New Zealand Government

The New Zealand Emissions Trading Scheme

New Zealand Emissions Trading Scheme Review 2015/16

Stakeholder Meetings

April 2016

Ministry for the Environment
Manatū Mō Te Taiao

Welcome

- Introductions
- Where to find things
- What to do in an emergency

Agenda

- 9:30am Introduction
- 9:45am Morning session 1
  - Supply and demand
- 10:45am Morning tea
- 11:00am Morning session 2
  - Domestic supply (free allocation, auctioning, forestry)
  - International supply
  - Managing price stability
  - Data availability in the NZ ETS
- 12:30pm Lunch
- 1:15pm Afternoon session 1
  - Business response to the NZ ETS
  - Barriers to the uptake of low-emission technologies
  - Forestry matters technical note
- 2:45pm Afternoon tea
- 3:00pm Afternoon session 2
  - Forestry matters technical note (continued)
  - Operational matters technical note
- 4:30pm Close

Stage two: other issues

- Broad set of issues, no policy proposals on the table
- Consultation will be used to inform priorities and work programme over next 6 – 12 months

Submission deadlines

- Priority Issues closed **19 February**
- Other issues will close on **30 April**

Note: participation in this meeting does not replace the formal submissions process

Supply and demand (background)

Context

- To highlight the importance of supply and demand volumes to the review
- To help both market participants and the government come to a shared understanding of this topic
- To promote effective discussions about market design questions
- To provide structure to the consultation responses

Supply and demand matter

For traditional commodity markets:

» Oil

» NZ power

…but also for carbon markets:

» EU ETS

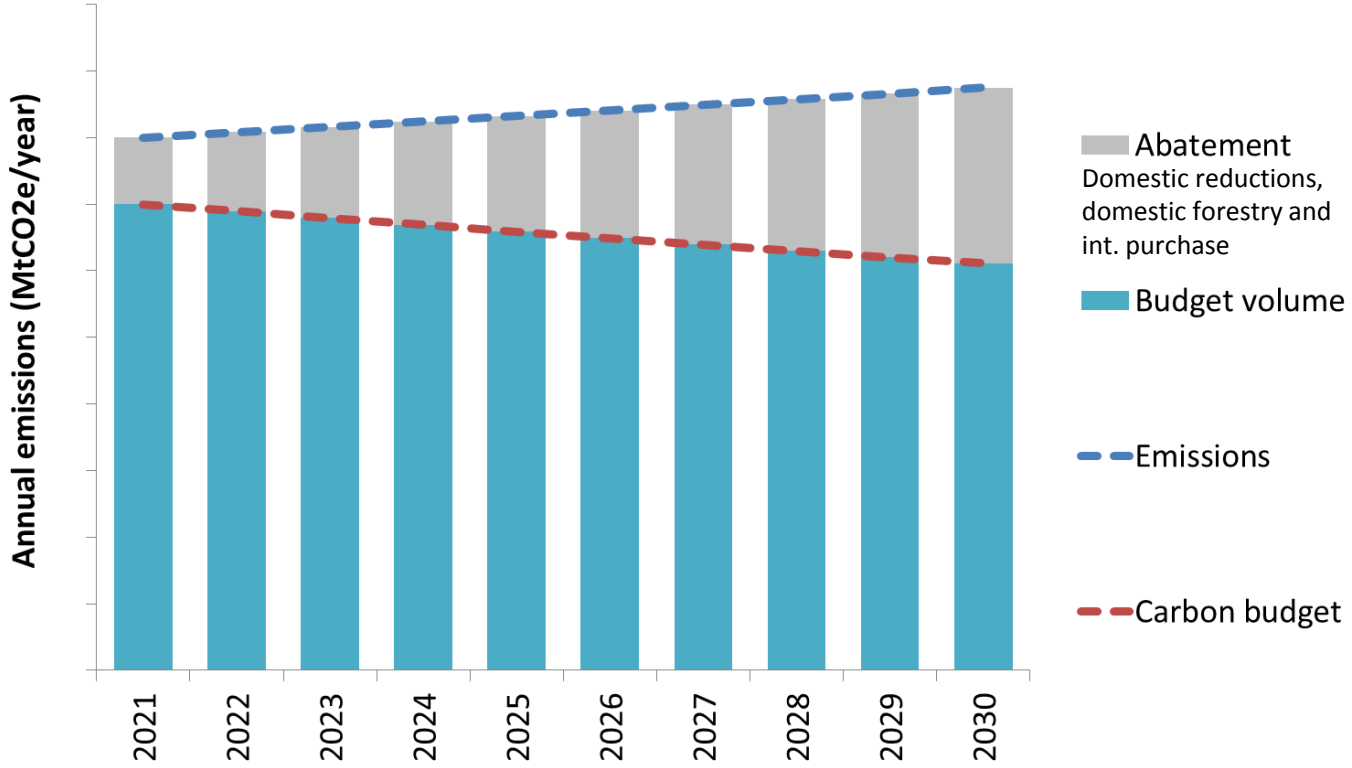
» Kyoto market

» South Korean ETS

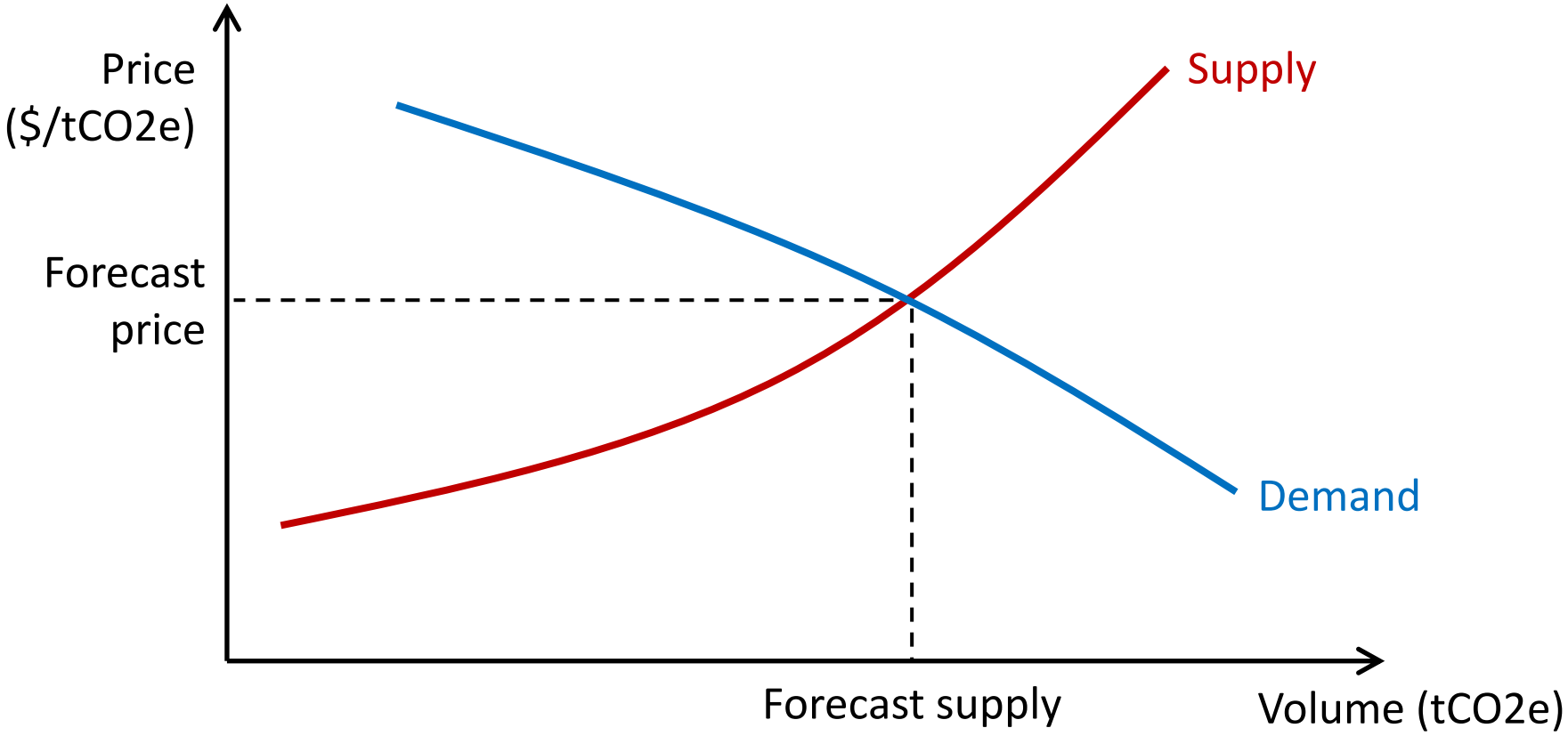
Like musical chairs with money

(i.e. how to talk about carbon markets at a dinner party)

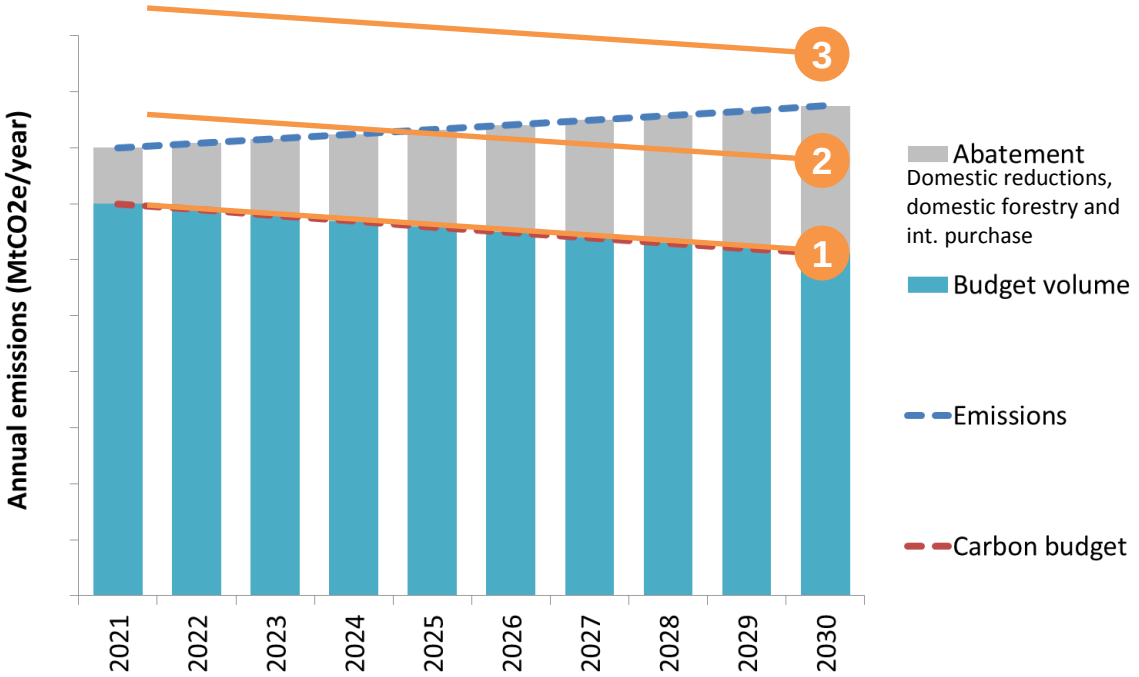
ETS supply and demand



Establishing a market price



What do people mean by "cap"?



1. Carbon budget only without allowing imports
   - NZ ETS (now)

2. Carbon budget + limited import limit
   - Nearly all ETS

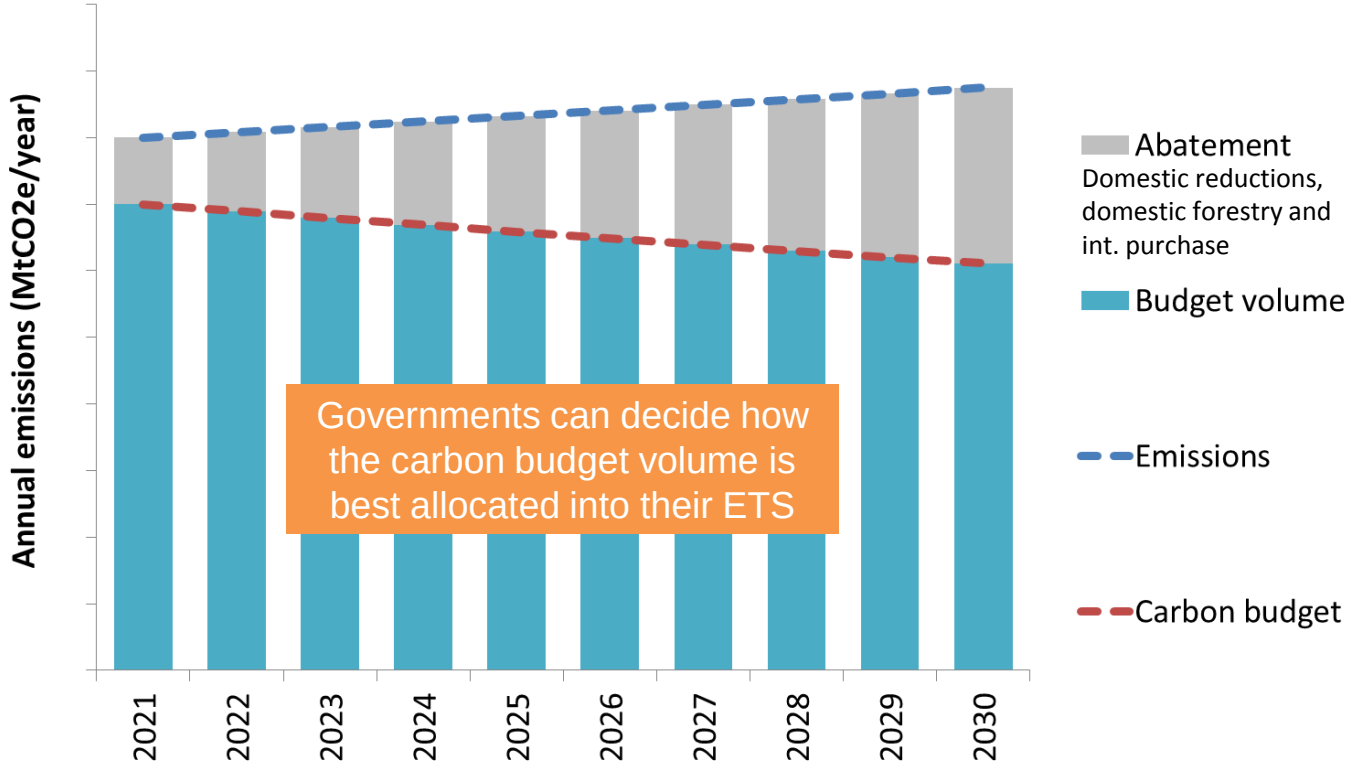
3. Carbon budget + high import limit
   - Australian CPRS (now defunct)

4. No <u>domestic</u> import limit
   - NZ ETS 2008-14 (capped under Kyoto)

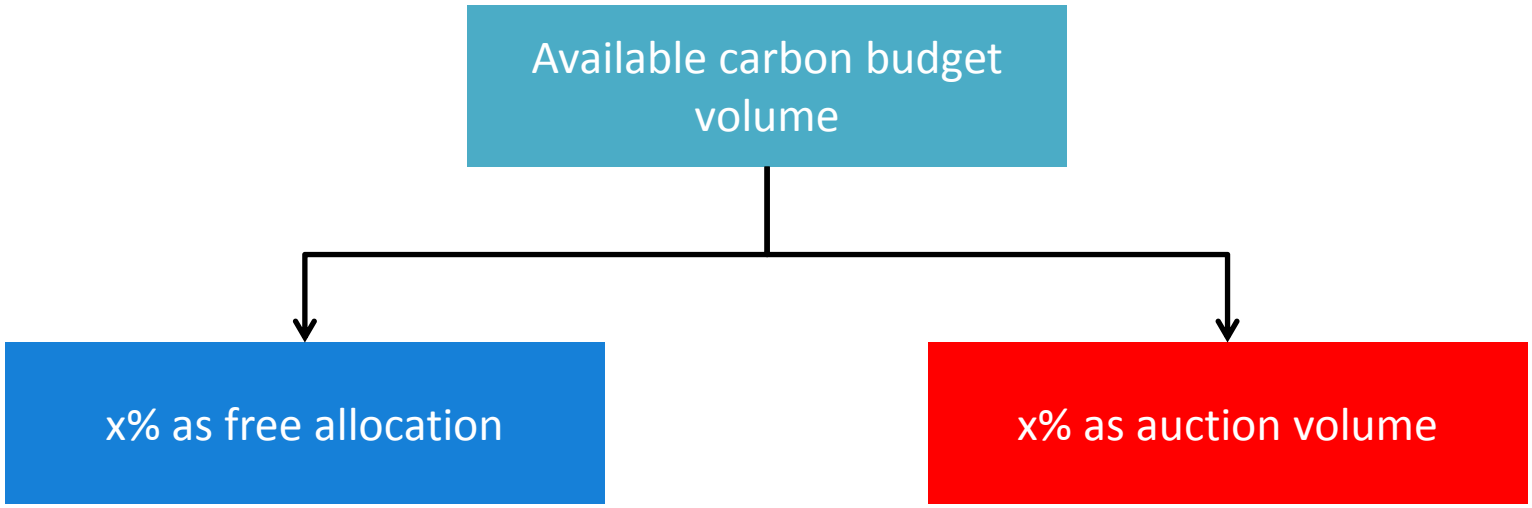
Discussion points about caps

- In most ETS, setting a cap is actually two questions:
  1. How much carbon budget volume is available to distribute?
  2. What quantitative limit, if any, should be set on imports?
- This presentation will not use the term “cap” but will deal with each of these two questions individually

Carbon budget allocation decisions



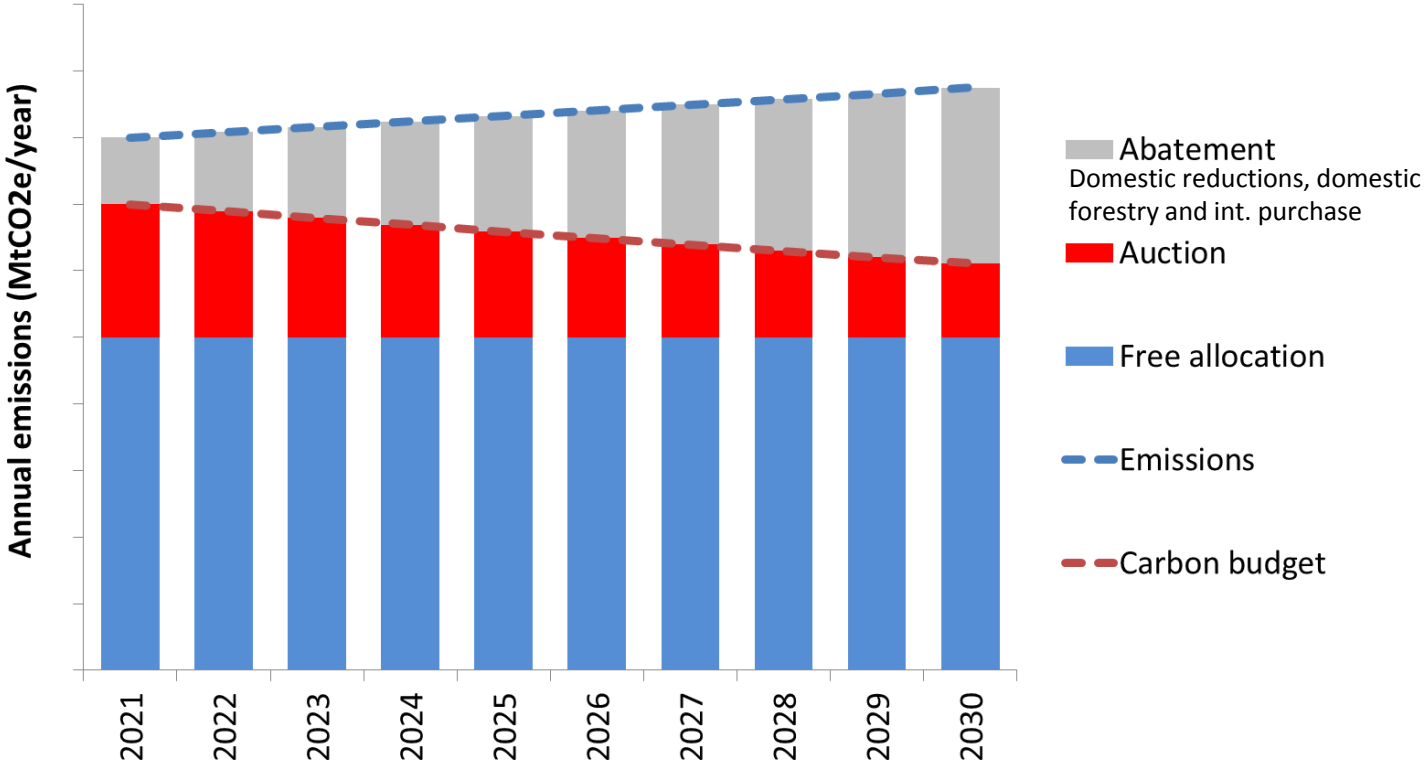
Free allocation vs auctioning



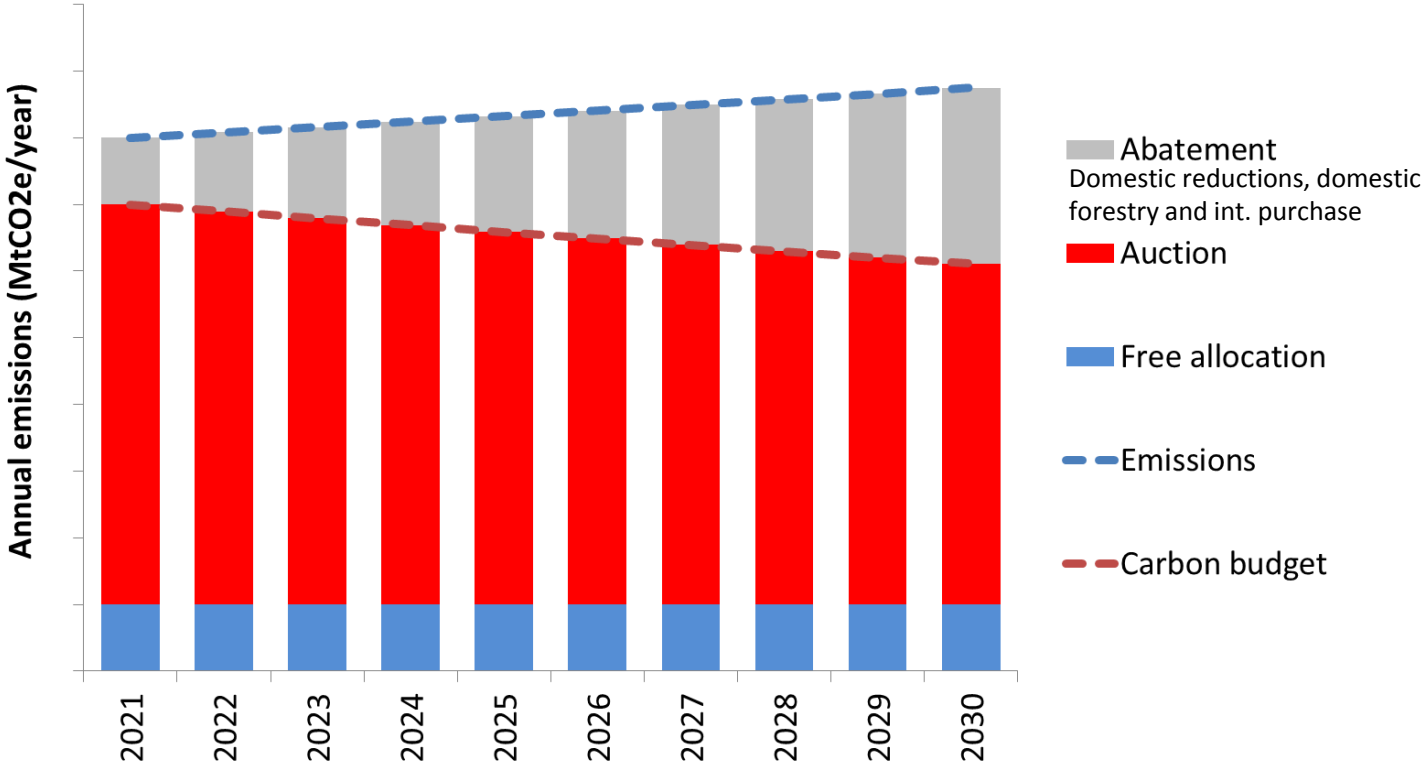
Typically given to companies that face international competition

Distributed at the market price and can be purchased by all companies

High free allocation example



Low free allocation example



Auctions in other ETS

- In most ETS around the world, auctions:
  - Are simply a distribution channel for any carbon budget volume not allocated for free
  - Distribute volume at the market price
  - Are complex to set up but stable in practice
- One of the biggest risks to a successful auction programme is a weak traded market
- Auctions are sometimes used to impose a minimum market price

Supply and demand (NZ)

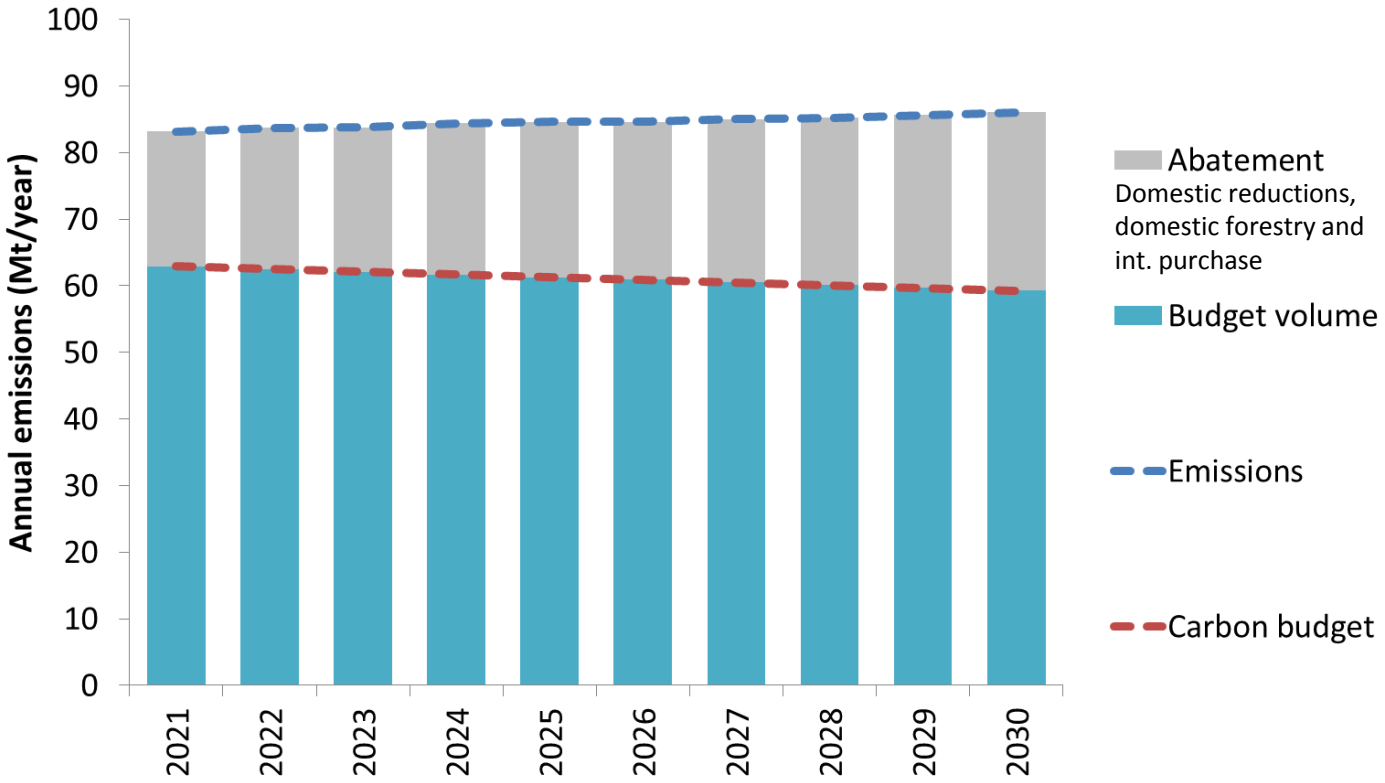
Context

- We are seeking your views about how unit supply in the NZ ETS should be managed
- Unit supply management covers volumes from:
  - Free allocation
  - Auctions
  - Forestry
  - International purchasing

Caveats to NZ ETS supply and demand

- All forecasting includes uncertainty
- Our Paris Agreement target is not final until:
  1. Domestic legislation is in place to support it
  2. Following this, Paris is ratified by NZ
- International forestry accounting has yet to be negotiated
- The fundamentals presented here are MfE's current best estimates
- These slides represent MfE's thinking/approach to fundamentals, not government policy

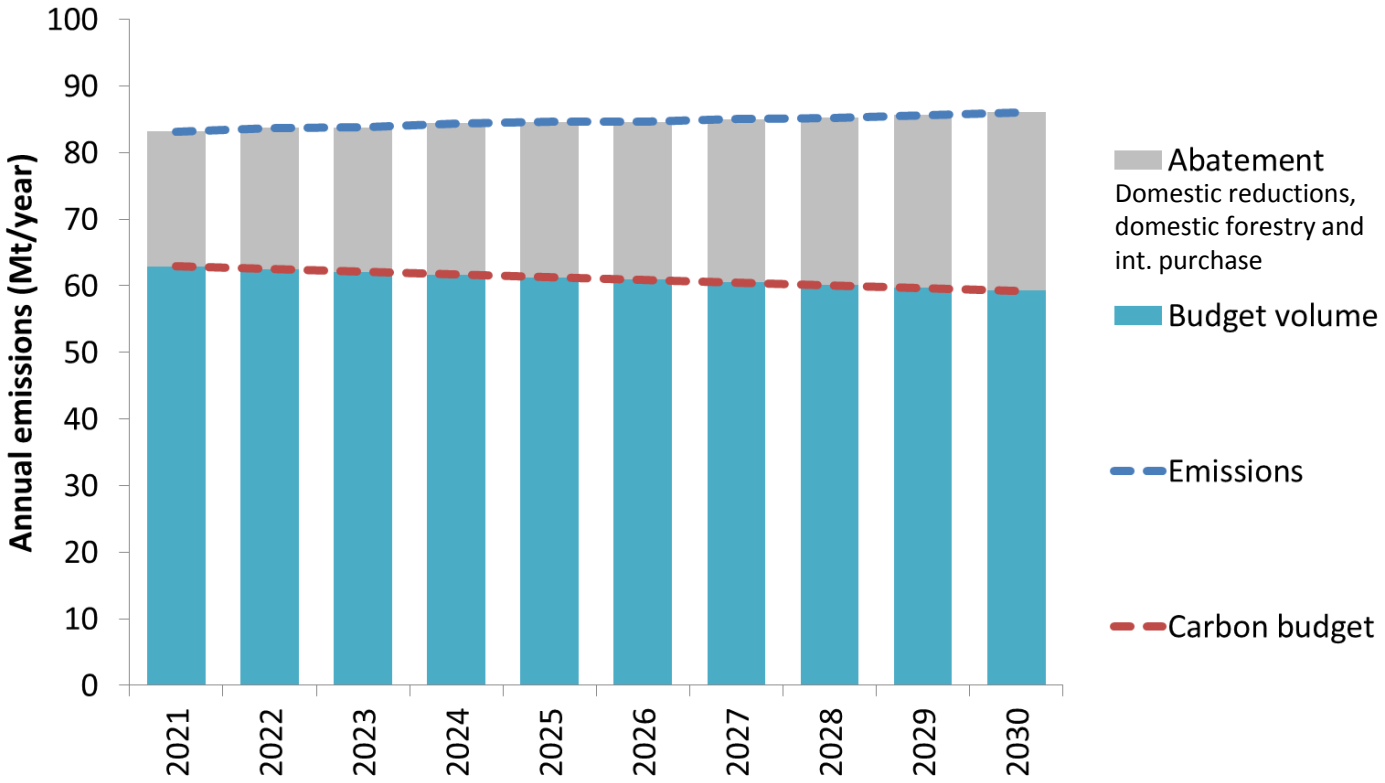
Alignment with NZ target under Paris



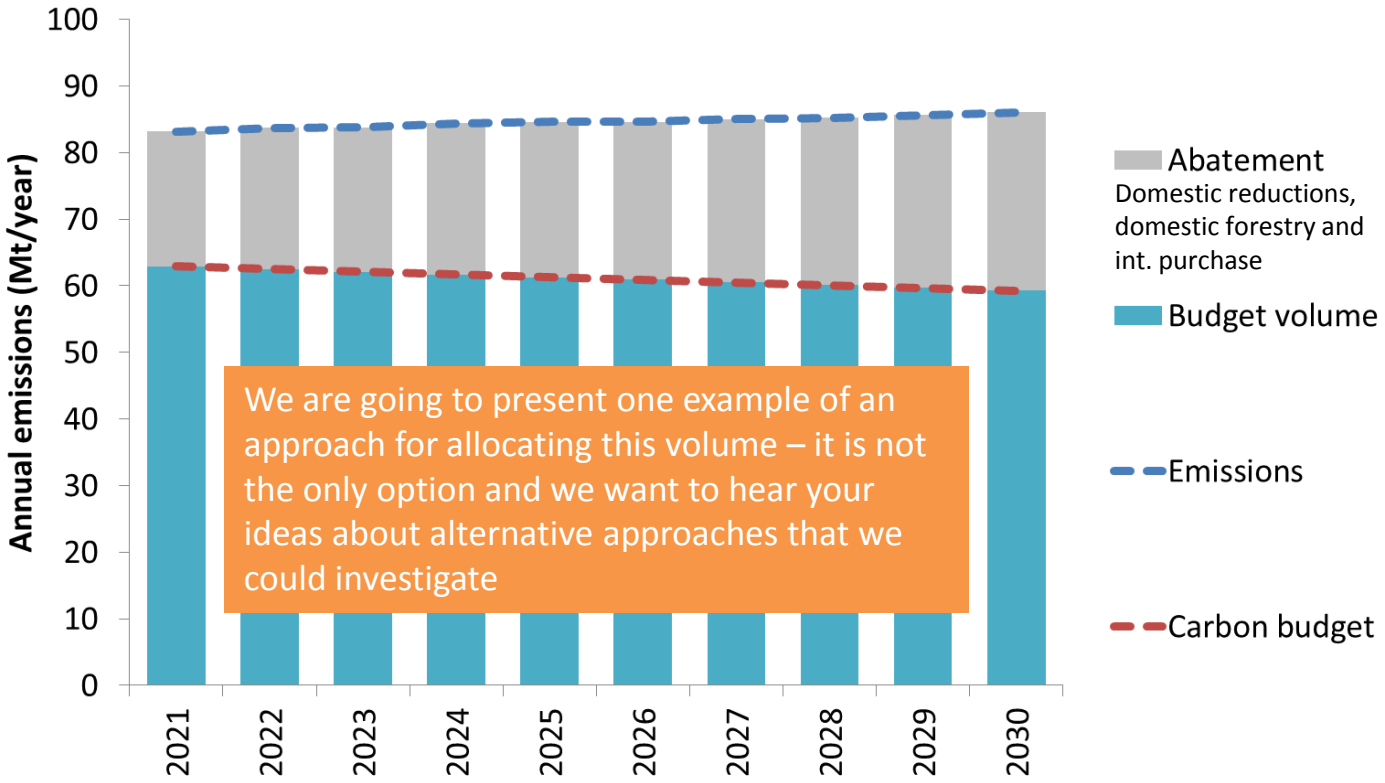
Implications of the Paris Agreement

- Our "Intended Nationally Determined Contribution" (INDC) determines our 'carbon budget' for the 2021-30 period
- This carbon budget is forecast to be 611Mt
- Our forecast gross emissions are currently 846Mt
- This means that we need to acquire 235Mt of abatement (emissions reductions) from:
  - Domestic reductions
  - Domestic forestry
  - International purchases

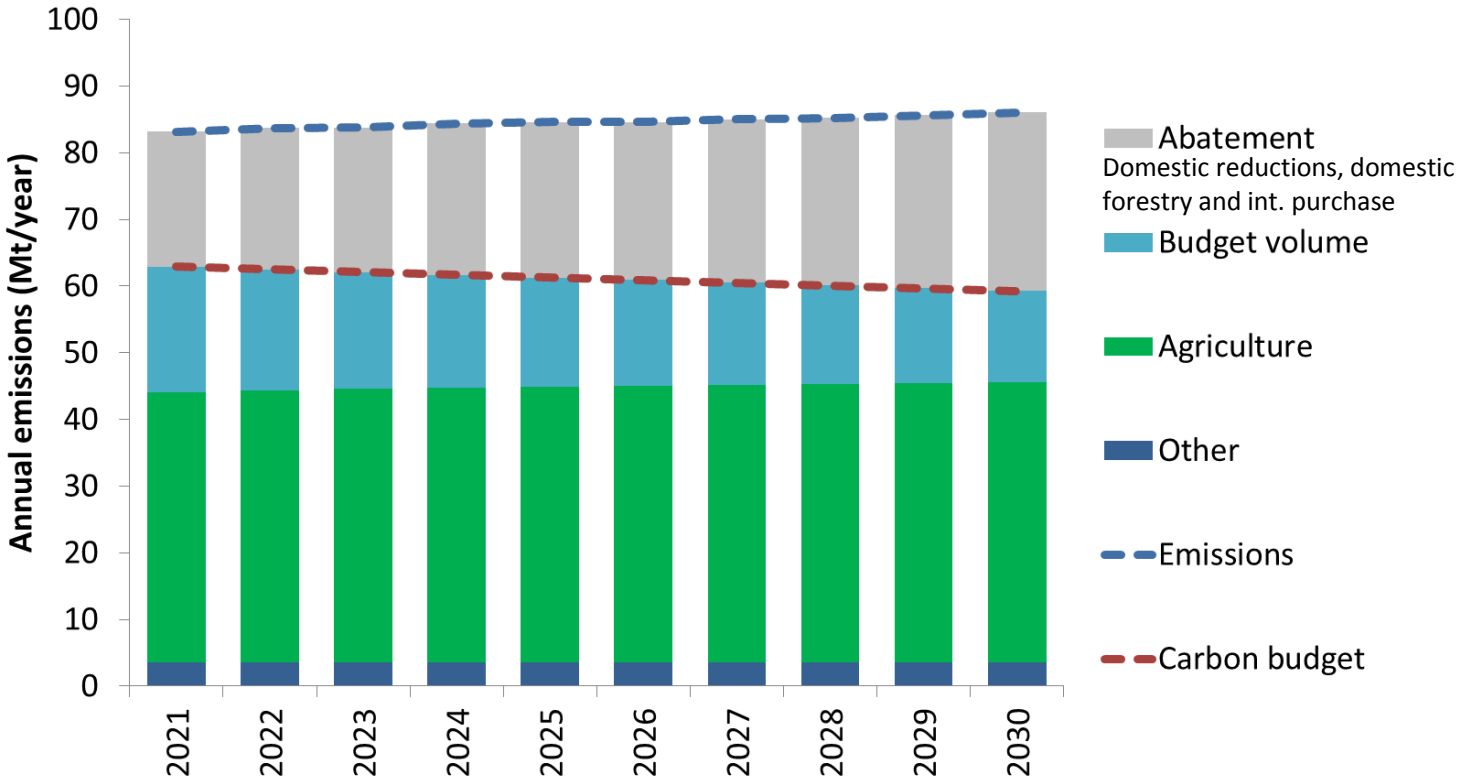
Alignment with NZ target under Paris



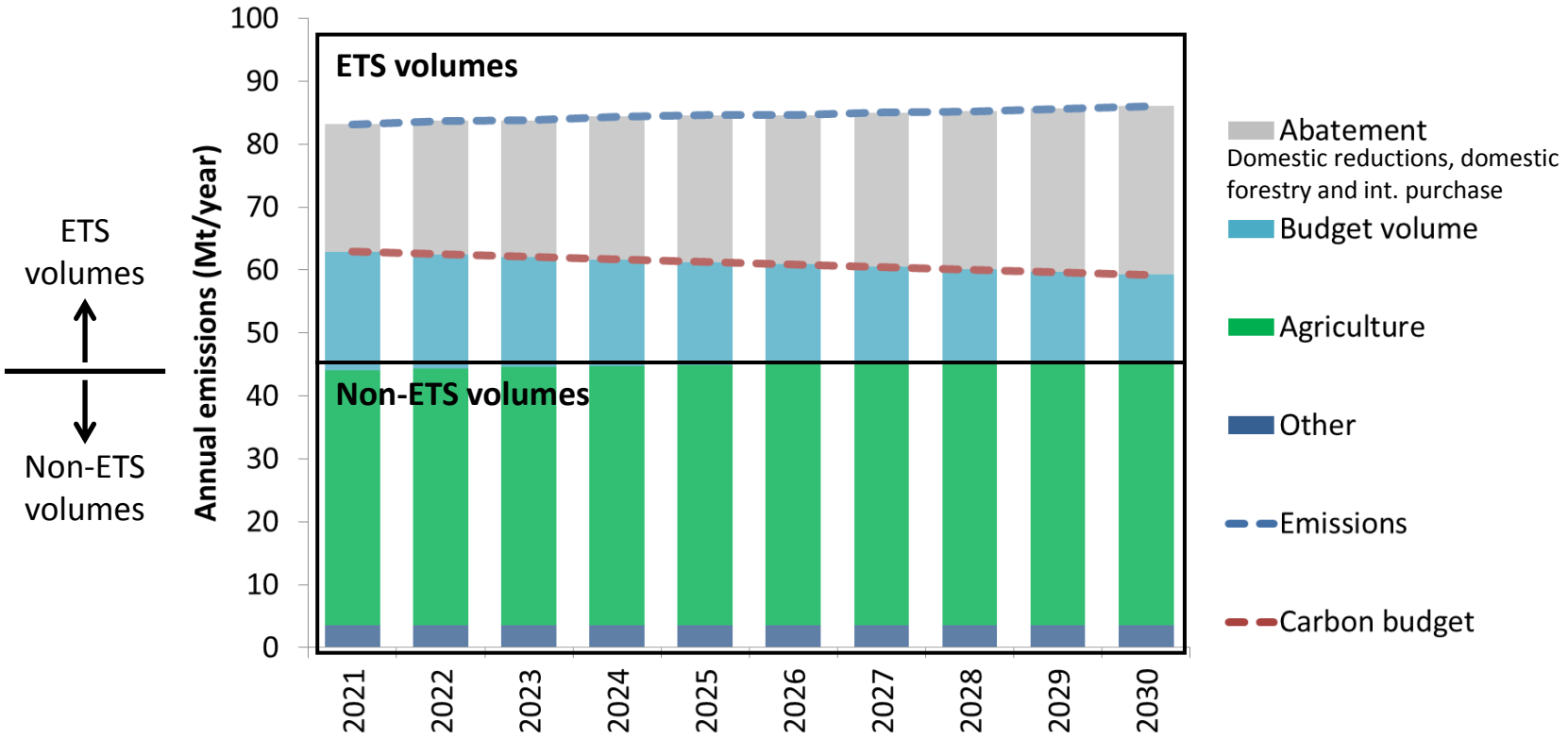
Domestic alignment (1)



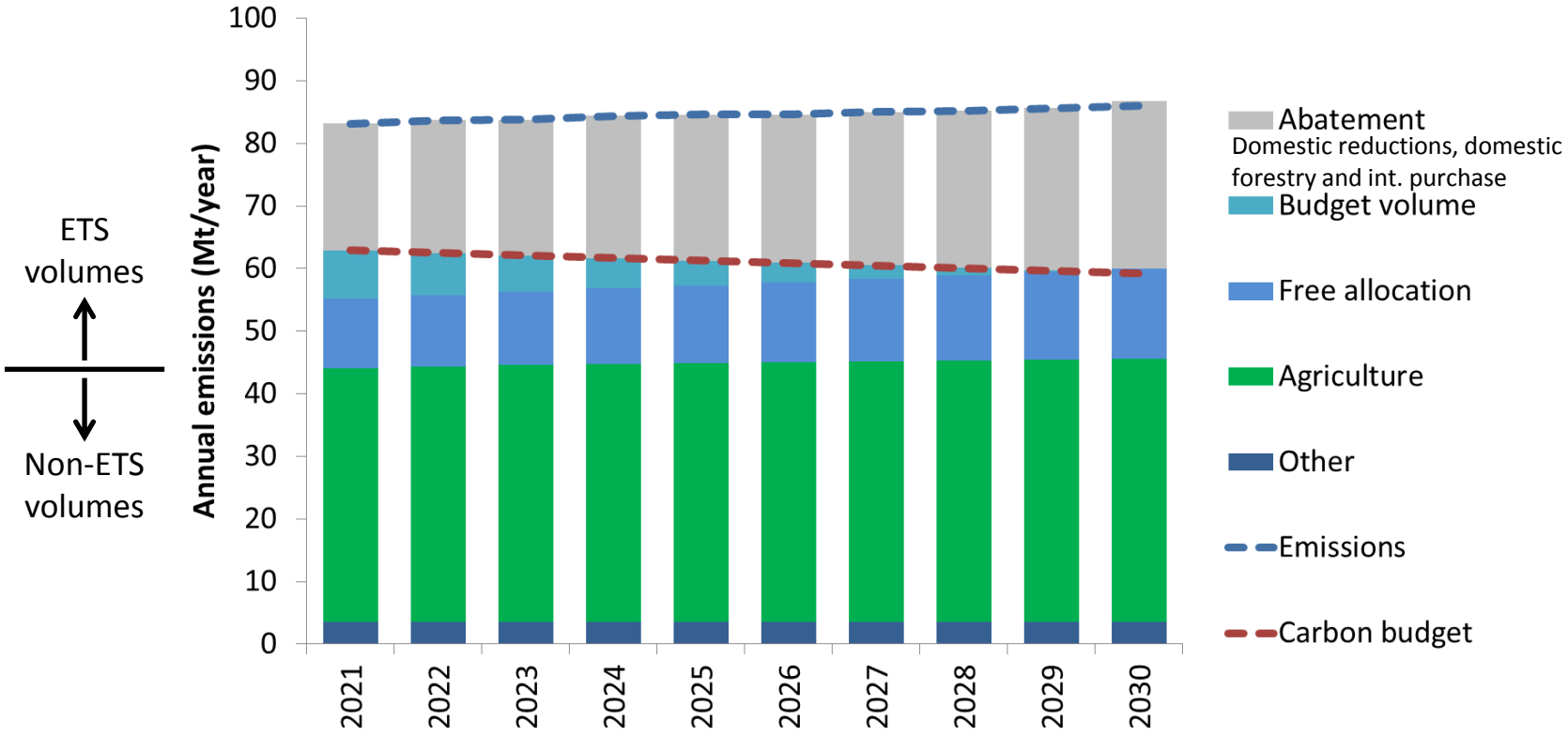
Domestic alignment (2)



Domestic alignment (3)



Domestic alignment (4)



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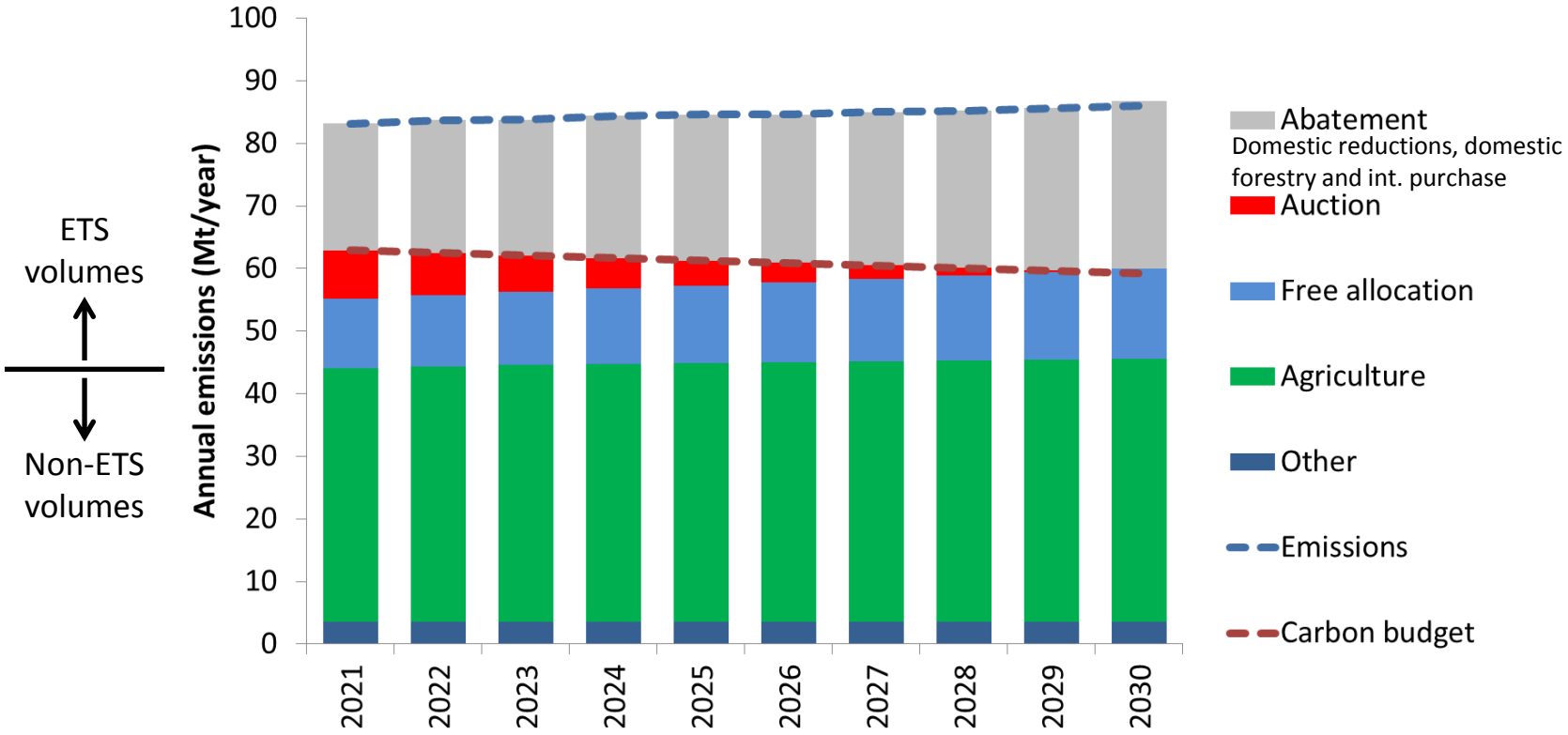
Domestic alignment (5)



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Morning tea break

Free allocation

Context

- We want to hear your thoughts on if, when and how free allocation rates should decline
- Free allocation is used to protect competitiveness
- Free allocation is given for activities that are Emissions Intensive Trade Exposed (EITE)
- EITE activities either receive 60% or 90% of their exposure for eligible activities
- Companies receiving free allocation still have a financial incentive to reduce their emissions intensity

Changes to free allocation in 2009

Two of the transition measures affected free allocation

1. The one-for-two measure

» The one-for-two measure also reduced free allocation volumes by half

» However, if the one-for-two measure were removed in the future, free allocation would double

2. Holding free allocation rates constant

» The original NZ ETS legislation called for free allocation rates to drop at 1.3% per year from 2013

» The transition measures stopped this decline

Free allocation and the ETS Review

- The government supports keeping the free allocation regime in place until at least 2020
- If the one-for-two measure were removed, free allocation would double
- The consultation questions provide an opportunity to contribute ideas about free allocation after 2020

Auctioning

Context

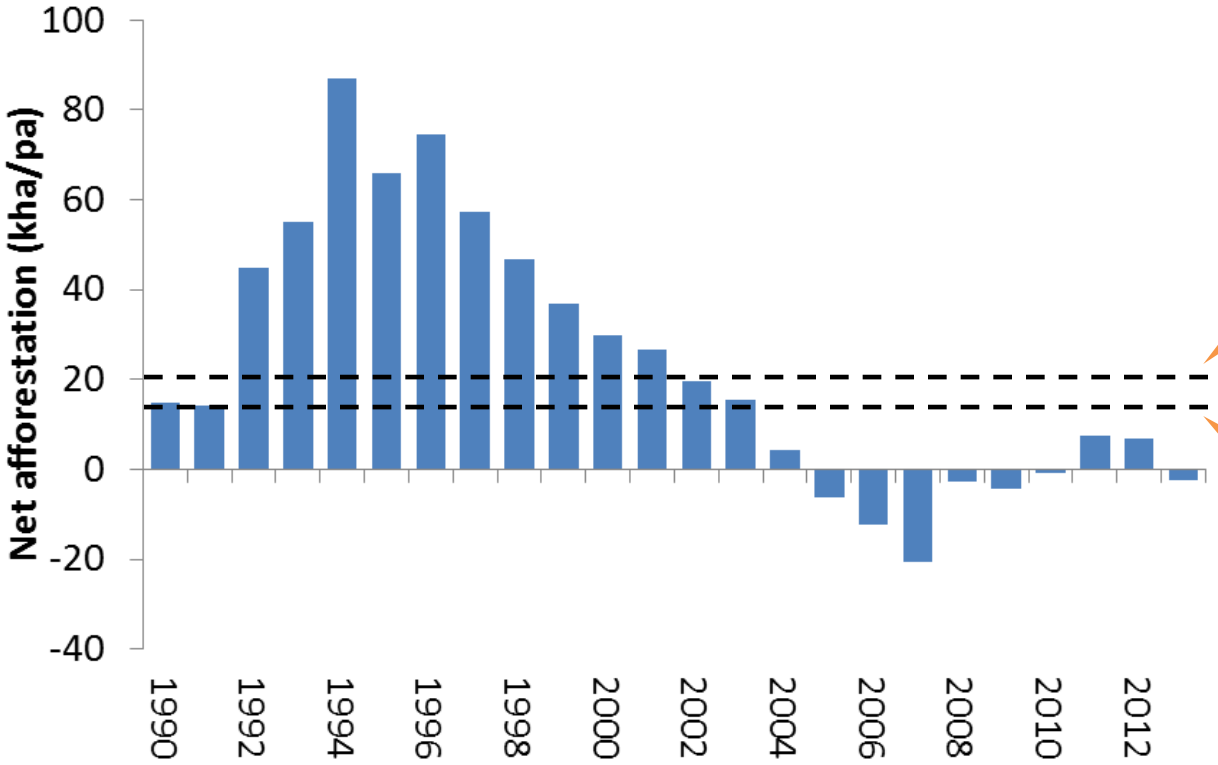
- We want to hear from you about the potential role(s) that auctioning could play in the NZ ETS
- There is already a provision in the NZ ETS for an auctioning mechanism
- Auctioning has an impact on supply volumes, and therefore indirectly on NZU price
- Auction volumes could also be tied directly to NZU prices

Forestry

Context

- We want to understand how we can improve the NZ ETS to support new forest planting
- Forestry is currently our most important source of domestic emission reductions:
  - It can deliver at scale
  - It is cost-effective
- We have a session in the afternoon to discuss the details of domestic forestry

Net afforestation rates

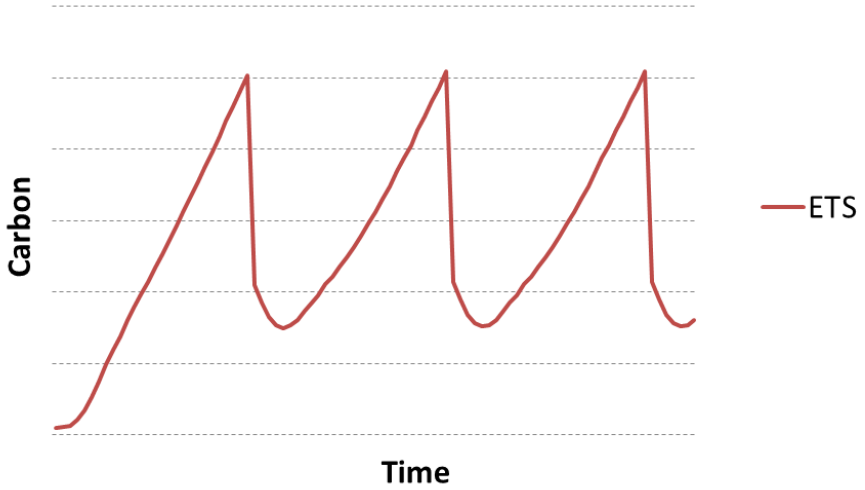


If NZU prices were to reach $25, net afforestation rates might be 20,000 ha/yr

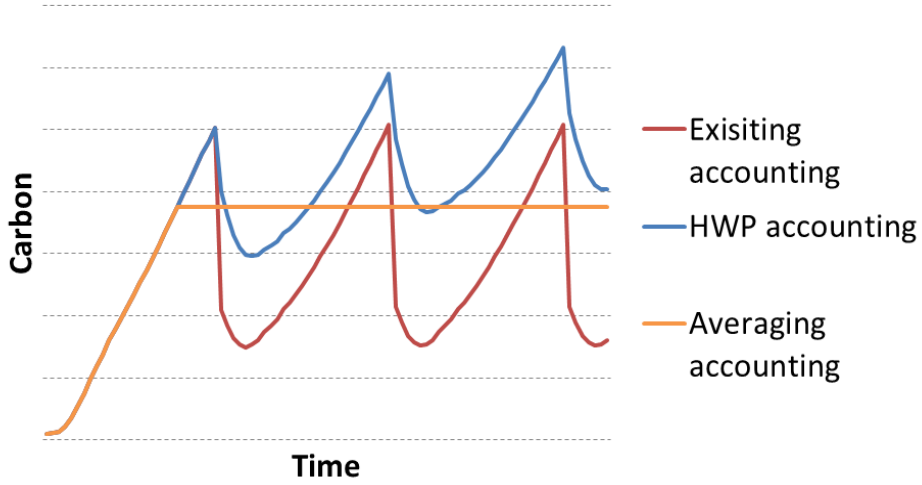
If NZU prices were to reach $15, net afforestation rates might be 15,000 ha/yr

Accounting approaches

Current forestry accounting



Possible future forestry accounting



Charts are illustrative only

International supply

Context

- We would like to hear your views on international purchasing
- We expect that international purchasing will be important in the NZ ETS in the future
- There are currently a number of uncertainties:
  - Which markets will develop
  - The prices in these markets
  - How, or if, we will link with each of them
  - Whether the government and/or private companies will be the buyers

Environmental integrity

- In the past, UNFCCC discussions created core principles of environmental integrity, including that emission reductions should:
  - Lead to real, permanent, additional and verified mitigation outcomes,
  - Avoid double counting,
  - Achieve a net decrease and/or avoidance of greenhouse gas emissions compared to a predefined and recognised baseline.
- Additionally, they should promote sustainable development and do no social or environmental harm.

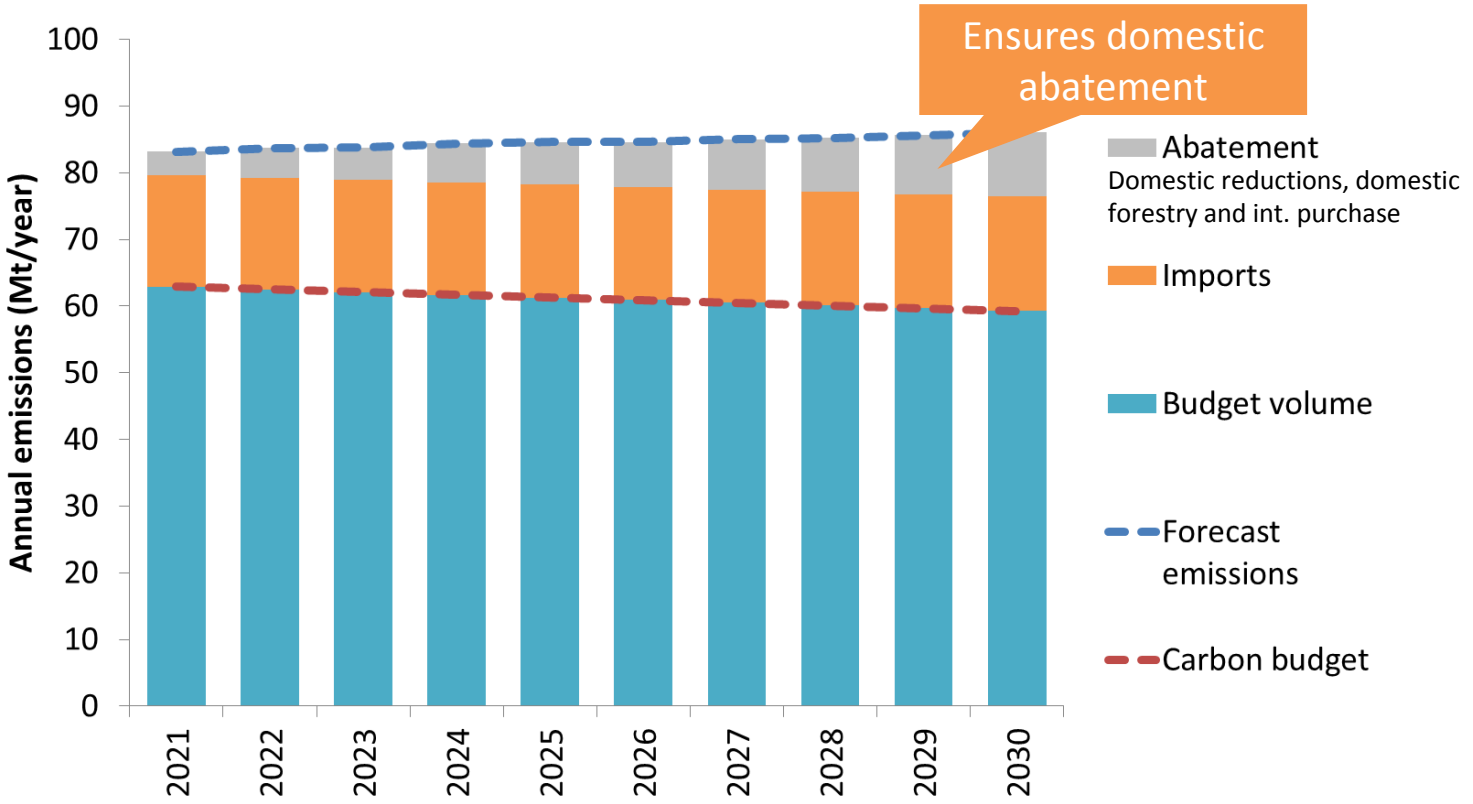
International options?

Centralised options	De-centralised/bilateral options
Existing CDM projects	Japanese offset scheme (JCM)
Selection of existing CDM projects	Bilateral offset projects run for/by NZ
Future UNFCCC market mechanism	Australian Emissions Reduction Fund (ERF)
And more……?	Californian ETS
	EU ETS
	Chinese national ETS
	And more……?

Limits on the use of international units

- The consultation asks about the possibilities for limits to be placed on the use of international units
- Restrictions on where they can be sourced from
- Restrictions on how many can be surrendered
- The volume limit question has several sub-topics:
  - Should there be any volume limit at all?
  - How should any limit be set? On a % of emissions/budget basis? In terms of MtCO2e?
  - Should the limit be for individual years or for groups of years?

International imports – 20% limit example

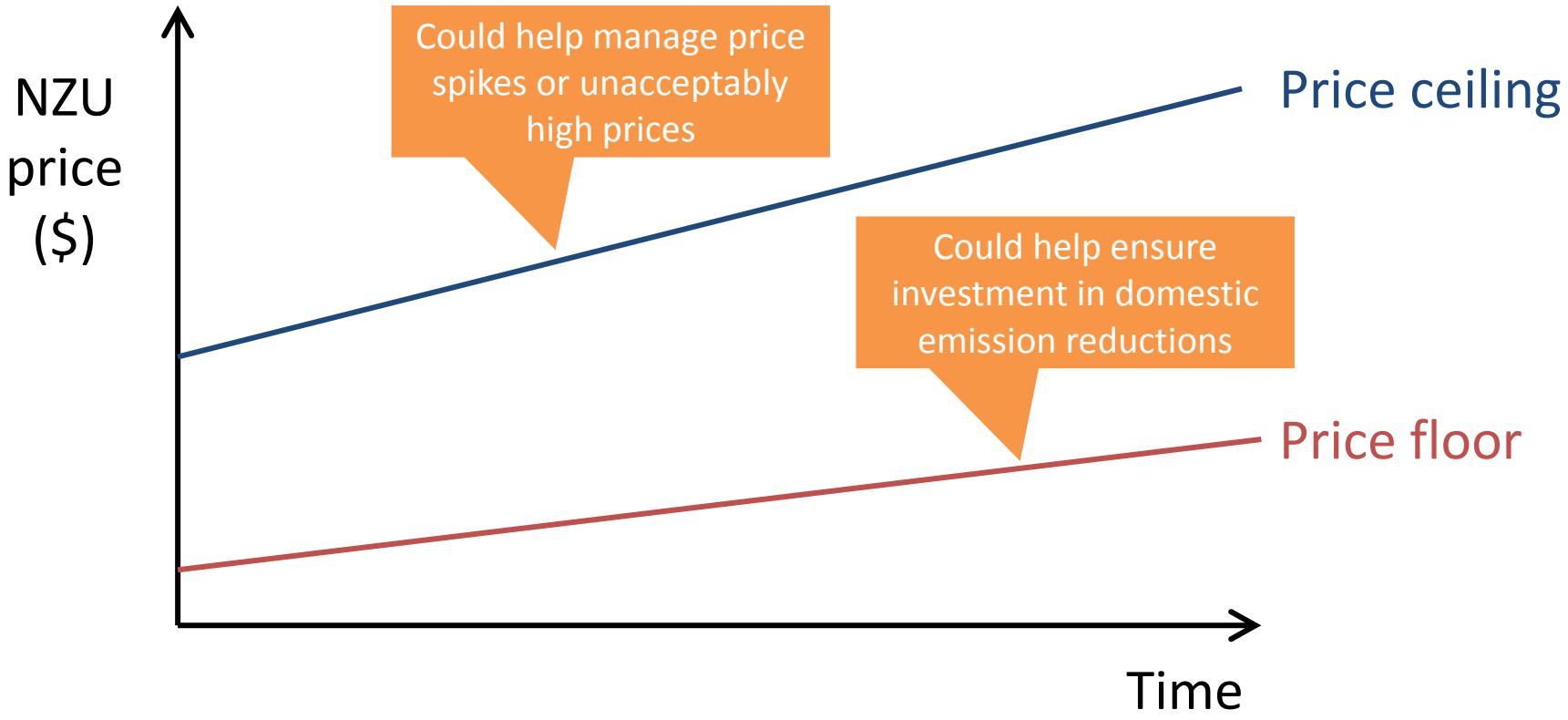


Managing price stability

Context

- We want to understand your views on the value of price stability mechanisms
- Some ETS around the world have mechanisms to ensure that prices aren't too high or too low
- The NZ ETS currently has a fixed price option at $25/NZU, but no minimum price level

Managing price stability



Price ceiling

Implementation

- A number of implementation options exist
- Existing fixed price option limits market impact

Considerations

- Environmental integrity of scheme
- Interactions with forward NZU prices could be complex
- Government's automatic selling might give unintended financial returns to investors

Price floor

Implementation

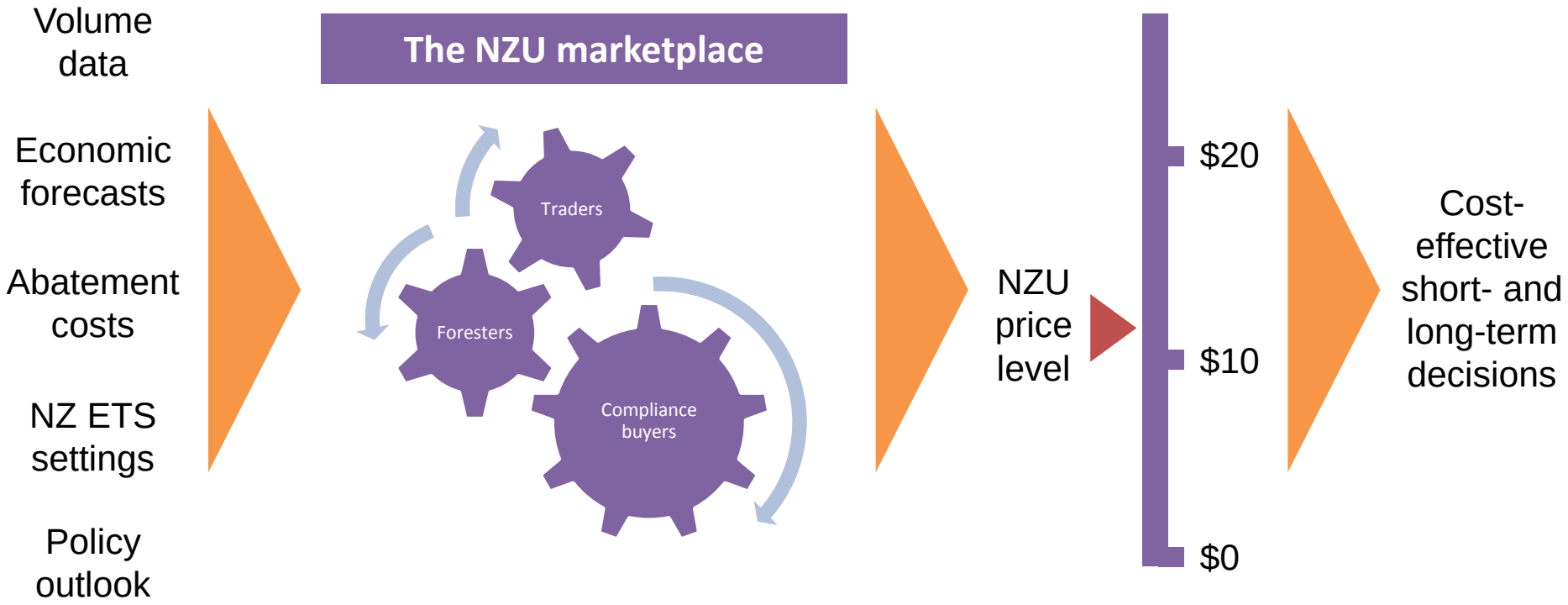
- A floor may be challenging to implement
- The government would need to become a buyer at designated prices…
- …or it could require participants to 'top up' the NZU price
- An auction reserve price might achieve a similar effect if auction volumes were significant

Considerations

- Interaction with international prices and with forward NZU prices could both be complex
- Government's automatic buying might give unintended financial returns to investors

Data availability in the NZ ETS

Context


Volume data
Economic forecasts
Abatement costs
NZ ETS settings
Policy outlook
The NZU marketplace
Traders
Foresters
Compliance buyers
NZU price level
$20
$10
$0
Cost-effective short- and long-term decisions

Existing data sources

EPA website

- Monthly transaction data
- ETS Annual Reports (Section 89 report)
- ETS Facts and Figures
- Annual emissions data (non-forestry sectors only, aggregated at the activity level per year, updated every 6 months to reflect compliance adjustments)
- Ministerial NZU issuance direction and statement – published whenever NZUs are issued

Existing data sources (contd)

NZEUR website

- NZEUR Holding and Transaction Summary
- Incoming and outgoing (international) transactions
- Breakdown of KP unit holdings per account
- Units transferred for removal activities per year (ie, into the ETS)
- Participant Register

Existing data sources (contd)

Climate change website

- NZUs allocated for EITE – shows number of units allocated for each company per activity
- Forestry Allocation Plan – shows pre-1990 forestry allocations

MPI

- Deforestation Intentions Survey
- National Exotic Forest Description

Existing data sources (contd)

MfE website

- The national inventory
- Forecast of net position (2013 to 2020)
- Biennial report (to 2030, excludes forestry accounting)

New Zealand Government

The New Zealand Emissions Trading Scheme

New Zealand Emissions Trading Scheme Review 2015/16

Stakeholder Meetings

April 2016

Ministry for the Environment
Manatū Mō Te Taiao

Recap on key messages

- Matters being consulted on are complex, and will take time to work through
- Following consultation, a plan for progressing matters will be developed
- Participation in this meeting does not replace the formal submissions process

Business responses to the NZ ETS

Context

- We would like to hear about your experiences with the NZ ETS to date
- What has made it easy or difficult to take the future cost of emissions into your business planning?
- How does your business or organisation plan for the future price of emissions?
- What trade-offs need to be made between different areas of your business?

Market barriers and failures

Context

- We want to hear from you what could be done to make the NZ ETS more effective
- Market barriers and market failures tend to increase the cost of achieving emission reductions
- "Market failure" means the inefficient allocation of resources within a market (for example, poor information availability for car fuel efficiency)
- A "market barrier" prevents the realisation of an investment (for example, a government regulation that prevented the use of a low-cost technology)

NZU prices

- The NZ ETS evaluation report concluded that:

  "the NZ ETS has not significantly influenced domestic emissions or business decisions"

- Higher historical NZU prices might have altered this conclusion
- However, the NZU price level itself is not the focus of this section
- We are interested in issues that prevent or discourage behaviours, investment and innovation – even at higher carbon prices

ETS market barriers and failures

Split incentives	The person deciding the level of energy efficiency is different to person paying the bills	Heavy vehicle drivers vs fleet owners, energy efficiency for tenants
Imperfect price structure	When product prices don't pass on emission costs correctly	Waste disposal- if every tonne of waste had the same emissions cost despite only organic waste creating emissions
Imperfect information (asymmetry)	Decision-makers do not have sufficient information	Purchase of goods with lower up-front costs, but lower energy efficiencies e.g. residential appliance purchase

ETS market barriers and failures

Public goods issues	An investor is unable to capture all the benefits of their investment	Undersupply of research, limited first-mover advantage from R&D activity
Market barriers	Something preventing an investment/decision with positive returns from being made	A government regulation preventing the use of a certain technology
Behavioural barriers	Information may not overcome preconceptions	EV driving range and driving range anxiety

Questions

- Are some opportunities and technologies for reducing emissions not being adopted?
- Are there market failures or barriers preventing these?
- Does Government have a role in addressing these?

Forestry

Context

- We are seeking your views on how to improve forestry outcomes
- Forestry settings impact on forestry participants, but also on the wider scheme
- We want to understand forestry issues facing the sector, but also others

Forestry session will cover:

1. Experience of forestry to date
   - » Provide some context of forestry
2. A look at existing settings
   - » Ask what settings are working well and what aren't
3. A look at future settings
   - » Discuss two possible future accounting approaches

1. Experience to date

What outcomes are being sought?

- Increase new planting and replanting
- Providing an increased and predictable form of unit supply
- Align NZ ETS settings with those used internationally where this benefits NZ as a whole
- Increasing forest land registered in the scheme

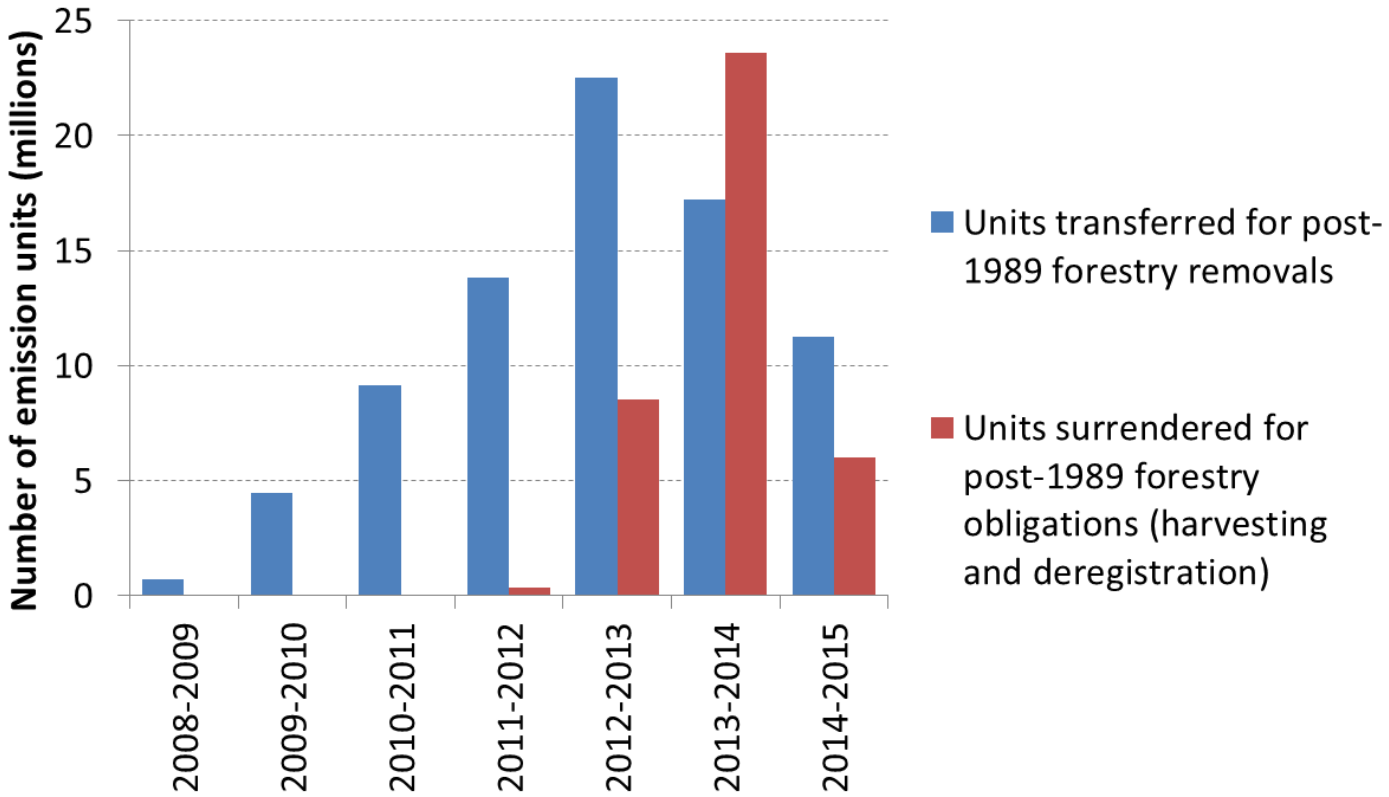
And these need to align with:

- The broader NZ ETS review objectives:
  - Ensure that the NZ ETS helps NZ to meet its international obligations cost effectively
  - Ensure the NZ economy is well-prepared in the context of a strengthening international response to climate change
  - Allow the NZ ETS to evolve with changing circumstances
- Broader Government objectives

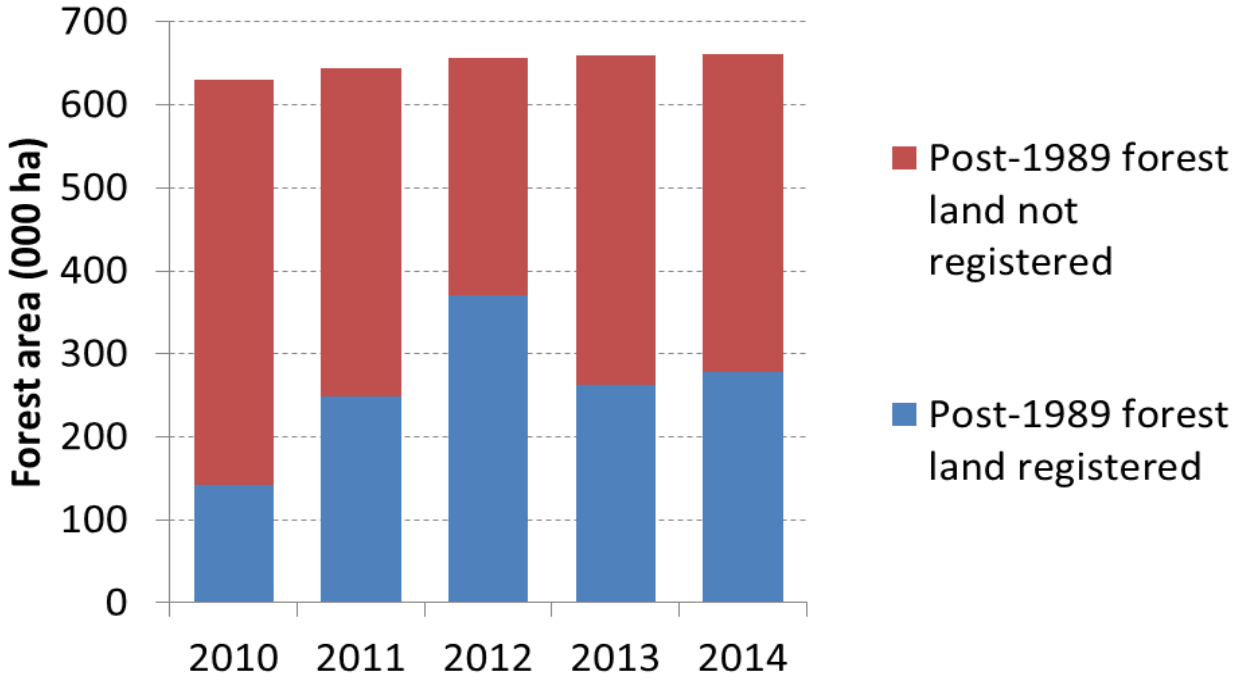
Key NZ ETS forestry figures

- Approximately 84 million NZUs (gross) have been allocated for post-1989 forestry removals
- Approximately 47 million NZUs allocated to pre-1990 forest landowners
- There are over 2000 registered post-1989 forestry participants (86% of all participants)

Forestry unit flows are variable



How much P89 forest land is in the scheme?



2. Existing settings

Key characteristics of existing settings

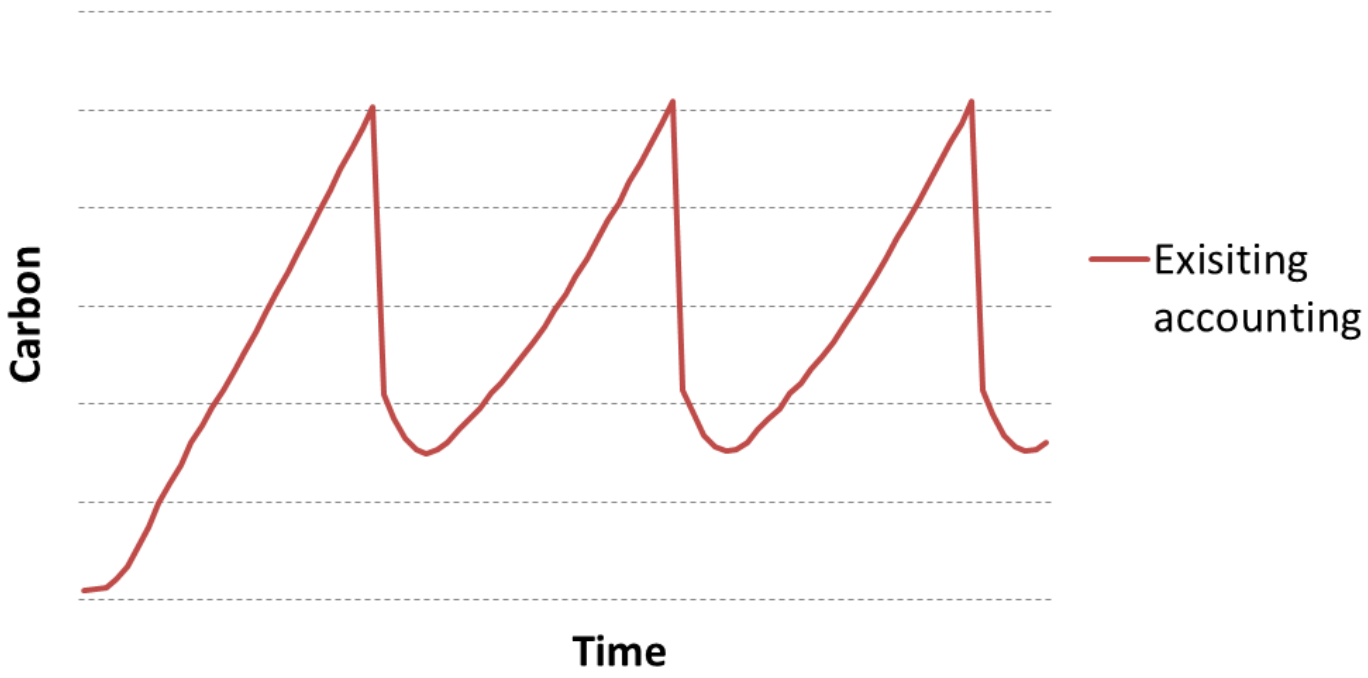
- P90 deforestation mandatory (with some exemptions), but no other activities eligible
- P89 participation is voluntary – activities earn and surrender units
- Full (or real time) accounting
- Thresholds for participation
- 5 year mandatory reporting periods

International and domestic rules

- Only country to include forestry in an ETS
- Some forestry rules devolved, others not

Current rules	International forestry rules (Kyoto Protocol)	NZ ETS forestry rules
Units gained from growth of p89 forests	✓	✓
Harvest liability limited to units gained (ARDC rule)	✗	✓
Deforestation liability for all forests	✓	partial (planted p90 and NZ ETS registered p89 forests only)
Offsetting: carbon equivalent forests	✓	✓
Harvested Wood Products	✓	✗
Natural Disturbance provision	✓	✗

Current P89 carbon stock accounting



Charts are illustrative only

Questions

- Are there opportunities to increase forestry incentives outside of price?
- What current settings work well, what don't?
- How can existing settings be improved?
- Can some of the complexities associated with forestry be reduced?

3. Future settings

What does Paris mean for the NZ ETS?

- New level of ambition, ratcheting over time
- Broader global ambition
- Uncertainties, including international markets and accounting rules
- New assumed averaging approach for forestry accounting
- Continuation of current reference level accounting for pre-1990

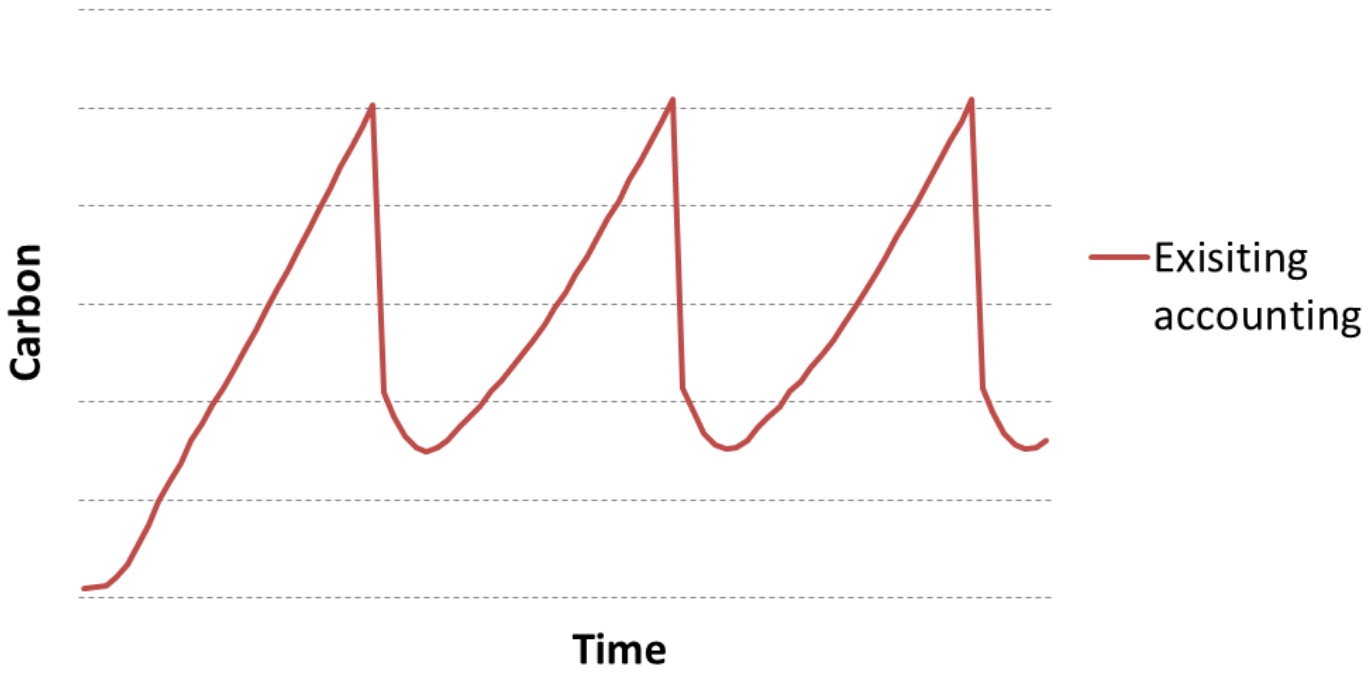
Future NZ ETS accounting approaches

- NZ has a choice on whether and how NZ ETS settings align with those NZ may use after 2020
- Views are sought on two accounting approaches
  - Averaging
  - Harvested wood products
- These need to be in the best interest of NZ
- What are the important factors when considering change?

What is Averaging?

- Submitted as NZ's INDC and is proposed to be NZ's post-2020 forestry accounting approach nationally
- Would allow P89 foresters to receive NZUs up to the long-term average carbon storage for that forest
- Foresters would not surrender units at harvest provided forest is re-established
- Not applicable to P90 forests

Current carbon stock accounting…



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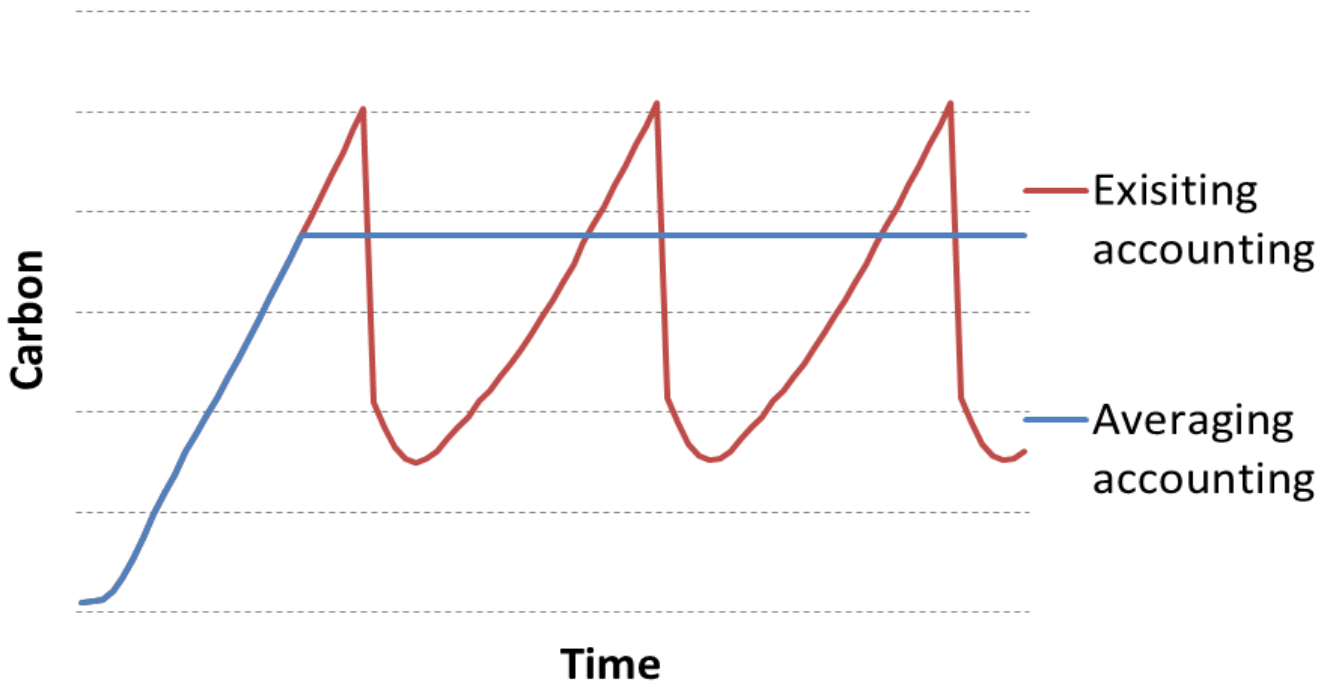
Compared to Averaging accounting



Charts are illustrative only

What impact might Averaging have?

- May help manage liability risks for smaller foresters or those with few age classes
- Potentially less attractive for foresters with multiple age classes or forests not intended for harvest
- Considerable change to forestry NZU supply into the NZ ETS e.g. may make supply more stable
- Considerable work would be required to operationalise

Questions

- Should it be introduced for P89 forests?
- What impacts would it have on forestry decisions?
- Should there be any conditions? e.g. size limits, optional

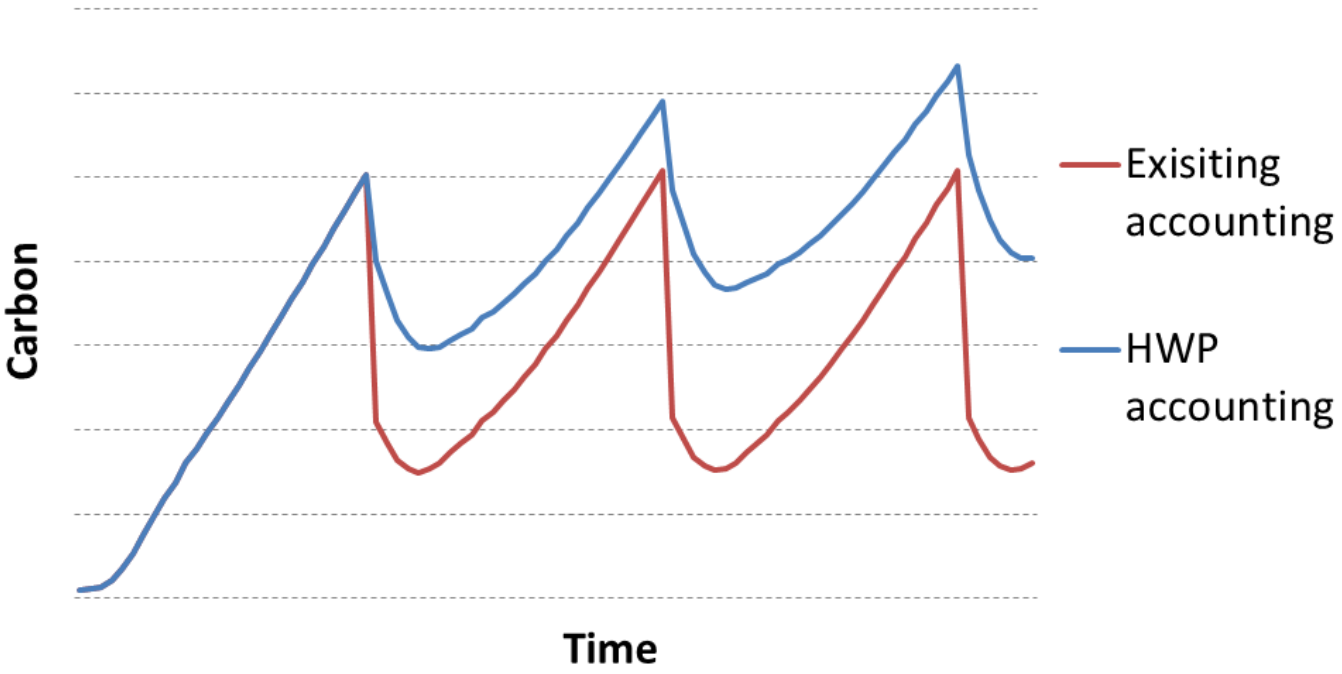
Harvested wood products (HWP)

- Recognises that carbon continues to be stored in wood products after harvest
- Defers emissions liabilities for those HWPs over the lifetime of the wood product

A number of questions for implementation:

- How delayed liability for HWPs should be devolved e.g. foresters, wood processors
- Whether liabilities are based on:
  - assumed lifetime of an average mix of wood products; or
  - the lifetimes of wood products produced from that forest
- HWP could be applied to current rules in the NZ ETS or through averaging if it were introduced

HWP vs current carbon stock accounting



Charts are illustrative only

What impact might HWP have?

- Pros and cons largely depend on implementation
- May reduce impact of carbon price on harvesting decisions
- May incentivise production of longer-lived products
- Increase economic return from forestry
- Administrative complexities
- Perverse outcomes?

Questions

- Should deferred liability for HWPs be recognised in the NZ ETS?
- If so, how might it be devolved? To whom, and how should it be accounted for?
- What impact do you think HWP would have on your business?

Operational matters

Context

- We want to improve the administrative efficiency of the scheme
- There is 8 years of experience to draw on
- Government is aware of some matters, but there are likely to be others
- Submission process allows additional matters to be identified

Operational matters technical note

- Not only forestry specific
- Improving compliance outcomes
- Increasing stakeholder understanding of obligations and liabilities
- Reducing compliance and administrative costs

Operational matters raised in technical note

- Encouraging compliance with requirements
- Disclosure of NZ ETS information
- Transfer of participation for p89 forestry
- Tree weed exemption provisions
- Access to NZ ETS status-of-land information
- What other operational matters need addressing?

Three ways to make a submission:

- Use the online submission tool at www.mfe.govt.nz/more/consultations
- Download a submission form to complete and return to us
- Type up or write your own submission

Contact details

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Ministry for the
Environment
Manatū Mō Te Taiao

Environmental stewardship
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Tiakina te taiao kia tōnui a Aotearoa