

# Low-emissions economy

## New Zealand is well positioned to respond

- New Zealand has a low-emissions electricity system...
- ...and there is large scope to increase the supply of clean electricity, enabling electrification in transport and other parts of the economy.
- Expansion in forest planting can give New Zealand valuable adjustment time.
- New Zealand already has the architecture for an emissions pricing system in place.
- New Zealand can provide leadership in developing an effective approach to tackling biogenic methane.

## A new approach that treats long- and short-lived gases differently

Long-lived gases	Short-lived gases	Target
Net-zero, at a minimum, by a specified end date	Stabilised future emissions at a significantly lower level	
NZ ETS (including nitrous oxide)	Dual-cap NZ ETS or methane quota system	Pricing system

## The challenge

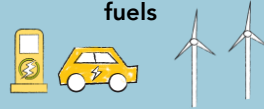
- Climate change is a prime example of the tragedy of the commons, where short-term private incentives swamp the long-term public interest.
- New Zealand is committed to reducing its emissions to help achieve the Paris goal of limiting warming to well below 2°C.
- Meeting this commitment is achievable, but there will be tough challenges.

"Shifting to a low-emissions trajectory will critically depend on political leadership and fortitude. Inertia and resistance to change can be expected...meeting this challenge will likely be futile without broad agreement across the political spectrum on both the need and means to make the transition. (p. 507)"

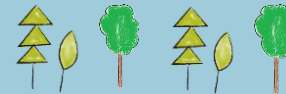


## Three shifts to achieve a low-emissions economy

### Transition from fossil fuels to electricity and other low-emission fuels



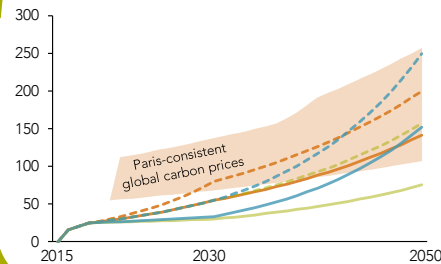
### Substantial afforestation



### Changes to the structure and methods of agricultural production

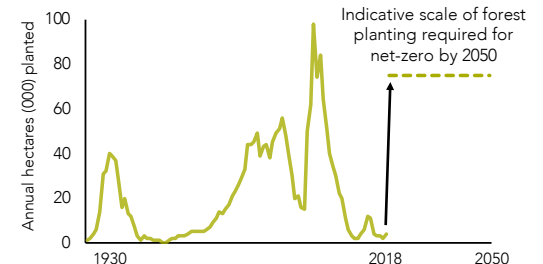


## Emissions prices are a critical motivator of change



Prices need to rise considerably to generate action. Modelling suggests at least \$75 per tonne and over \$200 for some scenarios by 2050. Prices are comparable with what's required in other developed economies.

## Sustained afforestation will need to exceed past rates



## Immediate priorities for Government

- 1 Reform the NZ ETS (introduce multi-year quantity caps, establish a new market agency) and address biogenic methane in a pricing system.
- 2 Set in place laws and institutions, including legislated targets, a system of emissions budgets and an independent Climate Change Commission.
- 3 Devote significantly more resources to low-emissions innovation to lower the future costs of reducing emissions.
- 4 Prioritise policies to avoid high emissions lock-in (eg, feebate scheme for light vehicles and limits on installing fossil-fuel powered heating systems)
- 5 Amend electricity system regulation to facilitate the expansion of low-emissions electricity and reduce barriers to innovation and new services
- 6 Take an active approach to accelerating forest planting (including native species)

## Important insights for the transition ahead

- The transition will be long and involve change and uncertainty. Stable and credible policy (with a broad political consensus) is critical to overcome short-term thinking.
- Strong early action is justified. Delaying action limits options in the future and could make the transition much more abrupt and costly.
- Relying heavily on forestry creates challenges in the long term. Forestry buys valuable time. But ongoing progress in reducing gross emissions is necessary up to and beyond 2050.
- Innovation is core to the transition (and can lead to wider productivity benefits).
- In addition to the benefit and tax credit system, other policies may be needed to support households disadvantaged by the transition. Transport costs for low-income households may be a particular pinch point.
- Successful and productive economies handle change well – improving wider productivity performance will make the transition more beneficial and less disruptive for New Zealanders.