

NZ ETS Auctioning System Operational Details

Early Engagement Workshop

28 May 2019

Overview

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Workshop purpose

The purpose of this workshop is to help inform and improve our public consultation on auctioning regulations (expected to be held later this year).

This workshop will help by:

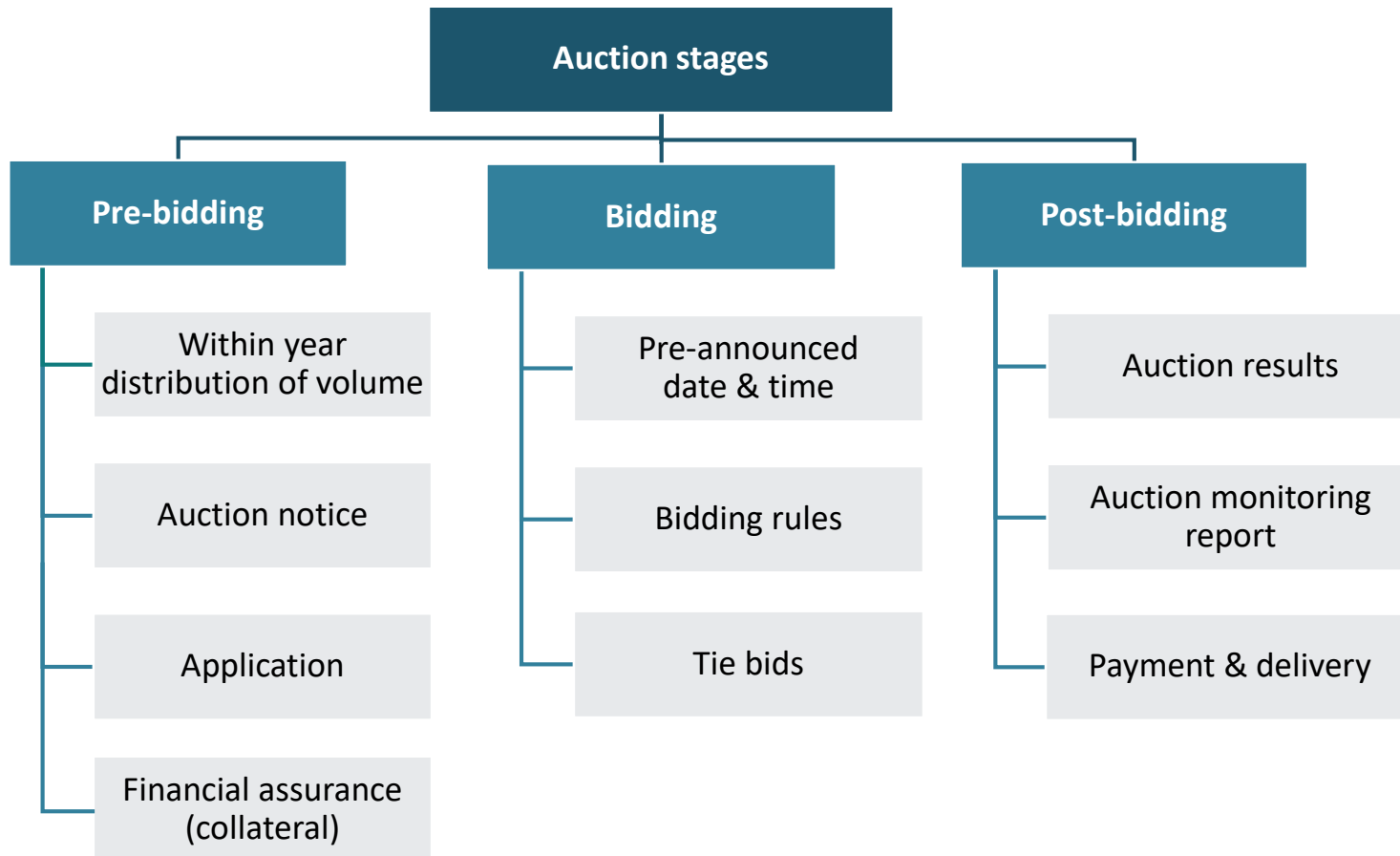
- sharing draft options
- asking the types of questions likely to be part of the consultation
- getting your feedback on these consultation components.

Approach for the session

- We are keen to hear feedback and have a discussion on what we present.
- We are not seeking to reach a consensus on these topics today; we are simply looking to improve the options presented during public consultation.
- We will be taking notes and will provide a summary of key themes from the session (without identifying specific contributors).
- As content from the workshop is subject to the Official Information Act – please clearly identify any commercially sensitive information you share.
- We will likely make these slides, a list of workshop attendees, and the summary of key themes publicly available.

Workshop scope – in scope

- Topics we **are** covering in this workshop:



Workshop scope – out of scope

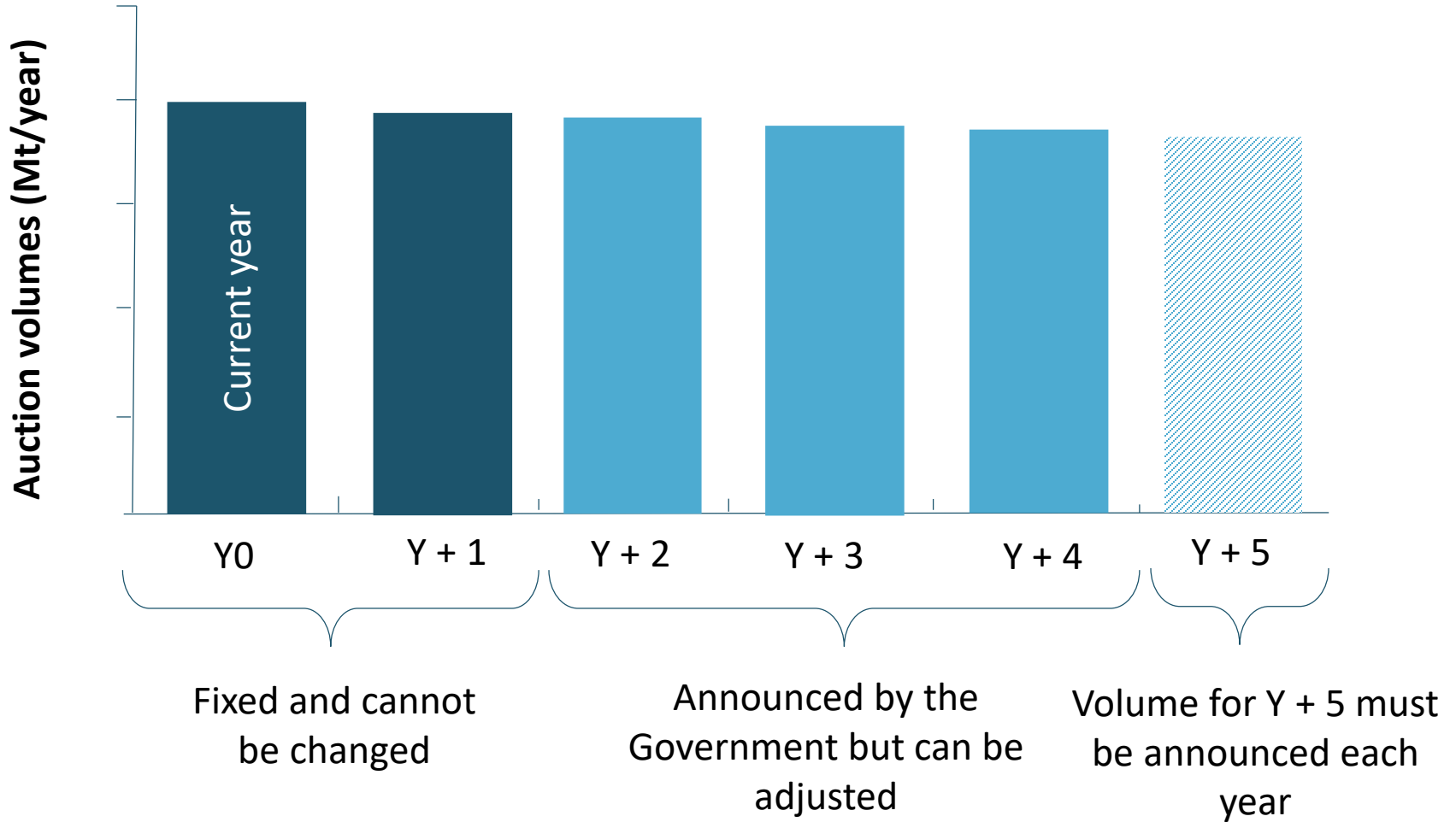
- Topics we are **not** discussing today:
 - Wider NZ ETS policy options or decisions such as unit supply decisions
 - Previous decisions on the high-level design of auctions (single round, sealed-bid auction format, with uniform pricing)
 - Aspects of auctioning outside of operational rules and settings, including
 - potential auction volumes
 - the role of price controls (eg, a ‘cost containment reserve’ or price floor)
 - detail of the agency or entity that might run the auction platform
 - possible use of auction proceeds.

NZ ETS auction work programme

Auctioning in the NZ ETS

- In December 2018, the Government decided it would enable a cap to be placed on emissions covered by the NZ ETS.
- This involves introducing auctioning in a way that aligns the supply of NZUs in the NZ ETS with our emission reduction targets as part of a coordinated decision-making process for unit supply.
- These volumes will be decided and communicated on a five-year rolling basis.

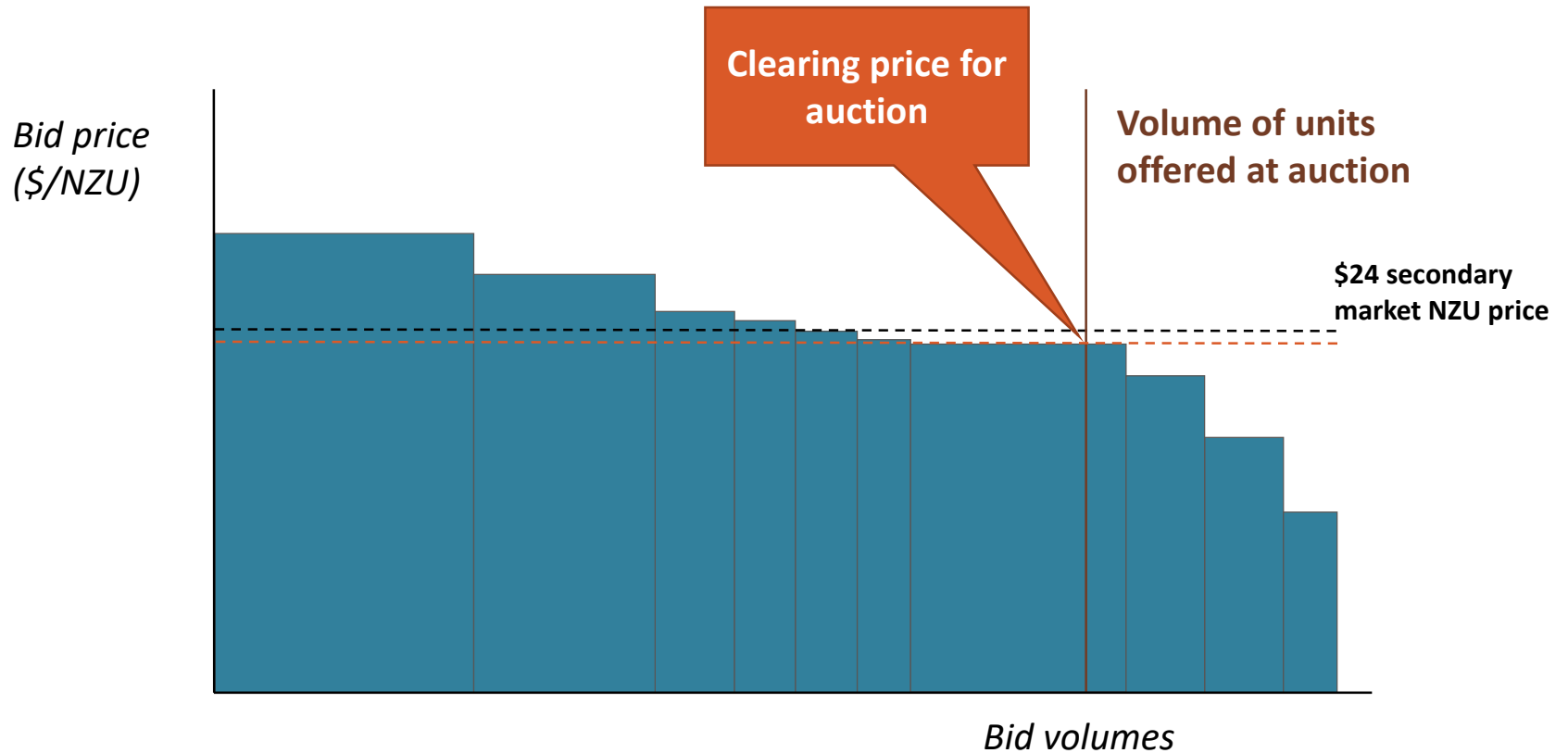
Five-year rolling decision-making



Recap: auctioning in the NZ ETS

- The ability to sell NZUs by auction has been in the Climate Change Response Act since 2012 but the provisions have never been used.
- The Government has already made decisions on several aspects of how auctioning will work.
- The high-level design of auctioning has been announced:
 - sealed-bid, single round format, with uniform pricing
 - frequency will initially be either monthly or quarterly
 - all New Zealand Emissions Trading Register account holders will be eligible to participate.

Example of proposed auction format



*Note that this graph is indicative only.

2018 auction data from EEX (EU ETS)

Data point	Value
Number of auctions	209
Total volume sold	820 million EUAs
Total value of sales	€12.6 billion
Average number of participants	25
Average number of bids per bidder	3.8
Average cover ratio (bid volume/auction volume)	2.6
Average number of successful bidders	17

Source: <https://www.eex.com/en/market-data/environmental-markets/auction-market/european-emission-allowances-auction/european-emission-allowances-auction-download>

Recap: previous decisions

- The Government also announced a second tranche of NZ ETS policy decisions in May 2019.
- These decisions included:
 - providing further clarity about what will be set in auctioning regulations
 - matters that *must* be included in regulations
 - matters that *may* be included in regulations
 - enabling an independent auction monitor to be appointed via regulations to provide oversight of auctions.

Overview of the auction system

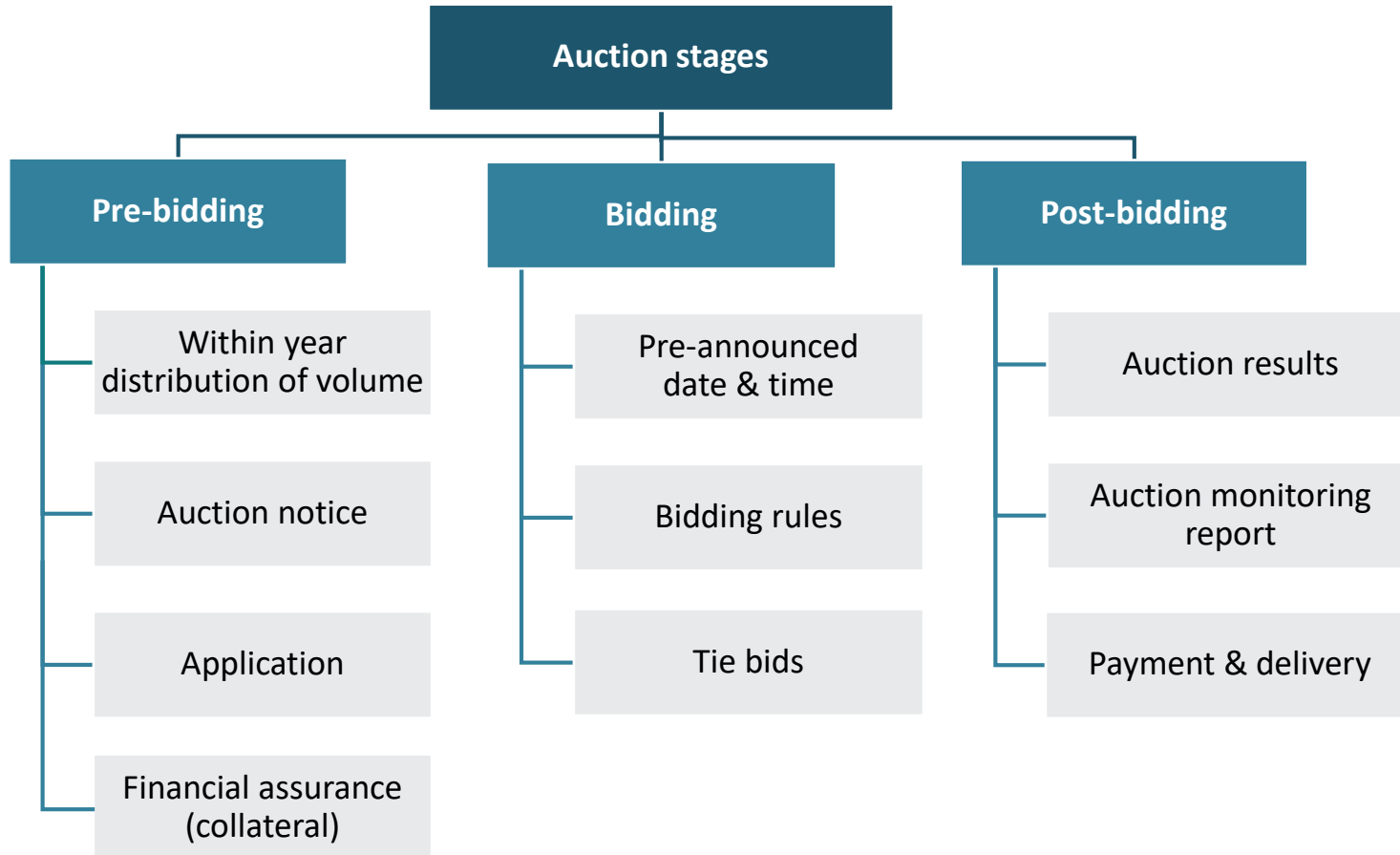
What is an “auction system”?

- By “auction system” we mean the combination of:
 - roles
 - functionalities
 - processes, and
 - IT systems (*not covered today*)

needed to implement and run auctions in accordance with pre-determined design choices and operational rules.

- These all sit across three auction stages: pre-bidding, bidding and post-bidding.

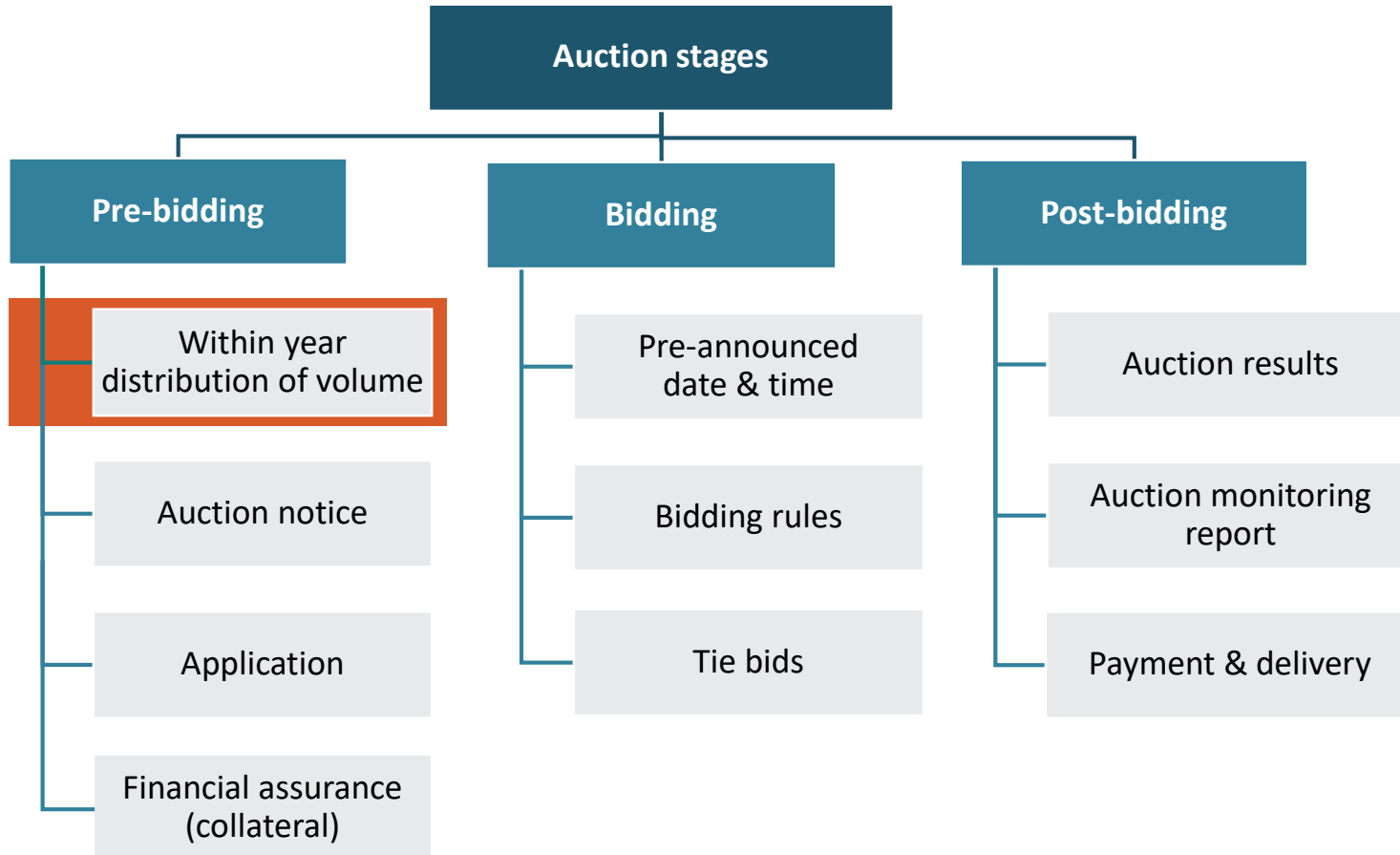
Auction stages



Roles in an auction system - working definitions

Role	Role description
Auction bidders	Direct bidders bid on their own account Indirect bidders bid on behalf of clients (eg, brokers, banks, large industrial/power/forestry companies)
Auctioneer	A public entity responsible for auctioning NZUs and receiving the payments (<i>MfE on behalf of the Minister for Climate Change</i>)
Auction operator	The public or private entity operating the auctions
Auction monitor	Monitors auction conduct and reports on auction outcomes
Environmental Protection Authority	Runs the New Zealand Emissions Trading Register

Auction stages



Overall auction volumes

- Annual auction volumes will be determined as part of the unit supply decision-making process on a five-year rolling basis
- Decisions about how best to distribute the annual auction volume across the year are part of the operational issues we are considering today
- Any choices about ‘between-year’ volume distribution or flexibility will be made as part of the overarching unit supply decisions

Distribution of within-year auction volumes

- These choices include how to distribute the annual auction volume:

Distribution of auction volumes

1. Even distribution

The volume in each auction will be based on equal portion of the annual volume.

2. Weighted distribution

Distribution could be weighted, based on predetermined rules. For example, a greater proportion of annual volume could be sold prior to the compliance due date.

Distribution of within-year auction volumes

- There are choices about what rules should be used to deal with volume that is not sold at auction.

Flexibility of volume from unsold lots or if the auction does not take place

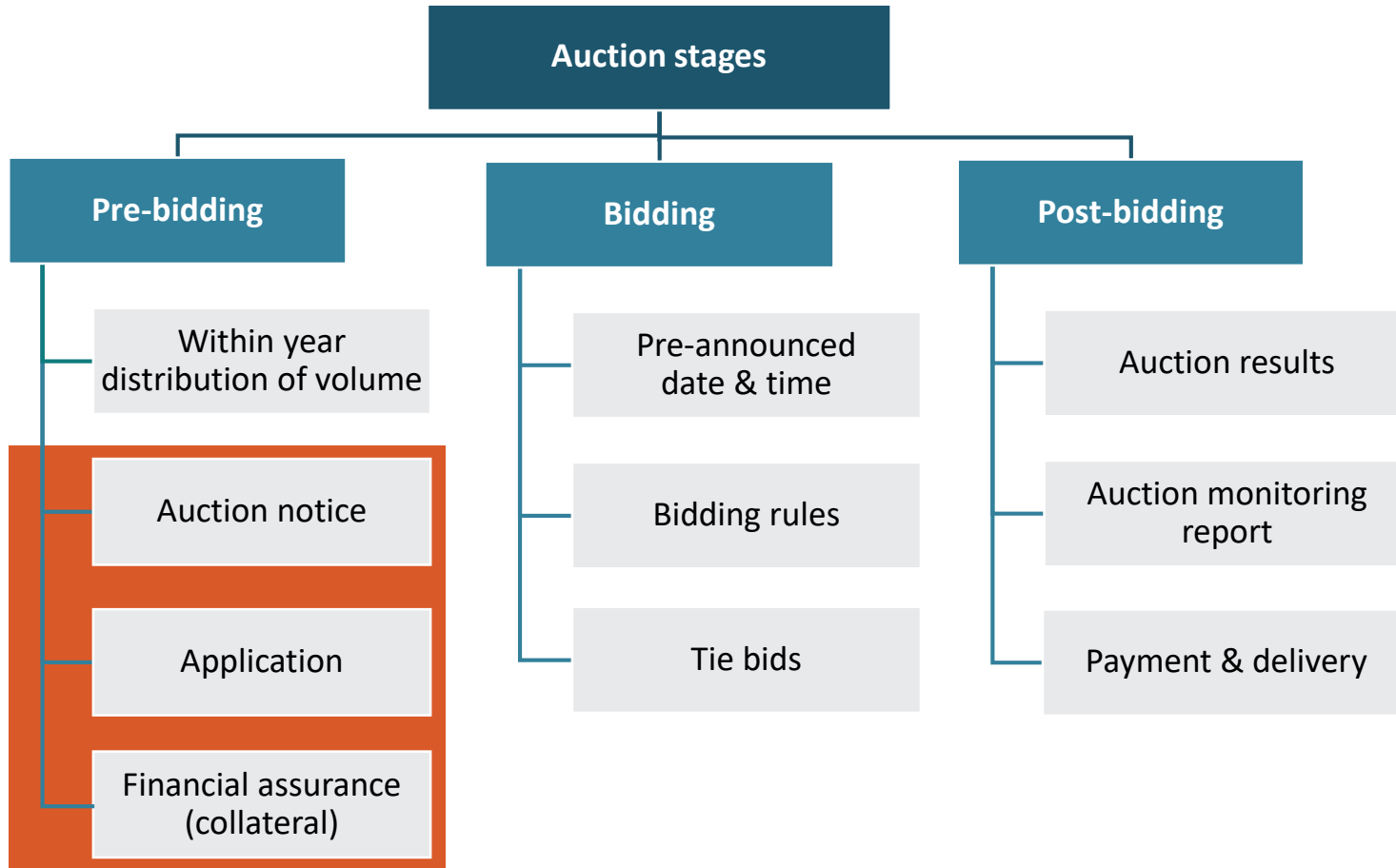
1. Automatically add to next auction

All unsold volume would be added to the next scheduled auction.

2. Auction within year based on pre-determined rules (eg, spread across the rest of the auctions)

Unsold volume from one auction would be spread across remaining auctions based on predetermined rules (eg, evenly across the rest of the auctions).

Auction stages



Auction notice – content

- An **auction notice** has two purposes:
 - notify the market of key auction elements (date, time, volumes)
 - invite applications to participate (provides link to application forms, dates for submitting).
- Content varies in different jurisdictions (eg, RGGI auction notices are 45 pages and set out detailed regulations governing auctions).
- NZ ETS auction notices could have minimal content, with information set out in other docs in a centralised location (eg, links to application forms, explanation of application process, bidding rules, settlement requirements etc).

Auction notice - content

Comments from stakeholders as to best practice for auction notice content

Auction notice – lead time

- How far in advance of an auction should the notice be published?
 - sufficient time required to conduct due diligence on applicants
 - depends on the auction frequency.

Auction notice – how far in advance should the auction notice be published

1. 60 days (only an option for auctions held quarterly)

2. 30 days

3. Other?

Any further comments about ensuring integrity and transparency in pre-auction process?

Auction registration - requirements

- Participation in auctions will be open to all New Zealand Emissions Trading Register account holders.
- There will also be several steps required to register to participate in an auction, including the need to submit:
 - an application (providing identity information, nominating auction representatives, and providing relevant disclosures), and:
 - financial assurances (collateral).

Auction application

- We are interested in your views on what information bidders should provide as part of their application.

What information should be required in the application?

- 1. Identity of potential auction bidder (natural or legal person)**
- 2. Name, address, whether publicly listed**
- 3. Evidence of registry account**
- 4. Tax code**
- 5. Details of corporate and business affiliations**
- 6. Details of auction representatives**
- 7. Declarations with respect to past conduct**

Criminal record, infringements, revoked permits to conduct business.

Auction application (continued)

What information should be required for the application?

8. Intent to bid

Confirmation of the auction event in which they intend to bid.

9. Financial assurance

Details later in this session.

10. Information required if a maximum bid allowance is implemented

In this case, the application would also require information about:

- all the companies the participant owns, or if partially owned, over which they exercise de jure or de facto a decisive influence*
- whether they are bidding on their own account or on the account of some other entity (ie, disclose the beneficial ownership of the units they are bidding for)*
- details later in this session.*

11. Anything else?

Auction application

- The lead time for submitting an application must be sufficient to allow the auction operator time to undertake registration checks

Lead time for submitting the application

1. 20 days prior to auction

2. 30 days prior to auction

Typical in California

3. 40 days ahead

Typical in RGGI

3. Other

What might affect your ability to submit an application sooner rather than later?

Financial assurances

- Providing financial assurances (eg, by way of an upfront payment) can be part of the application process to participate in an auction.
- Financial assurance can help manage the risk of winning bidders defaulting on their payments.

Finance assurance

1. Collateral should be required to participate in auction

Further detail on next slides.

2. No collateral should be required to participate in auction

Non-performance penalties will apply in cases of payment default.

Financial assurances (collateral)

- If collateral is required, there are a number of options:

Form of collateral

1. Cash

Deposit of monies to the auctioneer account via a bank transfer.

2. Bank guarantee

This guarantees a sum of money to auctioneer, and is only paid if the bidder defaults on payment.

3. Letter of credit

This is an obligation taken by a financial institute to make payment when certain criteria are met (ie, if the bidder is successful, the bank will transfer the funds to the auctioneer's account).

4. Credit ranking

In some markets (eg, gas markets), large participants are allowed to participate based on their credit rating.

5. NZUs

Use of NZUs held in the NZ Emission Trading Register account.

Financial assurances – value

- What is a fair value of collateral for bidders to provide?

If collateral is required, what should its value be?

- 1. 100% of the participant's maximum bid value**
- 2. A fraction of the participant's maximum bid value (eg, 10%, 25%)**
- 3. Flat-rate amount to be paid as collateral**

Financial assurances – lead time

- How far in advance of the auction should financial assurance be due?

Lead time for collateral being submitted prior to auction

1. 14 days

2. 10 days

3. 7 days

4. Other

Financial assurances (use and release)

- Should successful auction bidders use their collateral as payment?

Use of collateral

1. Mandatory use of collateral against payments

All successful bids will be paid with collateral.

2. Successful bidder required to pay full sale separately

All successful bids will be paid separately from any collateral held.

3. Bidder's choice

Bidder can choose whether to pay via collateral or separately.

Financial assurances (use and release)

- What should happen to unused collateral after the auction closes?

Release of collateral

1. All unused collateral will be returned automatically

No option for bidders to have their collateral retained by auctioneer for future auctions

2. Bidders can request that collateral be retained by the auctioneer for future auctions

Not yet clear whether all forms of collateral (ie cash) can be retained

3. Bidders can request that collateral be returned at their request

Auction registration - initial vs ongoing

- Requiring participants to go through the full application process for each auction they intend to bid in will have high administrative costs.
- It will therefore be preferable to have an “intent to bid” application for participants who have already made a successful application.

Options for ongoing applications

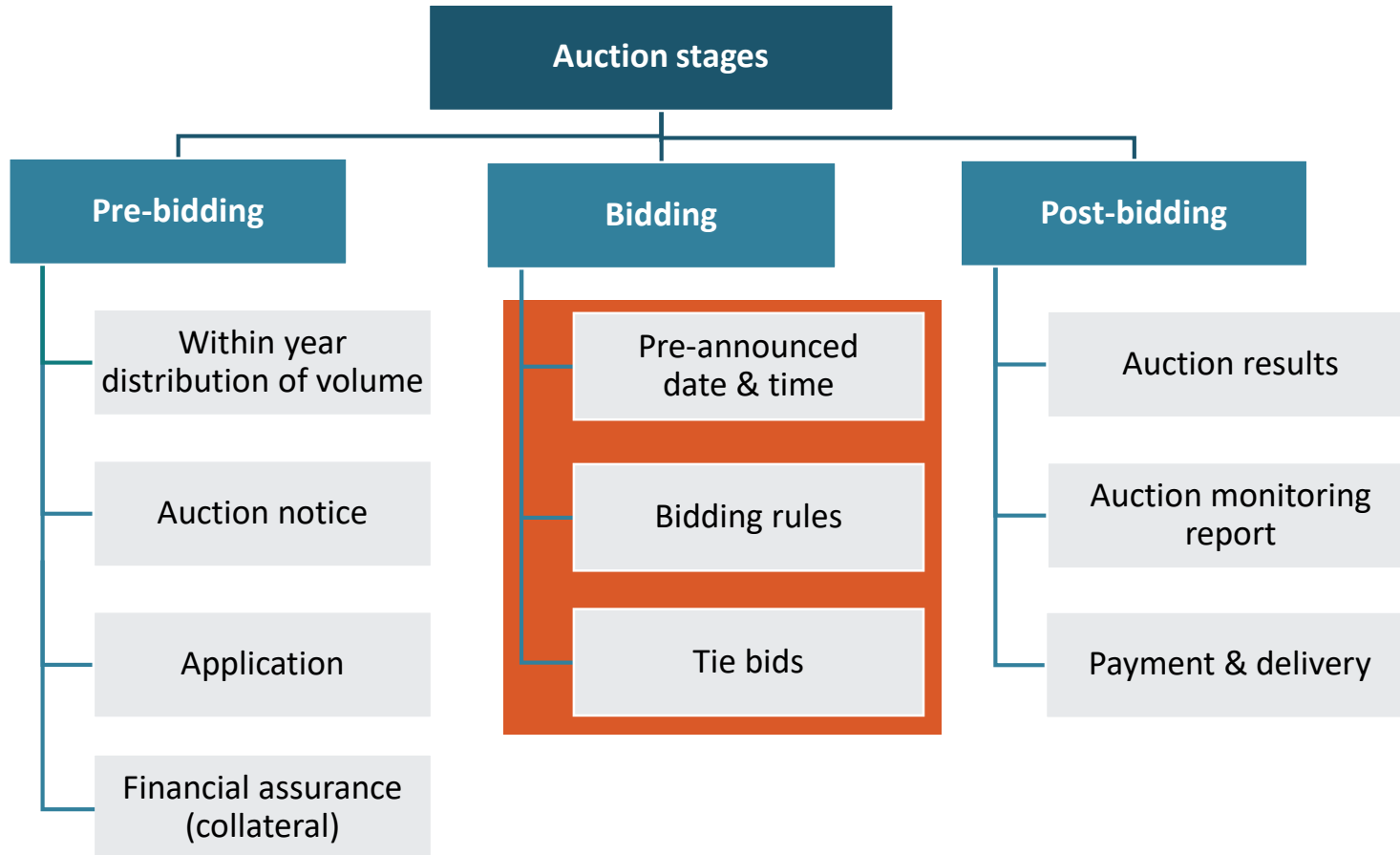
1. Have an “intent to bid” application for participants who have previously been approved, and wish to take part in a future auction

This could include a declaration of no substantive changes since the initial application – it would reduce administrative burden for auction operator and participant.

2. Other?

Are there any other approaches that the Government could explore to reduce ‘re-registration’ transaction costs?

Auction stages



Auction timing

- It may be desirable to avoid certain dates for auctioning.

Auction dates

1. What dates should be avoided?

E.g. Public holidays, days where important economic data is released, and days where emissions data is released

2. How far in advance of the NZ ETS surrender date should the closest auction be held?

Consider for both monthly and quarterly auction scenarios

Auction timing

- It is preferable for bidding to be open for a few hours, allowing time to compile, submit and confirm bids.
- A longer period would result in higher administrative costs and a longer time for the market to discover the clearing price.

Auction time

- 1. Bidding open for 2 hours**
- 2. Bidding open for 3 hours**
- 3. Other preferred options?**

During the auction: bidding rules

- This will be subject to the capability of the auction platform, but we are keen to understand your views on whether it is preferable to enter bids directly on the website, or whether submitting bids as an Excel spreadsheet would be desirable.

Mode of bidding

1. Via the auction platform's electronic interface

By typing directly into website form

2. By submitting a schedule of bids via a bidding form

E.g. by uploading an Excel spreadsheet

3. Anything else?

During the auction: bidding rules

- Larger lot sizes imply a more efficient auction process but they may also restrict participation of small entities that require fewer units to meet their liabilities.
- On the other hand, lot sizes that are too small might make the auction process less efficient.

Lot size
1. 1,000 NZUs
2. 500 NZUs
3. 100 NZUs
4. Other

During the auction: bidding rules

- Should bidding rules specify minimum price steps and, if so, what should they be?

Price increments

1. \$0.01

2. \$0.02

3. \$0.05

4. \$0.10

5. Other, please explain

During the auction: bidding rules

- Volume limits on bidding may reduce the opportunity for a single entity to manipulate the auction.
- Two different types of volume restrictions could be considered:
 1. Restrictions on the volume of individual bids. This would have no effect as multiple small bids could be used to mimic the effect of a large bid.
 2. Restrictions on the total volume of bids that could be submitted by any single participant (including if they are from different companies owned by the same beneficial owner).
- Introducing a maximum bid volume per participant would require participants to provide more information as part of the application.
- This may result in an increased administrative burden for both the auction manager and the bidder, and could be difficult to enforce.

During the auction: bidding rules

Is a maximum total bid volume per participant desirable?

- 1. Yes, there should be a maximum total bid volume per participant**
- 2. No maximum total bid volume**
- 3. A maximum total bid volume should be set only if there is evidence of issues such as market abuse, money laundering or terrorist financing**

If yes, what is a desirable total bid for a single participant (as a percentage of total volumes in an individual auction)

- | | | | |
|-------------------------|---------------|-----------------|---------------|
| 1. 10% | 2. 20% | 3. 25% | 4. 30% |
| 5. More than 30% | | 6. Other | |

During the auction: technical reserve price

It is important to distinguish between two different types of reserve/floor price at auction:

Auction technical reserve price

This could be set just before an auction, relative to the market price at the time, to avoid any auctions clearing substantially below market prices

Auction floor price

If put in place, this would be a price that is set by the Government to prevent volume being sold at an unacceptably low price.

****NOT IN SCOPE FOR TODAY****

Auction technical reserve price

- An auction technical reserve price is a minimum price at which the winning bid must clear.
- Reasons for having a technical auction reserve price include:
 - to avoid low participation resulting in a clearing price below the competitive price and
 - to reduce incentives for price manipulation.
- The methodology for calculating a technical reserve price can be more or less transparent – eg, in the EU ETS this is kept secret to avoid providing an undesirable focal point for bidding strategies.

Auction technical reserve price

If there is no price floor, should there be a technical auction reserve price

- 1. Yes, a technical auction reserve price should apply**
- 2. No**

If introduced, should the methodology for the technical auction reserve price be kept secret

- 1. Publish the methodology**

For example, it could be set relative to the secondary market price

- 2. Keep confidential**

If introduced and the total demand is below the auction offer, what should apply

- 1. The auction should be cancelled**
- 2. All bids made should be sold at the technical auction reserve price**

During the auction – amending bids

- Should participants be able to amend and/or withdraw their bids any time up until the auction close?
- Auctions that fall under the Fair Trading Act require that bids may be withdrawn until the end of an auction.
- Allowing amendments/withdrawals could reduce defaulting bidders after the close of auction. In a single round sealed-bid format, there is no impact on other bidders if this occurs.

Amending bids during the auction

- 1. Bids may not be amended after the auction has commenced**
- 2. Bids may not be withdrawn after the auction has commenced**
- 3. Bids may be amended or withdrawn up until the auctioneer closes the auction**

During the auction – tied bids

- In a single round sealed-bid auction, tied bids occur when more than one bid is proposed at the clearing price and the total bids exceed the volume up for sale.

Resolving tie bids

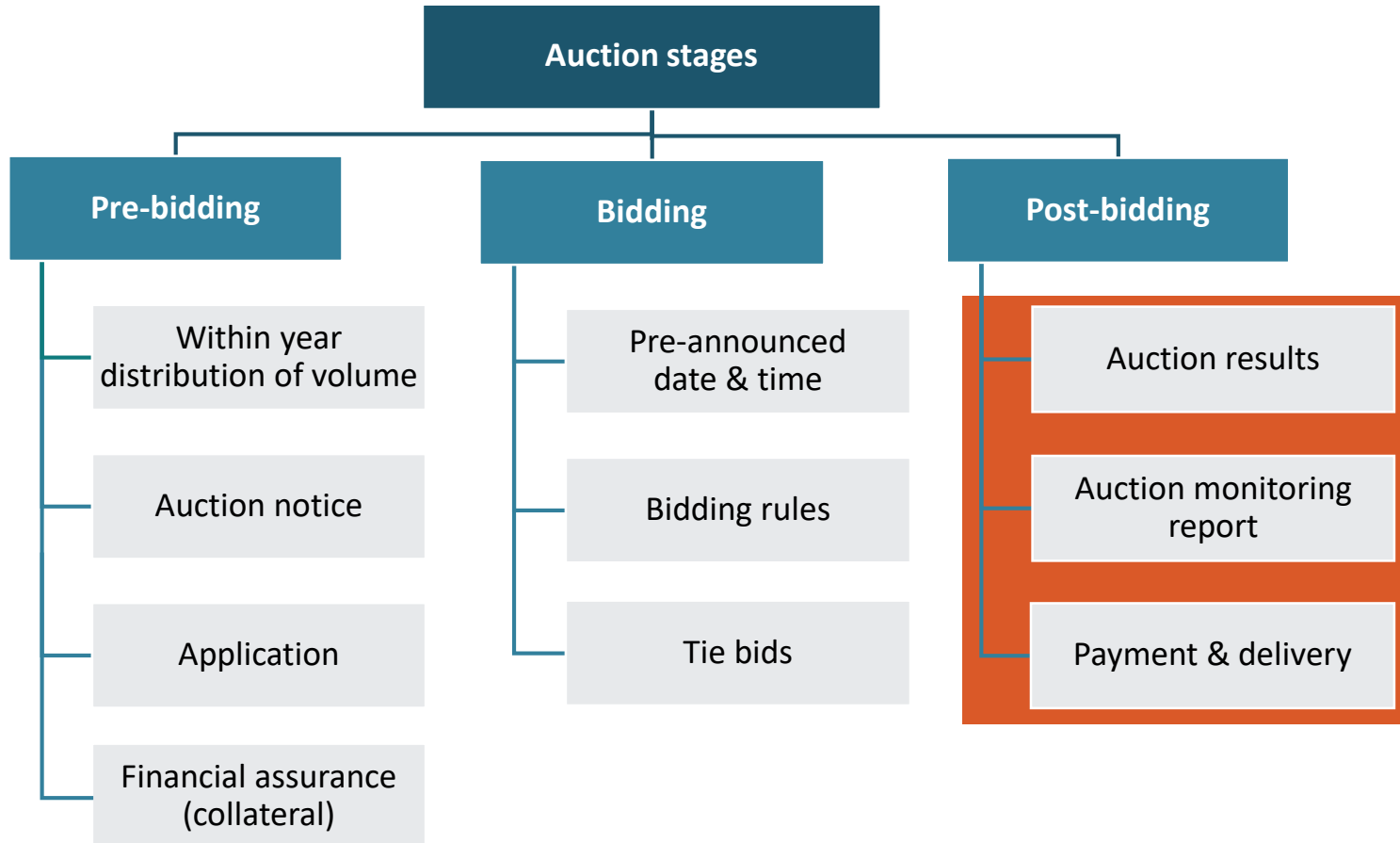
1. Random assignment approach

Tied bids are randomly assigned a number, these bids are then ranked according to their random numbers and units allocated in an increasing order until no units are left.

3. Pro-rata re-scaling of tied bids

This option involves reducing all tied bids proportionally so that total demand equals supply.

Auction stages



Post auction - auction results

- Auction results can be thought of in two categories:
 1. auction results that can be released very shortly after the auction
 2. information that requires further analysis and can only be provided to the market after a delay.
- Preliminary auction results could be released shortly after the auction, likely by the entity or agent running the auction.
- The role of an auction monitor includes publishing a report, which includes validated auction results and calculating specific metrics. This would include the second type of information.

Post auction: preliminary results

What information should be released shortly after the auction?

1. Price: the clearing price, the average price, minimum and/or maximum price
2. Total volume of units auctioned
3. Total volume of bids submitted
4. Average bid size
5. Number of bids submitted
6. Cover ratio (total volumes bid divided by the total volumes up for sale)
7. Total number of bidders and the number of successful bidders
8. In case of auction cancellation, the auction to which the NZUs volume is carried over
9. Total revenue earned
10. Other?

Post auction: preliminary results

Timing of release

1. Release preliminary results shortly after the auction

E.g. one day after the auction

2. Wait for validated results to be released by the auction monitor

Method of release

1. Released on the auction website

2. Other?

Auction monitor

- As discussed earlier, an independent auction monitor could be appointed.
- Its functions could include to:
 - Monitor auction processes and bidding conduct
 - Receive information from the EPA, the Registrar, and auction operator
 - Make recommendations to improve the auction system
 - Verify results prior to publication and calculate auction metrics in **an auction monitor report**.

Auction monitor report

Final auction results would be validated by the auction monitor.

Possible details in the auction monitor report

- 1. Names of qualified bidders (ie, not just of winners)**
- 2. Detailed volume statistics, eg, average volume bid per bidder, average volume won per bidder**
- 3. Detailed statistics on number of bids: eg, average number of bids per bidder, number of bids submitted, number of successful bids**
- 4. Any relevant aggregate information (eg, largest bids as % of total volumes sold, % volumes awarded to regulated entities)**
- 5. Any relevant distributional information (eg, number of units awarded to which winner, with the bid names withheld)**
- 6. Distribution of successful bids amongst market participants with and without mandatory compliance obligations**
- 7. Any relevant information to solve tied bids**
- 8. Market concentration as measured by the HHI**
- 9. Commentary on the integrity, fairness and transparency of auctions**
- 10. Information on units won by each successful bidder**

Post auction: payment and delivery

- Payment before delivery approaches are commonly used in ETS auctions. This means units are delivered (ie, transferred to the auction participant's New Zealand Emissions Trading Register account) after payment is made for successful bids.
- There is typically some time delay to confirm the payment and transfer units.

What is the maximum delay acceptable between payment and physical delivery of units?

Post auction: payment and delivery failures

- We have already discussed how to address the risk of payment failure (as part of financial assurance).
- Delivery failure refers to situations where the auctioneer is unable to deliver the units won in an auction (eg, if was a technical issue with the registry). There are several options for handling this risk.

Options for handling this should be in the physical delivery of units

Transaction is cancelled and collateral is released

Delivery of units postponed to a later date chosen by the bidder

Next steps

- As mentioned, we will produce a document outlining key themes from the sessions.
- If you have any further thoughts over the next couple of weeks, feel free to get in touch with one of us.
- Consultation on auctioning regulations will occur before any final policy decisions are made – expected to be held later this year.

Thanks



Ministry for the
Environment
Manatū Mo Te Taiao



Making Aotearoa New Zealand
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Aotearoa – he whenua mata kōura mā te tangata