Government's energy and climate priorities.

### Inputs and activities

MBIE – policy development, guidance and information and education activities

MBIE - monitoring activities

Building consent authorities

– policies and IT systems
update, operational
activities

### Outputs (<1 year)

Building Act amendments – 10-day consenting timeframe for eligible consents and consent exemption for solar retrofits

Secondary legislation development - criteria

Guidance for building consent authorities and building consent applicants

Advertising

### Short term outcomes

Greater voluntary uptake of solar panels and sustainable buildings

Faster consenting timeframes for eligible consents

Lower cost and time to retrofit solar

Greater awareness of sustainable buildings

Incentive for sector to upskill

### Long term outcomes

Reduced building-related emissions

Lower energy bills

Greater resilience for energy grid

Greater climate resilience

Assumptions: faster consenting timeframes and consent exemption for retrofits will reduce the comparative costs of solar panels and sustainable buildings and incentivise uptake

#### **Potential indicators**

Number of projects qualifying for incentives | Average consent processing timeframes for dwellings with solar