

Gazetting New Zealand's 2050 Emissions Target

New Zealand Government

Minister's Position Paper

The Government is committed to implementing an economically sound and environmentally effective climate change policy. A part of this will be a credible long-term emissions reduction target. To provide certainty for business over the long-term direction of climate change policy, the Government proposes to notify in the New Zealand Gazette a long-term emissions reduction target for New Zealand.

Globe photo: © NASA



The 2050 emissions reduction target, which follows the current Kyoto Protocol approach, is on the basis of net emissions in the future, relative to gross emissions in 1990.

The Climate Change Response Act 2002 requires the Minister for Climate Change Issues to consult with persons likely to have an interest in the target. This Minister's position paper forms part of the consultation and the purpose is to seek your views on this proposed target.

Climate change challenge >>>

Multiple lines of scientific evidence show that climate change is happening, and humankind's emissions of greenhouse gases are very likely the cause. Since the 1970s there is mounting scientific evidence that increased concentrations of greenhouse gases in the atmosphere from human activities are raising temperatures and changing the Earth's climate patterns. These activities include burning fossil fuels like coal and oil, deforestation and farming. Atmospheric concentrations of greenhouse gases such as carbon dioxide, methane, and nitrous oxide, increased markedly over the 20th century.

Global emissions of greenhouse gases continue to increase. Depending on the reductions countries make, and allowing for modelling uncertainty, average global temperatures are projected to increase by between 1.1°C and 6.4°C by 2100. Other consequences include more extreme weather events, like floods, storms, cyclones and droughts, and global sea-level rise. Specific impacts on New Zealand include more rain in the west of the country and less in the east and north. We can also expect more episodes of heavy rainfall, and more frequent drought. There are likely to be decreases in the number of frost days, and a substantial increase in the number of hot days where temperatures exceed 25°C – especially in the north of the North Island.

“Our proposed target is a 50 per cent reduction in New Zealand's greenhouse gas emissions from 1990 levels by 2050, or in short, –50 by 50.”

New Zealand has a different emissions profile relative to other developed countries. Compared with these countries a far larger proportion of New Zealand's emissions are methane and nitrous oxide from agriculture. We also have lower carbon dioxide emissions from electricity generation because of extensive hydro-generated electricity.

New Zealand's gross emissions have increased significantly since 1990, despite efforts to stabilise and reduce them. The largest percentage increases have been in the electricity (91%), transport (70%), and agricultural (12%) sectors. New Zealand's greenhouse gas emissions by sector (2008) are shown in Figure 1.

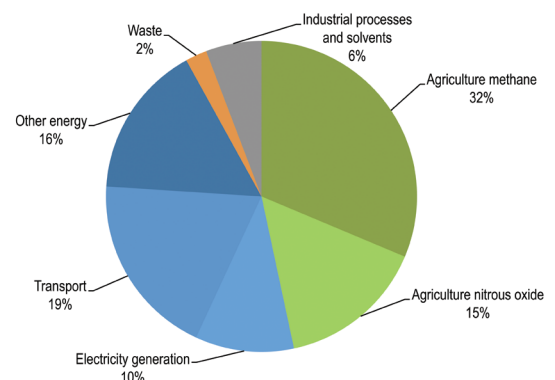


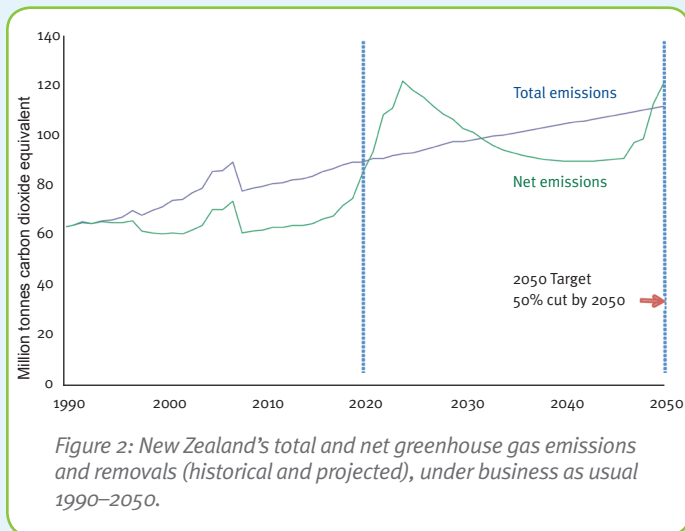
Figure 1: New Zealand's greenhouse gas emissions by sector: 2008



“Our goal is for New Zealand to do our fair share to address the risks of climate change taking into account our small size, our unique emissions profile but also our important, clean, green brand.”

– Hon Dr Nick Smith, Minister for Climate Change Issues

Forestry has a significant impact on New Zealand’s greenhouse gas emissions profile. The international rules credit growth in forests planted after 1990, but debits apply upon harvest. There are also debits when pre-1990 forests are cleared and not replanted. Net emissions rose sharply in 2005 due to increased rates of deforestation but have since stabilised.



The world is changing and other countries are recognising the reality of a carbon-constrained future. It is in New Zealand’s long-term interests to begin taking steps towards a low-carbon future. The Government can help by providing a clear long-term signal about the direction of climate change policy and greenhouse gas emissions.

In August 2009 New Zealand announced a responsibility target range for 2020 of 10 to 20 per cent below 1990 levels. The 2020 target is conditional upon an effective global agreement, including appropriate commitments by developed and developing countries, and rules relating to land use and forestry and carbon markets that are important to New Zealand.

Gazetting a 2050 emissions reduction target >>>

There is international agreement that we need to limit global temperature increase to no more than 2 degrees Celsius to avoid dangerous climate change.

Any long-term greenhouse gases reduction target needs to be:

Internationally credible

In a world that is looking beyond the Kyoto Protocol (an international agreement to address global warming and delay climate change), New Zealand needs to make a definitive and credible statement about our intended long-term contribution to the global effort on climate change. As a small nation, New Zealand alone cannot have much impact on global climate change. Our actions need to support and encourage effective global action by all major emitters. As a trading nation, New Zealand depends on its international reputation and its strong clean and green image.

Suitable to New Zealand’s unique emissions profile

New Zealand’s national circumstances include high population growth, a high level of renewable energy and a large proportion of emissions from agriculture. Therefore, meeting a given target, expressed as a percentage reduction below 1990 levels, is more challenging than for most other developed countries.

This proposed 2050 emissions reduction target is comparable with targets being set by other developed nations. Therefore, even with our unique emissions profile, the proposed greenhouse gases reduction target demonstrates that we are prepared to do our fair share towards reducing global greenhouse gas emissions.







Time-bound

A 50 per cent reduction of net greenhouse gases from 1990 levels by 2050 is a realistic time-bound target for New Zealand. This gives taxpayers, business, industries and farmers clear, long-term certainty about where domestic climate change policy is headed so that they can plan and invest accordingly.

“New Zealand is viewed as a constructive partner in the international climate change negotiations with our innovative ETS, the Global Research Alliance on Agricultural Emissions, and the role we are playing in securing a balanced agreement to succeed the Kyoto Protocol.”

– Hon Tim Groser, Minister Responsible for International Climate Change Negotiations



Country	Percentage of world emissions: 2007	Emissions change: 1990–2007	2050 target (adjusted to 1990 base year for ease of comparison, approximate only)
DEVELOPED COUNTRIES			
 New Zealand	0.2%	↑ 22.1%	Reduce greenhouse gases by 50% below 1990 levels.
 Australia	1.4%	↑ 30.0%	Reduce emissions to 50% below 1990 levels.
 Canada	1.9%	↑ 26.2%	A reduction of about 50–65% on 1990 levels.
 EU-27	13.0%	↓ 9.3%	Considering reducing emissions to 80% below 1990 levels by 2050.
 Japan	3.5%	↑ 8.2%	Reduce emissions to 55–80% below 1990 levels.
 USA	18.3%	↑ 16.8%	Reduce emissions to about 80% below 1990 levels.

All emissions data is exclusive of land use, land-use change and forestry. Sources: 2009 National Greenhouse Gas Inventory Submissions, UNFCCC (developed countries), Climate Analysis Indicators Tool, World Resources Institute (developing countries and world).

How will we meet the proposed 2050 emissions reduction target? >>>

The Government’s main policy tool to reduce emissions is an Emissions Trading Scheme (NZ ETS) that puts a price on greenhouse gas emissions. The NZ ETS moves the cost of emissions onto those who cause them. It creates a market around reducing emissions, and so provides us with more flexibility than a simple carbon tax.

Gazetting the target also means that the contribution of the NZ ETS toward the target will be considered and reported on in each commitment period (or five yearly if there is only one commitment period) under the review provisions in the Climate Change Response Act. This will provide an indication of our progress towards the target and will provide a credible signal on our efforts to meet the target.

Other complementary policies include:

- the Energy Efficiency and Conservation Authority (EECA) work programme, which supports and promotes energy efficiency, energy conservation, and the use of renewable sources of energy. For example EECA provides incentives for new energy technologies like sustainable biofuels, electric cars and solar water systems. There is also a \$323 million home insulation and clean heating fund to insulate 180,000 homes over four years. These initiatives rank highly in their potential to reduce emissions

- New Zealand leading the Global Research Alliance on Agricultural Greenhouse Gases and the establishment of a new domestic Centre for Agricultural Greenhouse Gas Research to research the best practice approaches to reduce agricultural emissions
- the National Policy Statement to support renewable electricity generation which will help achieve the Government’s aim of having 90 per cent of our electricity from renewables by 2025. This will result in significant emission reductions.

What are the consequences of setting a 2050 emissions reduction target? >>>

The current economic conditions are challenging and we need to be wary about unnecessarily burdening the economy. On the other hand, climate change is a long-term problem that needs long-term, enduring solutions. It is important that a balance is struck that ensures we do our fair share to reduce global emissions, while also protecting our economy.

Opportunities from a low-carbon economy

A growing number of New Zealand companies are developing a range of novel products and services for global markets. They include technologies, products and services that minimise the carbon footprint of production processes and products, recycle waste, reduce the use of raw materials and energy while, at the same time, reducing costs and raising productivity. New Zealand is well positioned to take advantage of the global transition towards clean technology.

New Zealand's standing in renewables and bio-based research has resulted in a wealth of cleantech innovation and technical expertise. New Zealand Trade and Enterprise (NZTE) emphasises that New Zealand has particular capability in emerging cleantech areas such as sustainable biofuels from algae and plant and timber residues, renewable energy, novel industrial and transportation technologies and sustainable agriculture. According to NZTE there are approximately 250 companies and organisations researching, developing and commercialising clean technologies in New Zealand.

Potential co-benefits

The development of a low-carbon economy can simultaneously lead to increases in the efficiency of natural resource uses, the productivity of natural resource-based sectors, an increase in

the production of higher value products and services and, as a result, improvements in income levels and standards of living.

There are also non-economic co-benefits from moving to a low-carbon economy. Some specific examples include:

- environmental gains from increased forestry
- increased energy security from less reliance on fossil fuels
- warmer homes from increased insulation
- cleaner air from burning less fossil fuels
- the protection of our clean green image.

What are the consequences of setting either a higher or a lower target?

Setting a target is a balance between achieving the reductions in greenhouse gases we want and the impact on the economy and our lifestyle. Achieving the 2050 emissions reduction target could mean higher costs for consumers and businesses as we transition to a low-carbon economy. However, a less ambitious target would undermine New Zealand's clean, green environmental reputation. The proposed 2050 emissions reduction target balances these demands and reflects a fair contribution by New Zealand to the international effort to reduce greenhouse gas emissions.

Reasons for a modest NZ 2050 target	Reasons for an ambitious NZ 2050 target
<ul style="list-style-type: none">• 3rd lowest GDP per capita amongst Annex I (developed) Parties• High cost of reducing emissions due to unique emissions profile• 2nd highest population growth since 1990 amongst Annex I Parties.	<ul style="list-style-type: none">• 11th highest emissions per capita globally• Importance of New Zealand's "clean and green" brand• Vulnerability of the New Zealand economy to impacts of climate change.

Have your say >>>

Your view on gazetting New Zealand's 2050 emissions reduction target is important to the Government.

You can have your say on gazetting New Zealand's 2050 emissions reduction target by:

- emailing your views to 2050target@mfe.govt.nz

or

- writing to the Ministry for the Environment at 2050 Emissions Reduction Target Consultation
Ministry for the Environment
PO Box 10362
Wellington 6143

Submissions close 28 February 2011.

Publishing and releasing submissions

The Ministry may publish all or part of any written submission on its website, www.mfe.govt.nz. Unless you clearly specify otherwise in your submission, the Ministry will consider that you have consented to website posting.

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