



Healthy Homes Standards

Proposed healthy homes standards for heating, insulation, ventilation, moisture ingress, drainage and draught stopping

DISCUSSION DOCUMENT - SUMMARY

September 2018





**MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT**
HĪKINA WHAKATUTUKI

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Healthy homes standards

Proposed standards for heating, insulation, ventilation, moisture ingress and drainage, and draught stopping

Making rental homes warm, dry and healthy

Nearly 600,000 households rent in New Zealand. Our rental homes are often cold and damp which, in turn, can lead to negative health and social outcomes for tenants.

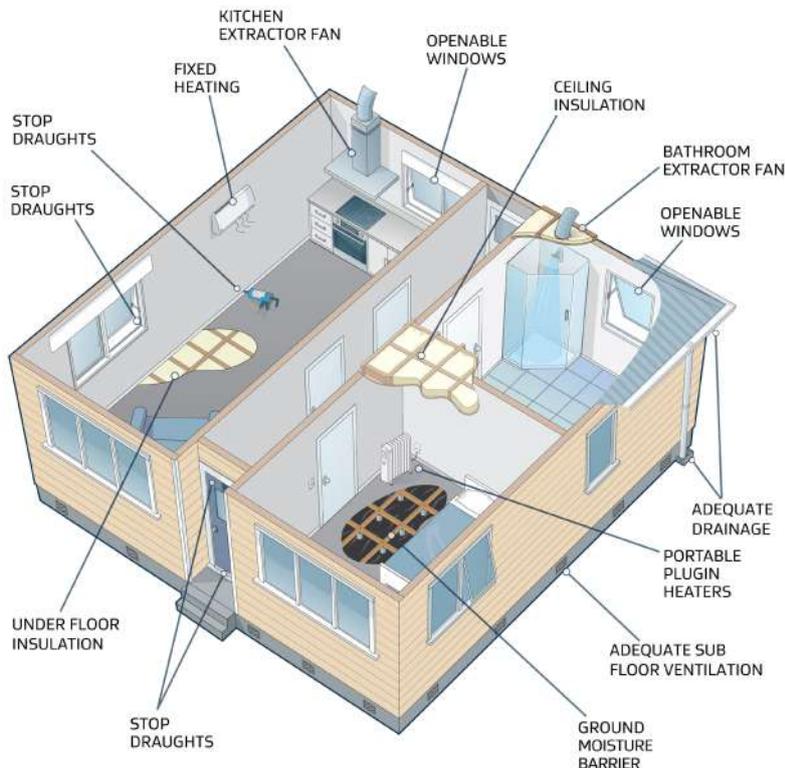
New Zealand rental homes:

- › are typically well below World Health Organization recommended indoor temperatures of 18°C to 20°C
- › often have inadequate, inefficient, or unhealthy heating
- › may not have a sufficient level of insulation, and may not be in a reasonable condition
- › often do not have an appropriate level of ventilation
- › are often not adequately protected from moisture rising from under the floor, or through leaky drains
- › are draughty and cold.

The healthy homes standards aim to improve the quality of rental homes to enable all renters in New Zealand to live in warm and dry homes

Our goal is to develop clear, modern standards to improve heating, insulation, ventilation, moisture ingress, drainage and draught stopping in rental homes.

We have the opportunity to improve the quality of rental homes, particularly from the cumulative effect of the five proposed standards. If we reduce cases of moisture and draughts entering homes, ensure adequate levels of insulation and appropriate heating devices, we have a greater chance of creating a warm, dry environment in rental homes.



Tell us what you think

- › Have you experienced these issues with rental homes?
- › What should the minimum standards be, and when should landlords be required to comply?
- › Are there other options that would work better than our proposed options?
- › What should be included on tenancy agreements, or which records retained, to show the rental home complies with the healthy homes standards?

We want to hear from you! Tell us what you think by filling in a survey on our website, by email or by post. We have a more detailed description of the options in our full discussion document. For more information, or to make a submission, go to www.mbie.govt.nz/healthy-homes or email us at healthyhomes@mbie.govt.nz. Submissions close on **22 October 2018**.

Heating standard

What heating devices should landlords provide, and in which rooms?

A BRANZ 2015 House Condition Survey found that **22%** of rental homes have no fixed heating compared to **7%** of owner occupied properties.



Many New Zealand rental homes are cold with the typical indoor room temperature below the WHO minimum temperature of 18°C with a higher recommended temperature for the elderly, children and the ill. Cold homes are associated with poor health and other social outcomes, such as higher rates of winter deaths, increased risk of cardiovascular disease and respiratory conditions.

We need to balance costs and benefits for landlords, tenants, and wider society. Tenants could benefit from more adequate heating in their rental home through reduced energy bills and health costs (e.g. medication and hospitalisations), particularly if draughts are stopped and the home is well insulated. If people can heat their homes more efficiently, society may benefit from a reduction in carbon emissions and reduced air pollution. Landlords, who have not already provided adequate heating devices, may be required to install fixed heating devices (estimate of \$3,000-3,500 for a heat pump) and possibly provide portable plug-in heaters (estimate of \$30-50).

Currently, every living room must be fitted with a fireplace and chimney or other approved form of heating. We seek feedback on proposed options to extend this requirement to bedrooms as well as living rooms. We also wish to modernise the standard and clarify that "living room" includes a lounge, dining room and kitchen if the home has an open plan design.

Location: Where in the rental home should landlords be required to provide heating?

- › **Option 1:** In the living room only.
- › **Option 2:** In the living room and bedrooms.



15.8°C	Average winter day time temperature in New Zealand living rooms
14.2°C	Average winter daytime temperature in New Zealand bedrooms
13.5°C	Average winter night time temperature in New Zealand living rooms
12.6°C	Average winter night time temperature in New Zealand bedrooms

Heating devices would need to be capable of achieving a minimum indoor temperature in rooms covered by the heating standard. The temperature will inform the necessary heating device for that room(s).

Indoor temperature: What achievable indoor temperature should heating devices be sized for?

- › **Option 1:** Heaters that landlords provide must be capable of achieving an indoor temperature of **at least 18°C** in rooms applicable to the heating standard
- › **Option 2:** Heaters that landlords provide must be capable of achieving an indoor temperature of **at least 20°C** in rooms applicable to the heating standard

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A large proportion of rental homes have no, inadequate, or inefficient heating available for tenants to use to reach an appropriate indoor temperature. Many tenants currently rely on devices that can be insufficient, inefficient, and unhealthy. In some cases, fixed heaters (e.g. heat pumps) will be the best device to heat a room to the appropriate indoor room temperature and, in other cases, portable plug-in electric heaters are likely to be sufficient. Many tenants already own portable plug-in electric heaters so can easily provide these themselves. We seek feedback on the appropriate forms of heating device(s) to be provided by landlords.

Heating devices: Should landlords only be required to provide heating devices where portable electric heaters are not capable of achieving the required indoor temperature?

- › **Option 1:** Landlords provide fixed heating devices only.
- › **Option 2:** Landlords provide fixed **and** portable heating devices.

Certain heating devices are efficient, healthy and affordable to run, such as heat pumps, wood burners, and flued gas heaters. We propose to class these types of heating devices as “acceptable” under the heating standard.

The heating standard could be set so that unhealthy or inefficient and unaffordable forms of heating would not meet the standard. Guidance could specify the types of heating devices considered “not acceptable”, such as unflued gas heaters and open fires. Unflued gas heaters can release moisture and toxic combustion gases into the indoor environment contributing to poor health outcomes and can be expensive to run. Open fires and electric resistance heaters tend to be less cost-effective to run than modern appliances and can contribute to air pollution. Electric heaters greater than 2.4 kilowatts (except heat pumps) are expensive to run.

Acceptable devices: Should we accept particular heating devices where we know they are efficient, affordable and healthy?

- › Acceptable devices could include those devices that are efficient, healthy and affordable to run (e.g. heat pumps, wood burners, flued gas heaters and electric heaters (up to 2.4 kilowatts)).
- › Not acceptable devices could include those devices that are inefficient, unhealthy or not affordable to run (e.g. unflued gas heaters, open fires and electric heaters (except heat pumps) greater than 2.4 kilowatts).



Tell us what you think

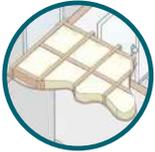
- › **Location:** Do you think the landlord should provide heating in the living room only or bedrooms as well (option 1 or 2)?
- › **Indoor temperature:** Do you think landlords should provide heating devices that are capable of reaching 18°C or 20°C in rental homes (option 1 or 2)?
- › **Heating devices:** Do you think the landlord should provide heating devices only where a portable electric heater is insufficient in the room(s) covered under the heating standard (option 1 or 2)?
- › **Acceptable devices:** Should the standard provide the heating devices considered “acceptable” for the heating standard (option 1 or 2)?

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Insulation standard

What level of insulation should be required for a rental home?

Many rental homes do not have adequate insulation to retain heat, and are more likely to be cold and damp. Insulation minimises heat loss from homes, making them easier and cheaper to keep warm and dry.



In an average sized uninsulated home, about 30-35% of heat loss is through the ceiling and roof, and about 12-14% is lost through the floor.

Existing regulations already require landlords to provide ceiling and underfloor insulation by 1 July 2019, and replace or top-up existing insulation where it is below a minimum level or not in 'reasonable condition'. Some homes are exempt from the requirement if it is not practical to install insulation. The healthy homes insulation standard could require a higher minimum level of existing insulation than the current regulations, thereby increasing the number of rental homes that benefit from an insulation upgrade.

We need to balance costs and benefits for landlords, tenants and wider society. Tenants can benefit from a warmer home from increased insulation, especially if draughts are stopped and it's heated. However, landlords may need to install or top-up insulation (estimated average of \$1,665 including GST).

Under all proposed options, landlords who install new ceiling and underfloor insulation to comply with the current insulation requirements for rental homes would not need to carry out further work on that insulation to comply with the healthy homes standards as long as the insulation remains in reasonable condition.

Options

Minimum level installed: What should be the minimum level of ceiling and underfloor insulation installed in rental homes?

- › **Option 1:** minimum level for existing insulation akin to the 1978 insulation standard/new insulation being installed to the 2008 Building Code (the status quo).
- › **Option 2:** a higher minimum level of ceiling and underfloor insulation than the status quo, where the minimum level for existing insulation is akin to the 2001 Building Code/new insulation is akin to the 2008 Building Code.
- › **Option 3:** an even higher minimum level of ceiling and underfloor insulation, where the minimum level for both existing and new insulation is akin to the 2008 Building Code.

Degradation levels: What should be the appropriate level that insulation can degrade over time before it needs to be replaced?

- › **Option 1:** insulation can settle or degrade by about 30% before it is in an unreasonable condition.
- › **Option 2:** insulation can settle or degrade by up to and around 10% before it is in an unreasonable condition.



Tell us what you think

- › **Minimum level installed:** Which of these options (1, 2 or 3) for the minimum level of insulation do you support?
- › **Degradation levels:** Which of these options (1 or 2) should be an appropriate level that insulation can degrade over time?
- › What are the possible exceptions to the standard (e.g. there is not enough space for access)?
- › What documents or records should landlords keep to show their rental properties meet the standards?
- › Would any of the above options inhibit future innovation and/or flexibility?

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Ventilation standard

What is the appropriate method of ventilation?

Rental homes are typically poorly ventilated which makes them more likely to be damp and mouldy.

Homes need to be well ventilated to remove moisture and prevent condensation from building up.

BRANZ recommends to regularly open windows and doors wide for 10 – 15 minutes and to use extract fans to provide sufficient ventilation after a high moisture event, such as showering or cooking.

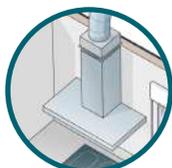
Bathrooms without extractor fans or heating are twice as likely to have moderate or worse patches of mould compared to bathrooms with extractor fans or heating.

37% of rental homes have no mechanical ventilation (extractor fans) in the kitchen

44% have no mechanical ventilation (extractor fans) in the bathroom

Kitchens without extractor fans or rangehoods are three times as likely to have visible mould compared to kitchens with extractor fans or rangehoods

We need to balance improvement costs and benefits for landlords, tenants and wider society. Tenants can benefit from a better ventilated home. However, landlords may need to install an extractor fan(s) in rooms with a bath or shower or indoor cooktop (estimate of a fan and installation is \$211-301 including GST).



Options

What is the appropriate method of ventilation in rental homes?

- › **Option 1:** The status quo:
 - Every bathroom has at least one window that directly opens to the outside air unless other adequate means of ventilation are provided to the satisfaction of the local authority.
 - Each habitable room must be constructed with windows with an area amounting to not less than one twentieth part of the area of the floor can be opened for the admission of air.
 - Every room which is not habitable shall be provided with a window or windows that the local authority considers necessary for adequate ventilation.
- › **Option 2:** Openable windows in the living room, dining room, kitchen, and bedrooms, unless an exemption applies and appropriately sized and installed extractor fan(s) in rooms with a shower or bath.
- › **Option 3:** Openable windows as for option 2 and appropriately sized and installed extractor fan(s) in rooms with a shower, bath or indoor cooktop.



Tell us what you think

- › Do you support option 1, 2 or 3 to provide adequate ventilation in rental homes?
- › What other forms of ventilation should be considered or excluded?
- › Would any of the above proposed options for ventilation prevent future innovation and/or flexibility?

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Moisture ingress and drainage standard

Do existing laws provide adequate protection against moisture entering the home?

Moisture that enters a home from around the house, under the floor or through leaks in drains can cause a damp home.

Up to 40 litres of water can rise up from the ground below a 100sqm home every day

76% of rental homes have a subfloor

44% of rental homes with subfloors have insufficient ventilation

81% of rental homes with subfloors do not have a ground moisture barrier

Damp homes can make people sick and cause damage to property, e.g. mould on ceilings, furnishings, and belongings. Rental homes need adequate protection from moisture coming in, and good drainage to stop water pooling under and around the home.

We need to balance costs and benefits for landlords, tenants and wider society. Tenants could benefit from a home with less moisture, damp and mould. Landlords may need to install a ground moisture barrier where there isn't already one (estimate of \$800 including GST, based on \$8 per square metre), or underfloor vents.



Options

How should landlords protect rental homes against moisture entering the home and inadequate drainage?

- › **Option 1:** The status quo:
 - every house shall, to the extent the local authority deems necessary, be provided with efficient drainage for the removal of storm water, surface water and ground water
 - every house shall be provided with gutters, downpipes and drains for the removal of roof water to the satisfaction of the local authority
 - timber floors shall have adequate space and vents to ensure proper ventilation to protect the floor from damp and decay.
- › **Option 2:** Landlords must ensure efficient drainage and guttering, downpipes and drains at their rental home and ensure the subfloor has a ground moisture barrier, unless there is already adequate subfloor ventilation.

Tell us what you think

- › Do you think we should keep the status quo (option 1) or require landlords to implement option 2 to address the problems identified with moisture ingress and inadequate drainage in rental homes?
- › Would any of the above options inhibit future innovation and/or flexibility?

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Draught stopping standard

What appropriate measures should be taken to stop unnecessary draughts making the indoor temperature colder?

Homes need to be well ventilated to remove moisture and prevent condensation from building up. However, uncontrolled draughts let heat escape and let cold air in. Draughts can make it hard and expensive for tenants to heat their homes, and can limit the benefits of improved insulation and heating.

Tenants would benefit from draught stopping because it will make homes easier and more economical to heat, as well as more comfortable.

One New Zealand experiment showed a 1-1.5°C increase in the indoor temperature from a draught stopping intervention

Options

What is the appropriate level of draught stopping to create warm and dry New Zealand rental homes?

- › **Option 1:** The status quo:
 - the walls and ceiling of every habitable room, bathroom, kitchen, kitchenette, hall and stairway shall be sheathed, plastered, rendered or otherwise treated, and shall be maintained to the satisfaction of the local authority
 - every floor shall be kept in a good state of repair, free from crevices, holes and depressions.
- › **Option 2:** Landlords must block any unused fireplaces and chimneys and stop any unnecessary gaps or holes that cause noticeable draughts and a colder home, and are 3mm or greater in and around windows and doors, walls, ceilings, floors, and access hatches.



Tell us what you think

- › Which of options (1 or 2) do you support to stop draughts entering the rental home?
- › Do you think other requirements for draught stopping should be included in the standard?
- › Would any of the above options inhibit future innovation and/or flexibility?
- › Should the regulations specify any exceptions to the standard?

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Compliance timeframe

When and how should the healthy homes standards be implemented?

We need to balance the costs and benefits to landlords, tenants and wider society in setting the compliance date(s):

- › tenants and wider society need to see the benefits from the improved quality to rental homes sooner rather than later
- › landlords need time to plan and budget for changes to their rental homes
- › suppliers need time to understand requirements and to build capacity to ensure successful implementation.

Options

What should be the compliance date(s) for the standards?

- › **Option 1:** Landlords must comply with the standards within 90 days of a new or renewed tenancy starting after a single compliance date, e.g. 1 July 2021.
- › **Option 2:** A single compliance date (e.g. by 1 July 2022).
- › **Option 3:** Stagger compliance dates between 1 July 2019 and 30 June 2024, either by the standard, e.g. insulation by 2022 and heating by 2023, or the location of the rental home.



Tell us what you think

- › Which option above (1-3) do you support for landlords to comply with the standards for their rental homes?
- › If you support option 3, which approach do you think is an appropriate way to stagger implementation? Do you have a viable alternative approach to staggering implementation that we should consider?

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