



# NEW ZEALAND EMISSIONS TRADING SCHEME (NZ ETS)

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# Climate change heart of New Zealand's flight to sustainability

- New Zealand aspiring to be 1<sup>st</sup> truly sustainable nation
- Carbon neutrality major driver and key indicator of sustainability

*“More than any other developed nation, New Zealand needs to go the extra mile to lower greenhouse gas emissions and increase sustainability.”*

Rt. Hon Helen Clark, Prime Minister, February 2007



# Towards a carbon neutral New Zealand



**2025**

Carbon  
neutral  
electrical  
energy

**2030**

Carbon  
neutral  
stationary  
energy

**2040**

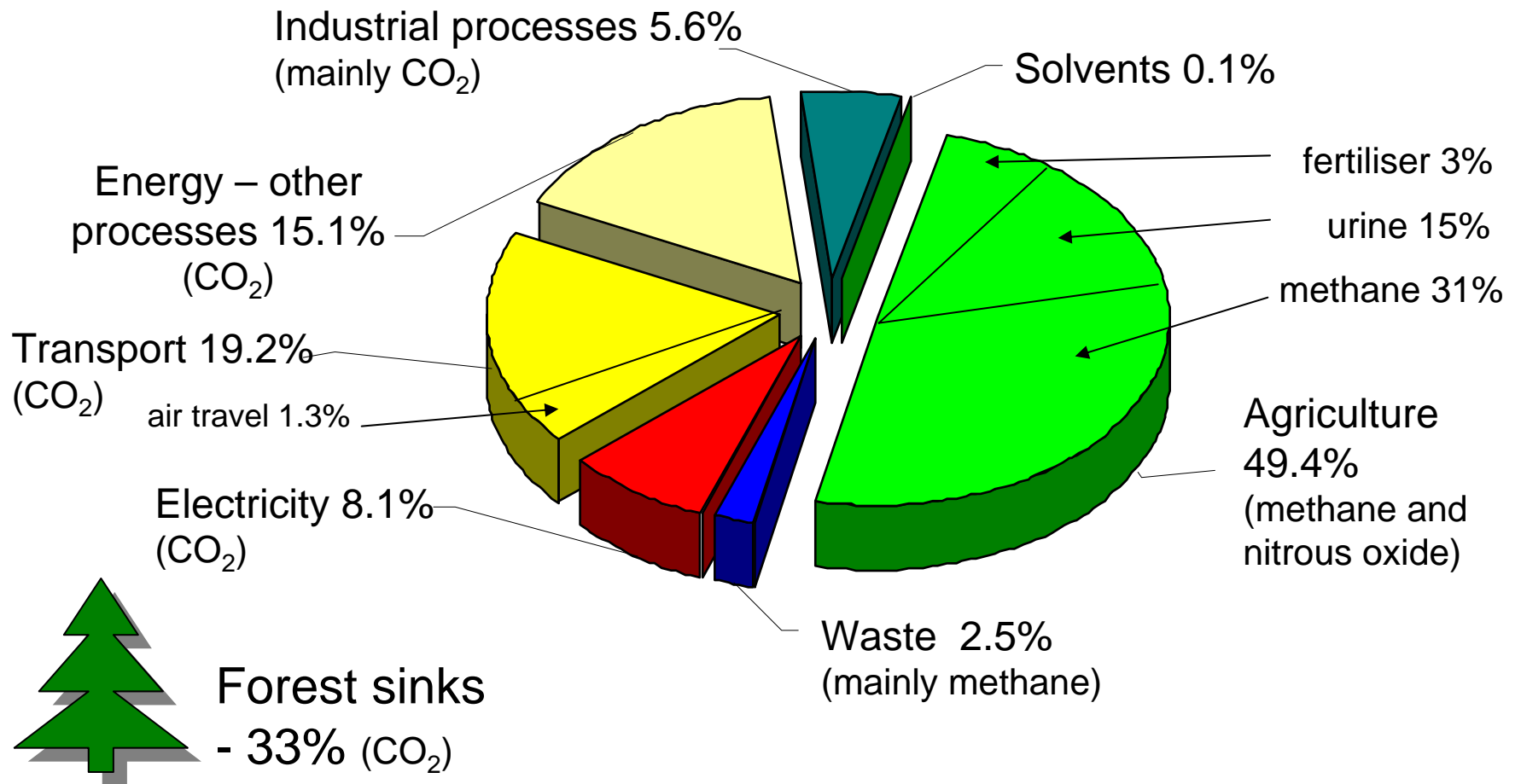
Carbon  
neutral  
transport  
and  
energy

# NZ ETS design - All gases, all sectors



- New Zealand's emissions trading scheme will cover:
  - all six major greenhouse gases
  - all significant sources of gases in the economy
- Builds on internationally tested approaches
- World-leading in some aspects
  - treatment of forestry, agriculture, and liquid fossil fuels
  - New Zealand's emissions profile
  - desire for equity across sectors

# New Zealand's Emissions Profile



# The NZETS Objective



To support and encourage global efforts to reduce greenhouse gas emissions by:

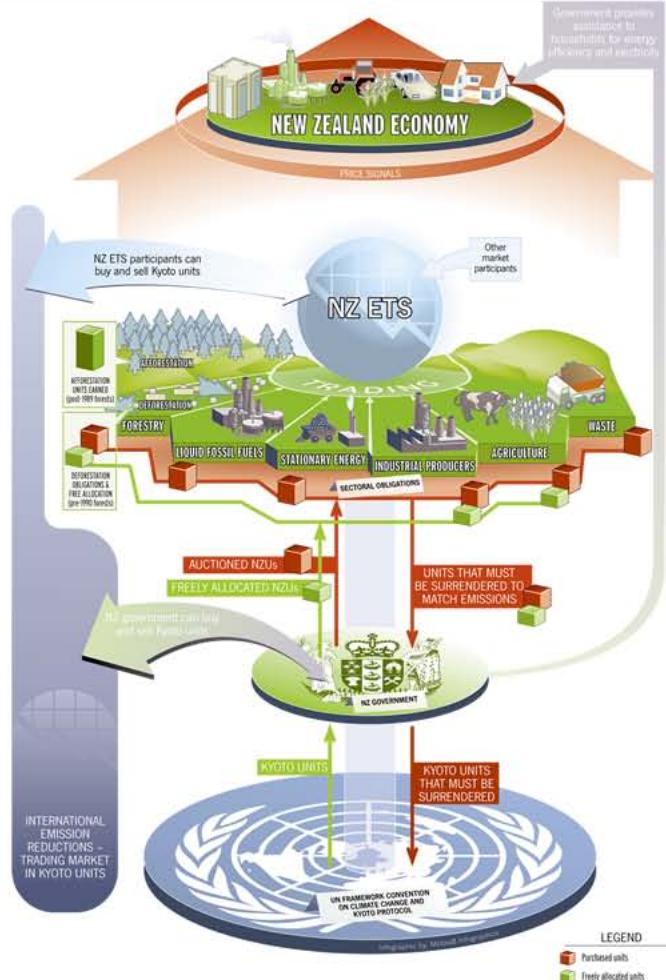
- reducing New Zealand's net emissions below business-as-usual levels
- complying with our international obligations, including our Kyoto Protocol obligations

while maintaining economic flexibility, equity and environmental integrity at least cost in the long term.

# Generic design features of an ETS

- Design features of an emissions trading scheme:
  - Coverage of sectors, sources and gases
  - Timing of introduction
  - Core obligation to surrender units to match emissions
  - Cap on emission units
  - Points of obligation for surrendering units
  - Units of trade
  - Allocation (free allocation or sale)
  - International linkages
  - Compliance and enforcement
  - Tax treatment of participants
  - Review
  - Administration

# New Zealand Emissions Trading Scheme

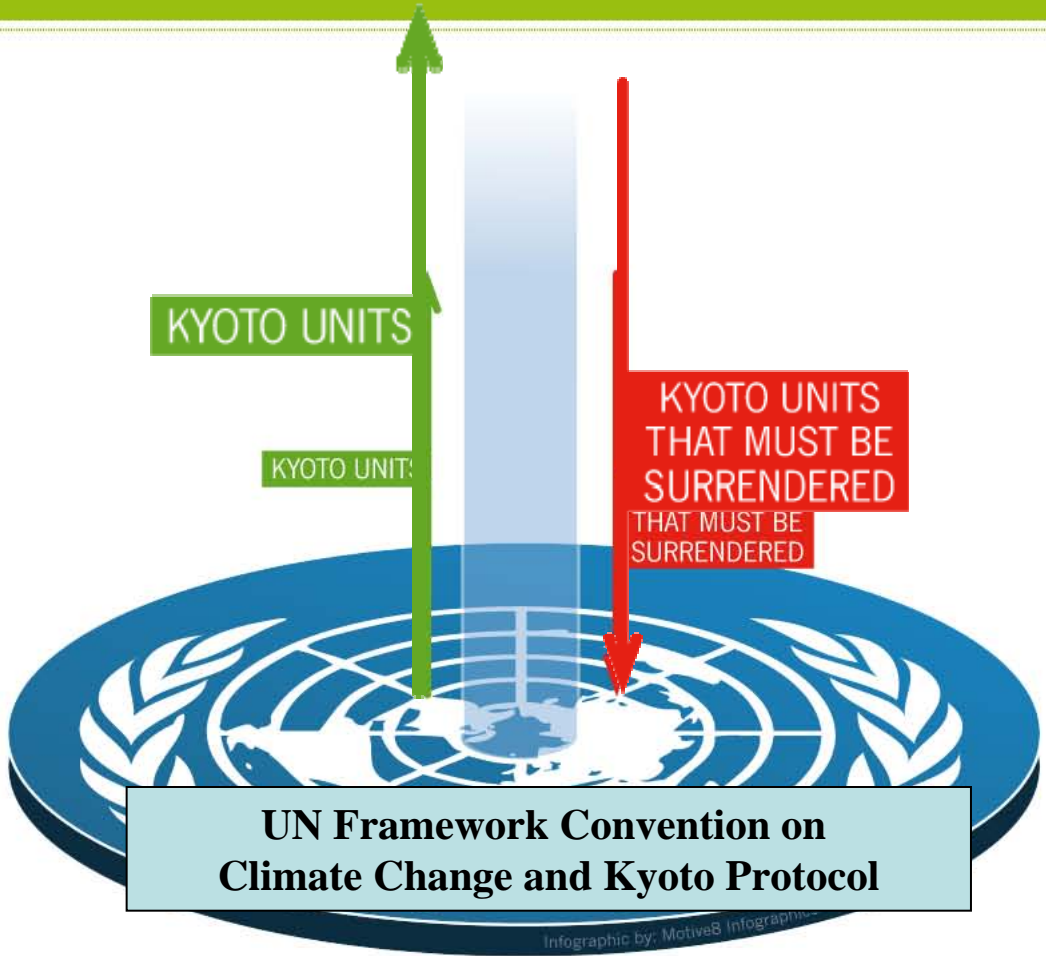




# New Zealand Emissions Trading Scheme



INTERNATIONAL  
EMISSION  
REDUCTIONS –  
TRADING MARKET  
IN KYOTO UNITS

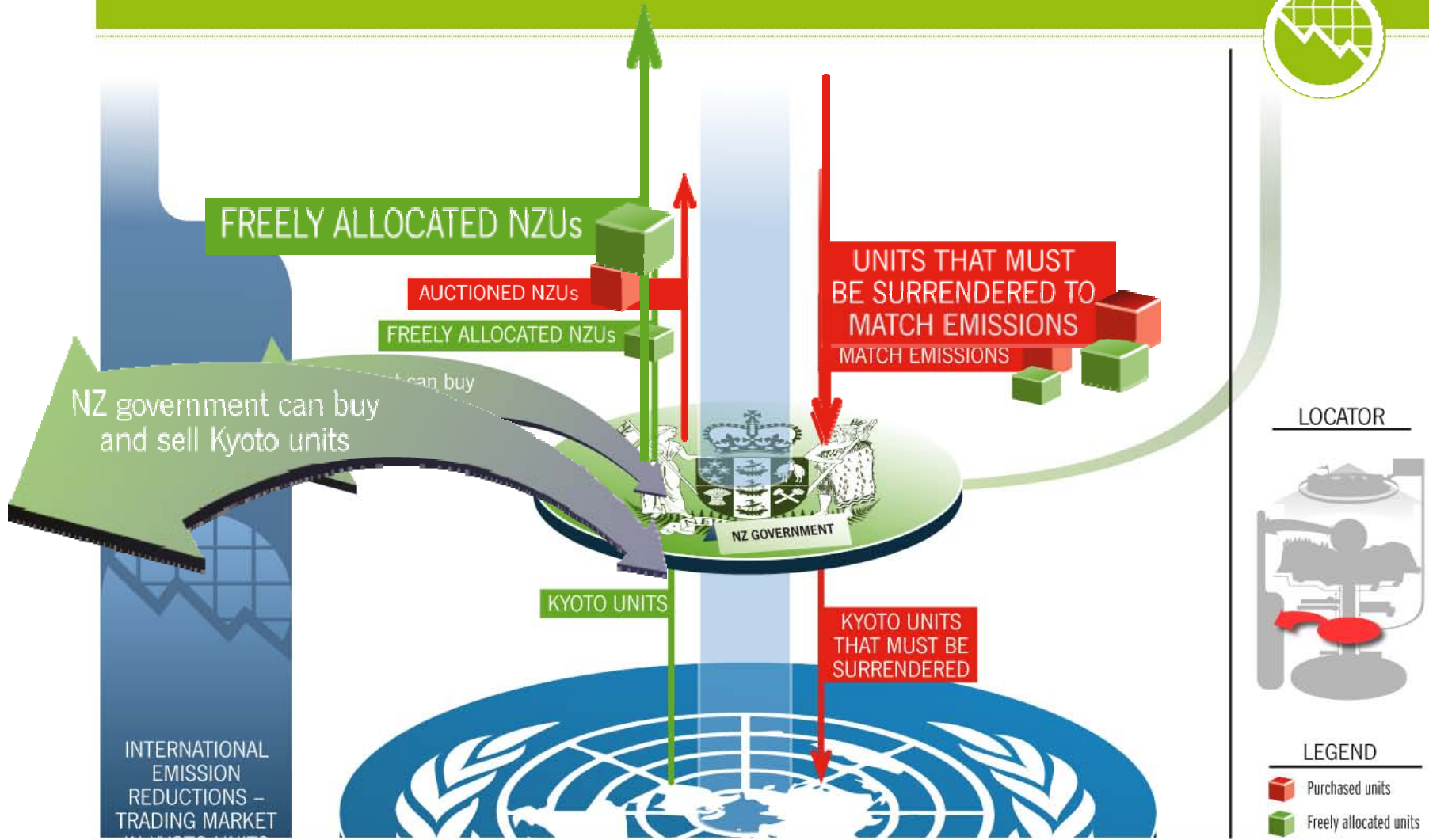


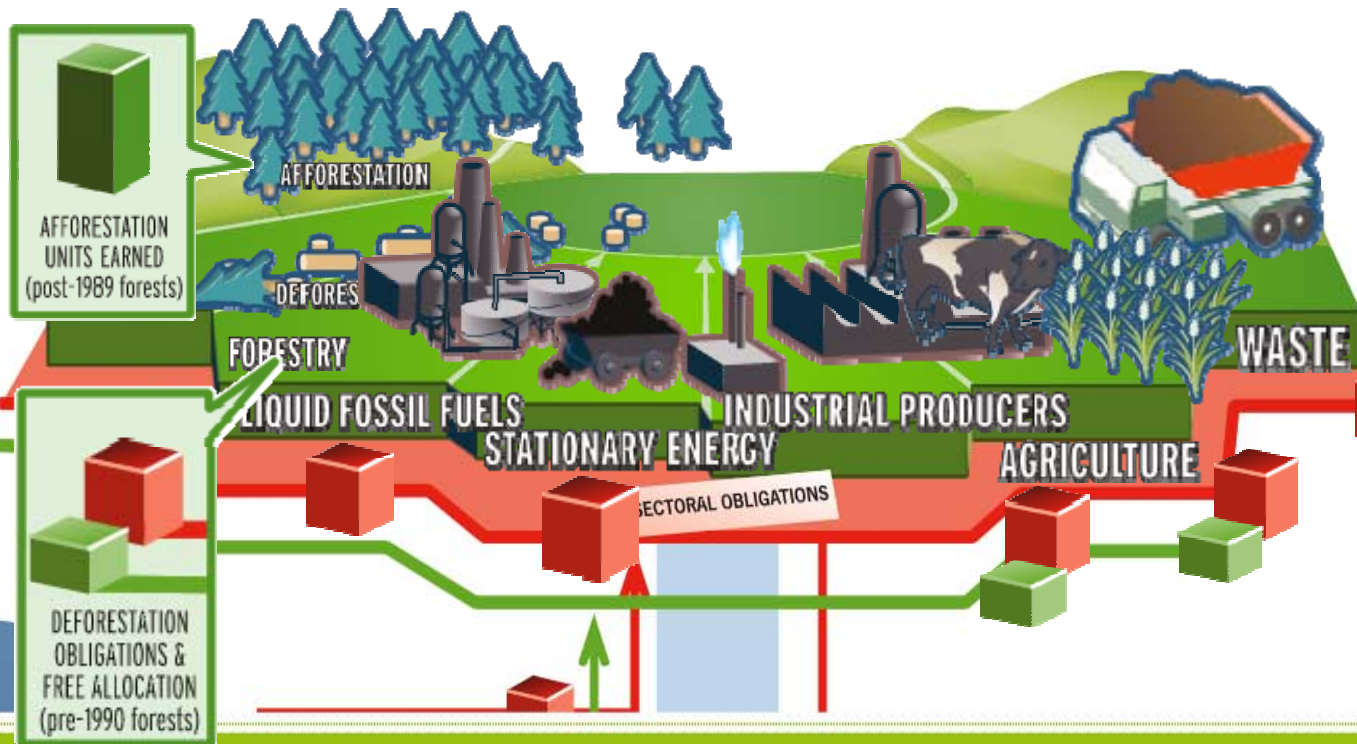
LOCATOR

LEGEND

- Purchased units
- Freely allocated units

# New Zealand Emissions Trading Scheme





LOCATOR



LEGEND

- Purchased units
- Freely allocated units

# New Zealand Emissions Trading Scheme



NZ ETS participants can buy and sell Kyoto units

Other market participants

**NZ ETS**







# Towards a carbon neutral New Zealand



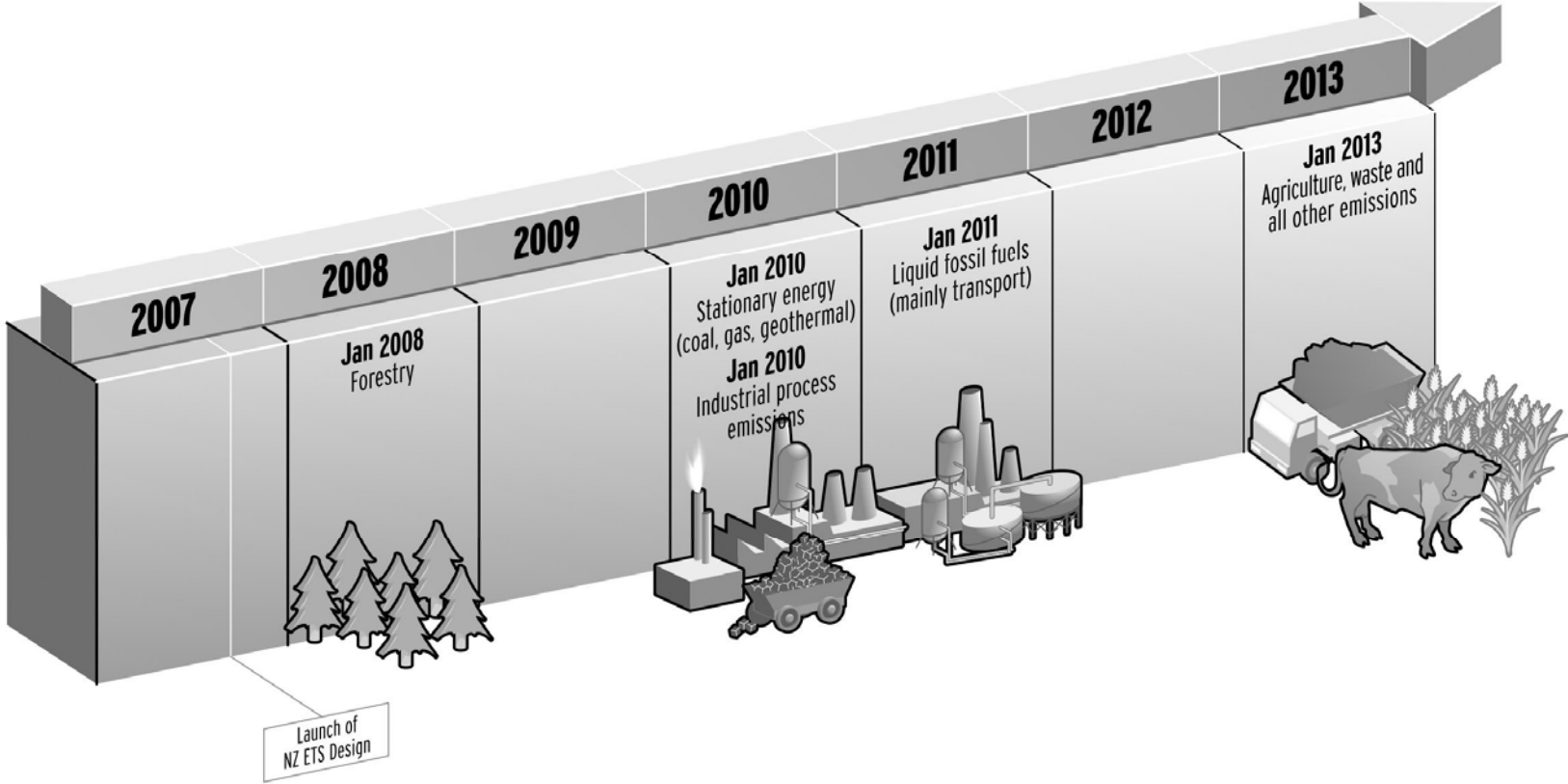
### LOCATOR



### LEGEND

-  Purchased units
-  Freely allocated units

# Transport sector starts in 2011



# Transport sector starts in 2011



- Will cover all liquid fossil fuels
- Excludes international aviation and marine fuels
- Obligations will lie with large fuel suppliers
- Airlines can opt-in to be a point of obligation
- **No free allocation for transport fuels**

# Liquid Fossil Fuels – The Details



- ETS obligation is with ‘person’ who carries out an activity:
  - ownership of ‘obligation’ fuels when imported or removed from a refinery
  - If total amount exceeds 50,000 litres in a calendar year
- Methodology: litres of obligation fuel X emission factor X biofuel factor (if applicable) = tonnes of emissions (CO<sub>2</sub>e)
- Emission factor accounts for: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O and oxidation.
- Obligation fuels include: petrol, diesel, **jet fuel**, **av gas**, light medium and heavy fuel oils
- **Exemptions: fuel used for an ‘international trip’ & biofuels**



# Liquid Fossil Fuels – Opt in



- Available for persons who purchase jet fuel (> 10 million litres in a calendar year)
- Opt-in takes effect 1 year after application
- Opt-in can be removed, 4 years after application to opt-out
- ‘Person’ will take on all legal obligations including: surrender of emission units, annual reporting, and keeping of records for at least 4 years.
- Same emission factors will apply

# Impacts on Transport Fuels?



	'Carbon' Emission Price Scenarios		
	\$NZ15/tCO <sub>2</sub> e	\$NZ25/tCO <sub>2</sub> e	\$NZ50/tCO <sub>2</sub> e
Petrol cents per litre	3.6	6.0	12.0
Diesel cents per litre	4.0	6.7	13.5
<b>Jet fuel cents per litre</b>	<b>3.8</b> <b>(2.5% of retail price)</b>	<b>6.4</b> <b>(4.2% of retail price)</b>	<b>12.8</b> <b>(8.4% of retail price)</b>
Transport sector emission reductions in the medium term (relative to business-as-usual)	0.3%	0.6%	1.1%

*Note: using current price of a litre of jet fuel of around \$NZ 1.52*

# Process for the Bill and Regulations

- Climate Change (*Emissions Trading and Renewable Preferences*) Bill tabled in Parliament - December 2007
- Draft forestry and transport regulations published early February 2008
- Written public Submissions on Bill closed 29 February 2008
- Select committee (cross government) deliberation and report back on 16 June 2008
- Enactment of ETS by around July 2008
- Promulgation of forestry and transport regulations immediately following enactment

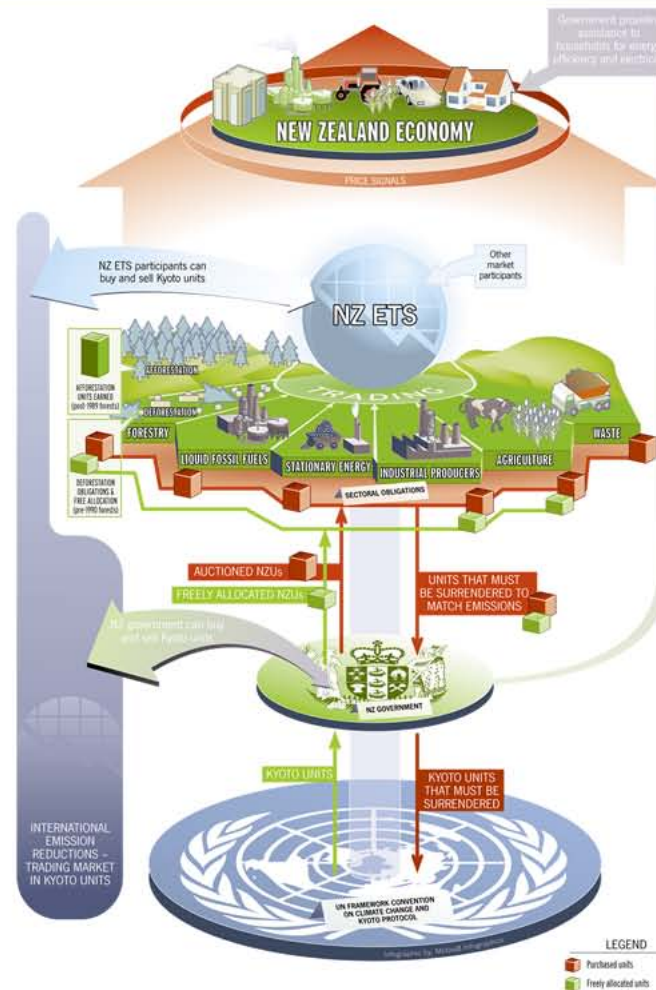
## Issues raised by aviation industry

- Interest in being able to opt-in
- Input into policy for opt-in such as threshold for opt-in and timeframes for opt-out
- Use of fuel burn vs. fuel purchase and emission factor to calculate emissions
- How to measure fuel use – if plane fills up and then swaps between domestic and international flights

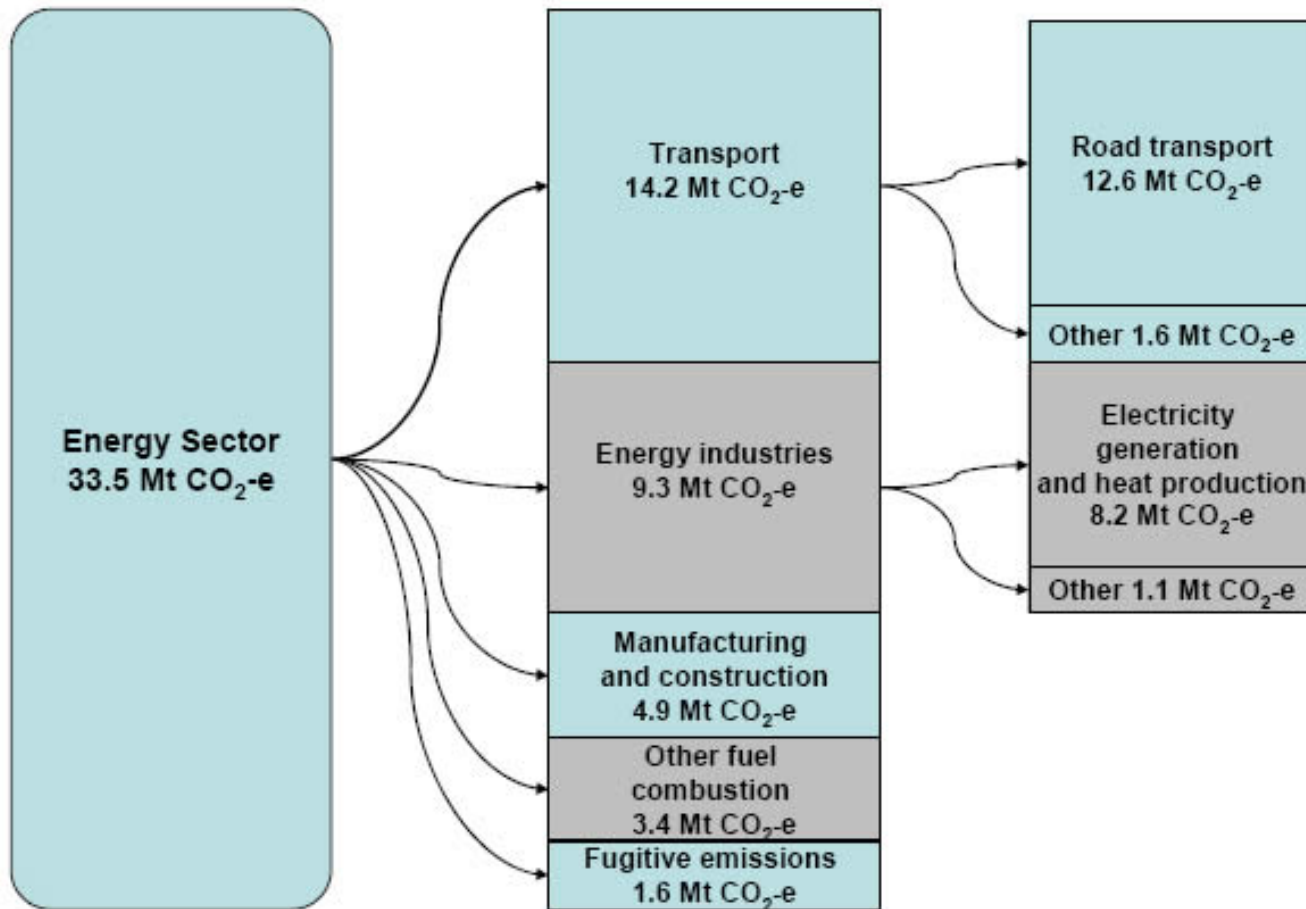
## Other Initiatives for Aviation in NZ

- Flexible tracking across the Pacific
- Optimised Arrival trials (*Airways NZ, Air New Zealand and Qantas*) conducting continuous descent approach procedures.
- Trilateral agreement - Airways NZ, US FAA, and Airservices Australia (Feb 2008) to accelerate air traffic control procedures to reduce aviation emissions worldwide.
- Air NZ and Boeing trial of second generation biofuels late 2008

# Questions?



# Energy Sector Breakdown



# New Zealand's CO<sub>2</sub> Emissions from Transport by Fuel Usage 2005

