

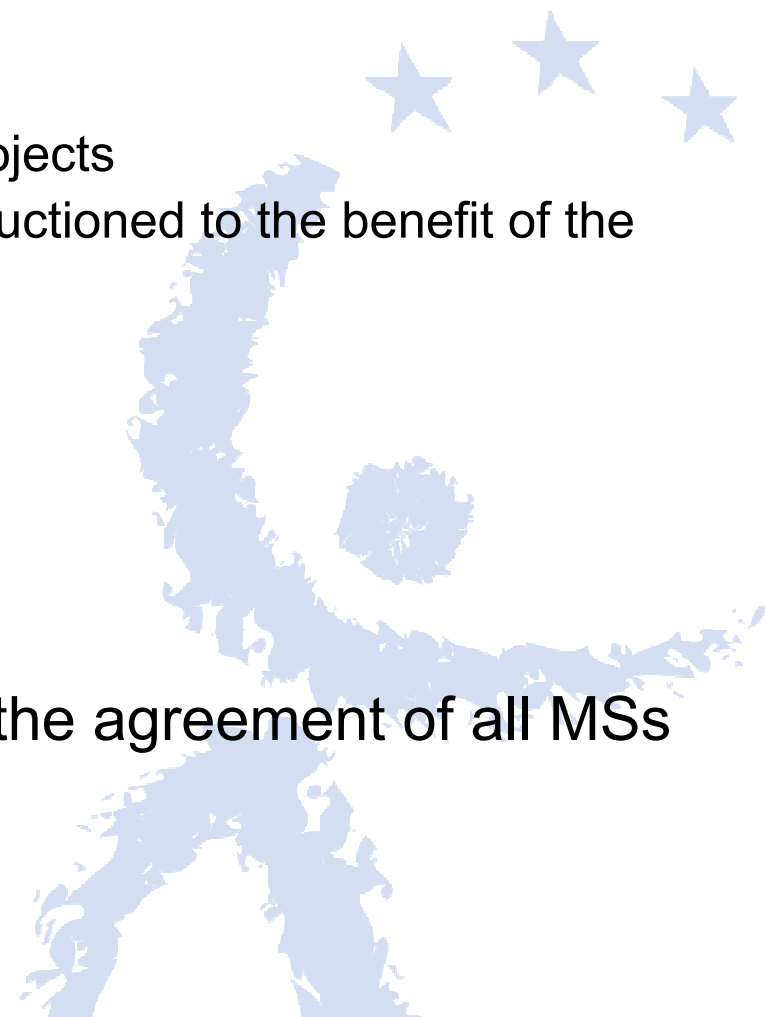
Modalities for demonstration of CCS and innovative renewables under the Emissions Trading Directive Article 10a paragraph 8

Scott Brockett
Unit 'Energy and Environment'
Directorate-General Environment
European Commission

- Principles
- Responsibilities
- Monetisation of allowances and determining available finance
- Selection procedure
 - Number of calls, timing and allowances
 - Treatment of CCS vs innovative renewables
 - Procedure
 - CCS: portfolio vs capture technology categories
- Conditionality of funding and disbursement of revenues
- Provision of support
- Knowledge sharing
- Timing and next steps



- 300m allowances in the NER are available for demonstration support.
- Allowances awarded for projects in the territory of the Member States, their exclusive economic zones and their continental shelves
- No project will be co-financed with more than 45 million allowances.
- Co-financing under the NER can be combined with other Community funding, including under the Structural and Cohesion Funds and European Energy Programme for Recovery (EEPR). Combined funding under the EEPR and under NER 300 shall amount to no more than 50% of eligible costs.
- Funding shall be limited to the extent necessary to ensure implementation and operation, and taking into account potential negative effects on competition.

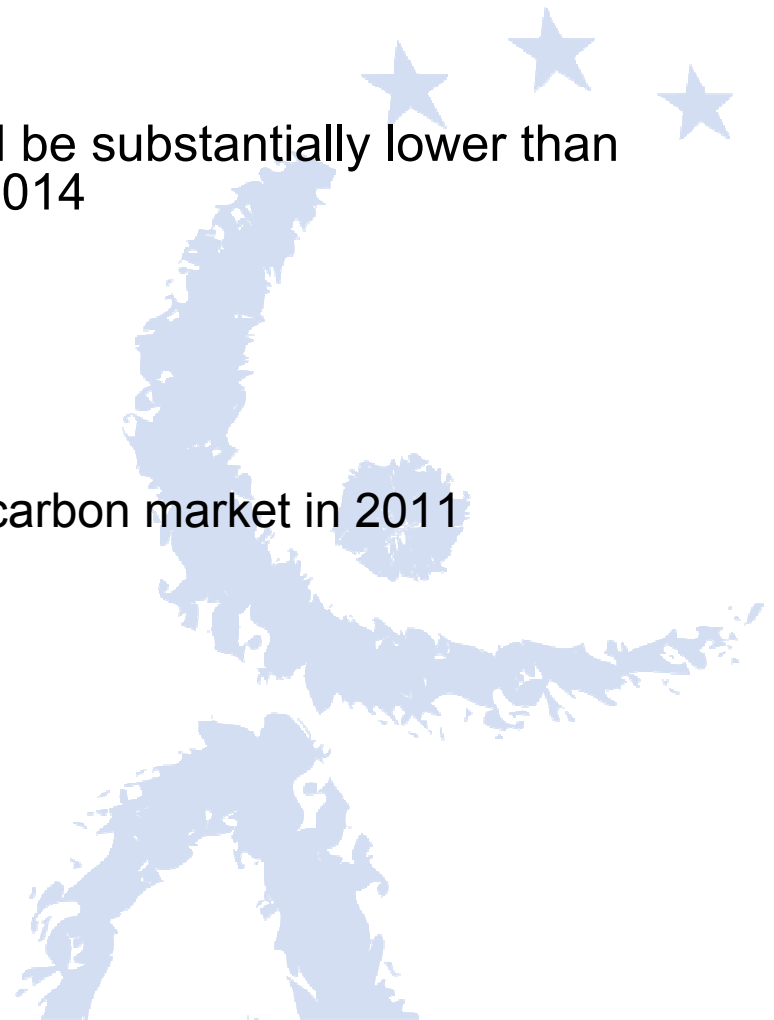
- **Commission**
 - Undertake project selection
 - Issue award decisions to operators of projects
 - Determine number of allowances to be auctioned to the benefit of the Member State concerned
 - **Member States**
 - Disburse revenues to selected projects
 - Ensure project implementation
 - Projects may only be submitted with the agreement of all MSs directly concerned by the project
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Issue

- Propose to award support mid-2011
- Valuation of allowances at that point could be substantially lower than projected average price over (say) 2011-2014

Option 1

- Auction allowances in 2011
 - Value of pot is fixed, but determined by carbon market in 2011



Option 2

- Award allowances in trust for project to be auctioned by a set date
- Intended to encourage MSs or projects prepared to put a higher-than-market value on allowances

Assessment

- Auctioning timetable must be predictable
- Project sponsors unlikely to value allowances at significantly above the market price
- Is MS likely to provide higher contribution on this basis than on straightforward cash terms?
- Benefits accrue to first tranche projects/MSs

Option 3

- Assign support to projects in cash terms
- Award allowances sufficient to cover cash value of support at market price in 2011
- Allowances auctioned gradually until cash value of award is reached
- Any unused allowances used for second tranche projects

Assessment

- First tranche projects would bear the risk that the average price over 2011-2014 would be lower than the market price in 2011
- Second tranche projects and MSs would benefit if average price were higher than market price in 2011

Selection procedure 1: Two calls for proposals



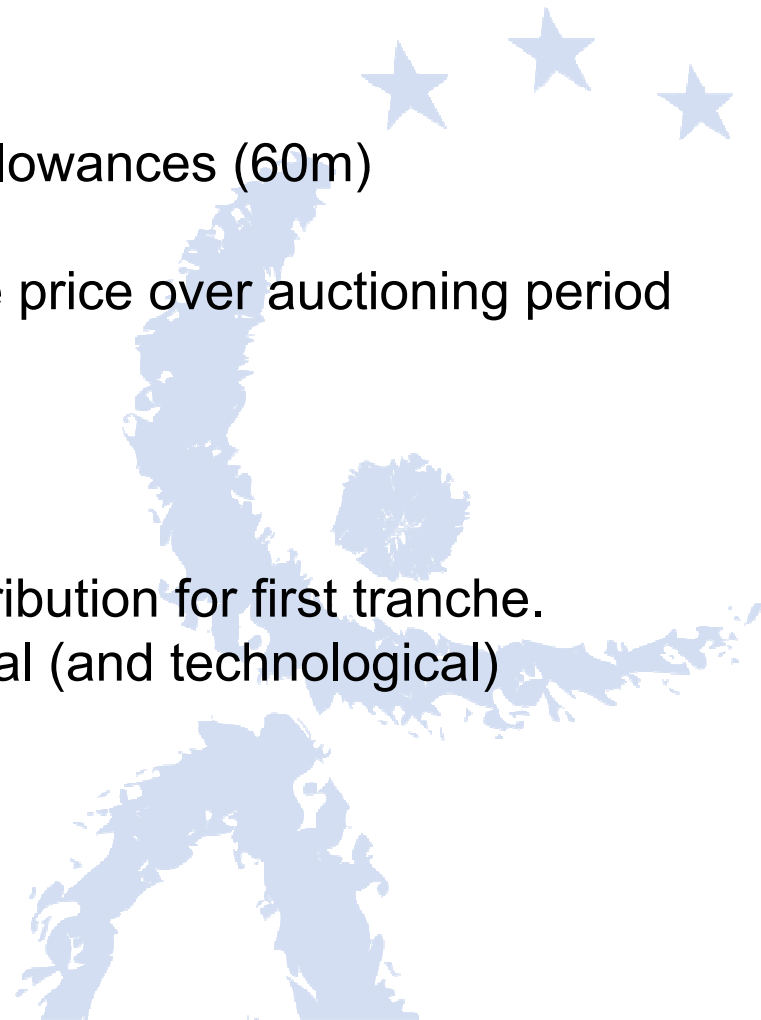
Two calls for proposals

Proposed approach

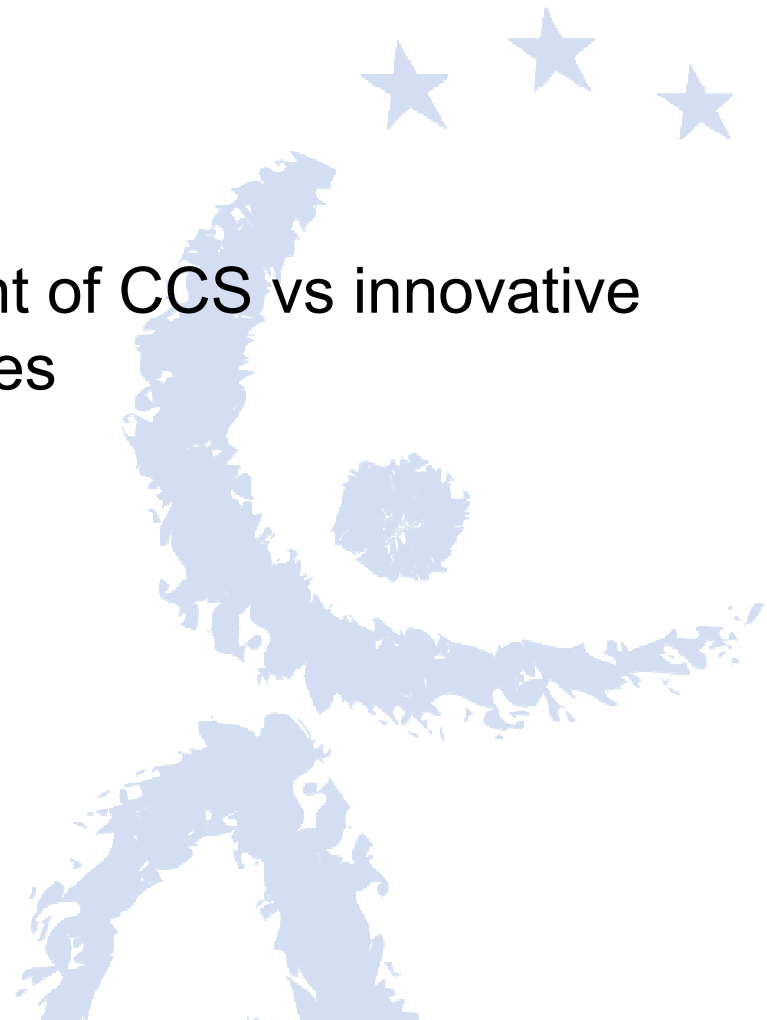
- First call 80% of allowances (240m)
- Second call in 2014, guaranteed 20% of allowances (60m)
- Auctioning period 2011-2014
- Second call boosted to extent that average price over auctioning period greater than market price in 2011

Geographical distribution

- Ensure by using two calls
- No formal evaluation wrt geographical distribution for first tranche.
- Second tranche used to adjust geographical (and technological) underrepresentation.



Selection of projects 2: Treatment of CCS vs innovative renewables



- **No ex ante split, but rather two categories of proposals**
- **Each category assessed to identify demonstration needs according to basic technology requirements**
 - Innovative in relation to state of the art in the key sub-streams for each technology
 - Not yet commercially available, but sufficiently mature to be ready for demonstration at pre-commercial scale
 - Involve substantial economic risks, and (while technological risks are inevitable) have a good chance of successful demonstration
 - Proposed scale of demonstration is such that no significant additional problems are expected from further scaling-up
 - High replicability potential, and hence significant prospects for cost-effective CO₂ reduction both in Europe and globally
- **Practical split determined by demonstration needs and availability of good projects**

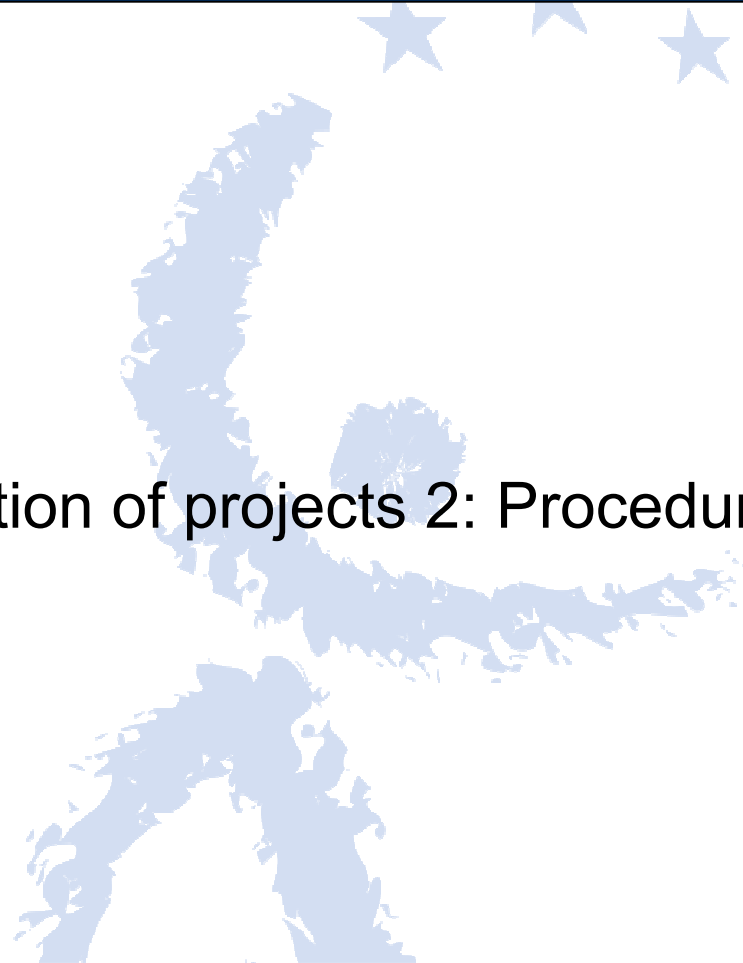
- **CCS**
 - as defined in Annex I minimum 8 projects, two each from pre-combustion, post-combustion, oxyfuel and industrial applications
- **Renewables**
 - eligible technology categories in bioenergy, CSP, PV, geothermal, wind, ocean
 - At least one in each category (provisional)
- **Proposal**
 - Projects compete against each other within a technology group (but see later for CCS)
 - Projects selected based on value for money so as to represent all the renewables technologies and the CCS technologies
 - If oversubscription, costs reduced for each group in same proportion so as to fit available finance
 - If undersubscription, additional projects financed for each group until available finance exhausted (costs increased in same proportion)



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Selection of projects 2: Procedure



- Pre-selection based on eligibility and selection criteria
- Eligibility criteria
 - Project falls within an eligible technology category and meets any project requirements (including operation before 2015 for first tranche, 2017 for second tranche)
- Selection criteria
 - Soundness and technical adequacy of approach
 - Soundness of financial package for full investment phase and for first ten years of operation
- Short list of projects identified which proceed to second stage of selection

Projects assessed for quality on basis of award criteria

- Maturity of project (operation before 2015)
- Degree of innovation, including replicability
- Commitment to knowledge-sharing
- Finalisation of financial package (commitment decisions)
- (For CCS projects) implementation of 'nice to have' elements

Ranking

- Projects (or for CCS portfolios) ranked for value for money by balancing the requested NER funding (plus EEPR funding) against the assessed quality

Front End Engineering Design (FEED) studies

- Option for COM to request if needed to increase certainty of cost estimates
- Potential negative incentive
- Reimbursement of 50% of costs for unsuccessful projects?

Selection of projects 3:
CCS: portfolio versus capture technology categories



CCS: portfolio vs capture technology categories

Issue

- Simplest option is to have competition within each of main capture technologies, with best projects in each technology selected
- Potential problem: diversity in other parts of the chain is not ensured
 - Fuel type
 - Storage option

Portfolio approach

- Require that in addition to capture technologies, have suitable diversity in other characteristics
- Value for money assessed by portfolio
 - Identify combinations of projects that would satisfy portfolio requirements
 - Determine quality by adding points for individual projects, price by adding funding requests
 - Rank for value for money as before
- All projects in winning portfolio selected

Transparency

- Must be able to justify non-selection for any project
 - Any portfolio including that project ranked lower for value for money than the selected portfolio

Conditionality of funding and disbursement of revenues

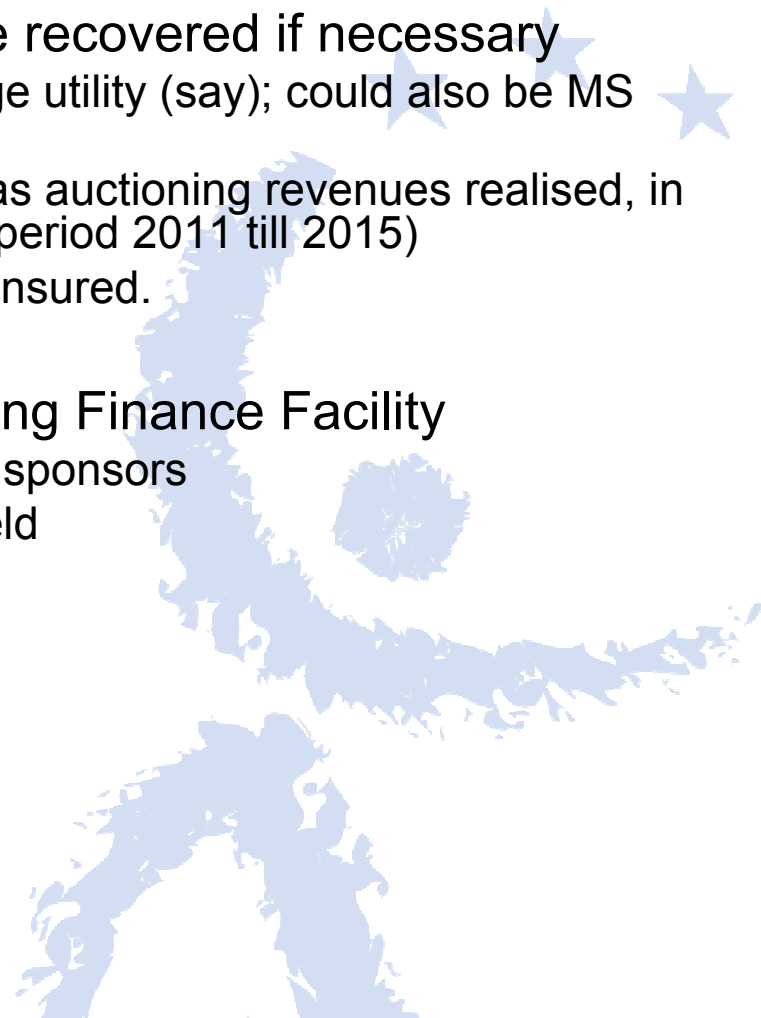


Provision of support 1: Funding conditionality

- Project milestones will be established for first ten years of operation
- Funding also conditional on meeting knowledge-sharing requirements
- Disbursement of auctioning revenue conditional on meeting the appropriate performance targets
- Ten years goes beyond the end of ETS Phase III, but there is no legal obstacle to this
- Eligible support is no higher (50% of incremental costs) but is disbursed over a longer time period and hence buys more CO₂ avoidance and a longer guaranteed operation

Provision of support 2: Timing of disbursement of support

- Sufficient guarantee that funds could be recovered if necessary
 - Normally on-balance sheet projects of large utility (say); could also be MS guarantee
 - Could be advantageous to provide funds as auctioning revenues realised, in step with construction of project (i.e. over period 2011 till 2015)
 - Option only possible if claw-back can be ensured.
- Also exploring the use of the Risk Sharing Finance Facility
 - Sharing risk between EU, EIB and project sponsors
 - Proved attractive to sponsors in energy field





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Knowledge sharing



Broad agreement on sharing information under a number of headings:

- Costs: capital and operating costs
- Project management: permitting, planning, organisation, stakeholder interaction
- Environmental impact: effectiveness in CO₂ reduction; others
- Health and safety: near misses; monitoring systems; issues in undisturbed operation
- Technical set-up and performance at technology block level

Key issue:

- Access to technical set up and performance at levels below the technology block

Proposal:

- Minimum requirements specified in Annex II based on broad agreement
- Further commitment to knowledge sharing part of award criteria
- Balanced by innovativeness award criterion