

*Barroso Package on Climate Change and Energy*

**Enabling legal framework  
for  
carbon dioxide capture and geological  
storage**


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## Preparatory discussions

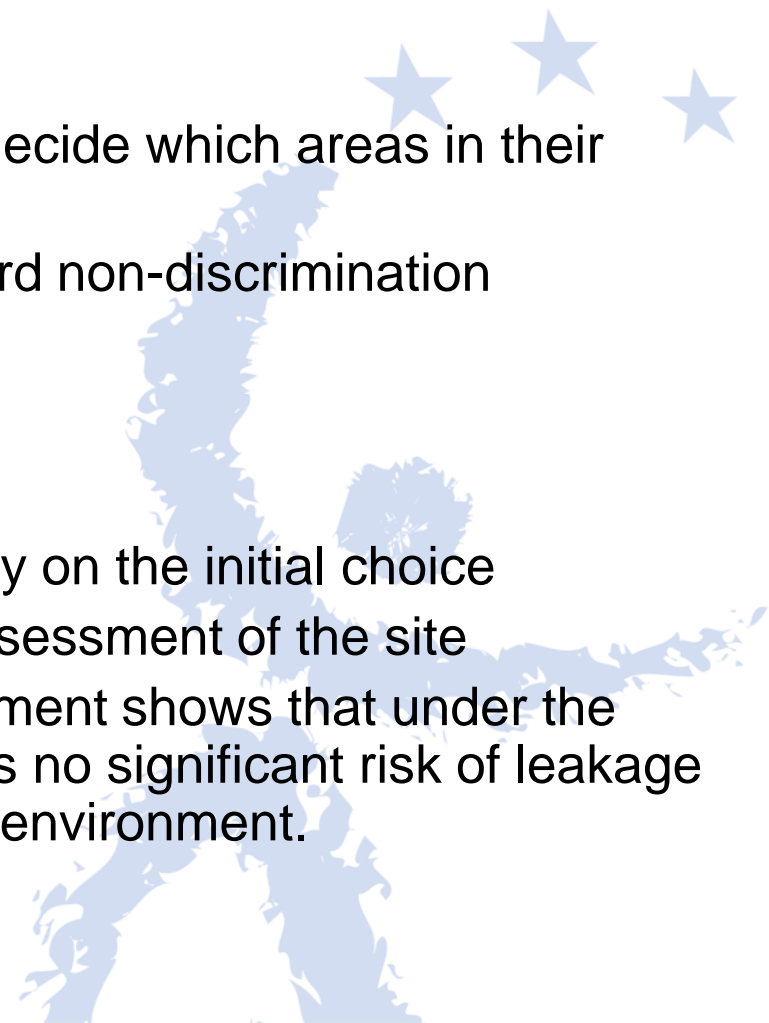
- European Climate Change Programme Working Group III on CCS
- Internet consultation (ca. 800 responses)
- General meeting of stakeholders (May 2007)

## Main issues raised

- Purity of the CO<sub>2</sub> stream
- Whether to make CCS mandatory
- Liability for leakage, particularly where credit is given for stored emissions under the ETS
- Need for dialogue & information sharing
- Support for a European enabling framework and demonstration programme

- Environmental security of CCS
  - Liability and long-term stewardship
  - Removing barriers
  - Providing incentives
  - Enabling versus mandating
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- *Principles*
  - *Use existing frameworks where possible*
  - *Treat similarly to activities of similar risk*
- **Capture and transport**
  - Capture regulated by the IPPC Directive
  - Transport regulated as for natural gas transport (by Environmental Impact Assessment Directive and at Member State level)
- **CO<sub>2</sub> storage** -novel element and main focus

- **Site location**
    - Member States have sole right to decide which areas in their territory to make available
    - Where exploration allowed, standard non-discrimination provisions apply
  - **Site selection**
    - Integrity of project depends crucially on the initial choice
    - Criteria are established for prior assessment of the site
    - Condition of use is that the assessment shows that under the proposed conditions of use, there is no significant risk of leakage or impacts on human health or the environment.
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- Monitoring plan to confirm expected behaviour of CO<sub>2</sub> in site and detect leakage
- Monitoring plan integrated with monitoring and reporting guidelines under EU-ETS in order to quantify any leaked emissions (proposal expected end 2008)
- Commission may review the permits but final decision on permitting remains with competent authority

- **Liability measures in case sites do leak**
  - Competent authority immediately notified and corrective measures taken
  - Environmental Liability Directive applies for any local damage
  - ETS allowances must be surrendered for any leakage
  - Financial provision for future liabilities
- **Transfer of responsibility to the state under clear conditions to avoid distortion of competition**
  - The site must be safely closed and sealed
  - While site represents a significant risk it remains the operator's responsibility
  - Transfers to the state when all available evidence indicates complete containment of CO<sub>2</sub> for the indefinite future

# Removal of barriers to CCS deployment

- Water Framework Directive amended to allow CO<sub>2</sub> storage in saline aquifers
  - Same environmental conditions as for natural gas
- Waste legislation adapted to remove from scope CO<sub>2</sub> transported and stored in accordance with this framework

- Under the ETS:
  - CO<sub>2</sub> captured, transported and safely stored considered as not emitted
  - No allocation to capture, transport and storage
  - ETS allowances must be surrendered for any leakage
  - Monitoring and reporting guidelines under preparation.
- ETS auctioning revenues major potential source of funding for CCS demonstration
- Measures to ensure a fair market in transport and storage
  - Principle is fair and open access to transport and storage
  - Embryonic market so light touch appropriate
  - Member States to determine modalities, and can limit access in certain cases

- Enabling
  - Member States determine whether and where CCS will happen
  - 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

# Contribution of CCS to climate goals

- Major contribution of CCS after 2020.
- In 2030:
  - Without CCS - a 32% reduction in 2030 would be €60bn (40%) more expensive.
  - Carbon price in 2030 would be 46% higher than would otherwise be the case.

- Clear enabling legal framework – an international model on risk management, liability, long-term stewardship and other management issues
- Market-driven deployment – finance available from ETS auctioning revenues, including demonstration of CCS
- CCS can make a substantial contribution towards reducing the cost of major CO<sub>2</sub> reductions.

**YOU CONTROL  
CLIMATE CHANGE.**



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