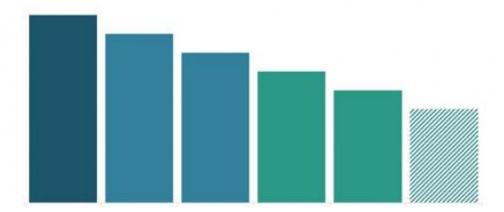


# **Outline of presentation**

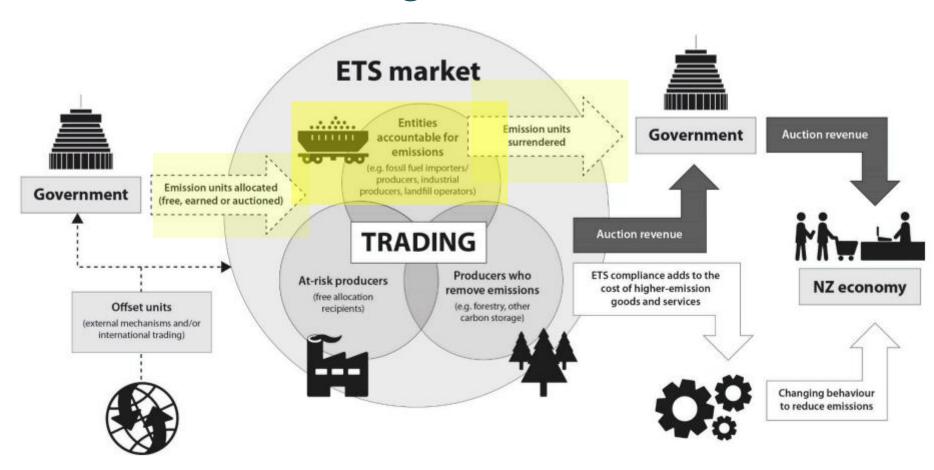
- The NZ ETS market
- NZ's emissions profile
- Principles used for decisions
- Emissions pricing initial design
- Current scope and coverage examples
- Conclusion





## The NZ ETS Market in 2023





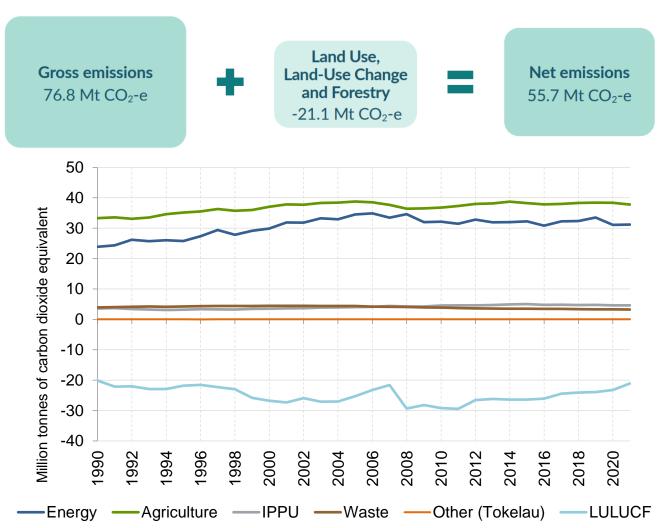
Source: Motu (2022); A Guide to the New Zealand Emissions Trading Scheme: 2022 Update

### Gross and net greenhouse gas emissions trends

#### 1990-2021



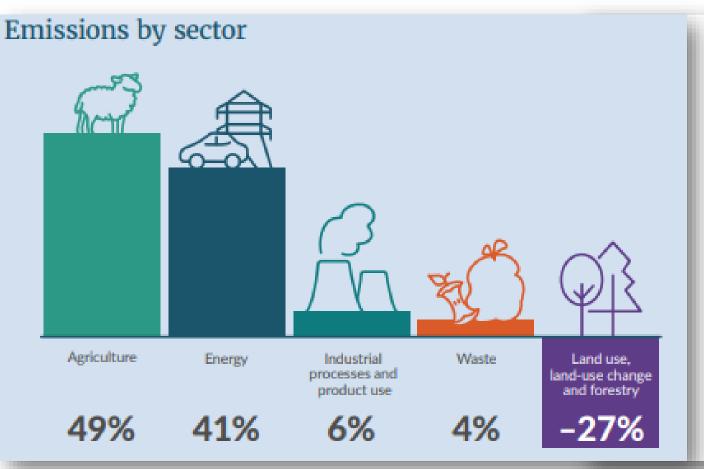


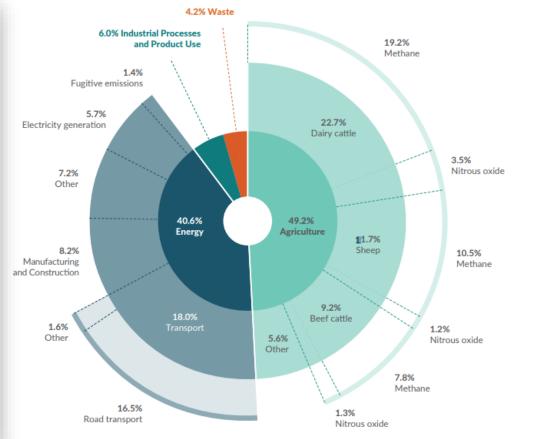


# Greenhouse gas emissions trends by sector

#### 2021 Inventory







### Reasons for scope and coverage in the NZ ETS



- Carbon tax development in early 2000's
- Emissions profile
  - Agriculture and forestry dominates
  - Low electricity emissions due to high renewable share
- Kyoto protocol, forecast emissions, and longer-term ambitions
- Contribution of non-pricing policies expected to be small at the time of decisions
  - Standards and codes, public education, limited financial incentives
- Principles of economic efficiency and environmental integrity

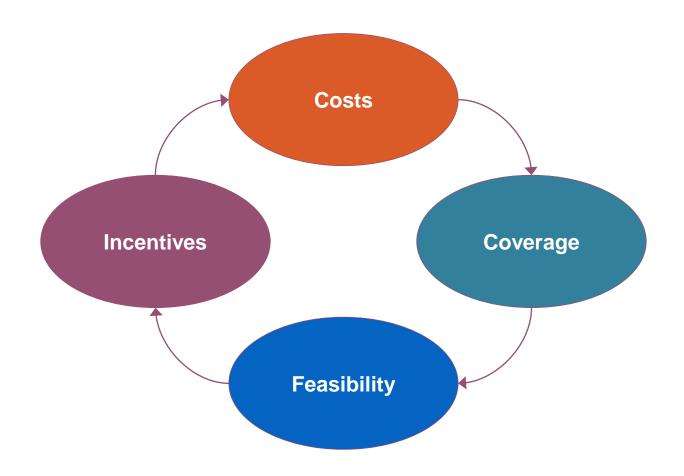


New Zealand's emissions are the product of a broad range of economic activities, and we need a correspondingly broad-based economic measure, based on prices, to bring about the behavioural changes needed to implement our greenhouse gas reduction strategy

Source: MfE (2007); A framework for a New Zealand Emissions Trading Scheme

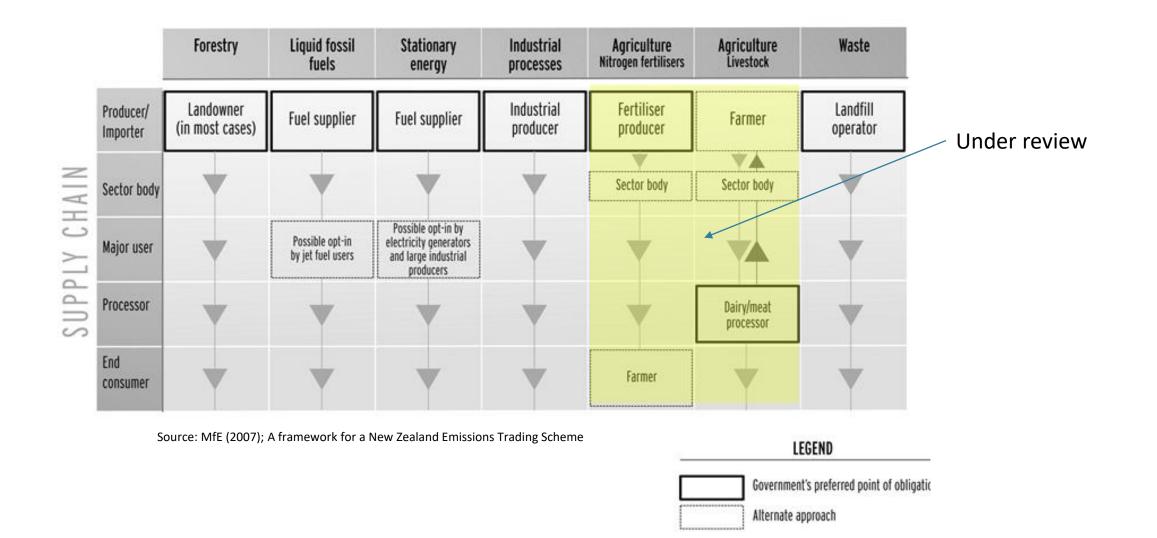
# Reasons for scope and coverage in the NZ ETS



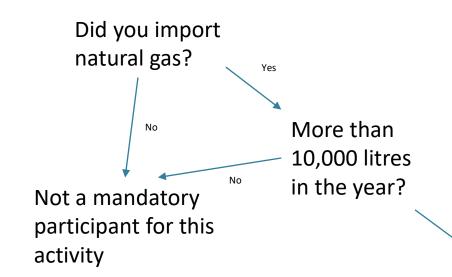


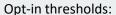
## Options for scope and coverage in the NZ ETS





#### Example 1 – importing natural gas



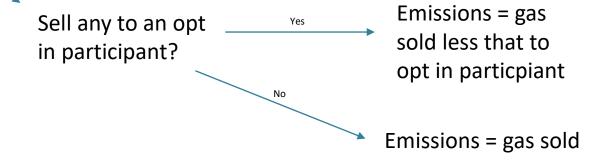


- Purchasing more than 250 000 tonnes of coal from a miner per year
- Purchasing more than 2 petajoules of natural gas from 1 or more natural gas miners per year
- Purchasing more than 10 million litres of jet fuel; or more than 35 million litres of obligation fuel per year



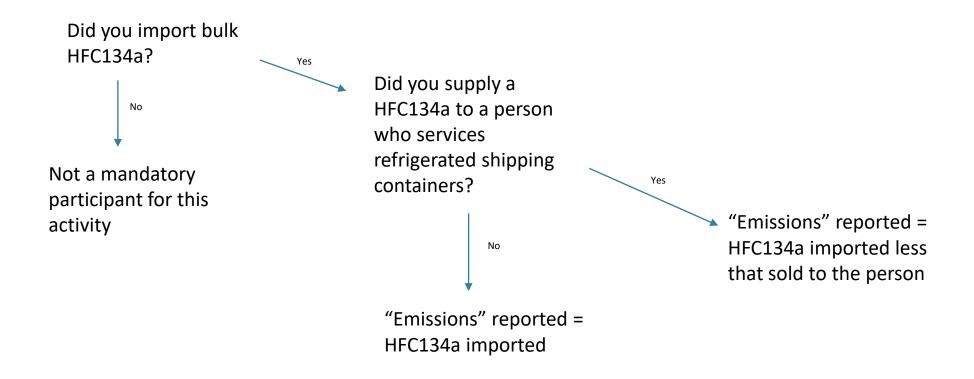
#### Other thresholds:

- Importing coal 2000 tonnes of coal per annum
- Using geothermal fluid for the purpose of generating electricity or industrial heat 4 000 tonnes of emissions per annum
- Combusting used oil or waste oil for the purpose of generating electricity or industrial heat 1500 tonnes of used or waste oil per annum
- Producing iron or steel 100 tonnes of carbon per annum
- Producing gold 5000 tonnes of emissions per annum
- Importing or manufacturing synthetic fertilisers containing nitrogen 1 tonne of synthetic fertilisers per annum
- Mining coal in the form of peat 10 000 tonnes of peat per annum
- Operating electrical switchgear that uses sulphur hexafluoride 1 tonne of sulphur hexafluoride contained in electrical switchgear
- And many more



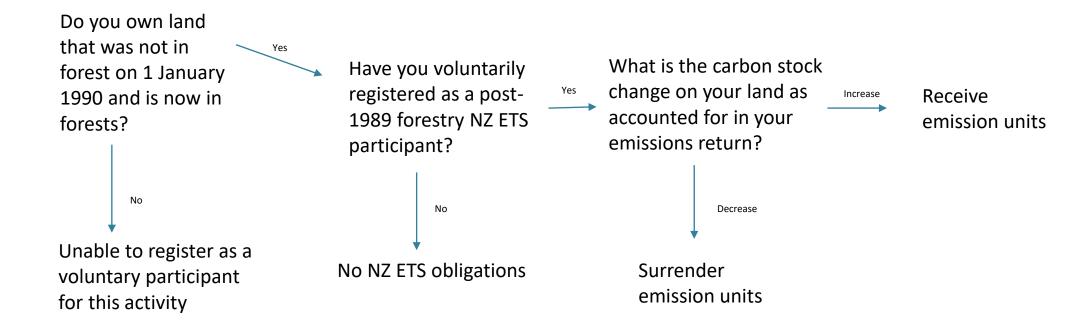
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### Example 2 – importing synthetic greenhouse gases





#### Example 3 – Post-1989 forest land-owner (simplification!)



	Schedule	Sector	Activity	Registered	Removed	Number of participants as at 30 Jun 2023
	Schedule 3	Forestry (pre-1990 deforestation)	Deforesting pre-1990 forest land	3	2	43
			Deforesting pre-1990 offsetting land	0	0	0
	<b>A</b>	Liquid fossil fuels	Owning obligation fuel	0	0	5
Manda		Stationary energy	Importing coal	0	0	5
	/		Mining coal	0	0	17
			Importing natural gas	0	0	4
			Mining natural gas	0	4	29
			Using geothermal fluid	0	1	13
	atory		Combusting used or waste oil used tyres, or waste	1	1	5
	•		Refining petroleum for energy or feedstock	0	0	0
			Using crude oil or other liquid hydrocarbons	0	2	1
		Industrial processes	Producing iron or steel	0	0	2
			Producing aluminium	0	0	1
			Producing clinker, or burnt lime	0	0	4
			Producing glass using soda ash	0	0	2
			Producing gold	0	0	0
			Operating electrical switchgear that uses sulphur hexafluoride	0	0	10
			Importing hydrofluorocarbons or perfluorocarbons	3	3	25
			Manufacturing hydrofluorocarbons or perfluorocarbons	0	0	0
		Agriculture	Importing or manufacturing synthetic fertilisers containing nitrogen	1	1	12
			Slaughtering ruminant animals, pigs, horses, or poultry	1	0	44
			Dairy processing of milk or colostrum	0	0	16
			Exporting from New Zealand live cattle, sheep, or pigs	0	0	7
		Waste	Operating a disposal facility	0	0	31
	Schedule 4	Forestry removal activities (post-1989 forestry)	Owning post-1989 forest land	1,344	95	3,628
			Holding a registered forestry right	95	8	259
	4		Registered Lessee	7	0	27
			Leasing/Rights to standard post-1989 land	8	0	8
	/		Party to a crown conservation contract	0	0	0
		Other removal activities	Producing a product with embedded substances	1	0	7
			Exporting hydrofluorocarbons or perfluorocarbons	1	1	16
			Destroying hydrofluorocarbons or perfluorocarbons	0	0	1
Volunta	rv	Liquid fossil fuels	Purchasing obligation fuel	2	0	9
	- 1	Stationary energy	Purchasing coal	0	0	3
			Purchasing natural gas	0	0	3



Or 106,000 animal farmers?

Source: EPA (2023); Participants in the ETS (.xls file)

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### **Concluding remarks**

- Upstream coverage creates broad emissions coverage
- But emissions pricing is 'hidden' in consumer decisions
- Broad coverage has unequal distributional impacts
- Balance support for hard to abate industries to protect competitiveness but also to incentivise change
- Reduce market failures and barriers to allow broad coverage to work best
- Broad upstream coverage reduces participant numbers and administration and compliance costs, but these are not zero.
   Need thresholds and exemptions and allowance for voluntary participation

