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Auctions

Position paper on the legislative instrument for auctioning carbon units in Australia's carbon pricing mechanism

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Commonwealth of Australia 2012

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Information for respondents

Key Dates

3 February 2012	Position paper available on the Commonwealth Department of Climate Change and Energy Efficiency website
24 February 2012	Submissions on position paper close

Submission Guidelines

These guidelines outline the requirements for submissions on this position paper:

- Submissions are invited from all interested stakeholders.
- Where possible submissions should be lodged electronically to the email address below, preferably in Microsoft Word or other text based formats. Alternatively, submissions may be sent to the postal address below to arrive by the due date.
- **Submissions will not be treated as confidential** and may be made publicly available. If a submission (or extracts of a submission) is to be kept confidential, please indicate this in the submission.
- All submissions are due **close of business 24 February 2012**.

Submissions should be sent to:

Email: SMLB.auctions@climatechange.gov.au

Postal address:

Strategy Team
Strategy and Market Linkages Branch
Department of Climate Change and Energy Efficiency
GPO Box 854
Canberra ACT 2601

Contact details

Copies of this paper are available on the Department's website at www.climatechange.gov.au.

Hard copies are available on request via telephone 1800 057 590 or email SMLB.auctions@climatechange.gov.au.



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1 Introduction

The Australian Government will introduce a carbon pricing mechanism from 1 July 2012. There will be two stages of the carbon pricing mechanism. From 1 July 2012 to 30 June 2015, the price for each tonne of carbon pollution will be fixed. Then, from 1 July 2015, the carbon pricing mechanism will transition to a 'cap and trade' emissions trading scheme. In this second 'flexible price' stage, the carbon price will be set by the market.

The number of carbon units issued by the Government for compliance years in the flexible price stage will be limited by a pollution cap. Some of the carbon units issued will be allocated to businesses without charge to support jobs and competitiveness, and help affected industries make the transition to a clean energy future. The remaining carbon units will be sold by the Clean Energy Regulator (the Regulator) at auction.

The *Clean Energy Act 2011* (the Act) specifies that the Regulator may issue carbon units through auctions. Section 113 sets out that the policies, procedures and rules that apply in relation to the auctioning of carbon units will be determined by the Minister in a legislative instrument. This paper discusses a number of detailed design proposals for the auctioning of carbon units to inform the legislative instrument.

The Government's Clean Energy Future Plan sets out a number of policy decisions that relate to the design of auctions that are taken into account in this paper. These are:

- There will be advance auctions of future vintage carbon units.
- The nature of the publicly available information on the auction results that will be available for each vintage, including quantities sold, final settlement prices and the benchmark average auction price (see Table 2 on page 19).
- When there are no regulations in force declaring a pollution cap and the cap number, the amount of units that can be auctioned is limited to a maximum of 15 million units for each vintage per year.
- There will be no double-sided auctions.
- There will be no deferred payment arrangements for auctions.

Following consultation on auctions through the paper, in mid-2012, stakeholders will also be given the opportunity to comment on an exposure draft of the auction legislative instrument. The legislative instrument will guide the implementation of the auction platform.



2 Auction Policy Objectives

The proposals for the auction design contained in this paper have been developed consistent with the primary policy objectives as outlined in the Revised Explanatory Memorandum to the Act. These are to:

- **Promote allocative efficiency:** a well-designed auction should allocate units in a way that will best facilitate an efficient carbon market by channelling units to their highest value in the economy with minimum risk and transaction costs.
- **Promote efficient price discovery:** making the auction results public will provide an important price signal early in the mechanism. This signal should stimulate behavioural change, for example, by helping liable entities to manage their emissions obligations and make informed investment decisions. Later, as the secondary market matures, that market will become the main source of information about carbon unit prices.
- **Fund Clean Energy Future measures:** the auction revenue provides funding to assist households and businesses and support investment in clean energy and action on the land as set out in the Government's Clean Energy Future plan. However, the auction has not been designed with the primary aim of maximising revenue.

3 Auction Design Features

This paper discusses the proposed design features to be included in the auction legislative instrument, with the scope of the features considered outlined in the Act. The auction design features in this paper have been drawn from an extensive history of auctions policy development in Australia. The paper also takes into account expert advice on specific auction design elements by Pitt & Sherry, in the 2010 report *Experimental Testing of Possible Designs for the Australian Carbon Pollution Permit Allocation Auction*.

The scope of this paper is limited to design features where a decision has not already been made by the Government. This excludes consideration of design features referred to in Section 1. Section 113 of the Act outlines a number of broad and unrestrictive auction policies, procedures and rules that can be addressed in the legislative instrument. Using the Act as a guide, this paper will address the following matters:

- Auction frequency and size
- Advance auction of future vintages
- Post-year vintage auction
- Auctions without a pollution cap in place
- Timing of first auction
- Auction schedule
- Unsold units
- Auction of relinquished units
- Auction type
- Participation
- Collateral
- Misconduct and sanctions



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- Reserve price
- Minimum number of carbon units in bids (parcel size)
- Maximum parcel size
- Variation of bids
- Proxy bidding
- Bidding window
- Bid increments
- Intra-round bidding
- Electronic auction platform
- Suspension or cancellation of auction
- Payment timing and method
- Public information for auctions

3.1 Auction frequency and size

The number of carbon units with a particular vintage available for auction will be determined by the Regulator. It will reflect the level of the pollution cap, after accounting for the total number of free carbon units with that vintage year issued in accordance with the Jobs and Competitiveness Program, the total number of free carbon units with that vintage year issued in accordance with coal-fired electricity generation assistance, and the total number of relinquished units.

The number of carbon units available at a particular auction will also depend on the frequency of auctions for that vintage. Three factors are relevant to the auction frequency, and subsequent auction size:

- More frequent auctioning means smaller auction sizes;
- Auctioning more units outside the compliance period means that there are fewer carbon units remaining for auction within the period; and
- The greater the proportion of carbon units that is administratively allocated the smaller the auction size.

Small and more frequent auctions could lead to a less competitive bidding field. On the other hand, more frequent auctions would increase the timeliness and number of price signals. In the context of the CPRS, several stakeholders argued that more frequent auctions would help them manage cashflow issues. However, once the secondary market has matured, it will provide readily available price information. The frequency and size of auctions will also influence the level of participation, as larger and less frequent auctions are likely to have greater participation. More frequent auctions would also increase administrative costs for both the Regulator and participants.

Proposal: Four auctions will be held during the compliance year, one in each quarter (approximately 3 months apart).



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3.2 Advance auction of future vintages

The Government has committed to auction some of the carbon units in advance of the relevant compliance year, with advance auctions of flexible price carbon units commencing in the fixed price period. It is proposed that four years of vintages be auctioned, being the current year's vintage plus the advance auction of three future vintages. The exception is that the 2015-16 vintage would only be auctioned at two advance auctions, rather than three, due to the first auction taking place in 2013-14, as discussed in Section 3.5 below.

The key advantage of advance auctions is that they provide liable entities with additional flexibility in managing future emissions obligations. The utility of advanced auctions may diminish over time because early vintage carbon units can be banked and a liquid secondary market is likely to develop.

A greater number of future vintages auctioned would increase the overall number of auctions of each vintage, thereby reducing the average auction size and risking the reliability of the price signal from each auction.

Proposal: Four years of vintages will be auctioned (current vintage plus advance auctions of three future vintages).

3.3 Post-vintage year auction

The final surrender date for each compliance year is 1 February of the following compliance year. It is proposed that one auction of each vintage will be held after the end of the relevant compliance year in the lead-up to the final surrender date. This will allow for an auction to be held after liable entities have reported their emissions and know their liability with greater certainty.

It will also allow for an auction to be held after the point in time when all units of the vintage have been allocated under the Jobs and Competitiveness Program and for coal-fired electricity generation, which is 1 December following the compliance year. The post-vintage year auction will therefore function as a 'true-up' auction to ensure that the total number of carbon units issued for any particular vintage is exactly equal to the pollution cap.

To enable liable entities to meet their compliance obligations, it is proposed that the post-vintage year auction be held at least four weeks prior to the final surrender date.

Proposal: One auction of each vintage will be held after 1 December following the vintage year and at least four weeks prior to the final surrender date of 1 February the following vintage year.



3.4 Auctions without a pollution cap in place

The legislation provides the Government with the flexibility to advance auction carbon units before pollution caps are in place. However, Section 101 of the Act prescribes that no more than 15 million carbon units from a particular vintage can be advanced auctioned during a compliance year if the regulations setting pollution caps in respect of that vintage are not yet in effect.

The Government has committed to announcing the first five years of pollution caps in the 2014 Budget and will table regulations no later than the 31 May 2014. These regulations will not take effect until after the disallowance period, which is 15 sitting days in both houses of parliament, and likely to be in the second half of 2014. This means that auctions potentially held in the first and second year of the carbon pricing mechanism would be limited to 15 million carbon units per vintage.

3.5 Timing of first auction

The Government has committed to advance auction some flexible price units during the fixed price period. As discussed above, the legislation allows for advanced auctions at any time from the commencement of the Act. However, the effective implementation of the first auction will require an auction platform to be built and for other supporting infrastructure to be operational. The first auction will not be held during the first year of the carbon pricing mechanism, 2012-13. The first auction will take place in the following financial year, 2013-14, most likely in early 2014.

Proposal: The first auction will take place in 2013-14 financial year, most likely in early 2014.

3.6 Auction schedule

Based on the proposals above, there would be eight auctions for each vintage; three advance auctions, four within the relevant compliance year and one following the compliance year before the final surrender date. The proposed auction schedule, and the indicative proportion of each vintage year's auctionable carbon units, is shown in Table 1 on page 10. The proportions expressed in each cell in the auction schedule refer to the proportion of units of that vintage available for auction in the compliance year.

The proposed auction schedule will be set out in general terms in the auction legislative instrument. The legislative instrument will not provide a detailed schedule of when auctions will take place throughout the year.

The precise number of carbon units available for each auction will be determined by the Regulator, taking into account the relevant pollution cap, the auction objectives and the Regulator's best estimate of freely allocated units of that vintage at the time of the auction. The Regulator will make a final decision on the quantity of carbon units available at each auction to ensure flexibility and adaptability is incorporated into the auction schedule.



Table 1 – Indicative Auction Schedule

Vintage	Compliance Year – Auction Schedule									
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
2015-16		15m*	1/8 + (2/8 – 15m)**	4/8	1/8					
2016-17		15m*	1/8 + (1/8 – 15m)***	1/8	4/8	1/8				
2017-18			1/8	1/8	1/8	4/8	1/8			
2018-19				1/8	1/8	1/8	4/8	1/8		
2019-20					1/8	1/8	1/8	4/8	1/8	
2020-21						1/8	1/8	1/8	4/8	1/8
2021-22							1/8	1/8	1/8	4/8

* 15m refers to the 15 million unit limit, as discussed in 3.5 Auctions without a pollution cap in place.

** The number of 2015-16 vintage units available for auction in 2014-15 will be 1/8 of the total vintage allocation plus the excess units that were unable to be auctioned in 2013-14 due to the 15 million unit limit.

*** The number of 2016-17 vintage units available for auction in 2014-15 will be 1/8 of the total vintage allocation plus the excess of units that were unable to be auctioned in 2013-14 due the 15 million unit limit.

Proposal: The Regulator will adopt the indicative auction schedule as outlined in Table 1.

3.7 Unsold units

If unit demand at an auction is lower than unit supply, the unsold units will be offered for sale at the next auction. If, at that subsequent auction, units again remain unsold, they would be offered for sale at the following auction. The Regulator has no discretion to withhold units from auctions on the basis that they were unsold at a previous auction: all carbon under the pollution cap must be offered for sale.

Proposal: Unsold units will be offered for sale at the next auction.

3.8 Auction of relinquished units

Under Section 112 of the Act, the Regulator has the authority to auction relinquished carbon units on behalf of the Commonwealth. It is proposed that the Regulator will sell these relinquished carbon units in combination with the regular pool at the next auction after relinquishment.

Proposal: Relinquished units will be auctioned with the regular pool of carbon units at the next auction.



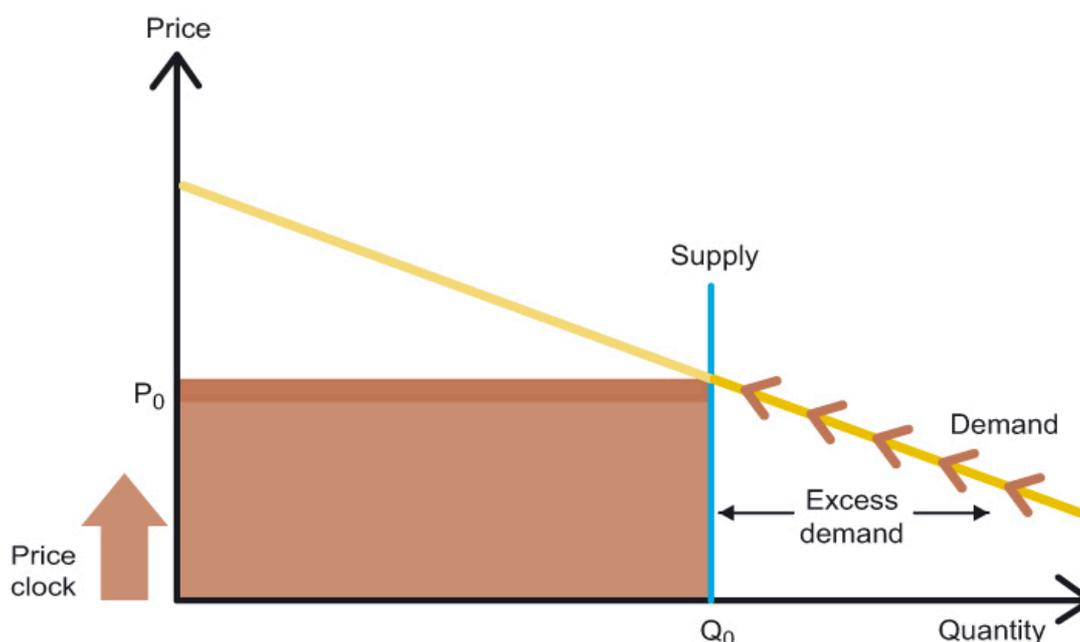
3.9 Auction type

It is proposed that ascending clock auction format be used.

In an ascending clock auction (see Figure 1 on page 11), the Regulator announces the current price. Bidders nominate the number of carbon units they are prepared to purchase at that price. If demand exceeds supply, the Regulator raises the price in the next round and bidders resubmit their bids. Bidders may decrease, but not increase, their bid quantities in each successive bidding round. This process continues until the number offered is equal to or greater than demand. Bidders then pay the price from the previous round. The price paid per carbon unit will be uniform for all successful bidders under an ascending clock auction system.

Ascending clock auctions are preferred because they provide for greater transparency. They provide bidders and the market with information throughout the bidding process, which allows for more efficient price discovery. It also conveys the aggregate demand schedule at the end of the auction, which promotes efficient price discovery in the secondary market. However, after the development of a liquid secondary market for units, a sealed bid format may also be appropriate (Pitt & Sherry 2010).

Figure 1 – Ascending clock auction



As there will be multiple vintages available for auction it is also possible to have either:

- Sequential auctions, where each vintage is sold in a separate auction one after another; or
- Simultaneous auctions, where all vintages are auctioned at the same time using multiple ascending clocks.



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Sequential auctions are proposed because they are relatively simple and fast to administer. Independent experimental testing indicates that sequential auctions, as opposed to simultaneous auctions, would provide (marginally) more efficient allocations, higher auction revenues and better price signals. Once operational, a performance review of sequential auctions is recommended (Pitt & Sherry 2010). Sequential auctions would be simpler to administer, and the auction platform would be cheaper to build than for simultaneous auctions. Sequential auctions would also be simpler to participate in and would provide additional benefits associated with broader participation, outlined in section 3.10 below.

Proposal: The auction type will be a sequential ascending clock auction.

3.10 Participation

It is proposed that any person who holds a registry account would be permitted to participate in the auctions (universal participation). In the context of the CPRS consultation, some stakeholders suggested that auction participation be limited to liable parties. However, limiting participation to liable parties would be likely to forego a number of advantages to broader auction participation, notably that:

- A competitive bidding field will more likely deliver reliable price signals;
- There are practical difficulties to limit and enforce restricted participation, as excluded entities could contract with liable entities to purchase carbon units on their behalf;
- Allowing participation by specialist financial intermediaries may provide smaller liable entities with an avenue for managing or pooling their obligations, rather than directly participating in auctions; and
- The exclusion of other participants, including financial market intermediaries, is likely to slow the development of hedging products, making the management of price risk more difficult.

It is proposed, however, that persons wishing to participate in auctions will need to register with the Regulator as a participant and show they meet competency and collateral requirements as determined by the Regulator.

Competency requirements for participating in the ascending clock auction (see section 3.8 above) in real time would include the Regulator's tailored auction training, as well as fulfilling any other competency determined by the Regulator. Compulsory training will provide participants with the assistance required to effectively participate in auctions. The Regulator will make public any competency requirements and details of training at least 3 months prior to an auction.

A director, officer or employee of the Regulator will be unable to participate in auctions.

Proposal: Any person who has a registry account will be able to participate in the auctions provided that they have registered as a participant and meet competency requirements.



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3.11 Collateral

It is proposed that participants will provide acceptable forms of collateral to the Regulator to participate in auctions. Collateral minimises the level of exposure to financial risk faced by the Regulator and the Government and promotes more reliable bidding activity.

For carbon units purchased at auctions, it is proposed that collateral be in a form that would fully cover the maximum bid and be in Australian currency, a letter of credit from an Australian authorised deposit-taking institution (ADI), a bank guarantee from an Australian ADI, another form of collateral acceptable to the Regulator, or a mixture of these.

If any amount of a unit purchase remains unpaid the Regulator would be able to recover the balance of the purchase price from the collateral posted by the purchaser. If any portion of the purchase price remains unpaid 14 days after settlement, the Regulator could elect to auction the outstanding carbon units in the next auction of that vintage.

The Regulator may require replacement of collateral where there has been a material change of circumstances which result in the original collateral no longer being acceptable. As part of the requirements for participation, the Regulator will set a date by which time acceptable collateral needs to be submitted.

Proposal: Acceptable collateral is required from all participants.

3.12 Misconduct and sanctions

An auction scheme that exhibits a high degree of integrity and is free from misconduct would provide participants with confidence in the auction process and ensure that it operates efficiently and competitively.

The Regulator will be empowered to address misconduct in the auction scheme through the auction determination. Carbon units will also be financial products for the purposes of the *Corporations Act 2001* (Corporations Act) and the *Australian Securities and Investments Commission Act 2001* (ASIC Act), which potentially triggers the market misconduct, disclosure and licensing provisions of those acts as well as general consumer protection provisions.

Clean Energy Regulator misconduct provisions

The Regulator will be responsible for conducting and monitoring the auction of units. This means that the Regulator will be able to observe, through the auction process itself, the actions of participants directly.

Where a participant breaches its contract with the Regulator by engaging in misconduct, the Regulator may be able to terminate the contract. This would mean that the participant would not receive the carbon units under the contract.

It is proposed that the auction determination would give the Regulator power to disqualify participants found to have engaged in misconduct in relation to an auction from participating in future auctions (Section 113(6) of the Act).



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In making a decision whether to disqualify a person, the Regulator would be required to have regard to instances of the person:

- Not following the auction rules as determined by the auction legislative instrument and the Regulator;
- Making false or misleading statements to the Regulator in relation to the auction process;
- Engaging in misleading or deceptive conduct leading up to the auction (e.g. during the application process) or during the auction process;
- Undertaking fictitious transactions (e.g. fake bids);
- Knowing about or otherwise being involved in this kind of misconduct initiated by another person; and
- Other matters (if any) the Regulator considers relevant.

The Regulator will be empowered to disqualify participants for misconduct.

Use of existing market misconduct regulations

Some misconduct involving the auction scheme may be regulated under the market misconduct provisions of the Corporations Act. This arises because carbon units will be financial products for the purposes of the Corporations Act and the ASIC Act. For instance, Part 7.10 of the Corporations Act addresses a range of market misconduct and other prohibited conduct relating to financial products and services. It addresses insider and manipulative trading, as well as broader provisions associated with misleading or deceptive activities. Misconduct on the auction should be regulated. Prohibitions against misconduct similar to those in Part 7.10 of the Corporations Act may apply to the auctions.

People who are in the business of providing financial services involving financial products will need to hold an Australian financial services (AFS) licence, issued by ASIC unless they are exempt from the requirement to hold a licence. There are some exemptions outlined in the Corporations Act, and additional exemptions are being proposed specifically for carbon units. AFS licensees are bound to comply with the general licensing obligations as well as financial services laws, including the disclosure and prohibited conduct provisions in Chapter 7 and the consumer protection provisions of the ASIC Act. People that hold AFS licences when engaged in activities that are providing financial services such as advising or dealing activities relevant to the auction will be subject to the obligations that apply to AFS licensees under the Corporations Act. People who do not hold an AFS licence and are not required to do so will not have the same obligations as an AFS licence holder when for example buying units in an auction on their own behalf. Other participants, such as liable companies and individuals, will not be subject to these obligations if they purchase carbon units on their own behalf.

ASIC is responsible for monitoring licensees for ongoing compliance with their licence and other legal obligations, and taking action, where appropriate, to enforce the law when it is breached by a licensee (or a person acting on its behalf). Possible enforcement action available to ASIC may include the use of administrative, criminal or civil remedies.

If an AFS licensee breaches their licensing obligations, ASIC may suspend, cancel or impose additional conditions on their licence after a hearing. ASIC may also make a banning order prohibiting the person



from permanently or temporarily providing financial services with immediate effect. Non-compliance with misconduct and insider trading provisions is an offence and civil penalties would apply.

3.13 Reserve price

The sequential ascending clock auction may also include a reserve price¹. This is the lowest price that carbon units would be sold at the auction. The reserve price for each auction will be set at a level below the expected market clearing price for the auction, but greater than zero. The reserve price is an administrative mechanism aimed at improving the speed and efficiency of the auction.

As part of the price floor arrangements for the first three years of the flexible price period there will be a minimum auction reserve for the vintage years 2015-16, 2016-17 and 2017-18. This will mean that for auctions of these vintages the reserve price will be equal to or greater than the minimum auction reserve for that vintage.

For auctions of units that are not subject to the legislative price floor, it is proposed that the legislative instrument will include elements to which the Regulator must have regard when setting the reserve price for each auction. These elements include:

- The need to ensure a fair, orderly and transparent market in carbon units;
- The aim of maximising participation, ensuring adequate liquidity in each auction held and avoiding unnecessary volatility in prices;
- Prices in the secondary market for carbon units, and international carbon market prices; and
- The results from previous auctions.

The Regulator will also need to communicate the reserve price to potential auction participants in a timely manner before the auction. To enable the regulator to take account of up-to-date prices in secondary markets, it is proposed that the reserve price be published 14 days prior to an auction.

Proposal: The Regulator will determine the reserve price for each auction having regard to elements raised above. The reserve price will be determined and published at least 14 days before the relevant auction.

3.14 Minimum number of units in a bid

The minimum number of units in a bid (or parcel size) is the lowest number of units that a participant can bid on. It is proposed that the minimum bid will be one carbon unit. This position is consistent with promoting the auction objective of allocative efficiency. A small parcel size has the advantage of a low entrance barrier and promotes flexibility (Pitt & Sherry 2010). A larger minimum bid may prevent small bidders from participating and may reduce competition in the auction.

¹ The terminology under *The Clean Energy Act 2011* (Section 111) refers to 'charges', i.e. carbon units issued as the result of an auction attract a charge.



As there is the potential for liable entities to have small obligations, a small minimum bid size enables entities to meet their obligations without having to purchase at auction more units than they need.

A minimum bid size of one unit will also make it easier to ensure that the total number of carbon units issued for any particular vintage is equal to the pollution cap. For example, if the minimum bid size was one thousand units, the units available for auction will be reduced to the pollution cap rounded down to the nearest thousand. This would leave excess units under the pollution cap that could not be auctioned.

A minimum bid size of one carbon unit is unlikely to be administratively cumbersome as the Regulator will run an electronic auction platform which will mitigate the administrative burdens and transaction costs related to a small parcel size.

Proposal: The minimum bid size will be one carbon unit.

3.15 Maximum parcel size

The maximum parcel size sets the upper limit on the number of carbon units that any one participant can bid for at the auction. It is proposed that participants will be restricted to a maximum parcel size of 25 per cent of the total number of carbon units sold at each auction for a particular vintage. This would prevent any single auction bidder purchasing all units at auction, and could thereby encourage greater participation at auctions.

The 25 per cent parcel limit will apply to individual participants, rather than the bid aggregation of a number of participants who are controlled by the same corporation.

Proposal: The maximum parcel bid size will be no more than 25 per cent of the total number of carbon units sold at each auction for a particular vintage.

3.16 Variation of bids

The procedures for variation of bids will be determined by the Regulator. However, under the ascending clock auction scheme, bidders will not be permitted to increase the quantity of their bids as the auction progresses and prices increase. This is because under an ascending clock auction increasing bids would jeopardise the effective functioning of the auction and distort the price signal.

Proposal: Bidders will not be permitted to increase the bid quantity as the auction progresses.

3.17 Proxy bidding

Proxy bidding allows bidders to delegate actions to the Regulator by submitting to the Regulator a set of bidding rules. Bidders can submit their unit demand schedules and then receive the number specified at the final auction price. Proxy bidding in a sealed format will not interfere with the operation, transparency or efficiency of the sequential ascending clock auction; it simply automates bidder preferences.



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Allowing proxy bidding has the advantage that bidders can bid on carbon units without the need to participate closely during the auction process. In doing so, it can enhance participation by providing a measure of convenience and additional flexibility for bidders who may have a clear understanding of their willingness to pay for carbon units.

Proposal: Proxy bidding will be permitted at auctions.

3.18 Bidding window

Each auction round will have a bidding window, which is the period of time during which bids will be accepted for that round. Participants will be allowed to update their bids in the bidding schedules during the bidding window. To facilitate an efficient price discovery during the auction process, participants should be informed on the length of bidding windows prior to the auction. Proxy bids may be also changed during the bidding window.

Proposal: Bids will be accepted during a defined bidding window, as determined by the Regulator in advance of the auction.

3.19 Bid increments

Bid increments refer to the size of the increase in the price from one round to the next during the auction process. The bid increments will be determined by the Regulator. When determining the level of the bid increment, the Regulator will have regard to the auction objectives.

Experimental testing indicates that the level of bid increments does not have a substantial impact on the efficiency of the auction if intra-round bidding is permitted. Intra-round bidding allows bidders to offer bids between price increments, which lessens the impact of large bid increments (see Section 3.20).

Proposal: The Regulator will determine the size of bid increments.

3.20 Intra-round bidding

As an ascending clock auction concludes when the number of units offered is equal to or greater than demand, there is the potential for residual supply to occur. Residual supply is where the auction clears without unit demand exactly equalling unit supply, leaving a number of units unsold. This residual supply arises when the auction clearing price falls between two rounds of bids (i.e. between price increments). With residual supply there is the potential for lower auction revenue as units remain unsold.

For example, the Clean Energy Regulator auctions 100 carbon units and starts bidding at \$21 per unit. Participant A will buy 50 units at this price, Participant B will buy 50 units at this price and Participant C will buy 50 units at this price. As demand for units exceeds supply, the price is put to \$22 per unit. Participant A will still buy 50 at this price, Participant B will also buy 50 units \$22 per unit, but Participant C will lower their demand to 20 units. As demand still exceeds supply the price goes to \$23. Participant A only wants 40 units at this price, Participant B also wants 40 units and Participant C wants 15 units. This means that 5 units will remain unsold.



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For intra-round bidding, participants may submit a bid or bids at prices lower than the price for the current bidding round, but higher than the price of the previous round. The advantage of intra-round bidding is that it can provide greater auction revenue by ensuring that units are sold at a final uniform carbon price that is closer to the efficient clearing price. In doing so, intra-round bidding may also enhance allocative efficiency and speed up the discovery of the auction clearing price.

In the example above, participants may submit a bid of \$22.50 for the remaining five carbon units, which would be lower than the price of the current bidding round and higher than the price of the previous round.

The Regulator will determine whether to hold intra-round bidding, and the subsequent method for the submission of intra-round bids.

Proposal: The Regulator will determine if intra-round bidding is used.

3.21 Electronic auction platform

The auction will be conducted using an electronic platform and an electronic settlement system operated by the Regulator. An electronic auction platform will encourage more entrants and greater competition because it is low cost and readily accessible.

Proposal: The auction will be conducted using an electronic platform and an electronic settlement system.

3.22 Suspension or cancellation of auctions

It is proposed that the Regulator will have the authority to suspend or cancel auctions if the Regulator believes that trading or bidding conditions have or did become disorderly or not transparent, including through system failure, mistaken bidding or non-compliance with the auction rules. It is proposed that an auction can be suspended for up to three hours to allow the Regulator to carry out investigations, during which time bids will remain in place. The auction will resume if the suspension is lifted within the three hour time period, but will be cancelled if suspended for more than three hours. The auction can also be cancelled any time before settlement.

Cancellation of an auction will only have effect if the cancellation is announced prior to settlement. All bids will be null and void. The Regulator may defer settlement for up to five business days pending investigation whether an auction should be cancelled. The Regulator will determine whether to hold a replacement auction, within seven days of the cancelled auction.

Proposal: The Regulator will have the authority to suspend or cancel auctions.

3.23 Payment timing and method

It is proposed that the settlement day will be three business days (T+3) after the end of the auction, except where settlement is cancelled. This period is consistent with standard market settlement arrangements.



It is proposed that on settlement day, payment for carbon units purchased at auction would be made to the Regulator in Australian currency only. Upon receipt, the purchased number of carbon units will be transferred by the Regulator to the purchaser. For purchased carbon units where payment has not been received within 3 days, the Regulator may auction those carbon units in the next auction of that vintage.

Proposal: The settlement day will be three business days (T+3) after the end of the auction.

3.24 Public information for auctions

The transparent operation of the auction instrument is important for ensuring that the auction objectives are met. To facilitate auction transparency and efficient price discovery, information about auctions will be made publicly available. Table 2 on page 19 shows a full list of information that the Regulator will publish. Providing information about auctions will also encourage trading and efficient business decision making so that units are more likely to reach the highest value in the economy as potential bidders are provided with ample opportunity and information to participate in auctions.

It is proposed that the Regulator determine and publish the auction calendar on its website at least six months in advance showing the starting time and date. The Regulator would advertise the timing of future auctions on its website.

When determining the auction calendar, the Regulator must have regard to the auction objectives and the indicative auction schedule as outlined in Section 3.6.

For each auction, the Regulator will also determine and publish on its website the total number of carbon units of each vintage to be offered for sale at that auction, based on its best estimate of the number of auctionable carbon units for the relevant vintage year. They will also publish how many relinquished carbon units will be available at the auction. These details will be published three months in advance of each auction.

The Regulator will also provide information on the bidding window and length of bidding rounds for each auction, technical and systems requirements for participating in auctions, and details regarding training and competency requirements for participating in auctions.

Proposal: The Regulator will publish information on auctions as set out in Table 2 below.

Table 2 – Information to be published on the Regulator’s website

No.	Information to be published	Publication date
1.	The date of each auction.	At least 6 months prior to the relevant auction.
2.	Technical and systems requirements for connecting to the auction system and settlement system.	At least 3 months prior to the relevant auction.
3.	Technical and systems requirements for submitting bids and for settling trades.	At least 3 months prior to the relevant auction.



No.	Information to be published	Publication date
4.	The other matters specified as matters which the Regulator may determine.	At least 3 months prior to the relevant auction.
5.	The starting time of the auction.	At least 3 months prior to the relevant auction.
6.	The process and deadline for nominating as a bidder in the auction.	At least 3 months prior to the relevant auction.
7.	The details of training (whether computer-based or otherwise), or other method of demonstrating competency, which prospective participants must fulfil in order to participate in the auction, or in any sub-category of auctions.	At least 3 months prior to the relevant auction.
8.	An estimate of the total number of carbon units of each vintage to be offered at the auction, determined as specified above.	At least 3 months prior to the relevant auction.
9.	Details of the form of collateral, and third parties, such as Australian Deposit-taking Institutions, acceptable to the Regulator.	At least 3 months prior to the relevant auction.
10.	The results of each auction, including the date of the auction, the vintage years of the units auctioned, and a statement setting out the price payable and the total number of units sold of each vintage offered for sale.	As soon as possible after each auction.
11.	The benchmark average auction charge for the previous financial year.	As soon as practicable after the end of the financial year.
12.	The benchmark average auction charge for the previous six month period.	Every 6 months, in early June and early December.
13.	A final statement of the total number of carbon units of each vintage being offered at the auction, determined as specified above.	At least 14 days prior to the relevant auction.
14.	The reserve price for each vintage of carbon units offered at the auction.	At least 14 days prior to the relevant auction.
15.	The bidding window and required form for the submission of proxy bids.	At least 14 days prior to the relevant auction.
16.	The length of each bidding round.	At least 14 days prior to the relevant auction.
17.	The bidding window for each bidding round.	At least 14 days prior to the relevant auction.
18.	The price increments or method of calculating the price increments.	At least 14 days prior to the relevant auction.
19.	Whether intra-round bidding is permitted and if so any rules as to what variations are acceptable.	At least 14 days prior to the relevant auction.
20.	Apportionment rule (this must detail how carbon units must be allocated to bidders once the auction stops if there is excess demand).	At least 14 days prior to the relevant auction.



Australian Government



4. Next Steps

The Government is seeking to implement open and transparent auctions that provide a clear price signal and channel carbon units to their highest value use in the economy.

In accordance with its commitment under the Clean Energy Future plan, the Government will finalise the detailed auction design, following consultation with stakeholders, in the first half of 2012.

Stakeholders are encouraged to make submissions on their views on the proposals for auction design outlined in this discussion paper. Submissions will be taken into consideration when developing the legislative instrument for auctioning carbon units.

Stakeholders will be given the opportunity to comment on the exposure draft of the legislative instrument for auctioning carbon units in mid-2012.