

# Coversheet: Heating and insulation standards for residential rental properties

Advising agencies	<i>MBIE</i>
Decision sought	<i>Framework for introducing mandatory heating and insulation standards for residential rental properties</i>
Proposing Ministers	<i>The Minister of Housing and Urban Development</i>

## Summary: Problem and Proposed Approach

<p><b>Problem Definition</b></p> <p><b>What problem or opportunity does this proposal seek to address? Why is Government intervention required?</b></p>
<p>This proposal implements the Government’s manifesto commitment to pass the Healthy Homes Guarantee Bill (No 2), requiring all rentals to be warm and dry.</p>

<p><b>Proposed Approach</b></p> <p><b>How will Government intervention work to bring about the desired change? How is this the best option?</b></p>
<p>The Bill would improve the current regime for improving the quality of rental properties by enabling the setting of nationally consistent standards of heating, insulation, ventilation, draught stopping and drainage in rental properties. A Supplementary Order Paper amending the Bill added moisture ingress to this list of standards.</p>

## Section B: Summary Impacts: Benefits and costs

<p><b>Who are the main expected beneficiaries and what is the nature of the expected benefit?</b></p>
<p>People who rent are the primary beneficiaries of this proposal.</p> <p>There is strong international evidence that effective heating, insulation and ventilation can directly reduce illness, by helping maintain a minimum air temperature; and can indirectly reduce illness by controlling relative humidity, lowering dampness, and inhibiting the growth of mould and fungi.</p> <p>Renters and owner-occupiers alike may suffer negative health effects from living in substandard properties. However, renters are more likely to live in such properties, are less likely to have the financial means to change their circumstances and, even if they did, lack the autonomy to make changes to the property that could improve their experience. There is also a case for focussing on the quality of rental properties because the lowest quality houses are concentrated in the rental market.</p>

A 2012 evaluation of the Government's Warm Up New Zealand scheme for subsidising insulation found that retrofitting insulation produced annual short-term health benefits of \$637 per household, plus limited energy savings.<sup>1</sup>

For landlords, improvements may increase the value of a property. Preventing or addressing persistent dampness and mould also will maximise the lifetime of internal wall linings and other building components and chattels, and reduce maintenance costs.

### Where do the costs fall?

Further clarification on the composition of proposed standards, for insulation, heating, draught proofing, ventilation, controlling moisture-ingress, and drainage, is required before total costs can be determined accurately. These costs can then be considered through the assessment process for regulations that will give effect to these standards.

#### *Public housing*

The following financial implications focus on the cost of meeting heating requirements because this is likely to be the highest compliance cost that is additional to requirements in existing laws.

Housing New Zealand Corporation (HNZC) and Community Housing Providers (CHPs) will face increased costs to comply with the new standards. Initial estimates are that around 31,000 HNZC properties may require additional fixed heating, however, this is highly dependent on the exact standard set. If this estimate is accurate, the compliance cost for HNZC could be up to \$87 million in capital upgrade costs. Refined estimates including an operating cost for depreciation will be worked through with HNZC through the standards development process.

There are also likely to be additional programme and tenancy management costs required to implement changed processes, as well as ongoing increased maintenance and repair costs. Project management costs to rollout the installation of an estimated 31,000 heaters over two years are estimated at \$330,000 per annum.

#### *Private landlords*

The cost to private landlords will depend both on the current state of their properties and on the exact standards set in regulations.

### What are the likely risks and unintended impacts, how significant are they and how will they be minimised or mitigated?

The proposed changes in the Bill concern an enabling framework only, so there are minimal risks associated with this proposal in itself. Technical standards will be developed and introduced through regulations at a later stage. There will be an opportunity to consider key risks and mitigations in that context.

<sup>1</sup> Grimes A, et al. (2012). *Cost benefit analysis of the Warm Up New Zealand: heat smart programme*. (accessible at <http://www.motu.org.nz/assets/Documents/our-work/urban-and-regional/housing/Cost-Benefit-Analysis-of-the-Warm-Up-New-Zealand-Heat-Smart-Programme.pdf>)

**Identify any significant incompatibility with the Government’s ‘Expectations for the design of regulatory systems’.**

None. The Expectations will be taken into account in the design of the regulations.

## Section C: Evidence certainty and quality assurance

**Agency rating of evidence certainty?**

There is a well-established, reputable body of international evidence about the public health impacts of indoor air quality and temperature, and the health benefits of providing effective heating, insulation and ventilation. There is also reputable evidence that many New Zealand homes have deficient heating, insulation and ventilation and that this deficiency cannot be addressed with portable heating devices.

*To be completed by quality assurers:*

**Quality Assurance Reviewing Agency:**

Regulatory Quality Team, The Treasury

**Quality Assurance Assessment:**

Not assessed, in line with exceptional practice for 100-day plan commitments.

**Reviewer Comments and Recommendations:**

The Regulatory Impact Statement provides helpful information about the current state of New Zealand rental accommodation and shows how the proposed approach compares with that in comparable jurisdictions. It will be important, in taking the approach forward to the stage of actual regulation, to give more consideration to issues such as the likely costs and benefits of new standards and possible flow-on impacts to the availability and cost of rental accommodation and how non-compliance is to be detected and addressed.

# Impact Statement: Heating and insulation standards for residential rental properties

## Section 1: General information

**Purpose**

MBIE is solely responsible for the analysis and advice set out in this impact statement, except as otherwise explicitly indicated. This analysis and advice has been produced for the purpose of providing information about policy decisions taken by a named Minister/ group of Ministers.

**Key Limitations or Constraints on Analysis**

As the current proposal concerns one of the Government’s manifesto commitments, scope is limited and analysis of alternative options, including non-regulatory options, has not been undertaken.

Total costs can only be determined accurately after the composition of proposed standards for insulation, heating, draught proofing, ventilation, drainage and moisture ingress have been further clarified. This would normally occur during the process of consultation on the regulations that will give effect to the standards.

**Responsible Manager (signature and date):**

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Claire Leadbetter  
**Manager Construction and Housing Policy**  
Building, Resources and Markets  
Ministry of Business, Innovation and Employment  
10 November 2017

## Section 2: Problem definition and objectives

### 2.1 What is the context within which action is proposed?

There are strong public-health arguments for promoting warm and dry homes.<sup>2, 3</sup> Extensive epidemiological evidence indicates that exposure to indoor temperatures less than 18°C is associated with respiratory conditions. Indoor temperatures of less than 12°C can exacerbate existing cardiovascular conditions, raise blood pressure and increase the risk of clotting.<sup>4</sup> A lack of adequate heating is associated with higher excess winter mortality.<sup>5</sup> Home heating can reduce illness by maintaining a minimum air temperature,<sup>6</sup> and can indirectly reduce illness by controlling relative humidity, lowering dampness, and inhibiting the growth of mould and fungi.

Dampness and mould are also associated with a range of illnesses, toxic reactions, allergies, respiratory conditions, gastroenteritis and other infections. These illnesses account for a large proportion of housing-related avoidable hospitalisations. Dampness and mould are most likely to occur in properties that lack adequate heating, ventilation, and/or insulation or are subject to water ingress.<sup>7</sup>

Data from the Household Energy End-Use Project<sup>8</sup> indicate that, during the winter months, mean living room temperatures in New Zealand homes fall outside the World Health Organisation's (WHO) recommended optimum indoor temperature range - between 18 and 24°C. Furthermore, during the night and morning, room temperatures typically fall to around 13.5°C (or lower). This cyclical heating and cooling creates ideal conditions for the formation of dampness and mould. During the winter, unhealthy and damp conditions regularly develop overnight in many New Zealand homes.

Renters and owner-occupiers alike may suffer negative health effects from living in substandard properties. However, renters are more likely to live in such properties, are less likely to have the financial means to change their circumstances and, even if renters did, they lack the autonomy to make changes to the property that could improve their experience. There is also a case for focussing on the quality of rental properties because the lowest quality houses are concentrated in the rental market.

Approximately 638,400 New Zealand households live in rental properties. Nationally 33

<sup>2</sup> Clinton J et al. *The healthy housing programme: Report of the outcomes evaluation (year three)*. Housing New Zealand Corporation (2007).

<sup>3</sup> White, V and Jones M. *Warm, dry, healthy? Insights from the 2015 House Condition Survey on insulation, ventilation, heating and mould in New Zealand houses*. Building Research Association of New Zealand (2017). (accessible at <https://www.branz.co.nz>)

<sup>4</sup> *Minimum home temperature thresholds for health in winter: A systematic literature review*, Public Health England (2014).

<sup>5</sup> Aylin et al, *Temperature, housing, deprivation and their relationship to excess winter mortality in Great Britain, 1986–1996* (2001); and Wilkinson P et al., *Cold Comfort: The Social and Environmental Determinants of Excess Winter Death in England, 1986-1996*. Bristol: The Policy Press (2001).

<sup>6</sup> World Health Organisation (WHO), *Health Impact of Low Indoor Temperatures*, Copenhagen (1985). (Draft update WHO guidelines have re-confirmed 18°C as the minimum temperature based on physiological data).

<sup>7</sup> Institute of Medicine, *Damp indoor spaces and health*, National Academies Press, (2004).

<sup>8</sup> *Energy use in New Zealand households, Final Report*, BRANZ Study Report SR 221 BRANZ, (2010). (accessible at <http://www.branz.co.nz>)

percent of households now rent their home, increasing to 35 per cent in Auckland and 58 percent of low-income<sup>9</sup> households in Auckland. About half of all New Zealanders live in rented homes.

Poor quality and insecure housing disproportionately affects the health, education, and/or employment outcomes of particular groups. Māori, Pacific Peoples and children are all over-represented in renting households, and an increasing proportion of older people are likely to rent in retirement.

Rental tenants are at risk from a lack of adequate sources of heat because, unlike owner-occupiers, rental tenants have fewer options available to them. The options for tenants whose landlords have not provided fixed heating sources are restricted to portable, low-power electric heaters, and un-flued gas heaters. Furthermore, where a heating device has been installed by the landlord, it may still be unsatisfactory in terms of heating capacity and efficiency.

Renters are unable to install more powerful sources of heating, such as heat pumps or log burners unless they have permission from their landlords. Even with this permission, tenants may not be able to meet the expense of installing fixed heating devices of sufficient capacity. They also face uncertain tenure lengths so cannot guarantee they will be present in a property long enough to benefit from installing fixed heating and cannot take the heating with them at the end of the tenancy without significant costs.

Installing multiple portable electric heaters may not be a viable option because there are limitations on the number of portable, plug-in heaters (and therefore the heating capacity) electrical circuits can support. Each area served by a plug-in circuit is limited to 10 amps, equating to one 2.4 kilowatt heater. A single 2.4 kilowatt heater is not sufficient heating capacity, in most cases, to bring a living area to a healthy temperature.

## **2.2 What regulatory system, or systems, are already in place?**

The quality of rental properties is regulated by the Residential Tenancies Act 1986 (RTA). The RTA requires landlords to provide the premises in a reasonable state of cleanliness and repair, maintain the premises in a reasonable state of repair, and comply with all requirements relating to building, health, and safety under any enactment, which includes the Housing Improvement Regulations 1947 (HIR).

The HIR sets minimum requirements that housing must meet. The regulations include provisions for heating, light, ventilation, drainage and dampness. These apply to all houses regardless of tenure, but are subject to the Building Act 2004 and cannot set building requirements that exceed or are inconsistent with requirements under the Building Act or Building Code.

Local authorities are responsible for the enforcement of these regulations within their districts. The premises must comply with each of these requirements unless it complied with an equivalent requirement in the Building Code at the time it was built. However, enforcement of the HIR has been difficult due to: inter-regional differences in requirements set by local authorities; the different requirements that applied at the time a dwelling was built or to any building work completed at a later date; and the limited resources that local

<sup>9</sup> Annual household income of under \$20,000.

authorities have dedicated to enforcement.

While in the past, the Tenancy Tribunal considered that a power point was an 'approved form of heating' that complied with the HIR, recent Tribunal decisions have found that a power point does not meet these requirements. The Tribunal has been finding that landlords must provide some kind of heating source in the living area of rental properties to meet their obligations under the HIR. The Tribunal is generally satisfied with the provision of an inexpensive heater that is electrically safe, in the absence of any approved forms specified by the relevant council.

Following passage of the Residential Tenancies Amendment Act 2016 in July 2016, the RTA also requires landlords to comply with smoke alarm and insulation regulations. The regulations require all premises to have minimum levels of insulation in the ceiling and underfloor by 1 July 2019, unless an exception applies under the Residential Tenancies (Smoke Alarms and Insulation) Regulations. For income-related rent tenancies, such as Housing New Zealand rentals, insulation requirements are already in force and compliance has been required since 1 July 2016.

Mechanisms for compliance and enforcement, together with resourcing for compliance activities, are in place to support the implementation of the smoke alarm and insulation regulations.

### **2.3 What is the policy problem or opportunity?**

While minimum regulatory requirements are nominally in place, in practice, a lack of enforcement and clear, consistent standards has not encouraged the provision of warm, dry residential rental properties.

The Bill would improve the current regime for improving the quality of rental properties by enabling the setting of nationally consistent standards of heating, insulation, ventilation, draught stopping, and drainage and in rental properties. A Supplementary Order Paper adds a requirement for controlling moisture-ingress. Ministry of Business, Innovation and Employment (MBIE) officials consider that an emphasis on the quality of rental properties is warranted because it would focus efforts on the part of the market where greatest benefits can be realised.

Rental tenants are at risk from a lack of adequate sources of heating because, unlike owner-occupiers, rental tenants have fewer options available to them. The options for tenants whose landlords have not provided fixed heating sources are restricted to portable, low capacity electric heaters, and un-flued gas heaters. Even where a heating device has been installed by the landlord, it may still be unsatisfactory in terms of heating capacity and efficiency.

Renters are unable to install more powerful sources of heating, such as heat pumps or log burners unless they have permission from their landlords. Even with this permission, tenants may not be able to meet the expense of installing fixed heating devices of sufficient capacity. They may also face uncertain tenure so cannot guarantee they will be present in a property long enough to benefit from installing fixed heating, and they cannot take the heating with them at the end of the tenancy without significant costs.

Installing multiple portable electric heaters is not a viable option because there are limitations on the number of portable plug-in heaters and therefore the heating capacity the circuits can

support. Each area served by a plug-in circuit is limited to 10 amps, equating to one 2.4 kilowatt heater. A single 2.4 kilowatt heater is not sufficient heating capacity, in most cases, to bring a living area to a healthy temperature.

Standards for draught stopping, ventilation, drainage and moisture ingress will improve other factors that contribute to a property's thermal performance and can make a significant difference to health outcomes.

## **2.4 Are there any constraints on the scope for decision making?**

This proposal implements the Government's manifesto commitment to pass the Healthy Homes Guarantee Bill, requiring all rentals to be warm and dry. The scope is limited accordingly and analysis of alternative options, including non-regulatory options, has not been undertaken.

Nothing in the Building Act 2004 can impose performance criteria additional to or more restrictive than the New Zealand Building Code. The New Zealand Building Code applies to new building work and would likely apply to heating sources that are attached to the building, and / or some options for ventilation, such as mechanical ventilation in kitchen areas.

Amendments to the New Zealand Building Code may be desirable, to align aspects of the regulations and the New Zealand Building Code. Any required amendments will be considered alongside the development of the regulations.

## **2.5 What do stakeholders think?**

The proposals will primarily affect rental property occupants and landlords (of private and public housing). Other affected and interested stakeholders include: businesses and other organisations that supply and install, heating, insulation and ventilation solutions; property managers; public health organisations and local government entities with related objectives and responsibilities; NGOs; representative bodies (professional bodies, student associations, trade unions); and organisations that provide social support and services.

The Government Administration Select Committee received 85 substantive submissions on the Bill. These included submissions from local government entities, public health organisations, NGOs and churches, interest groups, charities, professional bodies, community trusts, student associations, the Council of Trade Unions and a number of individuals.

In addition, approximately 7143 'standard form' submissions (i.e. auto-fill submissions) were sent to the offices of the Labour Party via their website which were then forwarded to the Committee. Of these, 805 submissions were considered to be unique and distinct submissions for the Select Committee's consideration because they included additional text. Many of these submitters expressed in principle support for the intention of the Bill without engaging in detail on the mechanism used to give effect to that intention.

Six individual submitters opposed the Bill. Three submitters appeared to support the principles behind the Bill but withheld their support overall because it either did not go far enough or they were concerned costs would ultimately be borne by tenants. No submissions

were received from interested groups associated with landlords.

Key themes emerged in submissions raised in support of the Bill, although some of them are outside the scope of this particular Bill. The following themes were in scope:

- general support of the Bill's intention to ensure that rental homes meet minimum standards relating to heating and insulation;
- the standards that could help deliver on the Bill's objective of healthy homes; and
- the need to get better clarity as to roles and responsibilities around compliance and enforcement.

The Ministry of Business, Innovation and Employment will seek Cabinet approval to undertake stakeholder consultation on the detailed regulations that will give effect to the standards.

## Section 3: Options identification

### 3.1 What options are available to address the problem?

The current proposal concerns one of the Government's manifesto commitments, so scope is limited and analysis of alternative options, including non-regulatory options, has not been undertaken. However, analysis of international comparisons has been undertaken.

#### **Current level of heating provision in comparable developed countries**

##### *United Kingdom*

In the United Kingdom, landlords of all rental housing are required to maintain heating system/heaters in good repair where present. The Decent Homes Standard<sup>10</sup> for social housing requires such housing to be in a reasonable state of repair and have reasonable degree of thermal comfort, including effective insulation and efficient heating. Acceptable heating solutions are electric storage heaters, warm air systems, underfloor systems or programmable<sup>11</sup>LPG/solid fuel central heating, and similarly efficient heating systems developed in the future. The primary heating system must be able to heat two or more rooms.

While there are no specific standards for privately owned rental housing, the proportion of all houses (rental and owner occupied) with a central heating system increased from 25 per cent in 1970 to about 95 per cent in 2013. Over the same period, the average (whole of house) internal winter temperature increased from 13.7 °C to 17.7 °C.<sup>12</sup>

There are multiple drivers for the progressive adoption of home central heating and the related increase in indoor temperatures in the United Kingdom. The approach is not necessarily transferable to New Zealand because there are some clear differences in local context. The key drivers towards the installation of central heating in the United Kingdom were:

- the plentiful, and relatively inexpensive supply of natural gas;
- the distribution of gas to consumers across all major population areas; and
- new energy efficiency policies and building regulations in new and existing homes (efficiency measures such as condensing boilers, double-glazing, and loft and cavity wall insulation).

##### *United States of America*

Examples: New York State, Oregon (ORS 90.320), Vermont (Health Code)

<sup>10</sup> *A decent home: definition and guidance for implementation – June 2006 update*. Department of Communities and Local Government. <https://www.gov.uk/government/publications/a-decent-home-definition-and-guidance>

<sup>11</sup> Programmable heating is where the timing and temperature can be controlled by the occupants.

<sup>12</sup> UK Housing fact File 2013

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/345141/uk\\_housing\\_fact\\_file\\_2013.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/345141/uk_housing_fact_file_2013.pdf)

Under common law there is an implied warranty of habitability that requires rentals to be heated in winter months (this varies by state). Social housing quality standards,<sup>13</sup> set by the Department of Housing and Urban Development, require housing to be capable of maintaining a thermal environment healthy for the human body. Acceptability criteria require a safe system for heating the dwelling unit that is able to provide adequate heat, either directly or indirectly, to each room.

#### *Australia*

Only Tasmania has prescribed minimum standards,<sup>14</sup> although there are moves to institute them in other states and territories. Several bills have failed to pass into law over recent years.

Tasmania's minimum standard requires heating to be installed in the main living area of the premise. This heating may be a fixed electric or gas heater, heat pump or wood heater.

For "environmental and safety reasons", an open fireplace does not count as adequate heating. Desktop research did not identify any specific standards for social housing.

#### *Canada*

Example: Alberta, Ontario Regulation (standards for rented houses) regulations 2017

The regulations require rental dwellings to be weathertight, damp-proofed, and maintained to prevent deterioration from weather, fungus, etc. All habitable spaces and areas intended for normal use by tenants must be capable of maintaining a temperature of at least 20°C, and have adequate ventilation.

#### *Ireland*

Under the Housing (Standards for Rented Houses) Regulations 2017<sup>15</sup>, bedrooms, living rooms, bathrooms and larger kitchens must be ventilated and contain a permanently fixed heating source, capable of providing effective heating.

#### *Germany and Italy*

All housing is required to have space heating capable of producing an indoor temperature above 18°C.

In Germany, many rents include the cost of heating provided by the landlord. The landlord is required to keep the temperature above certain acceptable levels.

### **3.3 What other options have been ruled out of scope, or not considered, and why?**

The current proposal concerns one of the Government's manifesto commitments, so scope is limited and analysis of alternative options, including non-regulatory options, has not been undertaken.

<sup>13</sup> Section 982.401(e) *Housing Quality Standards*. <https://www.gpo.gov/fdsys/pkg/CFR-2010-title24-vol4/xml/CFR-2010-title24-vol4-sec982-401.xml>

<sup>14</sup> *Minimum standards for premises: a guide for tenants and property owners*. Ministry of Consumer Affairs and Fair Trading, Government of Tasmania. [http://www.consumer.tas.gov.au/\\_data/assets/pdf\\_file/0019/322417/Minimum\\_standards\\_guide\\_for\\_tenants\\_and\\_property\\_owners\\_v2.0\\_2015.pdf](http://www.consumer.tas.gov.au/_data/assets/pdf_file/0019/322417/Minimum_standards_guide_for_tenants_and_property_owners_v2.0_2015.pdf)

<sup>15</sup> Sections 6 and 8 *Housing (Standards for Rented Houses) Regulations 2017*. S.I. No.17/2017. <http://www.irishstatutebook.ie/eli/2017/si/17/made/en/print>



# Section 6: Implementation and operation

## 6.1 How will the new arrangements work in practice?

The proposals will be implemented by the Healthy Homes Guarantee Bill (No 2) and related regulations. The Bill has been introduced to the House and is expected to have its Third Reading by the end of 2017. The Bill specifies a timeframe and process for the introduction of the standards for insulation, heating, draught proofing, ventilation and drainage. A Supplementary Order Paper adds a requirement for moisture ingress standards.

## 6.2 What are the implementation risks?

Constraints on industry capacity may limit the effective implementation of the policy, particularly for the supply and installation of heating devices. This will be mitigated by developing robust estimates for the number of properties that would need to be retrofitted, and consulting with industry about its ability to build up capacity to meet demand. Compliance timeframes will be set accordingly, through regulations.

Landlords may leave it until the last minute to comply, which could create a supply and demand imbalance and push up compliance costs. Options to mitigate this risk will be developed when considering the commencement date for new regulatory requirements.

Private landlords may seek to increase rents to cover the cost of compliance in the short-run. Market rents are, however, largely determined by supply and demand. Increasing the overall supply of housing, including through the Kiwibuild programme, will help mitigate the risk of rent increases.

Bringing in new standards may impact on landlord composition. For instance, small scale 'mum and dad' landlords may find it difficult to raise capital to comply with the standards. Some landlords with limited cash flow or access to finance may choose to exit the market prior to the standards coming into force. Their properties are likely to be purchased by owner-occupiers or other investors who have the capital to upgrade the property to the required standards.

Practical constraints resulting in concessions about the ability of some properties to meet the standard will create exemptions. This is considered to be a relatively low risk because opportunities to circumvent the requirements can be minimised. Setting the requirements through regulations will help officials to design practical exemptions and will make it easier to update the requirements should evidence of inappropriate use of exemptions come to light.

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# Section 7: Monitoring, evaluation and review

## 7.1 How will the impact of the new arrangements be monitored?

A monitoring and evaluation plan will be developed once regulations have been agreed. This plan will leverage existing monitoring and evaluation activity around the impact of housing quality on health outcomes.

## 7.2 When and how will the new arrangements be reviewed?

MBIE expects the monitoring and evaluation (refer section 7.2) will assist it to ensure the regulations are: operating as planned; achieving their intended outcomes; and balance costs and benefits appropriately.