



Directorate-General
for Energy
and Transport



EUROPEAN
COMMISSION

● Réseau de démonstration du CSC de la CE

Kai Tullius
Coal and Oil

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CCS context: EU policy

- **January 2007: 1st CCS Communication COM (2006) 843 final - Low-CO₂ power generation from fossil fuels**
 - Commercial viability by 2020
 - CCS in retrofits and in new plant thereafter
 - Capture-readiness in the meantime
- **2007 Spring European Council**
 - Reduction 20% GHG by 2020
 - Financing of up to 12 demos by 2015
- **November 2007: Strategic Energy Technology Plan (SET-Plan) COM (2007) 723 final**
 - CCS as one of the six strategic energy technologies until 2050
- **January 2008: CCS Directive 2009/31/EC and 2nd CCS Communication COM(2008) 13 final**
- **December 2008: ETS Directive 2009/29/EC**
 - Budget: 300m allowances from ETS-NER for CCS and innovative renewables
- **April 2009: Recovery Package Regulation EC 663/2009**
 - Budget: €1.05bn for CCS

CCS challenges - EU actions

1. Regulatory framework

- **Directive 2009/31/EC on CO2 storage** to be transposed by June 2011

2. Long-term economic viability

- CCS under the Emission Trading System (ETS)
- Copenhagen negotiations: uncertainty over carbon price

3. Financing industrial-scale CCS demo projects

- €1.05 bn EEPR funding for up to seven demos
- 300m NER allowances

4. Public awareness

- FP7 project NearCO2
- CCS Network

5. International cooperation

● CCS Directive 2009/31/EC

● What it brings

- » Regulatory certainty over storage
- » Certainty over storage safety = a requirement
- » Companies can decide on CCS use, based on market conditions (technology, carbon)

● CCS is not mandatory, but MS need to verify if:

- » Storage capacities and transport facilities are available
- » Retrofitting is technologically feasible
 - **CAPTURE READINESS**

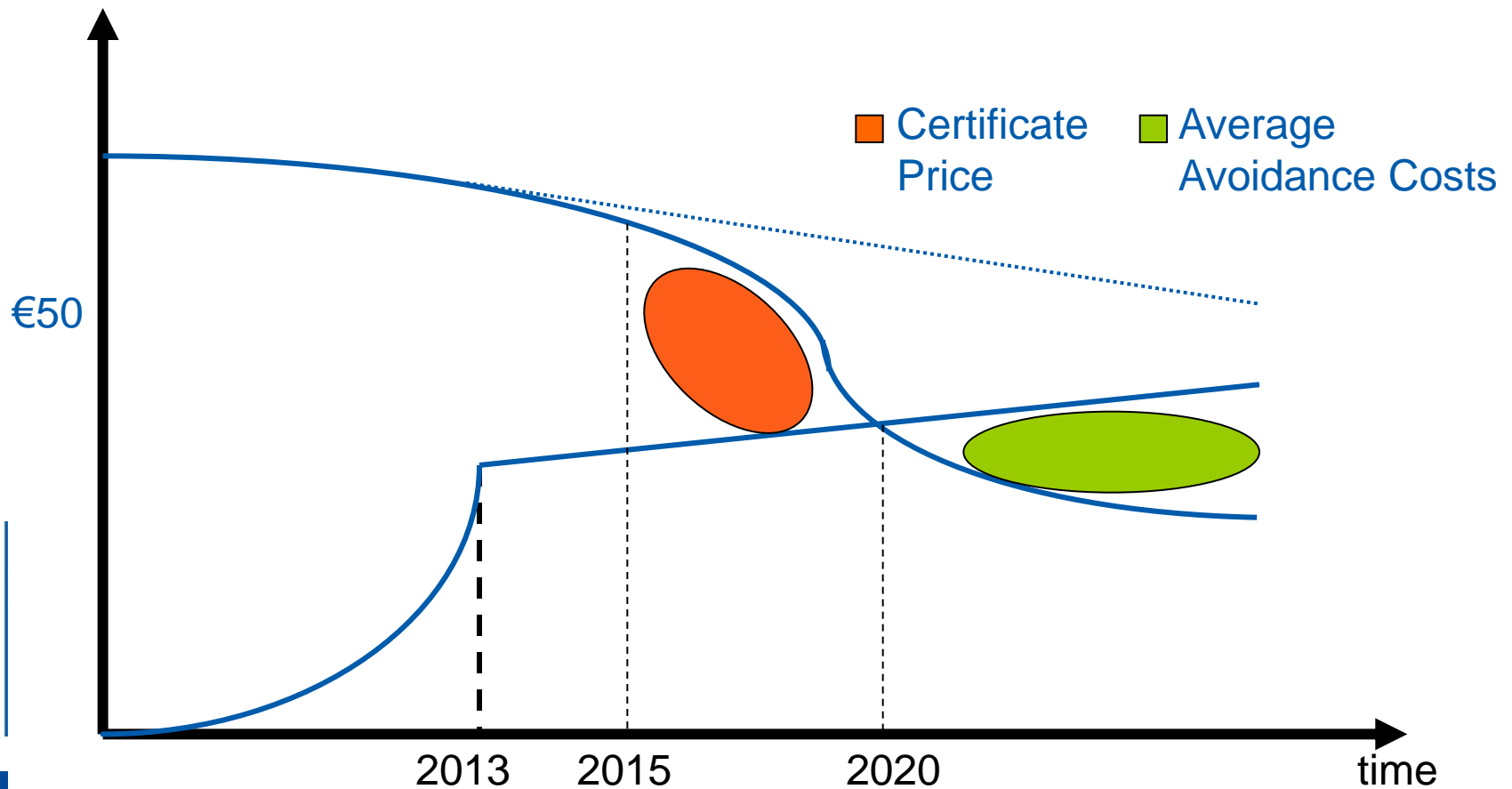


ETS Directive 2009/29/EC: economic viability of CCS

- **EU Emission Trading System 2013-20 (3rd phase)**
 - » Brings about a CO₂ price to narrow the CCS financing gap
 - » Recognises captured and stored CO₂ emissions from CCS plant as non-emitted
 - » ETS allowances must be surrendered for any leakage
 - » Sets aside NER 300 million allowances for CCS demonstration (and innovative renewables) and to drive technology costs down
 - » Stipulates that 50% of auctioning revenues should fund climate change mitigation actions, including CCS

Economic viability of CCS under ETS

Additional cost for CCS per ton CO₂



● CCS Financing

● Financing

- » EEPR, ETS-NER, FP7
- » EU funding will be limited and will not cover the full operation costs for CCS
- » Additional financing from industry and/or Member States **REMAINS CRUCIAL!**

● MS and EC must

- » Ensure timely transposition of CCS Directive into national law
- » Proceed with timely implementation of EEPR
- » Work out funding arrangements under ETS-NER

CCS Financing - EEP

● European Energy Recovery Programme

- » Total budget: approx. €4 bn
- » €1.05 bn for CCS demonstration projects
- » Up to seven projects, one project max. per MS
- » Max. €180 million per project for additional investment-related expenditure for CCS

● Timeline

- » Call for proposals: mid-May 2009
- » Submission deadline: 15 July 2009
- » Commission Decision: end-2009

CCS Financing - FP7

- **Funding CCS and Clean Coal Technologies (CCT)** to support early demonstration, prepare for commercial deployment, address public awareness
 - » Area 5, CCS: capture technologies, storage site development and public awareness
 - » Area 6, CCT: efficiency increase in power production with a view on CCS
 - » Areas 5 and 6, cross-cutting: integrated concepts of highly efficient power plants with CCS

● CCS Financing - ETS

● “NER-300”

- » Sets aside 300 million allowances from ETS – NER
 - Fully complementary to EEPR
 - Allocation modalities in comitology; decision by end-2009
 - First funding decisions winter 2010/spring 2011

● CCS Project Network - an immediate EU structure

● CCS Network main goals include:

- » Stimulate the demonstration of CCS on an industrial scale
- » Benefit from knowledge sharing, joint communication activities and a European identity

● CCS Network main tasks include:

- » Co-ordination of EU CCS demonstration projects
- » Information and communication
- » Actions to increase public awareness
- » International cooperation



CCS Project Network - added value to first-movers

1. Facilitate identification of best practices and enable knowledge sharing amongst projects;
2. Provide a common EU identity to Network members;
3. Leverage experience of projects in order to gain public confidence about CCS;
4. Promote CCS, EU leadership and cooperation potential to third parties/countries.

● CCS Project Network - means of achieving objectives

CCS Network members benefit from:

- Recognition for their participation in a common European interest
- Access to a restricted website where members can upload and share information
- Participation at various events with the aim of encouraging knowledge-sharing and best practice exchange (e.g. acceptance or monitoring)
- Reports aimed at disseminating knowledge to the public and promoting EU projects internationally

● CCS Project Network - state of play

- **January 2009: DNV contracted to assist the Commission**
- **Next steps**
 - » Definition of criteria to access the network
 - » Preparation of knowledge-sharing protocol
 - » Launch by end of 2009
 - » First membership applications in early 2010
- **First Network event**
 - » 2-3 December 2009, Oslo
 - » Open to potential applicants
 - » Will discuss application process and expectations for international cooperation

● CCS international cooperation

● Stakeholders

- » Other technology developers
- » Developing and emerging economies
- » Clean Coal Working Groups

● International Organisations

- » GCCSI
- » CSLF

A wide-angle photograph of a vast field of yellow rapeseed flowers in full bloom. The field stretches to the horizon, with a line of green trees visible in the distance. The sky is a deep blue, filled with soft, white, and light-colored clouds. The overall scene is bright and cheerful.

Thank You for Your Attention