

CCS policy in the EU: Directive 2009/31/EC and demonstration

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- **Enabling approach**
 - Draft directive on geological storage sets environmental rules and liability requirements
 - Member States determine whether and where CCS will happen on their territory
 - Emissions captured and stored are recognised as not emitted under the Emissions Trading Scheme
 - Companies decide whether to use CCS on the basis of conditions in the carbon market
- **Capture-ready assessment required to avoid lock-in of high-emissions technology**
- **No mandatory CCS at this stage:**
 - Let the market work: The revised ETS will ensure a robust carbon price and action on demonstration will bring CCS costs down

- Exchange of information with MSs required under Article 27.2 of Directive
- Three main issues
 - Specific transposition issues which MSs wish to discuss
 - Issues relating to development of guidance on implementation
 - Information provided by COM on its implementation tasks

- Contacts established with bodies with relevant expertise
 - ZEP
 - North Sea Basin Task Force
 - CO2 ReMoVe and CO2 Geonet
 - IEA GHG programme
 - Global CCS institute
 - Public authorities in non-MSs implementing CCS (USA, Australia..)
 - Further stakeholders based on consultation arrangements for the Directive
- Approach
 - Informed of issues to be covered, asked for contributions
 - Guidance issued for comment
 - Comments in writing with stakeholder meetings on particular issues as necessary

Topics

- Site characterisation and assessment
- Risk assessment of composition of CO₂ stream
- Monitoring, including relation with MRGs
- Conditions of transfer of responsibility to the state
- Scope and quantum of financial security
- Scope and quantum of financial transfer

Approach and timing

- DG ENV contract covering first 5 issues
- Stakeholders will be invited to provide input
- Commission will develop drafts for discussion with MSs
- When drafts sufficiently advanced, will be issued for comment to stakeholders.

Scientific Panel

- Established to provide technical advice for technical basis for the Commission opinions on the draft permit decisions (Article 10) and draft decisions on transfer of responsibility (Article 18.4).
- COM will provide information on the proposed mandate
- Panel established by Commission Decision, open competition for Members
- Aim to adopt Decision in early 2010, with recruitment of Members in 2010.

Treatment of CCS in international conventions

- COM has proposed ratification of changes to OSPAR to allow sub-seabed geological storage
- Norway amendment to Art 6 of London Protocol on dumping of wastes, to remove CO₂ from the prohibition of export of waste and so facilitate transboundary transport of CO₂. Useful clarification of the Convention.

- **European Economic Recovery Programme**
 - €1.05bn available for CCS demonstration in seven Member States, maximum support €180m for the five largest projects
- **300m allowances reserved in the NER of the Emissions Trading System**
 - Demonstration of CCS and innovative RES
 - Must be allocated before 2015
 - No more than 45 million allowances for any project
 - No more than 50% of additional costs to be funded

- **Member States**

- Perform eligibility assessment and decide whether or not to submit applications for eligible projects to EIB
- Disburse revenues to selected projects
- Ensure project implementation

- **Commission**

- Overall responsibility for project selection
- Issuing of award decisions to selected projects
- Overall responsibility for conversion of allowances and distribution of revenues
- Provide details on calculation of relevant costs, selection and evaluation.

- **EIB**

- Carry out project selection according to terms specified in the Decision
- Sell allowances corresponding to cash value of awards and pass revenues to MSs for disbursement

Number of calls, timing and allowances

- First call 200m allowances, deadline for award decisions 31 December 2011
- Second call 100m allowances, deadline for award decisions 31 December 2013
- Second call used to adjust geographical and technological underrepresentation.
- Second call based if necessary on revised Decision, with adapted criteria adopted by comitology

- **Financial and technical due diligence**
- **Number of projects to be funded**
 - No more than 2 in each of the CCS categories
 - No more than one in each of the renewables subcategories
- **If more projects than specified pass due diligence**
 - Projects ranked on lowest cost per unit performance and highest-ranked selected
- **If funding request of all projects exceeds available finance**
 - CCS group and RES group reduced separately, in same proportion, until request matches available finance
- **Award decision conditional on all relevant permits being issued, and final investment decision, within a certain period**


Treatment of CCS category

- **Previously, least cost within four capture technology categories**
- **Problem: disadvantaged saline aquifer storage**
- **Solution: of the eight plants in the basic CCS portfolio (two in each capture technology), half must use saline aquifer storage**

Also

- **Threshold for post-combustion projects in Annex I raised to 250MW gross in line with the European Energy Recovery Programme**

Geographical distribution

- **Second call used to adjust geographical and technological balance from first call**
 - **In addition, no more than two projects per Member State**
 - **Transboundary projects shall not count towards the total for any Member State**
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- **Before the award decisions for each round of calls, EIB sells reserved allowances (200 million for first call, 100 million for second call)**
- **Funds are passed to Member States as required for disbursement to projects**
- **Disbursement to projects is annual, based on CO2 stored (for CCS) or clean energy produced (for RES) and compliance with knowledge-sharing requirements**
- **Projects can raise up-front loan finance on the basis of the future revenue stream**
- **Main issue is that for some projects, the higher than usual project risk may be such that finance cannot be raised commercially**
- **For such projects the Risk Sharing Finance Facility provides a loan mechanism**
- **Conditionality link cannot be broken without violating the terms of Article 10a.8 of the Emissions Trading Directive**

- **Directive provides framework for safe deployment**
 - **Two major programmes for demonstration assistance**
 - **Implementation work is ongoing**
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