

Healthy Homes Standards dates are approaching, so what do we need to do and how do we do it?

When you first look at what you have to do to meet the healthy homes standards it can be overwhelming and some people are saying that it is all more work and over the top. However I think all good landlords would agree that we want our tenants to live in good quality houses. I actually don't disagree with what the government is trying to do to increase the quality of rental housing stock in NZ. So most of what is being required is actually what we should be doing anyway. There are some areas in the detail that are a bit hard to fathom, but the principal of what they are trying to achieve is valid.

The Law

The Residential Tenancies (Healthy Homes Standards) Regulations 2019 is an act of parliament which we should all be downloading and reading through (if you have not done so already).

<http://www.legislation.govt.nz/regulation/public/2019/0088/latest/whole.html> This is the legal document which can be difficult to read and does have complicated heating formulas (which you can skip as there is an online calculator) but we should be familiar with this document as it will affect us all very soon.

Thankfully there are much more simple documents explaining each element in more simple language. I will briefly go through these with a practical overview of important information. I will also provide links to the full documents which you need to go through and apply for your own properties.

Timing

1 July 2021 – From this date, private landlords must ensure that their rental properties comply with healthy homes standards within 90 days of any new tenancy.

1 July 2021 – All boarding houses must comply with the healthy homes standards.

1 July 2024 - All rental homes must comply with the healthy homes standards.

Overview

Healthy Homes covers 5 Standards. Insulation, Ventilation, Moisture Ingress & Drainage, Draught Stopping, Heating. If you have modern building stock then there may be nothing for you to do. But older buildings will probably require some work.

Alterations to your Lease

As part of all new leases after 1 July 2021 you will have to include documentation stating how you have met the healthy homes standards. This can be achieved by completing and printing the tenancy services template. This will add 13 pages to your lease. Alternatively you can put the equivalent information in statement form. We have tried this and have brought the increased pages down to 2 pages. Ultimately though you will be declaring that your property complies with healthy homes requirements (or where it is exempt). This gets to the level of calculating the heating requirements of the living room space and stating the date when the insulation was last inspected and what thickness it is (if R value is unknown). So it is important you start looking at this all now as it will take a bit of time.

Some Definitions to help you understand when reading further:

Domestic Living Space: An interior space of a building that is a space for activities normally associated with domestic living.

Habitable Space: A domestic living space excluding any bathroom, laundry, toilet, pantry, walk-in wardrobe, corridor, hallway, lobby, clothes-drying room, or other space of a specialised nature occupied neither frequently nor for extended periods.

Kitchen: A domestic living space in which an indoor cooktop is installed.

Bathroom: A domestic living space in which a bath or shower is installed.

Living Room: A room that consists of, or includes, a habitable space that is for use, or could reasonably be expected to be used, for general everyday living, whether as a lounge room, dining room, sitting room, family room, or other similar use.

Extractor Fan: An extractor fan that vents extracted air to the outdoors.

Insulation Standard

This is to better retain heat within the building.

If you have recently upgraded your ceiling and under floor insulation then you are probably fine. However if you did not need to top up your insulation (with the 2016 upgrade requirements) then you may need to re-look at your insulation. For example if your ceiling insulation was greater than 70mm thick last time you were fine. Now it is soon to be 120mm minimum thickness (or min R3.3). This means that there will be some 1990's type buildings out there that didn't need the original insulation topped up last time but will this time.

The same goes for underfloor insulation where it may need to be upgraded (will need to be R1.3). For example if you have a foil insulation which is ripped, not shiny or there are gaps it will need to be removed and replaced with new insulation (not foil). Also since 1 July 2016 it has been prohibited to retrofit or repair foil insulation under the building act.

You will have to declare in your lease what insulation is installed in each area and state that your insulation is in "reasonable condition" There is a lot more to all of this (including how to correctly specify why insulation can't be installed) so download the full document for details here: <https://www.tenancy.govt.nz/healthy-homes/insulation-standard/>



Insulation in a 1990's property which is thicker than 70mm but not 120mm so it will have to be topped up.

Ventilation Standard

This is to try and remove moisture from inside houses.

Natural Ventilation: All Habitable Spaces require exterior window / door openings or ventilated skylights equivalent to 5% of the floor area of the room. This is not a new requirement as it has been part of the building codes since 1947, but you will be required to state in your lease that you have checked each habitable space and all the openings comply. So you have some measuring, calculating and recording to do. You may also find that in some Habitable Spaces (eg a bedroom) you need to open up some wooden windows that have been nailed or painted closed (as the remaining opening window(s) is not big enough to meet the 5% ventilation requirement).

Mechanical Ventilation: In high steam areas (Bathrooms and Kitchens) you will be required to have mechanical ventilation. For Kitchens this will be either a rangehood or an extractor fan. For Bathrooms it will mean an extractor fan. If you already have these things then you will not be required to upgrade them. However if you do not have these things then you will be required to install them. New fan installs will require minimum diameters (150mm or 50 litres per second for Kitchens and 120mm or 25 litres per second for Bathrooms).

Shower Domes: Shower domes are very good at reducing moisture in Bathrooms. However these have not been considered in the Ventilation Standard. So even if you have a shower dome you will still be required to have an extractor fan in the Bathroom.

Dryer Vents: It is good practice to have vented dryers venting to the outside of your house to reduce internal moisture. However strangely there is no requirement to do this under the Ventilation Standard.

If you have to install extractor fans it is going to cost some money. Cutting holes in walls, ceilings, roof or soffits, and then making the penetrations waterproof is the first step. Then you need to run power to the fan and back to a switch and run any ducting (if required). This work may require multiple trades (concrete cutter for concrete or brick walls, electrician and maybe a builder if cabinetry is required to hide ducting from a rangehood).

For more information and exemptions download the document here: <https://www.tenancy.govt.nz/healthy-homes/ventilation-standard/>



Before and after photos of a bathroom upgrade we recently completed. Even though we installed a shower dome we knew we had to install an Extractor Fan. There was no space to go out the wall and there was a part skillion roof so there was no access to go out a soffit. So we had to vent through the roof. As the Bathroom was on second floor we had to get a scaffold tower erected to gain access to the steep pitched roof (just to install the extractor fan).

Moisture Ingress & Drainage Standard

This is to prevent / reduce moisture under and around buildings.

Drainage: This section is to state the obvious really. Make sure your wastes and drains are compliant and don't leak. Ensure that your gutters and downpipes are in good condition and discharge to an appropriate outfall (depending on your council definition). We have found on some for sale rental properties that we have recently looked through that there are downpipes that discharge onto the ground and worse some even still discharge into gully traps (which is not

legal in Dunedin). The document also says things like: *“Remember it is the landlord’s obligation to maintain the gutters, downpipes and drains in a reasonable state of repair, and this includes cleaning out leaves and debris as needed”*. So in your lease you will be stating that you are compliant of this, so tenants will have grounds if your gutters overflow due to not being cleaned.

Ground Moisture Barriers: These prevent ground moisture rising into the sub floor space and then into the floor framing and inside the building. Not many houses have these installed yet and they will be a requirement, so get in early. Basically if you have had enough space under your floor to install sub floor insulation, you will now be required to install a ground moisture barrier as well to these accessible areas. These barriers cannot be installed over sharp objects as they will puncture. This may mean that you have a lot of raking and cleaning out of rubbish before you can install them. You may also be in the situation where you have to smooth out the ground and fill holes. We manage one 10 year old property with half metre deep and wide holes where a foundation type has changed mid build. The holes are fine when you can see them, but if simply covered with black polythene moisture barrier they become a hazard, so they will have to be filled first.

For more information and exemptions download the document here: <https://www.tenancy.govt.nz/healthy-homes/moisture-and-drainage-standard/>



On the left is a gully trap with the downpipe discharging into it (which obviously overflows). This is an example of what should be fixed to improve the property. On the right is years of building rubbish removed from sub floor of a property before installing a moisture barrier

Draught Stopping Standard

This is to reduce unnecessary gaps which produce draughts in properties.

Modern buildings are built different to older houses and therefore don’t have draughts. However if you have an older house with wooden doors and windows, and that building has moved a bit over time then you probably have gaps around some of the doors and windows. Under the Draught Stopping standard you are required to eliminate unreasonable gaps (regardless of the age of the building). So what is and unreasonable gap? The document states

“As a rule of thumb, gaps or holes with a width greater than 3mm in or around the walls, ceilings, windows, doors and floors that let air into or out of the home will usually require blocking to prevent unreasonable draughts. This means that if the edge of a New Zealand \$2 dollar coin can fit in the gap, then the gap needs to be sealed”

So that covers many properties (older building stock) that we manage, so we have a lot of work to do. So for casement and fanlight windows that is fine we can deal with that. But what about double hung sash windows that slide up and down. These need gaps that allow the window to slide up and down and the windows change size and shape a bit from dry to wet seasons. Well that is covered by this statement in the standard.

“Opening windows and doors with intentional gaps that are part of the construction do not require sealing. This includes gaps that are needed for windows or doors to open properly at different times of the year, for example, sliding parts of sash windows. To operate all year round there may be gaps that allow for the window or door or surrounding building features to change size because of humidity or temperature changes. However, unreasonable gaps that exceed what is needed for the window or door to work still need to be sealed.”

So yes we have to deal with all external windows and external doors as best we can. Temporary draught stoppers at the bottom of doors do not comply, it needs to be a permanent draught stopping solution (not very easy on some doors). We also have to correctly block off open fireplaces to prevent draughts (unless the tenant makes a written request to use the fireplace and you agree). Gaps or holes in external walls, ceilings & floors including gaps around electrical or plumbing fittings, roof space hatches etc also have to be checked and dealt with. Broken or loose hinges catches or latches that prevent the door or window closing tightly will have to be rectified.

Of all the work to be done with the healthy homes standards I believe draught proofing is going to be the most time consuming to provide permanent solutions. As each property is so different there is no one size fits all solution so various methods will have to be developed and applied for different situations. We are currently doing research into possible solutions so watch this space.

For more information and exemptions download the document here: <https://www.tenancy.govt.nz/healthy-homes/draught/>



There are a lot of rental properties that don't have air tight aluminium or PVC windows. So timber windows that have changed shape or have multiple layers of paint will likely have gaps. Casement and fanlight windows like the ones on the left are going to be easier to draught proof than the double hung windows like those on the right.

Heating Standard

This is to meet the minimum heating requirement for the main Living Room in the property.

You are required to calculate the heating requirement for your Living Room. This can be achieved by employing a heating engineer, or you use the Heating Assessment Tool provided on the tenancy website. Before you do this you will have to measure all walls, external windows, external glazed doors and ceiling heights associated with your living room. If your living room is connected with no doors to other areas, like open plan to the kitchen, or an open stairwell to another floor then you need to include all of the walls and windows in those spaces also (as they are also heated by the Living Room heating source). Once you have all this information you input all the walls (defining if internal or external) length, height and size of all windows and glazed doors along with insulation values for walls, floors and ceilings. This

will produce a multi-page report which you need to keep a copy of to prove that you have completed the heating requirement calculations.

You then check the required kW to heat your Living Room (from the report) and compare it against the kW heating capacity of existing heating source(s) for your Living Room. If your existing heating source(s) have a capacity of 90% of the required heating requirement then you are probably compliant (read the document to check if you comply). If less than 90% of kW required then you can add an additional thermostatically controlled electric wall fixed heater (up to a maximum of 1.5kW) to top up to meet the heating requirement. If the top kW required is greater than 1.5kW then you cannot top up with an electric heater so you have a problem. You can either change something about your property (eg put a door in to block of the stairway, or increase the insulation, or put in double glazing) to bring down the heating requirement for the Living room. Alternatively you replace the primary heating source in the Living room (which could also be cheaper than altering the building). There is some wiggle room and exclusions so you need to read the whole heating standard, but ultimately there will be some properties that will require under sized heat pumps to be replaced with larger units etc.

There is consideration for double glazing in the assessment tool, but there is no consideration for window treatments like thermal curtains with pelmets. You also have no way of explaining that your tenants may not actually use the heat pump. So yes there may be some heat pumps that are installed in some parts of New Zealand that are not actually used (less likely down south).

For more information and exemptions download the document here: <https://www.tenancy.govt.nz/healthy-homes/heating-standard/>



Left photo shows a heat pump in the hallway of a 2 bedroom rental. It is designed and sized to heat the whole house. However it does not comply as the heating source MUST be located in the Living Room (unless part of a ducted system). So it will have to be relocated if possible, or an additional Heat Pump installed in the Living Room to be compliant. Right photo shows a situation where the upstairs passageway will have to be included in the heating calculations as it is open to the Living Room.

So is my Heatpump going to be big enough?

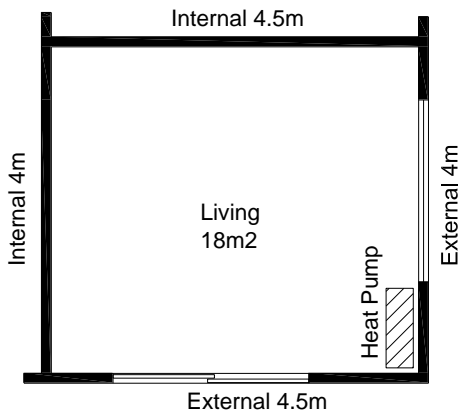
If you have not had a go with the Healthy Homes Heating Assessment Tool then it is time to have a look at it.

Heating Assessment Tool Guidelines here: <https://www.tenancy.govt.nz/heating-tool/guide/>

Heating Assessment Tool here: <https://www.tenancy.govt.nz/heating-tool/>

The following are worked examples to hopefully give you a better understanding of what results you might encounter.

Example 1: This is a simple rectangular Living Room sized 4.5m x 4m with a 3m ceiling. It has two internal walls and two external walls. It also has a 2.2 x 1.2m window and a 2.4 x 2m glass ranch slider door.



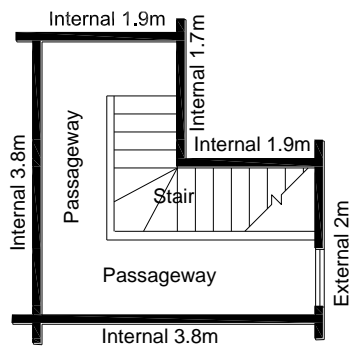
I have run this through the calculator several times using different geographical locations but keeping the same construction types etc. Each of these examples produced a 5 page report. Results of heating requirement below.

Location and Conditions	Outside Temp (set by calculator)	Heating Requirement
Otago - Dunedin City Council -Single Glazing	-4 degrees	4.7kw
Otago - Dunedin City Council -Double Glazing	-4 degrees	4.3kw
Otago – Central Otago District Council -Single Glazing	-8 degrees	5.4kw
Otago – Queenstown Lakes District Council -Single Glazing	-6 degrees	5.1kw
Otago – Waitaki District Council -Single Glazing	-5 degrees	5.0kw
Otago – Clutha District Council -Single Glazing	-4 degrees	4.7kw
Auckland – Auckland Council -Single Glazing	1 degree	3.8kw

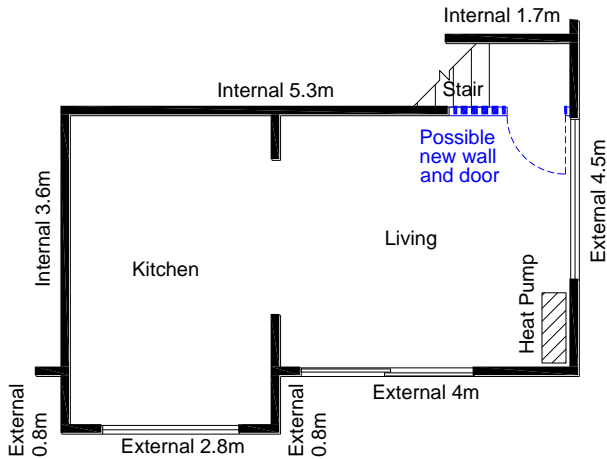
As you can see the location of the property determines the heating requirement due to the outside temperatures. These temperatures are set in the 2019 regulations and built into the calculator (you can't change them even if you don't agree with them). I have also shown the difference between single glazed and double glazed for a Dunedin property. Not a huge difference.

Let's say the existing heat pump in the room is 4.5kW heating capacity. In Dunedin, Clutha and Waitaki 4.5kw is at least 90% of the requirements for these areas so it would comply. However 4.5kw is less than 90% of the requirements for Queenstown Lakes and Central Otago. If the Living room was in these areas a thermostatically controlled electric heater could be installed (maximum 1.5kw) to top up the heating in the Living room to make it comply.

Example 2: Now let's look at a more complicated example. Below is a real Dunedin house that I have measured up and it is not so simple. It has an open plan Living / Kitchen area that also has an open stairway to the passage on the second storey. It has a real mixture of internal and external walls which all have to be entered separately. Also the Living area has a ceiling that is partly 2 storey (has a habitable room above) and partly roof, and some of the ceiling is sloping. All of this has to be input into the calculator including all walls and windows on both floors. So it does take some time to measure up and then input the data into the assessment tool calculator.



Upstairs 11m²



Downstairs 27.6m²

So the heatpump in this house has to heat a combined 38.6m² area to 18 degrees when it is -4 degrees outside. After all the information was input into the assessment tool the result was a 10 page report and a heating requirement of 8.7kW. Even with a 1.5kw top up secondary heating source it will not comply with the heating requirements with the existing heat pump. So the owner has a couple of options. Either remove the perfectly functioning heat pump and put in a bigger one, or alter the property to reduce heating requirements. This could be achieved by building a wall and installing a door at the bottom of the stairs. I recalculated the Living room heating requirements as if this wall and door was installed and it dropped the heating requirements to 6.3kw. So add a door or replace the heat pump; either way there is going to be some expense for the owner to make the property compliant with the Healthy Homes Heating Standard.

Summary

If you have a modern property there may not be any alterations required to make to your property compliant. However you will still have to do the documentation and add it to your lease to prove you are compliant. If you have an older property then there may be a bit of work to do. If you are unsure or unable to assess your property yourself then don't panic. There are providers out there that can check your property, do all the heating calculations etc and produce a report for you on what work needs to be done to make your property compliant. But again my suggestion is that you start now to avoid the last minute rush like there was with the last round of insulation installs.