# **EU EMISSIONS TRADING SCHEME PHASE II (2008-2012)**

# **AUCTIONING**

# Full Regulatory Impact Assessment February 2007

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#### 1. TITLE OF PROPOSAL

- 1.1 This Regulatory Impact Assessment (RIA) concerns options for the use of auctioning<sup>1</sup> as an allocation methodology in the second phase (2008 to 2012) of the EU Emissions Trading Scheme (EU ETS).
- 1.2 The general approach to the second phase of the EU ETS is described in the overarching RIA.

#### 2. PURPOSE AND INTENDED EFFECT

# 2.1 Objective

- 2.1.1 The Government's main aims for Phase II are to:
  - Learn lessons from Phase I and address any anomalies or gaps that may have arisen from implementation in the first Phase.
  - Create as level a playing field as possible for industry through harmonisation with other Member States.
  - Look at the scope to include further CO<sub>2</sub> from existing sectors.
  - Reduce the burden on small emitters.
- 2.1.2 In the case of an auctioning, specific objectives include moving towards the Government's long term goal of full auctioning of allowances by introducing auctioning as an effective mechanism for the allocation of a proportion of allowances in the second phase of the Scheme and to gain experience in preparation for more extensive use in future phases. This RIA is intended to discuss the policy options being taken forward at this point only. Therefore it considers the options for levels of auctioning in Phase II, and not the different methods of disposal or auction/sale design that could be employed. These will be the subject of a further RIA as part of the legislative process to enable an auction to take place.
- 2.1.3 Please see the overarching RIA for details of the general aims and objectives for Phase II.

#### 2.2 Background

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2.2.1 For a general background please see the overarching Phase II RIA.

2.2.2 In Phase II, the EU ETS Directive specifies that at least 90% of allowances in Phase II must be allocated free of charge. This allows Member States the option to allocate up to 10% of allowances through an auction or sale. This requirement was restated in the Commission guidance published in December 2005<sup>2</sup>. In Phase I, Member States had the option to introduce limited auctioning<sup>3</sup>, and provision was made in the UK for any surplus allowances from the NER to be released to the market via an auction or sale.

<sup>&</sup>lt;sup>1</sup> Auctioning in this RIA can mean either an auction or a sale

<sup>&</sup>lt;sup>2</sup> Available from: <a href="http://europa.eu.int/comm/environment/climat/pdf/nap\_2\_guidance\_en.pdf">http://europa.eu.int/comm/environment/climat/pdf/nap\_2\_guidance\_en.pdf</a>

<sup>&</sup>lt;sup>3</sup> The EU ETS Directive states that at least 95% of allowances are to be allocated free of charge in Phase I, thereby allowing up to 5% to be auctioned.

- 2.2.3 Full auctioning is a long-term goal for the Government for the following reasons:
  - Auctioning ensures that allowances are allocated to those who value them most, ensuring an efficient distribution of allowances. A free allocation, on the other hand, takes no account of individuals' willingness to pay and therefore does not ensure an initially efficient distribution of allowances.
  - Auctioning also ensures that allowances are allocated according to the polluter pays principle, where the rights to emit are paid for by those who emit,
- 2.2.4 The transaction costs associated with each of the options set out in this RIA may not be equal but it is not possible to assess the likely costs for different installations in a robust and consistent manner due to their disparate nature. For example, even under full free allocation, some operators will need to buy allowances, while others will need to sell them. Additionally, with some degree of auctioning, participants have the choice between buying on the market or buying in an auction. However, a small allowance auction in Ireland attracted around 150 bidders, which suggests the costs associated with participating in case were not too prohibitive.

# Allowances to come from the Large Electricity Producers

- 2.2.5 If installations are unable to pass carbon costs through to prices, auctioning creates additional costs as installations need to pay for allowances. The Emissions Trading Group (ETG) has estimated the cost for different sectors and sub-sectors of purchasing 10% of allowances, assuming no pass-through of costs or no internal emissions reductions are economic at below the price of carbon. These estimates indicate that the possible costs to the offshore Oil and Gas sector could be nearly £22 million<sup>4</sup> and around £24-£32 million<sup>5</sup> for the steel industry.
- 2.2.6 However, under current proposals for Phase II, even if 10% (the maximum level permitted by the Directive) of allowances are auctioned, such costs would not be incurred as the allowances which form the auction 'pot' would be deducted from the Large Electricity Producers (LEP) sector only<sup>6</sup>. This sector is not subject to strong international competition so should be able to pass costs on without adverse impacts on their competitive position. Furthermore, evidence from Phase I<sup>7</sup> suggests the LEP sector is already

<sup>&</sup>lt;sup>4</sup> Assuming €23/tCO<sub>2</sub>

<sup>&</sup>lt;sup>5</sup> Assuming €15/t CO<sub>2</sub> - €20/tCO<sub>2</sub>

<sup>&</sup>lt;sup>6</sup> In the March consultation on the draft NAP, 50% of respondents agreed that the allowances should come from the LEP sector. The majority of respondents in favour of sharing the burden came from the LEP sector.

<sup>&</sup>lt;sup>7</sup> Please see the IPA Energy Consulting report produced for DTI on the implications of the EU ETS for the UK power generation sector, available on these pages: http://www.dti.gov.uk/energy/environment/euets/phase1/page26230.html

passing through the opportunity costs<sup>8</sup> of grandfathered allowances to wholesale electricity prices.

- 2.2.7 Note however that DTI analysis indicates that even though there has been nearly full pass-through at the wholesale level, suppliers have not been passing the full costs of the EU ETS onto retail industrial and domestic customers. Therefore auctioning or selling some allowances would not be expected to have any additional impact on wholesale electricity prices. Auctioning might arguably speed up the pass-through to retail prices if LEPs pass 'cash' costs through faster than they pass-through 'opportunity' costs.
- 2.2.8 Research undertaken for the DTI<sup>9</sup> indicates that reducing the amount of free allocation by the levels considered for Phase II is unlikely to impact on investment in building new plant.
- 2.2.9 The Commission's Guidance for Phase II has highlighted that many Member States require the electricity sector to meet the shortfall in allowances<sup>10</sup>. In the March consultation on the draft NAP, 50% of respondents agreed that the allowances should come from the LEP sector. The majority of respondents in favour of sharing the burden between all sectors came from the LEP sector.

# Simplification and Better Regulation

- 2.2.10 The policy-making process reflects the Government's commitment to the Better Regulation Agenda and offsetting simplification measures have been considered throughout the development of policy options.
- 2.2.11 Work currently being taken forward on possible options for disposal of allowances will take into account the burden on business. A decision on the method of disposal will aim to ensure that small businesses are not disadvantaged by seeking to minimise the costs and administrative burden for participants.
- 2.2.12 Although only a maximum of 10% of allowances can be auctioned in Phase II, the benefits of some auctioning (rather than none) would include invaluable experience from which lessons could be learned to guarantee simple, efficient bigger auctions in the future, helping to ensure low administrative burdens to both Government and auction participants.

## 3. CONSULTATION

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#### 3.1 Within Government and the Devolved Administrations

<sup>&</sup>lt;sup>8</sup> 'Opportunity' costs arise as the producer has the choice between producing a unit of output and using the allocated allowance, or not producing that unit and selling the allowance in the market. This opportunity cost is therefore factored into production decisions at the margin. If producers are able to pass the opportunity cost (or any part of it) through to prices, a one-off increase in profits will occur.

<sup>9</sup> The IPA report can be found on these pages:

http://www.dti.gov.uk/energy/environment/euets/phase1/page26230.html

<sup>&</sup>lt;sup>10</sup> See page 4 of <a href="http://europa.eu.int/comm/environment/climat/pdf/nap-2 guidance-en.pdf">http://europa.eu.int/comm/environment/climat/pdf/nap-2 guidance-en.pdf</a>

3.1.1 Please refer to the overarching Phase II RIA for details of consultation within Government and the Devolved Administrations.

#### 3.2 Public Consultation

- 3.2.1 A consultation on proposed auction or sale methods of disposal of allowances was held 1 April to 24 June 2005. A final consultants' report on the auction or sale options for disposing of allowances was published, which contains a summary of stakeholders' responses to the public consultation. In light of comments made in responses, the report also contains a revised recommendation to Government regarding the most appropriate type, form and process for the auction or sale of allowances<sup>11</sup>.
- 3.2.2 The consultation on EU ETS Phase II issues held between 19 July and 13 September 2005 asked a number of high-level questions about the use of auctioning, and responses have been analysed by independent consultants. A report on this consultation and the Government's policy decisions was published alongside the draft NAP on 28 March 2006. The consultation on the draft NAP outlined the Government's proposal for the use of auctioning in the second trading period, and sought views from stakeholders that fed into the final development of policy options. The consultant's report will be published alongside this RIA. For further details on public consultation and stakeholder engagement in developing Phase II policy, please see the overarching Phase II RIA.

# 4. OPTIONS

4.1 The following options are being considered for the use of auctioning in Phase II.

Option 1: No auctioning

Option 2: Auction a fixed percentage of allowances

Option 3: Auction any surpluses from the NER and from closed installations

Option 4: Auction a fixed percentage of allowances plus any NER or closed installation surpluses

# 5. BENEFITS, COSTS AND RISKS

#### 5.1 Option 1 – No auctioning (do nothing)

5.1.1 Under this option, all allowances would be allocated for free.

Benefits

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<sup>&</sup>lt;sup>11</sup> For further details please see: http://www.defra.gov.uk/corporate/consult/euets-salemethods/

- 5.1.2 Administrative costs to Government of setting up an auction are not incurred. This administrative cost is estimated to be between £150k and £250k<sup>12</sup> per auction but could be recovered from revenue raised by the auction or sale.
- 5.1.3 The complexities caused by having two allocation methodologies (free allocation plus auctioning) are avoided.
- 5.1.4 Administrative costs to firms participating in an auction are avoided and these resources are available for more effective use elsewhere in the firm.

#### Costs

- 5.1.5 Both the Government's long-term objective to move towards full auctioning in future phases and its intention to auction between 2-10% in Phase II would not be supported by this option. The Government's desire to work with other Member States on auctioning would be undermined, making it more difficult to press for increased auctioning in future phases and jeopardizing potential opportunities to help design auctioning policy outside the UK. Furthermore, recent consultations showed strong support for harmonisation with other Member States on auctioning issues<sup>13</sup>.
- 5.1.6 The process of auctioning ensures an effective distribution of allowances as allowances will go to those that value them the most. Providing 'grandfathering' of allowances is followed by trading (and the market is relatively liquid), the same efficient allocation of allowances should, in theory, be obtainable. However auctioning reinforces dynamic efficiency incentives.<sup>14</sup> With no auctioning, this is therefore potentially another cost.
- 5.1.7 The benefits of learning-by-doing are not acquired by Government or stakeholders if auctioning is not used. If the Commission's review of the EU ETS Directive<sup>15</sup> concludes that some minimum level of auctioning will be required in future phases, this could leave UK participants at a disadvantage. Consultation responses have revealed that the benefits of learning-by-doing are highly valued and although not possible to quantify, could potentially represent a large cost. The consultants' report on disposal methods further states that participation and transaction costs associated with future auctions will be reduced if there is continuity between phases, as processes are refined and become more efficient.

<sup>13</sup> See 'Report on the public consultation (July 2005) and the Government's policy decisions: http://www.defra.gov.uk/corporate/consult/euets-phasetwo/gov-response.pdf

<sup>14</sup> Dynamic efficiency refers to the incentive to continually improve performance through, for example, investing in new technologies.

<sup>&</sup>lt;sup>12</sup> These figures depend on type of auction chosen and other factors such as number of participants. Please see: <a href="http://www.defra.gov.uk/corporate/consult/euets-salemethods/">http://www.defra.gov.uk/corporate/consult/euets-salemethods/</a> for details of the consultation and <a href="http://www.defra.gov.uk/corporate/consult/euets-salemethods/erm-consultreport.pdf">http://www.defra.gov.uk/corporate/consult/euets-salemethods/erm-consultreport.pdf</a> for the consultants' report.

<sup>&</sup>lt;sup>15</sup> Article 30 of the EU ETS Directive provides for a review to take place during 2006, which among other issues will consider the allocation methodology and auctioning. The Directive is available from: <a href="http://europa.eu.int/eur-lex/pri/en/oj/dat/2003/l\_275/l\_27520031025en00320046.pdf">http://europa.eu.int/eur-lex/pri/en/oj/dat/2003/l\_275/l\_27520031025en00320046.pdf</a>

- 5.1.8 If auctioning (or sale) is not used, there would be no mechanism to release any surplus allowances from the New Entrants Reserve (NER) onto the market. Although the Government has consulted extensively with industry on projections to determine an appropriate size for the NER, in practice there may be some left over, which, if not made available, could have the effect of reducing the overall cap.
- 5.1.9 Allocating all allowances for free will increase the potential for the Large Electricity Producers (LEP) sector to profit from the Emission Trading Scheme given their ability to pass through costs through to customers.<sup>16</sup>
- 5.1.10 If auctions (or sale) are not used, this reduces the number of methods by which operators who need to purchase allowances can obtain them, which might be considered a cost to some installations. This may limit a firm's flexibility in complying with allowance requirements and compromise their ability to meet emissions obligations using the method which is most cost efficient to them. Current methods of obtaining allowances include buying on the market, informal trading and pooling or banking of allowances. If an auction is the cheapest method of obtaining allowances for some firms, not providing this option will lead to those firms incurring higher costs.

## 5.2 Option 2 – Auction a fixed percentage of allowances

- 5.2.1 Under this option, a fixed percentage of the total number of allowances would be auctioned up to the maximum limit of 10% as specified in the Directive.
- 5.2.2 Some information on the intentions of other Member States regarding Phase II auctioning is emerging through their National Allocation Plans, but is not yet complete, partly as the proportion of auctioning can be increased up to the 10% limit even after the NAP has been approved. A small number of Member States, including the Netherlands and Hungary, have decided that they will use auctioning as an allocation methodology. More Member States plan to use auctioning as a method of disposing of surplus New Entrant Reserve. Early indications therefore suggest that the UK may be in a position to influence future auction design within the EU through its actions in Phase II. However, without final information on the intentions of all Member States it is not possible to assess in more detail the implications for the UK of policy decisions made in other EU countries.

## Benefits

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5.2.3 A number of high-level benefits support the use of some level of auctioning in Phase II, as outlined in the July 2005 consultation document on EU ETS Phase II. Although many of these cannot be quantified, consultation

<sup>&</sup>lt;sup>16</sup> If profits generated are invested, for example, in low-carbon technology this would arguably no longer be a cost. As noted in Cramton, P. & Kerr, S. *Tradable Carbon Permit Auctions: How and Why to Auction not Grandfather*, Energy Policy 2002, "industrial organization and corporate finance literature tends to show a positive relationship between cash-flow and both R&D/ innovation and adoption of new technology, but the results are ambiguous".

responses have highlighted the need for the chosen method to be applicable in a wide range of circumstances and have stressed the value placed on learning-by-doing benefits.

- 5.2.4 This option would enable the Government to move towards its long-term vision of greater auctioning of allowances in future phases.
- 5.2.5 Auctioning would demonstrate the Government's commitment to an efficient trading scheme; auctioning can help provide this by ensuring an effective distribution of allowances to those that value them most.
- 5.2.6 The gradual introduction of auctioning may also reduce costs to operators of participation, by providing them with learning experience which can be used to enhance the efficiency of their processes in order to decrease any transaction costs of the auction.
- 5.2.7 Auctioning may further amplify the dynamic efficiency<sup>17</sup> incentives for operators who can invest to reduce their emissions relatively inexpensively.<sup>18</sup> This innovation reduces abatement costs and ultimately lowers allowance prices. When allowances are auctioned, operators unambiguously benefit from an innovation-induced fall in allowance prices. In a system where allowances are issued for free, the 'value' of the allowance belongs to industry and therefore there is no aggregate gain to industry from reducing prices.<sup>19</sup>
- 5.2.8 Revenue from an auction will accrue to Government. The amount raised depends on the percentage of allowances auctioned and price achieved. If, for example, the Government had decided to auction 4% of total allowances in Phase I, at a carbon price of 20 euros (approximately £13.50), this would have raised revenue of around £400m over the Phase. The likely revenue generated for different levels of auctioning in Phase II has been estimated, given a cap representing effort of 8MtC.

Table 1 below illustrates the likely revenue for high and low auctioning levels based on current BAU emissions projections. The current estimate of 9.5m allowances needed to cover expansion sectors has also been included. Due to uncertainty regarding likely carbon prices in Phase II, a carbon price range is assumed of €5-€40<sup>20</sup>.

Distributing allowances for free arguably leaves resources free for investment in clean technology and promotes innovation but there is no clear evidence that this alternative incentive mechanism is active in the market (see Cramton, P. & Kerr, S. *Tradable Carbon Permit Auctions: How and Why to Auction not Grandfather*, Energy Policy 2002)

<sup>19</sup> For a fuller description of this point, please see Cramton, P. & Kerr, S. *Tradable Carbon Permit Auctions: How and Why to Auction not Grandfather*, Energy Policy 2002, p.11.

<sup>&</sup>lt;sup>17</sup> Dynamic efficiency refers to the incentive to continually improve performance through, for example, investing in new technologies

<sup>&</sup>lt;sup>20</sup> The lower bound price of €5 reflects a level below which the value of trading for installations with excess allowances is likely to be small. It is acknowledged, however, that this may not represent the minimum cost of trading, which may be lower owing to many large installations still finding it profitable to sell allowances below this price. €40 is seen as a likely upper limit as above this price firms are increasingly likely to take action to reduce emissions, such as switching production away from carbon intensive processes.

Level of auctioning	Cap = 237 + 9.5 (8MtC effort)
2%	£85m-£680m (£20m-£140m p.a.)
10%	£420m-£3400m (£85m-£680m p.a.)

#### Costs

- 5.2.9 Operators may incur search and information costs to familiarise themselves with the practice of auctioning. This could provide a disincentive to participation if costs are disproportionately large and may limit participation to experienced operators. Similarly, firms may have to set aside resources to facilitate their participation in auctions which could be used more effectively elsewhere. However it should be noted that auctioning is only one of several methods by which operators can acquire allowances and each operator is expected to make decisions based on their lowest cost option. Government will seek to minimise the costs and administrative burden imposed on participants and maximise the attractiveness to a wide range of prospective bidders when selecting the auction design.
- 5.2.10 Administrative cost to the Government of setting up an auction are estimated to be between £150k and £250k per auction according to independent consultancy work and given prevailing market conditions and volume of allowances available. These costs will depend on the type of the auction and other factors such as number of participants. Both this research (which also looks at the relative costs and benefits of sale versus auction) and the responses to the auctioning consultation based on this report<sup>21</sup> are being considered in the development of Phase II policy.
- 5.2.11 The costs associated with this option are also dependent on the actions of other Member States: these impacts will depend on the nature of competition and the degree to which foreign competitors are affected differently from companies in the UK.
- 5.2.12 Investment in the LEP sector might be deterred as the auctioning 'pot' is deducted wholly from the LEP sector cap. However recent analysis by the IPA<sup>22</sup> suggests that there would be no significant impact on investment at the levels of auctioning being considered. Nevertheless, it may still be expected

<sup>&</sup>lt;sup>21</sup> Please see: <a href="http://www.defra.gov.uk/corporate/consult/euets-salemethods/">http://www.defra.gov.uk/corporate/consult/euets-salemethods/</a> for details of the consultation and <a href="http://www.defra.gov.uk/corporate/consult/euets-salemethods/erm-consultreport.pdf">http://www.defra.gov.uk/corporate/consult/euets-salemethods/erm-consultreport.pdf</a> for the consultants' report.

The report can be found on these pages: http://www.dti.gov.uk/energy/environment/euets/phase1/page26230.html

that the greater the allocation cut for the LEP sector, the greater the pressure on economic viability of coal plant.

# 5.3 Option 3 – Auction any surplus allowances from a NER

5.3.1 An auction (or sale) would release any surplus allowances from the New Entrant Reserve (NER) and/or from closed installations. This would be similar to the UK Phase I approach.

#### **Benefits**

- 5.3.2 There may still be an opportunity to gain experience of auctions without the need to set aside a specific proportion of allowances.
- 5.3.3 This option has similar benefits to those presented under Option 2 although it is likely that the revenue will be much smaller as the NER is only a small percentage of the total allocation and there may or may not be a surplus
- 5.3.4 If there were no provision to allow the release of surplus allowances from the NER at the end of the Phase, then any surplus allowances would have to be cancelled as the Directive prohibits ex-post adjustment of allocations to installations. This is equivalent to reducing the cap and may demand a higher level of abatement activity or purchase of allowances with associated income transfer from the UK.

#### Costs

- 5.3.5 This option would have similar costs to Government as Option 2 as the costs of setting up an auction are largely fixed (although as discussed in the following paragraph, a sale rather than an auction may be judged less costly under this option). The cost to industry will be dependent on the number of allowances auctioned but it is likely that the proportion would be much smaller than if there were a fixed reserve.
- 5.3.6 The number of allowances available for auctioning may so small that the costs of running the auction are greater than the possible revenue. As mentioned above, it is impossible to quantify exactly how many allowances will be left over from the NER but this amount is likely to be small. It would be disproportionately expensive to auction a small amount of allowances, as the administrative costs involved are fixed. Research suggests that with a liquid EU carbon market and a low volume of allowances to sell, issuing a market order (or sequence of market orders) could be more appropriate than holding an auction.
- 5.3.7 If there is no surplus from the NER, the opportunity to gain experience of auctioning will not be available. Additionally, there may be a cost to operators in terms of uncertainty regarding whether or not any further allowances will be available for purchase.

# 5.4 Option 4 – Auction a fixed percentage of allowances plus NER surplus, up to the 10% limit

5.4.1 This option would involve auctioning a fixed percentage of the total number of allowances allocated in addition to any surplus from the NER and/or from closed installations, up to the maximum limit of 10% specified in the Directive. This does not however, presuppose that the limit on auctioning will automatically be set at the 10% level.

#### **Benefits**

5.4.2 A combination of the benefits set out in Option 2 and Option 3 would apply under this option.

#### Costs

- 5.4.3 Similar costs to those set out in Options 2 and 3 would apply under this option.
- 5.4.4 The increased complexity of this option may increase uncertainty relating to how many allowances are to be auctioned and may increase administrative costs to Government in terms of how the auction is designed. The learning by doing benefits to operators may also be reduced if the process for carrying out the auction is difficult to understand and is not guaranteed to be repeated in future phases.
- 5.4.5 Industry has expressed concerns that this method may inadvertently result in the cancellation of some allowances. The New Entrant Reserve is currently very uncertain and if the initial auction volume is set too high then there is a risk that the sum of the volumes may exceed 10% of the NAP. This would result in the cancellation of some allowances, which could then increase the burden on industry.

#### 6. SMALL FIRMS' IMPACT TEST

- 6.1 An auction provision may have a mixed impact on small operators. On the one hand, a Government auction provides an additional mechanism through which allowances can be acquired for compliance purposes. It is possible that auctions could be set up to facilitate a type of small-scale compliance purchasing and it is intended that an auction would be designed to be easily accessible to all potential participants, including small firms. On the other hand, the additional cost imposed on installations through an auction provision may place a disproportionately larger burden on small operators as compared with larger operators. The costs of participating in an auction compared to the costs of participating in the market will depend on the auction design. Further work on auction design aims to ensure that any mechanism chosen does not act as a barrier to entry.
- 6.2 The impact on small installations of different options for auctioning will continue to be analysed.

#### 7. COMPETITION ASSESSMENT

- 7.1 There may be competitiveness impacts associated with an auction as installations may have to buy some allowances that would otherwise have been allocated free of charge. The competitive position of industrial sectors, particularly those firms that face a high degree of competition, operating in markets where prices are set globally, would potentially be adversely affected if they were required to purchase allowances through an auction (rather than receive them for free), possibly leading to loss of market share. Additionally, placing the auctioning burden on UK industry could also carry the risk of foreign owned firms switching capital investment or production to overseas locations where such additional costs would not be incurred. However, with allowances for auction coming from the LEP sector in Phase II, which is subject to little international competition, these competitive concerns should not be an issue.
- 7.2 Depending on the auction design and methodology chosen, less well resourced players may be at a disadvantage to larger companies. Industry have expressed concerns that those with the greatest ability to pay, and financial players, could skew the ensuing allowances market. Although the learning by doing benefits would still exist, an auction could impose disproportionate costs on these less well resourced companies. As already mentioned in the previous section, further work on auction design aims to ensure that any mechanism chosen does not act as a barrier to entry.
- 7.3 UK installations may face a competitive disadvantage if the UK chooses to auction a higher proportion of allowances than other Member States, although this impact will be limited by the restriction on auctioning in the Directive and using allowances from the LEP sector for any auction. Some Member States have taken the opportunity to auction allowances in Phase I, indicating that they are keen to employ this option and could therefore be expected to use auctioning again in Phase II. Other Member States who are not planning an auction in Phase I have already indicated that they will be auctioning allowances in Phase II.

#### 8. ENFORCEMENT, SANCTIONS AND MONITORING

8.1 For information on the general enforcement, sanction and monitoring requirements of the EU ETS, please see the overarching Phase II RIA.

#### 9. IMPLEMENTATION AND DELIVERY PLAN

- 9.1 See section 9 of the over-arching RIA for details of implementation of Phase II.
- 9.2 In addition, Government will take a number of steps specifically relating to auctions or sales. These steps include: provisions in legislation to allow

disposal; consultation on auction design; and working with other Member States to develop best practice and to minimise any market disruption.

# 10. POST-IMPLEMENTATION REVIEW

10.1 Please see the overarching Phase II RIA for details of post-implementation review and delivery plan.

#### 11. SUMMARY AND RECOMMENDATIONS

11.1 This full RIA considers a number of options for the use of auctioning in the second phase of the EU ETS. The decision on level of auctioning in Phase II is inherently linked with other implementation decisions, particularly the level of the overall cap as well as the use of linking mechanisms.

Options	Benefits	Costs
Options Option 1: no auctioning		<ul> <li>No opportunity to gain benefits of learning by doing &amp; experience of running or participating in an auction.</li> <li>No mechanism to release any surplus from the NER on to the market</li> <li>Fewer opportunities for firms to acquire allowances needed for compliance</li> <li>Step backward from previously signalled long-term objective to move towards 100% auctioning in future phases</li> <li>Undermining of UK leadership position on auctioning with other MS; more difficult to press for fuller auctioning in future</li> <li>Missed opportunity to harmonise auction process with other MS</li> <li>LEP</li> </ul>
Option 2: Auction a fixed % of allowances	Some level of auctioning would have a number of benefits including:  • Move towards the Govt's LT goal of fuller auctioning in future phases  • Gain experience of how best to conduct an auction – learning by doing benefits	<ul> <li>Operators not familiar with auctions would incur 'search &amp; information' costs</li> <li>Firms may have to set aside resources to participate in auctions that could be used more effectively elsewhere</li> <li>Participation may be limited if costs are considered too</li> </ul>

	<ul> <li>May reduce costs to Government &amp; participants by introducing auctioning concept gradually</li> <li>Opportunity to refine the auction mechanism design in light of experience</li> <li>Aid price discovery and market liquidity</li> <li>Provide smaller operators with learning experience of participating in an auction</li> <li>Potential benefits to intermediaries in the carbon market</li> <li>Raises revenue accruing to Govt</li> <li>Choice to operators as to whether to buy allowances on the market or through auction</li> <li>Literature review suggests that auctioning up to 10% will not have significant impacts on competitiveness.</li> <li>Additionally option 2 would have the benefit of certainty of the amount of allowances to be auctioned.</li> </ul>	burdensome, so less experienced players will not benefit from learning by doing  • Admin costs to govt of setting up an auction (£150,000 to £250,000)  •Cost of cancelling NER surplus allowances.
Option 3: Auction any surplus from the NER	Similar to option 2 and additionally:  • There may still be the opportunity to gain experience of auctions & learning by doing benefits without the need to set aside a specific proportion of allowances.  • Opportunity to release allowances to the market that would otherwise have to be cancelled (though amount is likely to be small) – equivalent to reducing the cap	Similar to option 2 and additionally:  • Amount of allowances may be very small and costs of setting up an auction are largely fixed therefore cost of running auction may be greater than revenue.  • There may not be any surplus from the NER in which case opportunity to gain experience of auctioning will be lost
Option 4: Auction a fixed % plus any surplus	•A combination of the benefits of option 2 and option 3	A combination of the costs of option 2 and option 3. Additionally:  • May inadvertently lead to cancellation of some

from NER	the	(a ex the	llowances if sum of volumes auction amount plus NER) xceeds 10%, which could nen increase the burden on adustry.
		ind	Increased complexity creases uncertainty costs to dustry & admin costs to govt

This RIA recommends Option 4.

# **12. DECLARATION**

12.1 I have read the regulatory impact assessment and I am satisfied that the benefits justify the costs.

**Signed** 

Date

IAN PEARSON, MINISTER OF STATE

DEPARTMENT FOR ENVIRONMENT FOOD AND RURAL AFFAIRS