

Low-emissions economy

At a glance

Where our emissions come from

- Nearly half of emissions come from agriculture (mostly short-lived GHGs)
- Transport is second biggest, and one of the fastest growing emission sources
- Forestry offsets a significant proportion of emissions

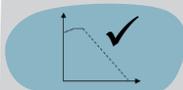


"The shift from the old economy to a new, low-emissions economy will be profound and widespread, transforming land-use, the energy system, production, methods and technology, regulatory frameworks and institutions, and business and political culture"

The climate change problem

- Climate change is a perfect example of the tragedy of the commons, where private incentives swamp the public interest
- New Zealand's small share of emissions does not justify inaction; small economies make up about 30% of global emissions
- Meeting the challenge requires substantial change...
- ... though not beyond the scale of earlier transitions in NZ

The Commission modelled different pathways to low-emissions. Key insights include:



Both a **25 Mt target** and a **net-zero target** look **challenging** but **achievable**.



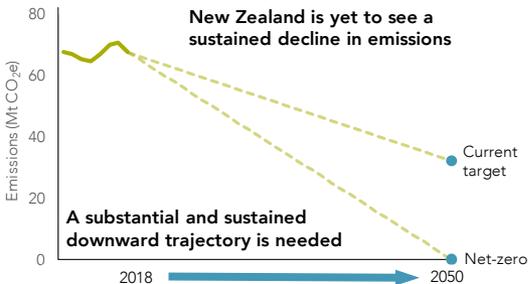
Emission prices are a critical motivator of change. Will need to **rise considerably** to generate action – to at least **\$70/tonne** and **over \$200** for some scenarios. These prices are **comparable** with what's required in other developed economies.



The **key drivers** of emissions reductions will be **replacing combustion of fossil fuels** with clean electricity (eg, EVs, process heat), **reduced emissions intensity for agriculture** and **substantial land-use change** in favour of **afforestation**.

Advantages & opportunities for New Zealand

- New Zealand has strengths in agricultural technology, and can influence mitigation efforts elsewhere
- Potential for large expansion in forest planting, though forestry is a temporary solution
- New Zealand's emissions footprint from generating electricity is relatively small
- Mitigating emissions can produce significant co-benefits (eg, cleaner water, reduced air pollution and congestion)



Four pillars for achieving stable and credible climate policy in New Zealand

Emissions pricing

Reform the structure of the NZ ETS

- Yearly quantity caps (set for the next five years) to provide certainty about the supply of units
- A wide price band to avoid damaging price volatility

Increase the coverage of the NZ ETS

- Agriculture to be fully included in the NZ ETS (supported by free allocation for a transitional period)
- Simplify and de-risk the NZ ETS for forest owners to increase their participation

Laws & institutions

New climate legislation

- Legislated long-term emissions reduction target (along with separate targets for short- and long-lived gases)
- Successive emissions budgets that set shorter term targets to keep emissions reductions on track

New institutional arrangements

- Independent expert body (Climate Commission) to advise Government on emissions reductions
- Government obliged to respond to advice, detailing mitigation strategy
- Revamped government leadership of climate policy

Regulation & policies

Other pricing mechanisms

- A feebate scheme to encourage uptake of low-emission vehicles
- Increase the waste disposal levy and coverage
- Abandon subsidies that support the ongoing use of fossil fuels

Other supporting regulations

- Refine the electricity system to facilitate renewables, storage, distributed energy and demand management
- Emissions standards for new and used vehicle imports
- Greater support for councils to regulate unmanaged waste sites

Innovation & investment

R&D and innovation policy

- Gear up the innovation system for creating and adopting clean technologies
- Significant increase in R&D funding for mitigation, particularly in agriculture

Other, targeted, low-emissions investments and policies

- Mandate financial disclosure of climate-related risks
- Reform the transport investment system to give greater priority to emission reductions and mode neutrality