



Centre for Energy and
Environmental Markets

UNSW
THE UNIVERSITY OF NEW SOUTH WALES
SYDNEY • AUSTRALIA



Carbon Pollution Reduction Scheme (CPRS) – policy and implementation

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Why auctioning?

1. Free permits will draw attention to rent-seeking instead of concentrating on reduction costs
2. Bringing emission management and reduction opportunities to management attention will increase dynamic efficiency
3. Supports polluter pays principle and atmosphere is a public asset
4. Reduces windfall profits which will benefit domestic but also foreign shareholders and auction revenue can be used to address distributional effects
5. Reducing initial price volatility by giving an early and strong price signal
6. Improves efficiency
Bidders who value them most will receive permits, lower transaction costs
7. Reducing perverse incentives from free permit allocation
Such as incentives to pollute more now, in order to get more permits later
8. Automatic accounting of early action



How to auction?

- Many different options exist to design the auction: sealed-bid vs. open-bid, dynamic vs. static, uniform price vs. pay as your bid...
- Challenge:
 - Theory not informative for determining the best setting for multi-unit, multi-item (different vintages) auctions
 - Trade-off between simple vs. complex design and efficiency for the type of good (e.g. Simultaneous auctions seem to be favoured in a multi item setting when partial substitution is possible)
- Green Paper: Simultaneous clock auction with intra-round and proxy bidding held quarterly for 4 vintages
- Solution: Test different designs experimentally to see if complexity outweighs efficiency, compared to the more simple design
That is what CEEM is doing



Options to use the auction revenue

- Other options will have double benefits such as energy efficiency (will lower price of permits) or reducing other distortionary taxes (e.g. Income tax)
- Most proposals include a mixture of how the revenue can be spent, e.g. by addressing
 - other market failures (e.g. financing innovation of e.g. carbon capture & storage technologies and renewable energies)
 - distributional consequences (e.g. tax reductions to support economic growth and to address the economic hardship of high energy prices for poor households)
 - compensating companies such as emissions-intensive trade-exposed industry and other e.g. strongly affected industries
- Some money should be used to compensate developing countries (e.g. for mitigation and adaptation by for example financing RED) since we need them to tackle climate change



Concerns with auctioning

- Leakage
 - Carbon leakage
 - Companies may (i) leave; (ii) reduce output; (iii) invest in the future somewhere else
 - Profit leakage
 - Focus of Garnaut: losing industries or production that are long-term viable in Australia due to short-term differentials in carbon price
 - How important is the issue?
 - matter to a few sectors, but industry is pushing it really hard (not surprising)
 - What can we do?
 - Exemption
 - Border tax adjustments
 - Free allocation
- Financing problems of permits upfront
 - Depends on frequency of auctioning and how much of the vintages are auctioned in advance
 - Private industry will develop mechanisms to deal with this



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