

HAVE YOUR SAY

Our district's emissions target

Open for feedback 17 July – 14 August 2019

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Have your say on our district's net zero greenhouse gas emissions target

Christchurch City Council is committed to climate change leadership. The evidence is clear – greenhouse gas emissions are causing unprecedented increases in global temperatures, and we must rapidly cut our emissions to prevent further warming and disruption in the future.

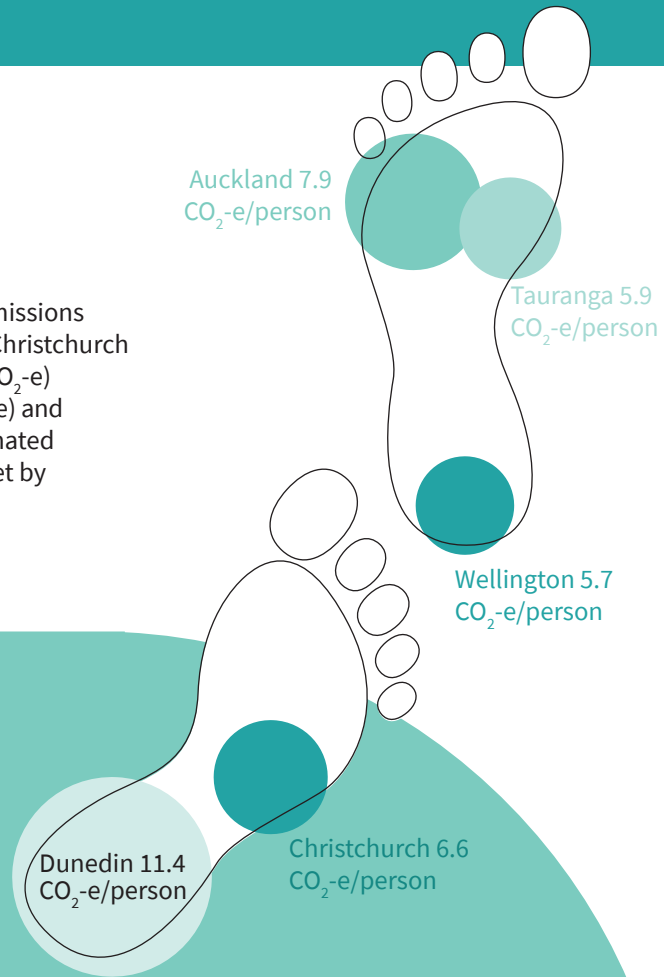
Christchurch's greenhouse gas emissions are only a small part of total global emissions, but New Zealand's per capita emissions are among the highest in the world. Countries which individually emit less than 1% of global totals collectively contribute significantly to total emissions.

This means we all have an important part to play in limiting warming.

We are currently in the process of developing our district's climate change strategy to ensure it reflects community aspirations for Christchurch. Our district includes Christchurch City and Banks Peninsula. As part of this work, we want to hear your views on what emissions targets we should be adopting. Do we go with the proposed national net zero greenhouse gas emissions target, or do you want us to be more ambitious? We want to hear your views.

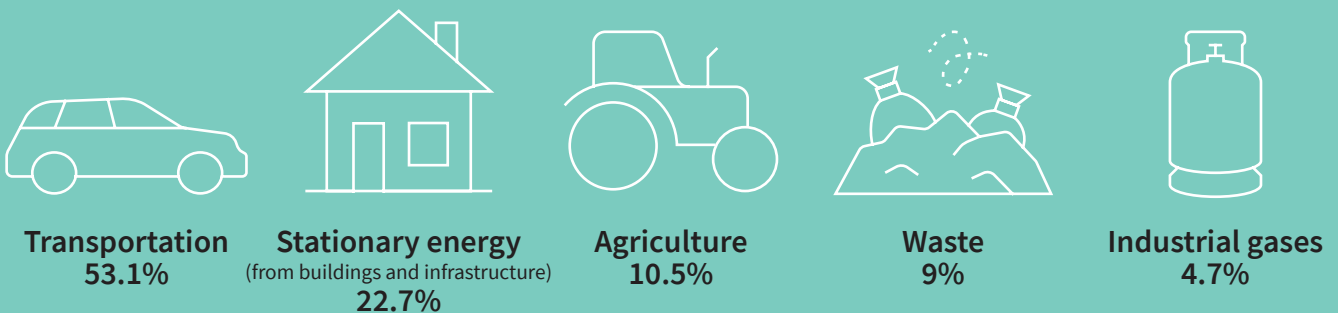
What is our current footprint?

The Christchurch district currently produces far more greenhouse gas emissions than we offset. During the 2016/2017 financial year (our baseline year), Christchurch emitted an estimated 2,485,335 tonnes of carbon dioxide equivalent (t CO₂-e) equating to 6.6 t CO₂-e per person. This is lower than Auckland (7.9 t CO₂-e) and Dunedin (11.4 t CO₂-e), but more than Wellington (5.7 t CO₂-e). An estimated 362,679 t CO₂-e of our city's net greenhouse gas emissions has been offset by Christchurch's forestry, bringing the total to 2,122,656 t CO₂-e.¹



Where do our greenhouse gas emissions come from?

A breakdown of our emissions in the 2016/2017 financial year found that transport was the largest contributor at 53.1%, followed by energy used in buildings and infrastructure, at 22.7%, agriculture at 10.5%, waste at 9% and industrial gases at 4.7%.



1. Christchurch Community Carbon Footprint 2016/17 - AECOM report available here: our community carbon footprint <https://ccc.govt.nz/environment/climate-change/>

What are the proposed targets for New Zealand?

If passed into law, the government's Climate Change Response (Zero Carbon) Amendment Act will contain the national targets for New Zealand to meet collectively.

The government's proposed targets can be summarised as:

- net zero emissions of greenhouse gases by 2050, other than biogenic methane (then remaining at net zero for each subsequent year),
- by 2030, gross annual emissions of biogenic methane are 10% less than 2017 emissions; and are at least 24% to 47% less than 2017 emissions by 2050 (and for each subsequent year)²

The government's Zero Carbon Bill proposes treating biogenic methane (largely emitted by the agriculture and waste sectors) differently from other greenhouse gases. Although it has stronger warming effects than carbon dioxide, methane is a relatively 'short lived' gas (doesn't last as long in the atmosphere) compared with other greenhouse gases. It remains in the atmosphere for about 12 years, whereas carbon dioxide can remain in the atmosphere for thousands of years.

What is climate change and how will it affect us?

Climate change refers to significant changes in global temperature, precipitation, wind patterns and other measures of climate that occur over several decades or longer.³

Earth's climate has changed over millions of years from warmer periods to ice ages and back again. In the past, changes in the earth's climate were usually gradual, which allowed time for plants and animals to adapt. In recent decades the climate has been changing far more rapidly. Since the Industrial Revolution there has been a noticeable increase in greenhouse gas producing activities such as transportation, industry,

and agriculture. These human-induced (anthropogenic) activities are increasing the level of greenhouse gases in our atmosphere and causing the Earth to heat up at an unprecedented rate.⁴

Climate change is likely to mean less rainfall and more droughts for our area. Christchurch will also be affected by sea level rise in the coming decades, with low lying areas particularly vulnerable to a projected increase in extreme and more frequent weather events. This will impact all of us in the future – our environment, our health and wellbeing, our communities and our economy.



2. Based on Climate Change Response (Zero Carbon) Amendment Act targets. Read the entire Bill here: <https://www.parliament.nz/en/pb/bills-and-laws/bills-digests/document/52PLLaw25931/climate-change-response-zero-carbon-amendment-bill-2019>

3. <https://climatechange.ucdavis.edu/science/climate-change-definitions/>

4. <http://www.mfe.govt.nz/climate-change/why-climate-change-matters/evidence-climate-change>

Reductions are needed in all areas

New Zealand needs to reduce its emissions drastically across all areas in order to reach the proposed government net zero emissions target. This will require a number of different approaches, and the support of government, business, and the community. As a country, we will need to reimagine the way we travel, generate energy, produce food, manage waste, develop agriculture, build infrastructure, and develop our towns and cities. We can also 'offset' our emissions through carbon sequestration, or carbon capture. Carbon sequestration means capturing carbon dioxide from the atmosphere and storing it using trees, wetlands and soils.

The Council recognises the importance of reducing greenhouse gas emissions as quickly as possible, while continuing to support the wider needs of the community. This means we need to manage the speed at which we reduce greenhouse gas emissions to enable time for a just and equitable transition to a low greenhouse gas emissions economy.



If our cuts are too drastic before we can undertake detailed analysis, there is the risk of not understanding potentially harmful impacts on the community and the economy. However, if we act too slowly to reduce our emissions, we won't be taking the necessary action to limit warming to 1.5°C, may miss opportunities to adopt useful new technologies, and won't be leading on climate action.

What are greenhouse gases?

Greenhouse gases - including carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) - trap heat from the sun in the atmosphere and prevent the planet's surface from freezing. Recently, the concentration of greenhouse gases in the atmosphere has significantly increased, causing the atmosphere to retain more heat. Without swift action to reduce greenhouse gas emissions there will likely be serious consequences later this century.

The scientific consensus behind international climate policy is that warming needs to be restricted to less than 2°C above pre-industrial levels to prevent damaging effects later this century. The strong preference is limiting warming to below 1.5°C, which would likely

prevent the worst consequences of climate change. To avoid warming greater than 1.5°C, global carbon emissions need to rapidly reduce, and then remain at very low (even net negative) levels in the future.

The International Panel on Climate Change reported that human activities are already estimated to have caused approximately 1.0°C of global warming above pre-industrial levels, and that global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate.⁵ If we don't take any action and global emissions remain high, New Zealand could reach a potentially devastating 3.7°C rise by the end of the century.⁶



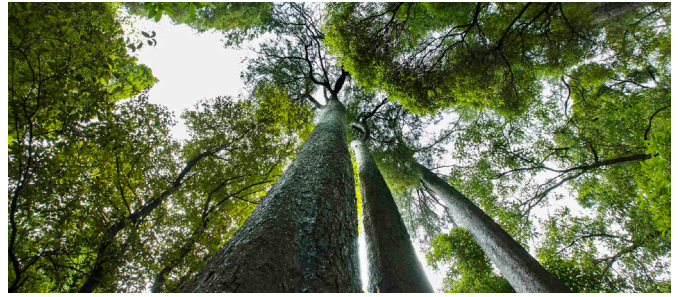
5. IPCC Special Report: Global Warming of 1.5°C <https://www.ipcc.ch/sr15/chapter/summary-for-policy-makers/>
6. Ministry for the Environment – Climate Change Projections for New Zealand, 2018. <https://www.mfe.govt.nz/publications/climate-change/climate-change-projections-new-zealand>

Should we be more ambitious?

We have the option of setting more ambitious targets for emissions reductions (along with more ambitious actions) in the Christchurch district if we have community support for this kind of approach.

Some people believe the government's targets are too conservative, and that we should make the necessary sacrifices and lifestyle changes to reduce greenhouse gas emissions faster. This could include reducing our reliance on cars, travelling less, investing in new technology earlier, reducing meat in our diets, planting more trees, and investing in more energy-efficient homes and buildings sooner than would be necessary to achieve the government's proposed targets.

One way we could be more ambitious than the national targets is to aim for net zero emissions across all greenhouse gases, including methane. Agricultural emissions in our district (10.5% in 2016/17)⁷, are much lower than in New Zealand as a whole (48.1% in 2017). This means achieving



net zero emissions across all greenhouse gases should be more achievable in our district, although more work will need to be done to understand how we can reduce methane from our waste management systems, including landfills.

A more ambitious approach for Christchurch could also include bringing forward the target year to reach net zero greenhouse gas emissions (for example from 2050 to 2040).

Reducing our greenhouse gas emissions will create a cleaner, healthier environment, while providing the opportunity for innovation and new industries to be developed in Christchurch.

An interim target

Whether our district supports aligning with the national Zero Carbon Bill targets, or adopting a more ambitious approach, we believe setting an intermediary target will help ensure we are making good progress towards our target. In line with the International Panel on Climate Change advice on the need to roughly halve recent emissions by 2030, we suggest setting an additional target for the district:

- Reduce greenhouse gas emissions by 50% district-wide by 2030 (from our 2016/17 baseline levels)

International and national context

At an international level, New Zealand is a party to the United Nations Framework Convention on Climate Change and the Kyoto Protocol, and must report progress on our obligations. In 2016 parliament ratified the Paris Agreement, which comes into effect from 2020.

At a national level the Ministry for the Environment provides guidance on climate change issues. A Climate Change Response (Zero Carbon) Amendment Bill⁷ is currently moving through parliament. In addition to setting national emissions reduction targets, the Bill will establish a Climate Change Commission to provide independent advice to the government on setting emission budgets and further guidance on adaptation issues.

What's next after setting targets?

Once we've heard your views and the emissions targets are adopted by Council (in September 2019), we'll continue our work with the community on actions we can take towards achieving the targets.

Setting the emissions target is just one part of work on climate change.

The targets will be integrated into development of our upcoming climate change strategy. We'll be working closely with the community to ensure the strategy reflects community aspirations for Christchurch. The strategy will

also consider wider issues around climate change in the district, including how we'll plan and adapt to changes in the future, the importance of ensuring a just and equitable transition to a low greenhouse gas economy, and how we'll continue to care for our natural environment.

While developing our strategy we will continue to build on our existing climate change programme. You can find out more about what we're already doing here and how you can get involved:

ccc.govt.nz/climate-change

7. <https://www.parliament.nz/en/pb/bills-and-laws/bills-digests/document/52PLLaw25931/climate-change-response-zero-carbon-amendment-bill-2019>

Have your say

We'd like to hear your thoughts on our district's net zero greenhouse gas emissions targets.

The Innovation and Sustainable Development Committee will meet in late August to hear submissions. Would you like the opportunity to speak to the Committee about your feedback?

YES NO

Do you think we should align with the proposed national target of net zero greenhouse gas emissions by 2050 (that also adopts a separate approach to methane gas)? If so, why?

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Should we take a more ambitious approach? If so, what year should our net zero greenhouse gas emissions target be set and (and why) and how should we consider methane (and why)?

Do you support an interim target as a way to encourage early action?

YES NO

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Any other comments?

Name* _____

Address* _____

Postcode* _____

Phone* _____

Email _____

*required

Please note:

We require your contact details as part of your submission – it also means we can keep you updated throughout the project.

Your submission, name and address are given to decision-makers (Committee /Council) to help them make their decision.

Submissions, **with names only**, go online when the decision meeting agenda is available on our website.

If requested, submissions, names and contact details are made available to the public, as required by the Local Government Official Information and Meetings Act 1987.

If there are good reasons why your details and/or submission should be kept confidential, please contact our Engagement Manager on (03) 941 8999 or 0800 800 169 (Banks Peninsula).

Please fold with the reply paid portion on the outside, seal and return by 5pm, Wednesday 14 August 2019.

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If you wish to attach extra paper, please ensure the folded posted item is no thicker than 6mm. Alternatively, you can send your submission in an envelope of any size and address it using "FreePost Authority No. 178"

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Attention: Katy McRae
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