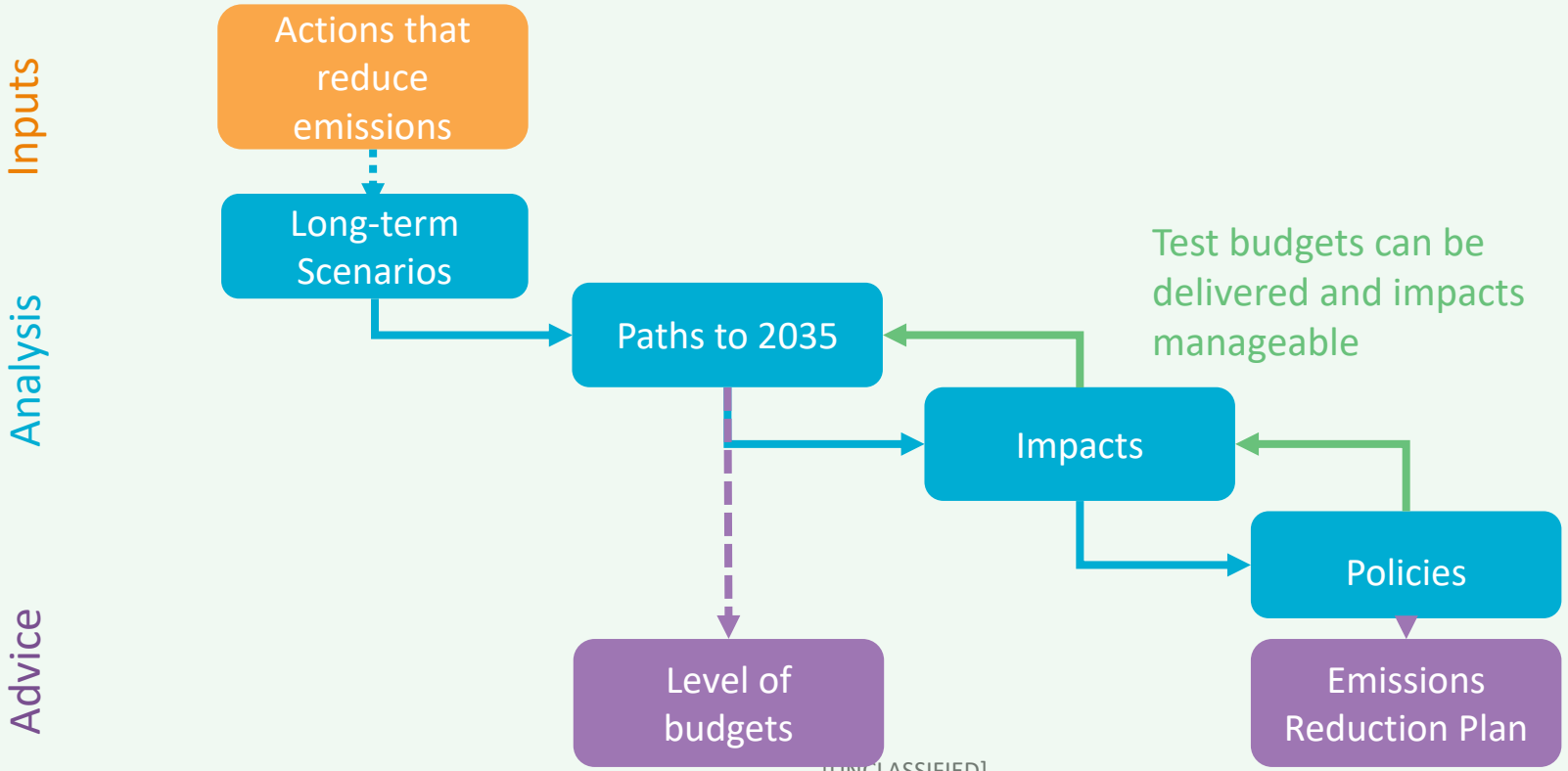
Unpacking our path to 2035

19 February 2021

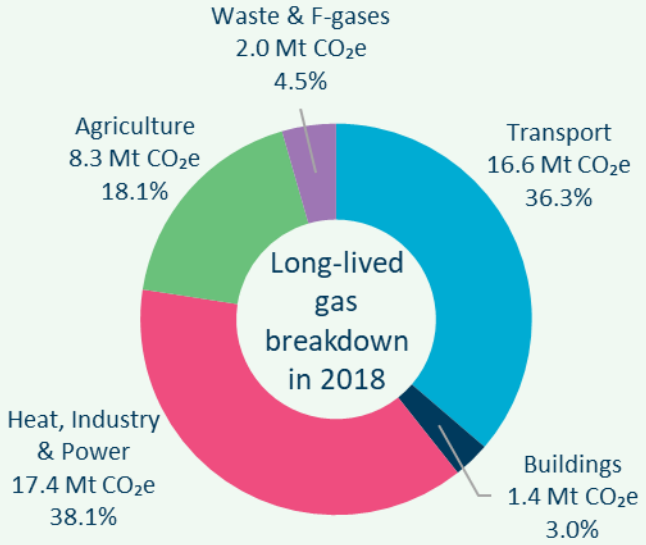
He Pou a Rangi
Climate Change Commission

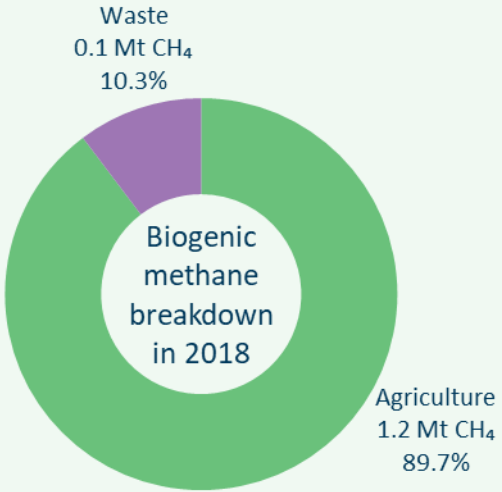
1 Our approach

Analytical approach for advising on budgets



Emissions in Aotearoa



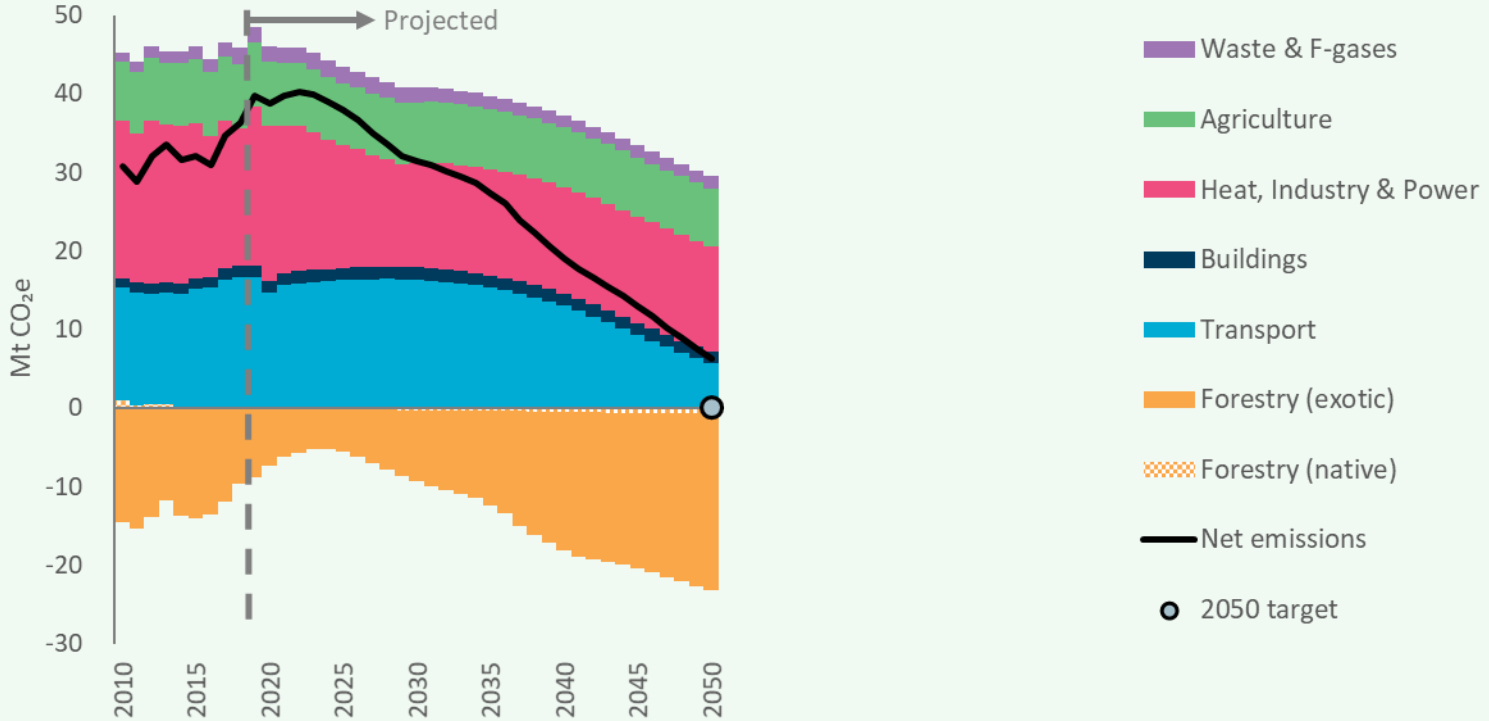


Target: Net zero by 2050 (including forestry)

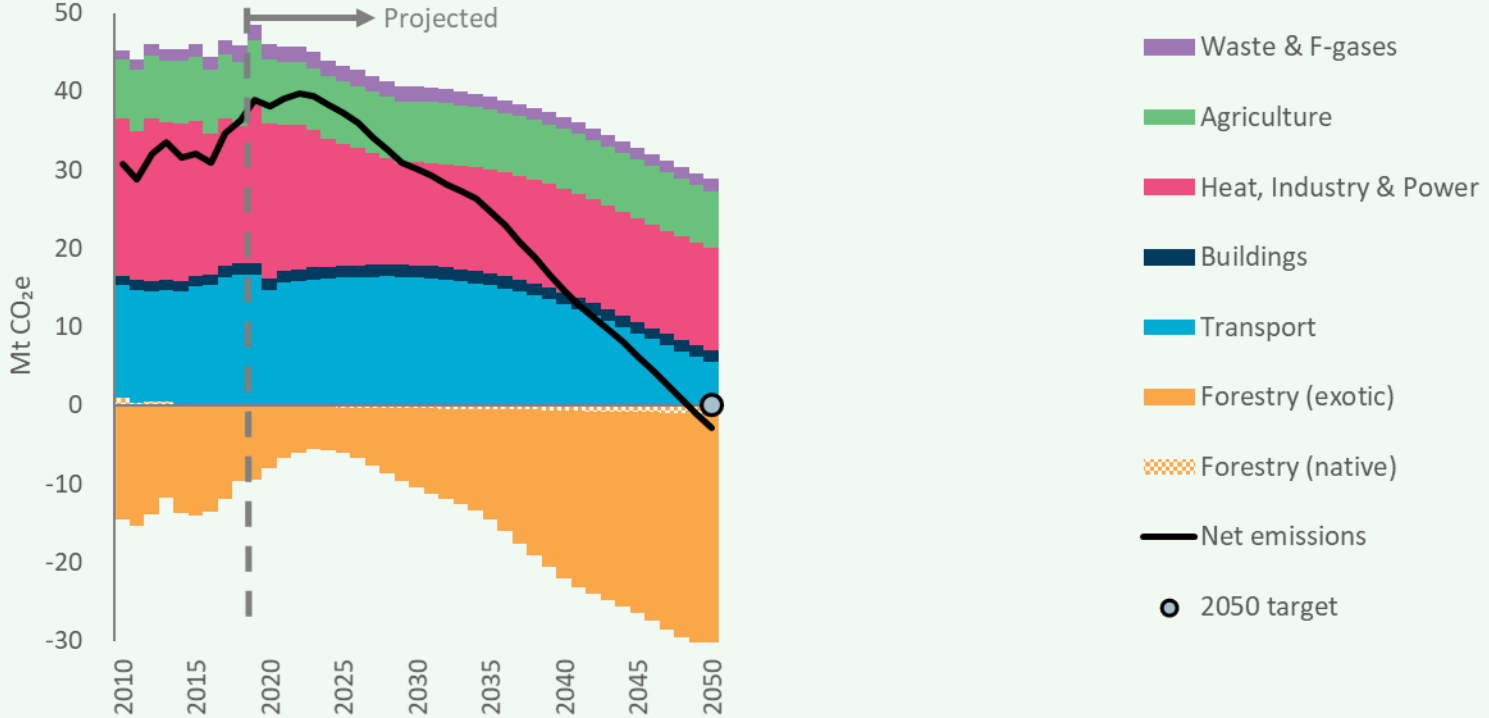
Targets: 10% reduction by 2030 (from 2017)
24-47% reduction by 2050

2 Our path - long-lived gases

What would happen to long-lived gases under current policy?



What would happen if we extended the current policy approach?



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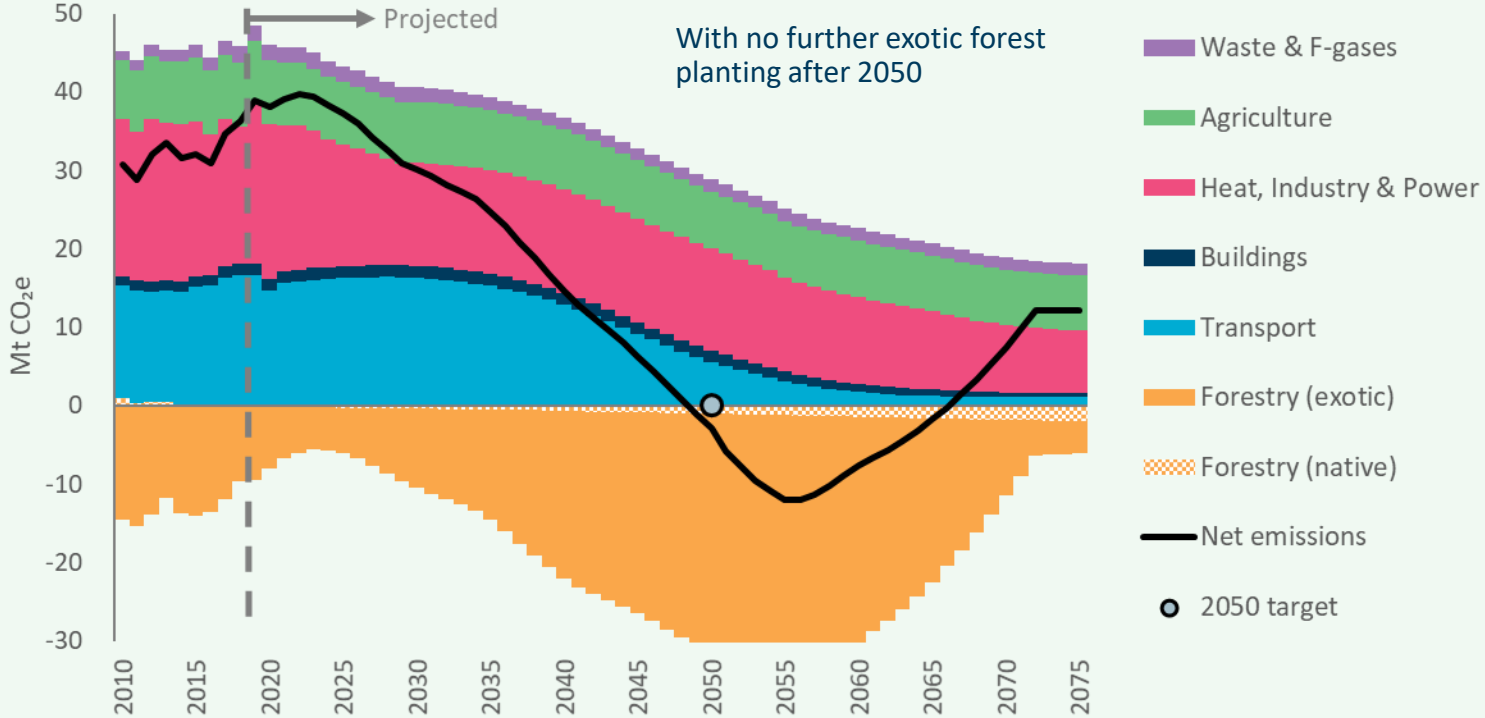


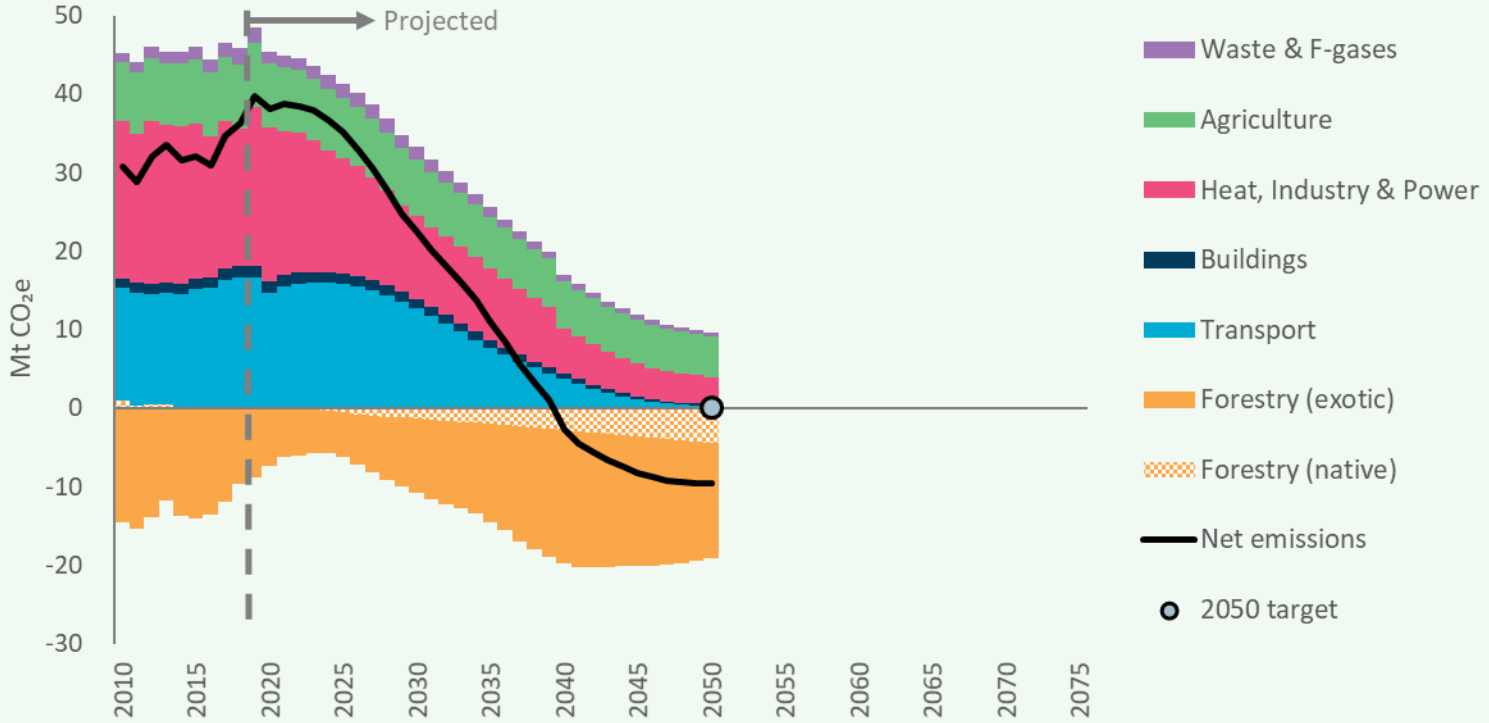
Approach to meeting the 2050 targets

Extending current policies would do little to reduce gross emissions, but instead meet the 2050 net zero target through additional forestry.

- Principles used to guide approach:
  - Focus on decarbonising the economy
  - Create options
  - Avoid unnecessary costs

- We recommend two key transformations to meet the 2050:
  - Decarbonise the sources of long-lived gas emissions wherever feasible.
  - Build a long-term carbon sink through new native forests

Locking in net zero



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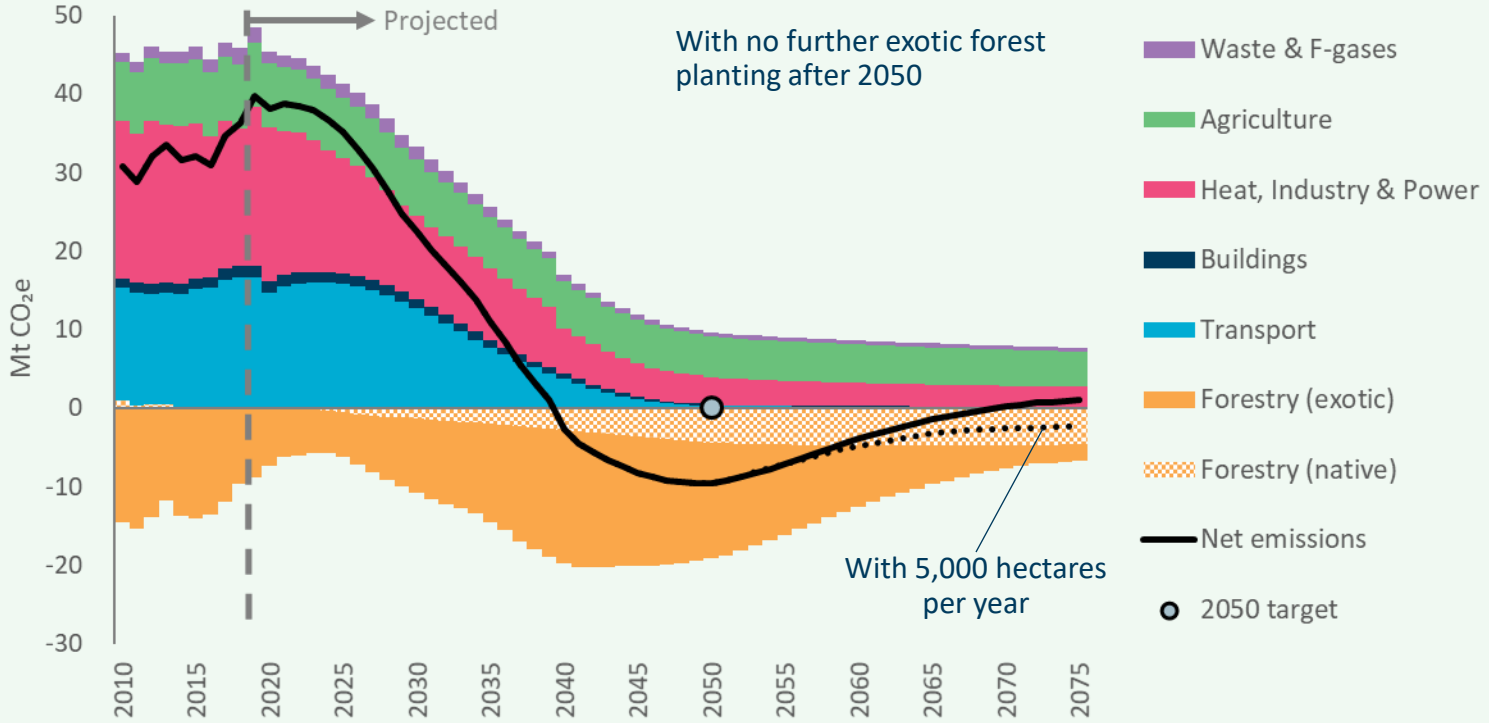
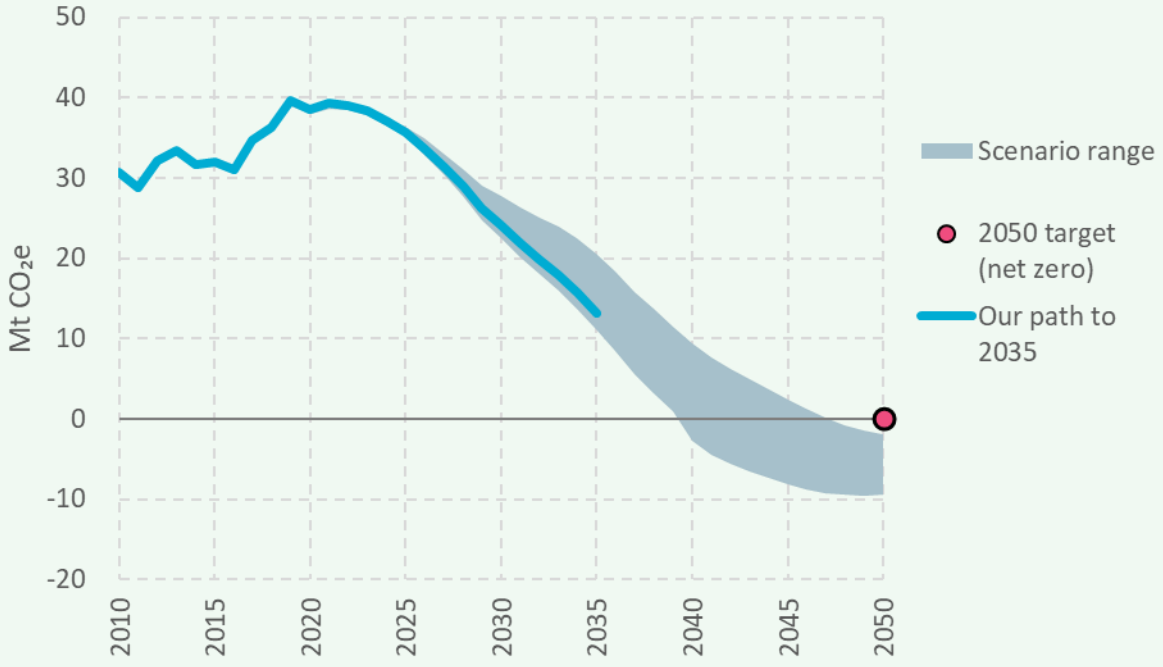
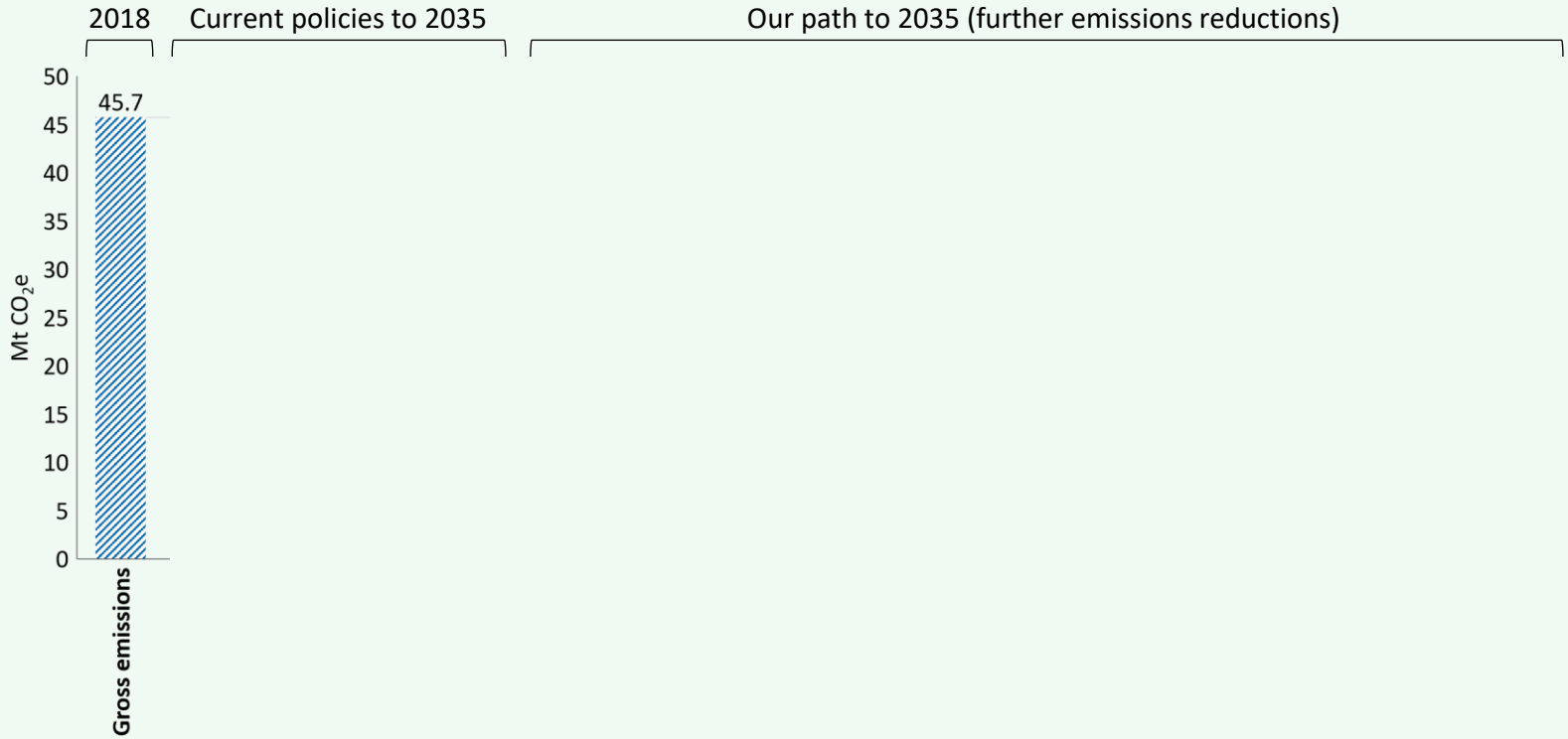


Where our path to 2035 sits compared to our scenarios



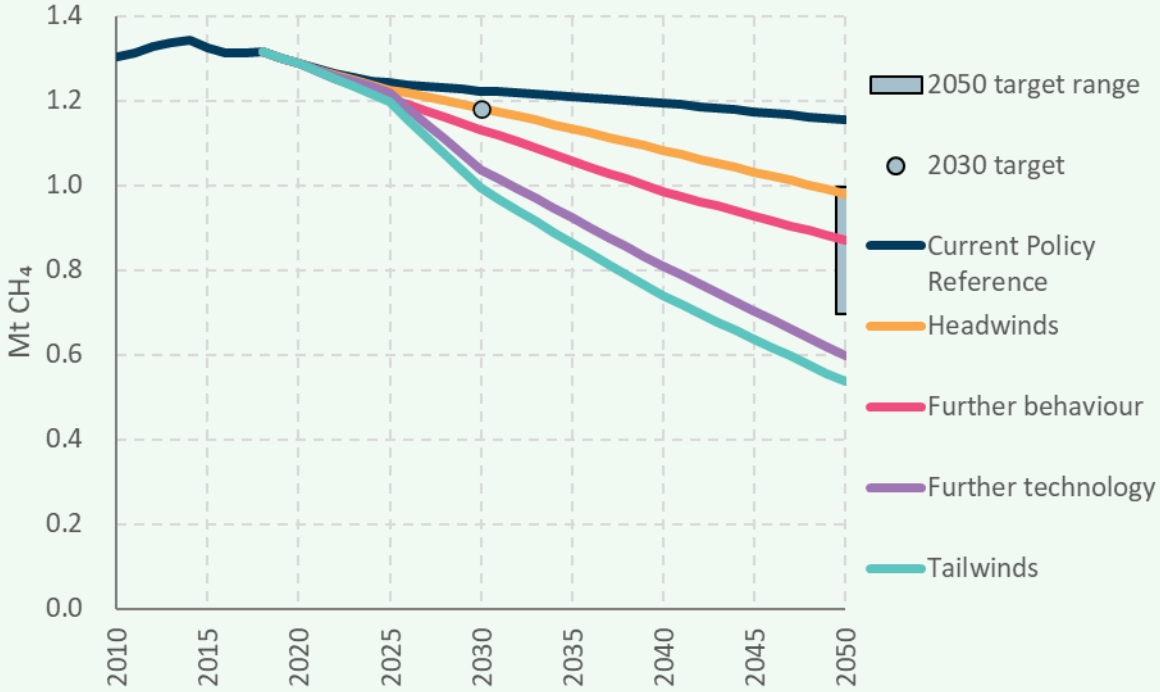
Our path to 2035 – how we reduce long-lived gas emissions



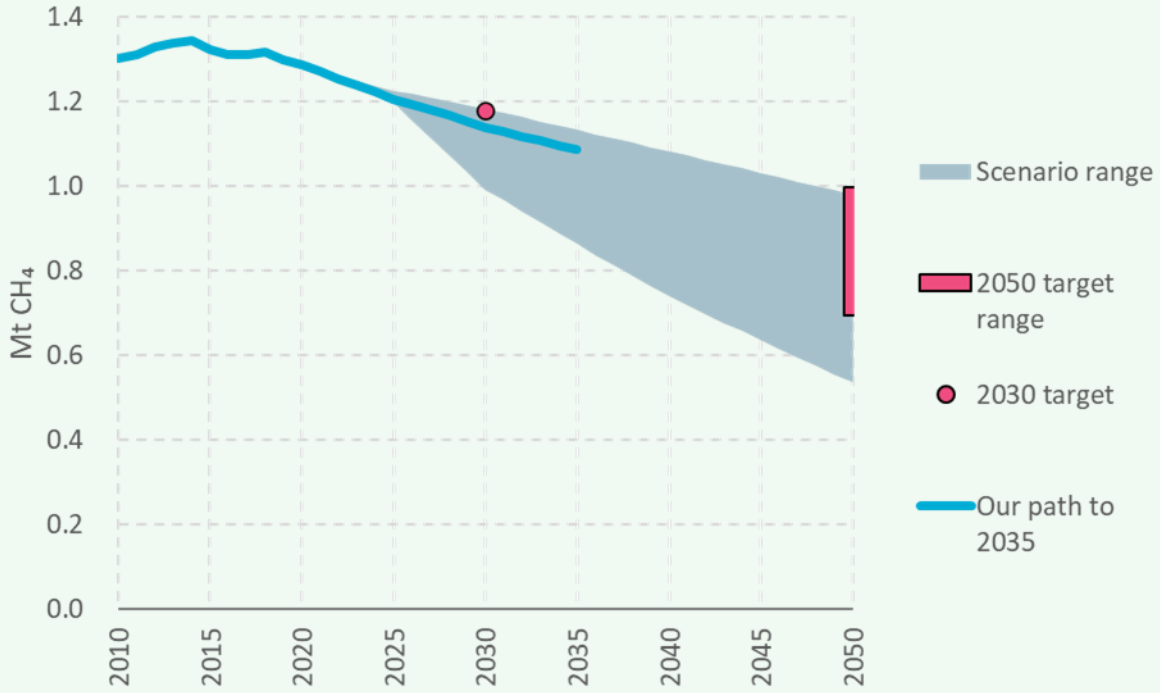
3

Our path - biogenic methane

We can meet the biogenic methane targets – technology will help



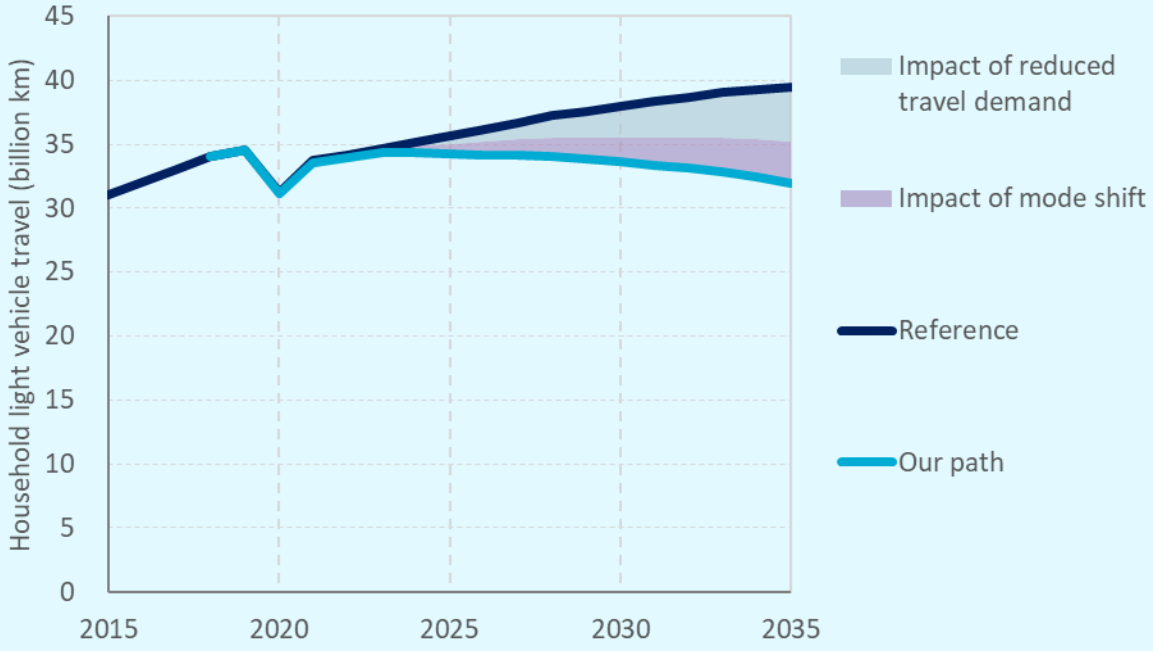
Our path does not rely on any new technologies



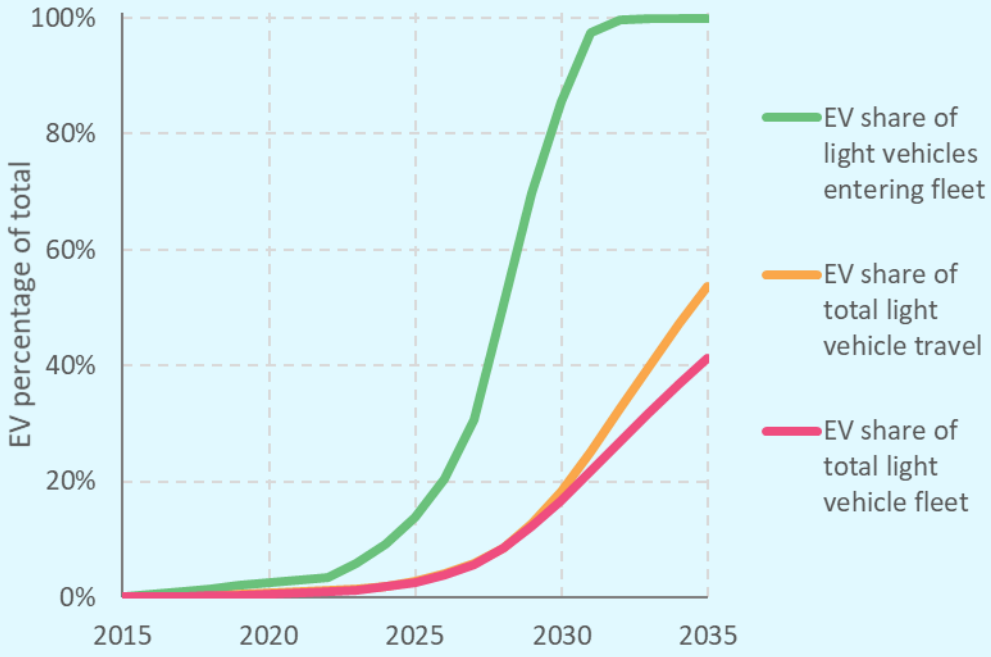
Our path to 2035 – how we reduce biogenic methane emissions

4 What does our path involve in each sector?

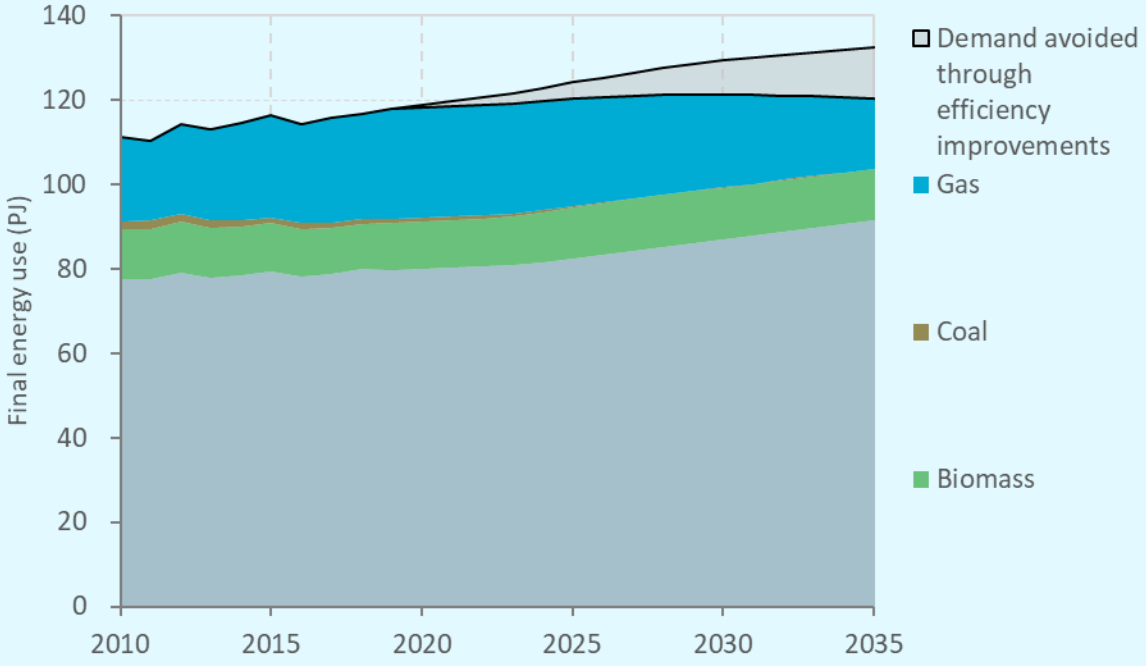
Reducing road vehicle travel and electrifying our transport system



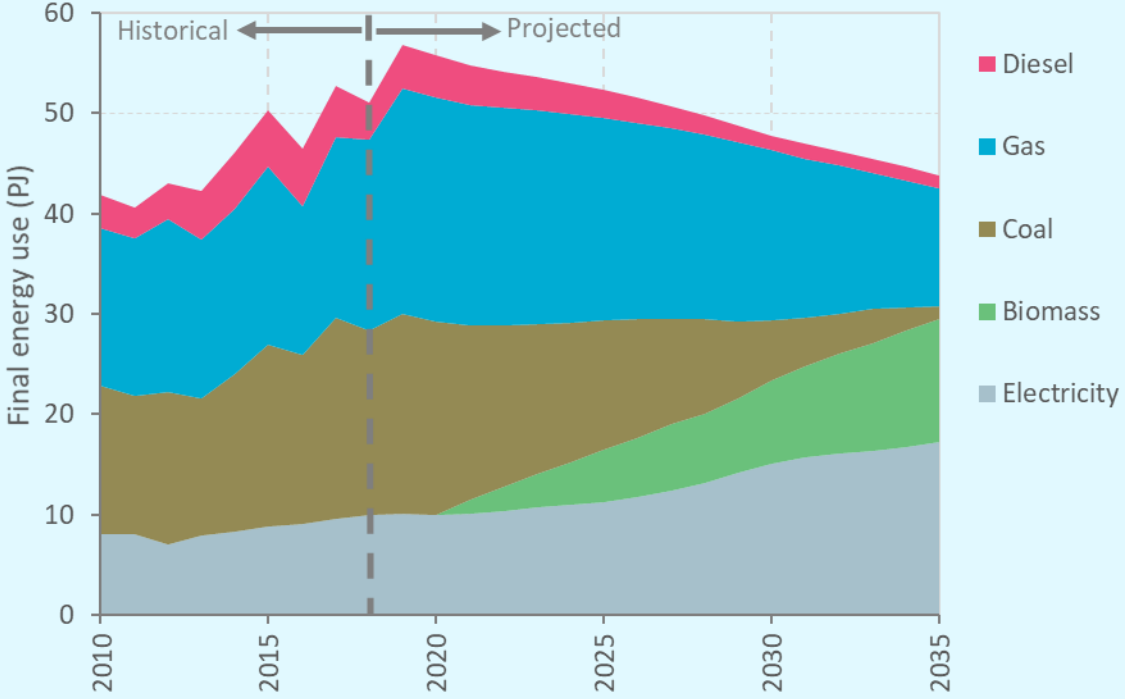
Reducing road vehicle travel and electrifying our transport system



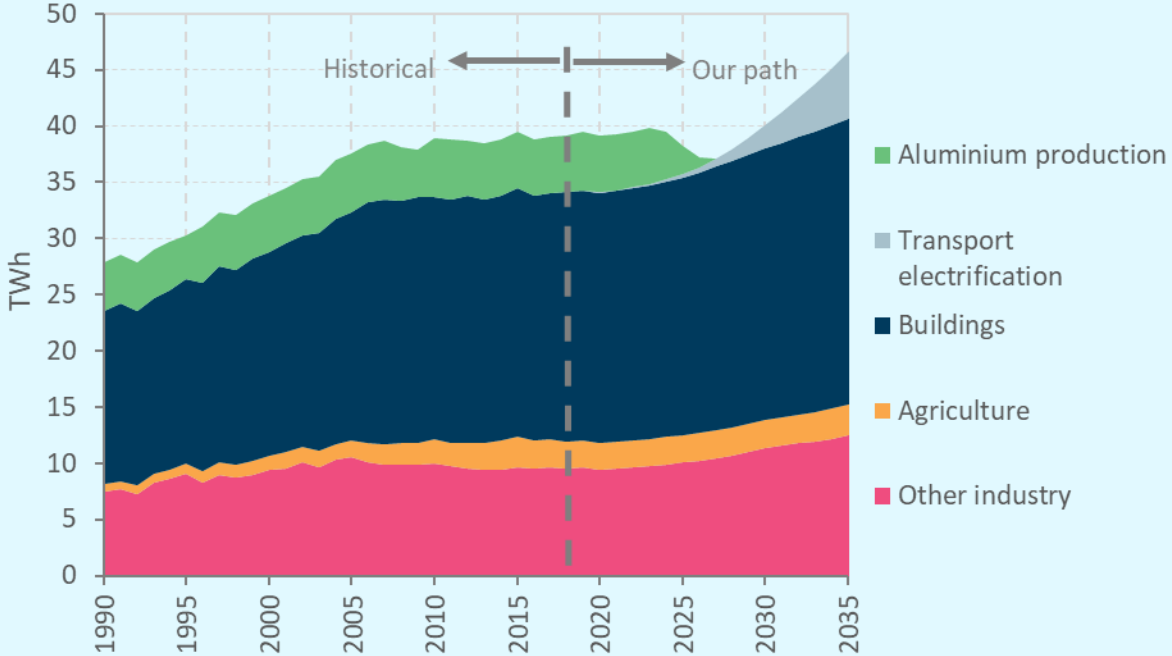
Reducing coal and gas use in buildings



Improving efficiency and fuel switching in process heat



Expanding and decarbonising our electricity system



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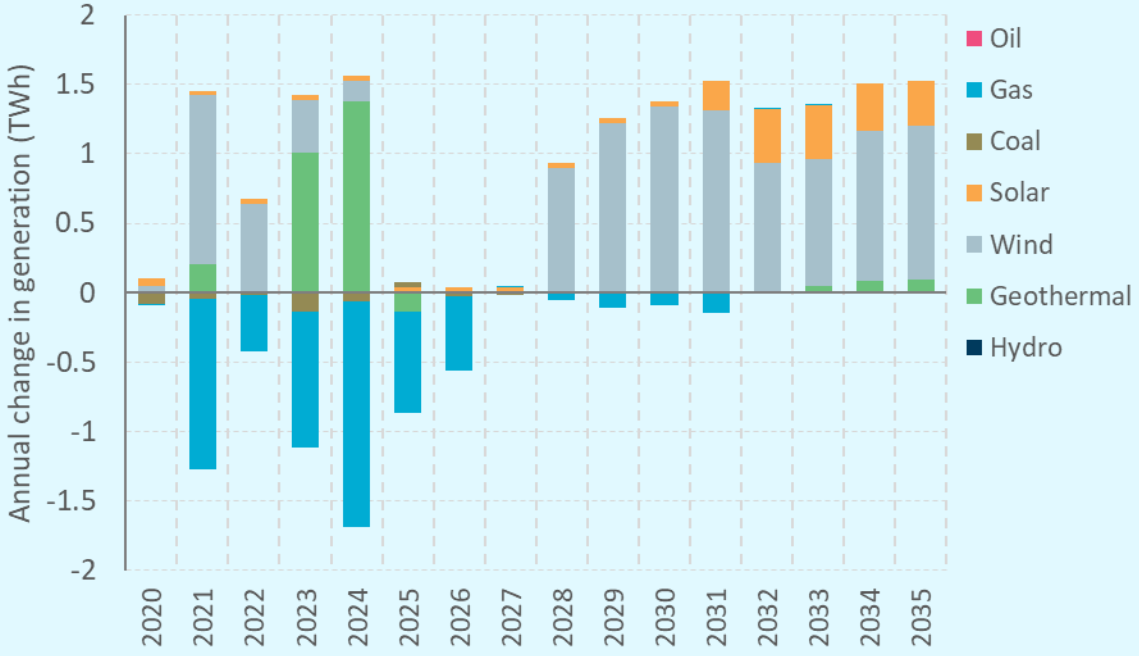
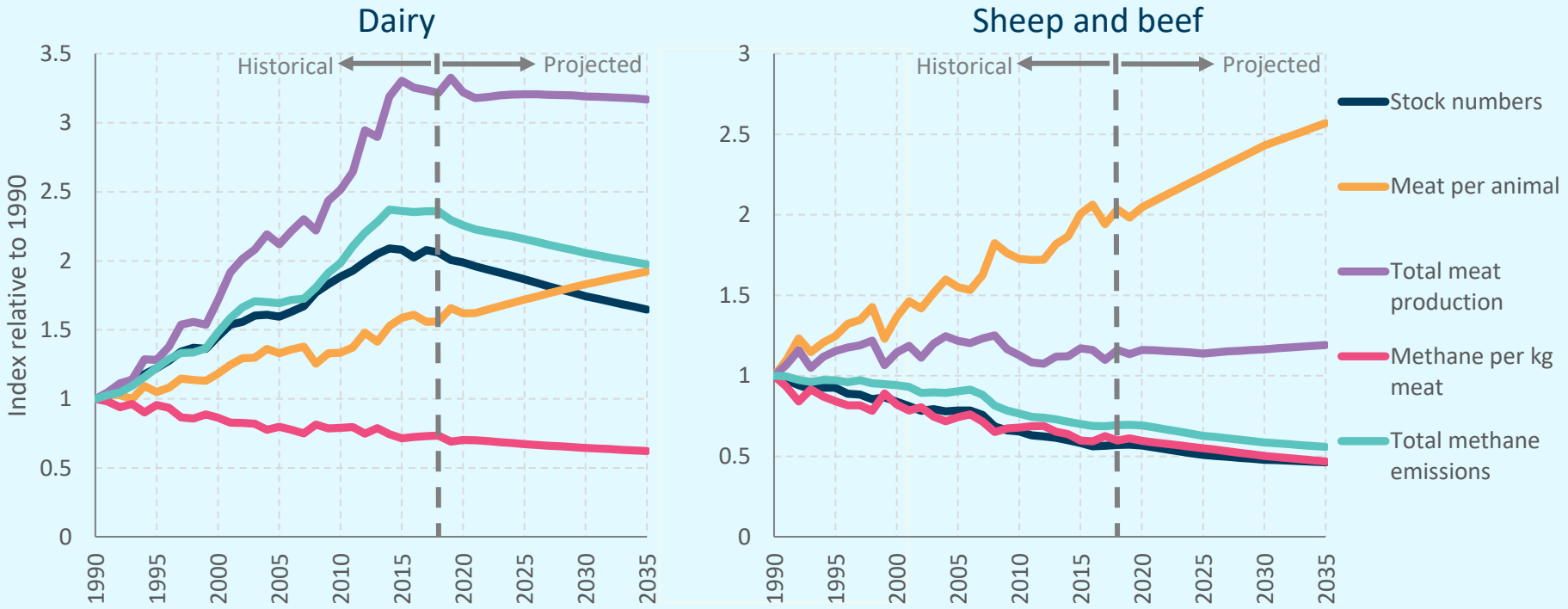
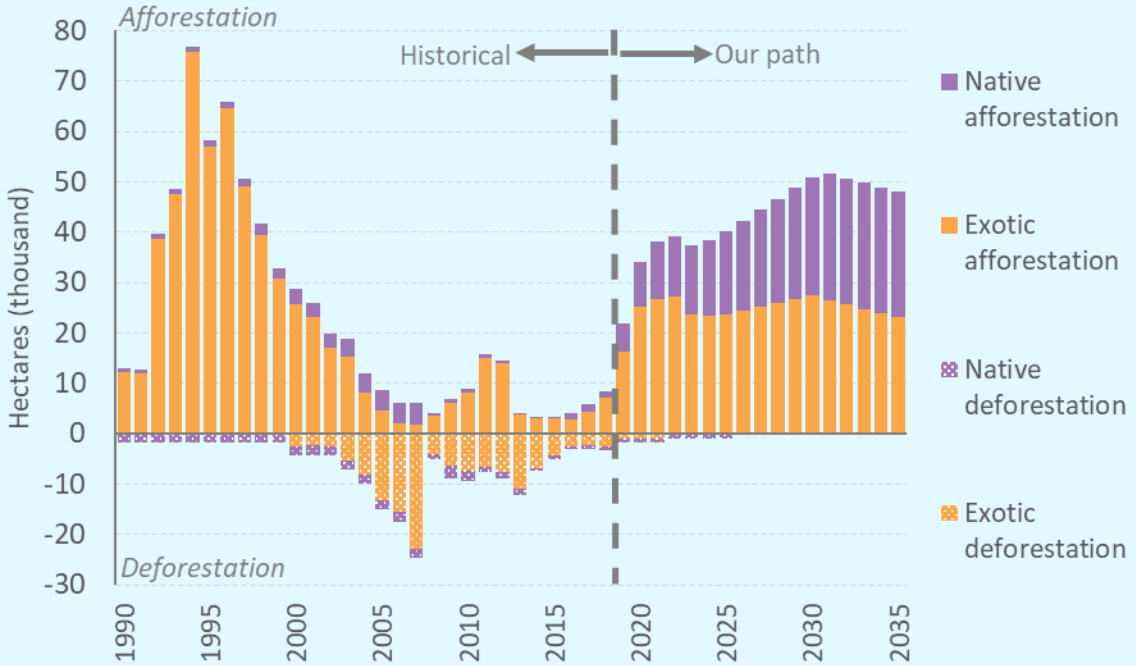


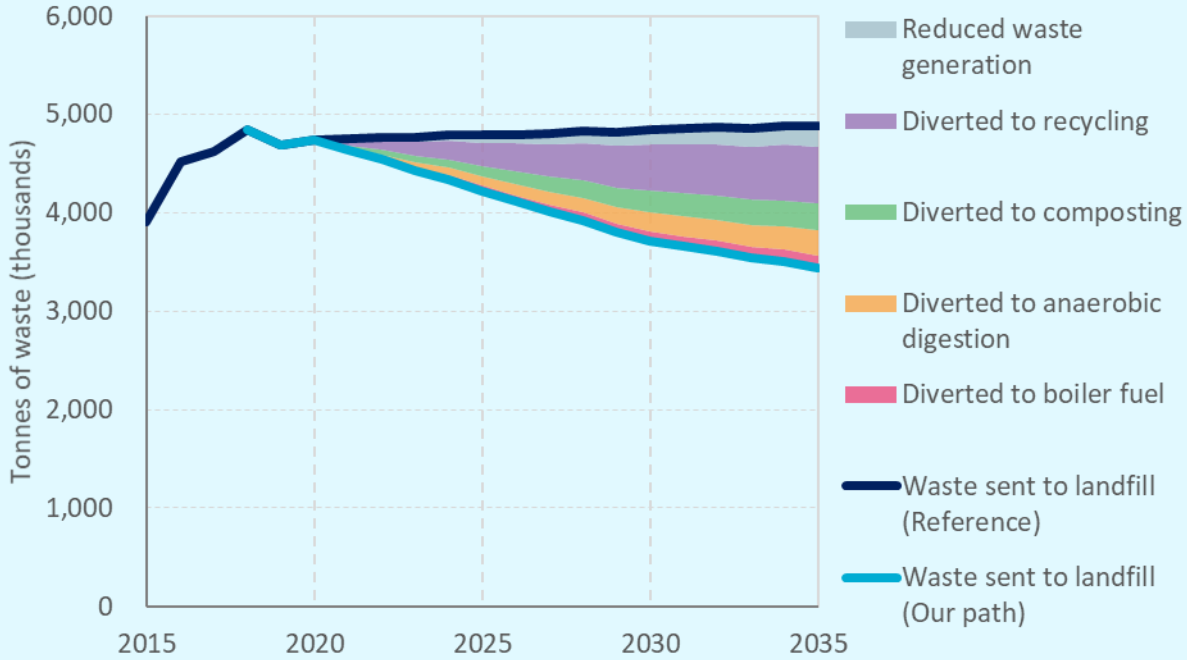
Farming more efficiently



Planting more forests, with a focus on natives



Reducing waste to landfills and improving gas capture



Thanks

Want to get in touch?
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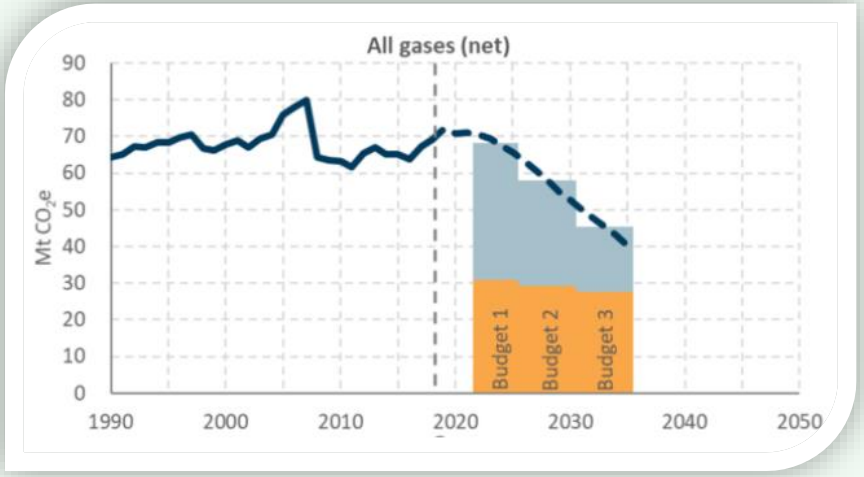
PROPOSED EMISSIONS BUDGETS



	2018	EMISSIONS BUDGET 1 (2022 – 2025)	EMISSIONS BUDGET 2 (2026 – 2030)	EMISSIONS BUDGET 3 (2031 – 2035)
ALL GASES, NET (AR4)		271 Mt CO_2e	286 Mt CO_2e	223 Mt CO_2e
ANNUAL AVERAGE	69.2 Mt CO_2e	67.7 Mt CO_2e/yr	57.3 Mt CO_2e/yr	44.6 Mt CO_2e/yr
AVERAGE REDUCTION ON 2018		2%	17%	36%

Our proposed emissions budgets – grey is emissions of long-lived gases, orange is biogenic methane emissions.

Emissions values used in our scenarios

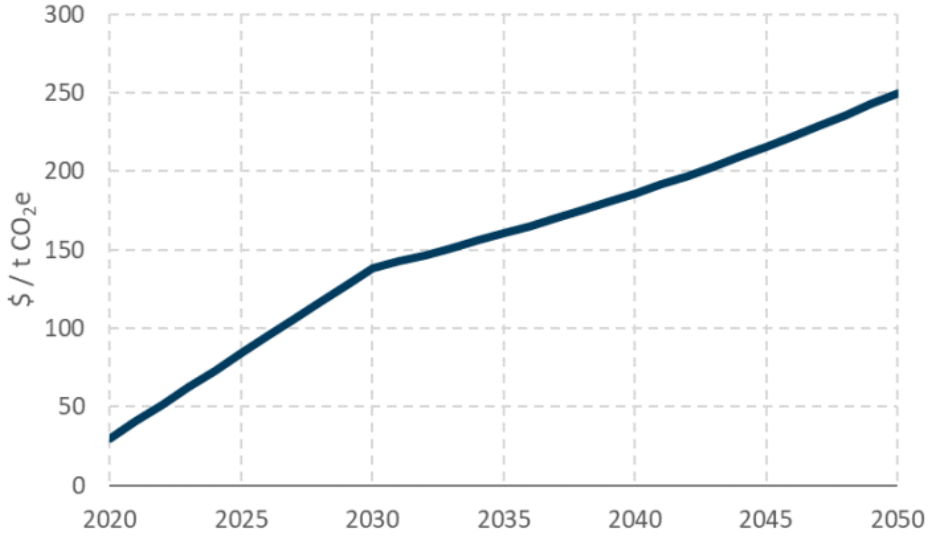


Figure 8.2: Emissions values used in the bottom-up scenario modelling in ENZ. These apply to the energy and transport sectors only.

Source: CCC Evidence report, Chapter 8, page 8. Available at: Evidence-CH-08-what-our-future-could-look-like-28-Jan-2021-compressed.pdf (amazonaws.com)

Principles

1. Align with the 2050 targets
2. Focus on decarbonising the economy
3. Create options
4. Avoid unnecessary costs
5. Transition in an equitable and inclusive way
6. Increase resilience to climate impacts
7. Leverage co-benefits

OUR PATH: BREAK DOWN BY GAS

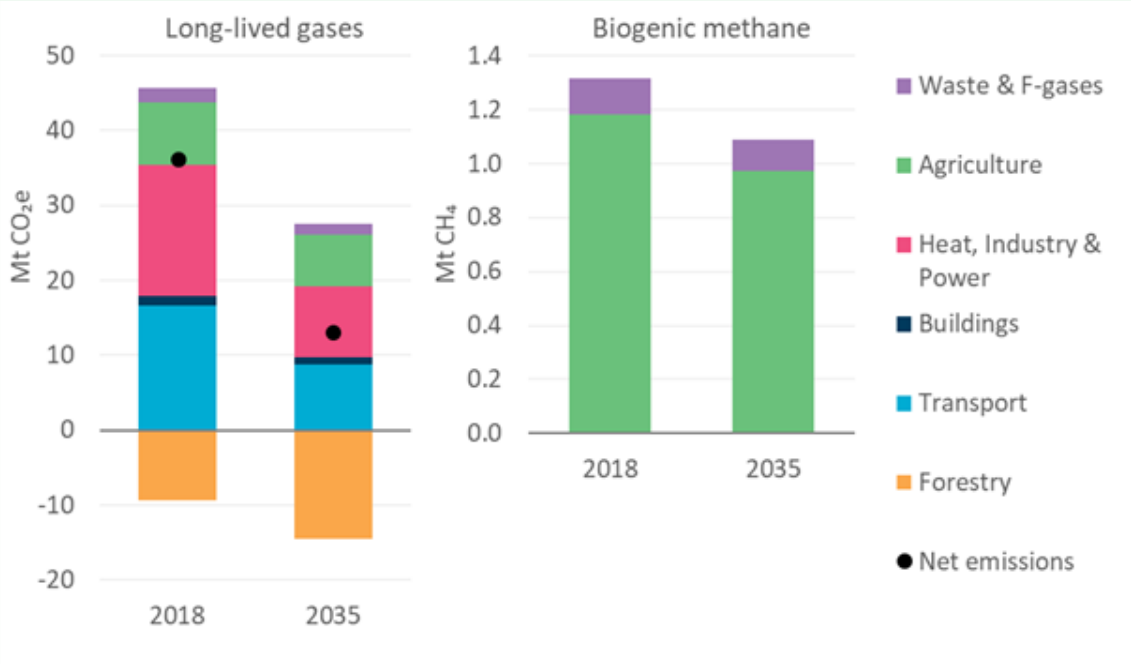


Figure 2: How our path would reduce emissions across all sectors by 2035. Note long-lived gases from agriculture are mainly nitrous oxide and some carbon dioxide.

Changes in land use