



**CSLF Technical Group
Project Interaction and Review Team**

EC FP7 CCS Actions

**Meeting #9
Washington, USA
16th November 2008**

PIRT#9 : EC FP7



Highlights of CCS Activities under past Framework Programmes

Activities under FP5 and FP6 and FP7(1998-2008)

❖ **CCS Projects**

- ❖ *FP5 – CCS projects worth 32 M€ (EC funding 16 M€)*
- ❖ *FP6 - CCS projects worth 140 M€ (EC funding 70M€)*
- ❖ *FP7 1st call - 4 CCS projects (EC funding 17.5 M€)*

❖ **European Technology Platform on Zero Emission Fossil Fuel Power Plants** *launched on 1 December 2005*

❖ **International cooperation:** *EC member of CSLF, EU-China MoU on NZEC, US, India...*



Second EU-OPEC Workshop on Carbon Capture and Storage -Brussels, 31 October 2008

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Energy Theme in FP7

Implemented jointly by DG Research and DG Energy and Transport

Hydrogen and fuel cells

CO2 capture and storage technologies for zero emission power generation

Renewable electricity generation

Clean coal technologies

Renewable fuel production

Smart energy networks

Renewables for heating and cooling

Energy savings and energy efficiency

Knowledge for energy policy making



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EUROPEAN
COMMISSION

Community research



CO₂ Capture and Storage (CCS) technologies for ZEP generation

R&D to drastically reduce the environmental impact of fossil fuel use

- ✓ **Capture:** techniques for both new and retrofit power generation applications. Cost of capture should go down to ~15€ per ton of CO₂.
- ✓ **Storage:** safety of geological CO₂ storage at all timescales, including liability issues, for different underground storage options
- ✓ Integrated approach to capture, transport and storage



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Cross-cutting actions:

- ✓ Integrated zero emission solutions: high-efficiency conversion technologies coupled with CO₂ capture and storage
- ✓ (Pre-)regulatory issues for CCS and zero emission power generation; international cooperation; socio-economic assessments; ...



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FP7: support to CCS

More than 54 M€ spent or earmarked for CCS/CCT so far on:

- Advanced capture techniques
- Transport infrastructure
- Qualification of deep saline aquifers
- Storage safety
- Public acceptance
- Gas turbines in IGCC power plants; oxyfuel combustion; fluidised bed combustion
- Feasibility/engineering study for a CCS demonstration plant (CCS part)
- Efficiency increases in pulverized coal power plants
- Support to regulatory activities for CCS
- Development of a value chain for CO₂ and for GHG emissions other than CO₂

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European Strategic Energy Technology Plan (SET-Plan)

The essence of the SET-Plan

- ✓ **A tool to reach ambitious EU energy policy objectives**

The main elements

- ✓ **Joint strategic planning**
- ✓ **Increase in resources, both financial and human.**
- ✓ **Reinforced international cooperation**
- ✓ **Effective implementation:**
 - ***Strengthening European Energy Research Capacities***
 - ***Trans-European Energy Networks and Systems of the Future***
 - ***European Industrial Initiatives***

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Towards early demonstration *A European Industrial Initiative within the SET Plan*



Objectives

- ✓ A set of full-scale demonstration projects covering a wide range of CCS technologies, EU-wide
- ✓ Prepare the way for fully commercial implementation



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END**

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