



NER 300 Competition and Candidate Projects

CO₂ Transport and Storage

"Natural Gas Knowhow Centre in Mediaş", Thursday, 9th June 2011

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New Entrants Reserve (NER 300)



❖ Revised ETS Directive (2009/29/EC)

- 300 million CO₂ allowances (EUAs)
- Available until 31 December 2015
- .CCS & RES innovative demo projects



❖ Decision on modalities (670/2010/EC)

- A range of CCS technologies
- 12 large-scale projects
- Main award criterion: **Requested funds/CO₂ stored**

8 projects – 2011

4 projects - 2013



Types of financed projects

Commercial CCS demonstration projects

Pre-combustion

Post-combustion

Oxy-combustion

Industrial Application

Demonstration projects of innovative renewable energy technologies

8 categories with 34 sub-categories

Rules : Decision C(2010)7499 - NER 300 Decision

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Project Company



Technical Consortium



Project Support



Calls

Two rounds of calls:

- ❖ *First Call:* equivalent of 200 million allowances
(~ 4.0 billion € for 20 €/tCO₂)

Number of projects: 8 CCS project + 34 RES projects

- ❖ *Second Call:* equivalent of 100 million allowances
(~ 2.0 billion € for 20 €/tCO₂)

Number of projects: 4 CCS project + RES projects

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ALSTOM

Schlumberger
Carbon Services

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Level of Financing

The minimum of:

- ❖ 50% of the Relevant Cost
- ❖ 15% of the total available allowances (300 Millions allowances)





Relevant Cost of CCS Demonstration Projects

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$$\diamond RC_{CCS} = CAPEX_{CCS} - NPV_{10years} (O\&M_{Benefits} - O\&M_{Costs})$$

❖ **CAPEX:** investment in land, plant and equipment

❖ **O&M_{Benefits}:** all benefits during the first 10 years of operation

- including the additional revenues due to the CCS
- including any additional benefits during the first 10 years of operation resulting from:

- support schemes even if they do not constitute State aid within the meaning of Article 107(1) of the Treaty
- avoided costs (e.g. avoided carbon costs)
- existing tax incentive measures

❖ **O&M_{Costs}:** operating costs due to the CCS during the first 10 years of operation





Project Ranking

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- ❖ **Ranking order:** increasing CPUP (Cost Per Unit Performance)
- ❖ **CPUP** = (Total Request for Public Funding + NPV of Additional Benefits) / Performance
 - *Additional benefits* = resulting from support schemes, avoided costs and existing tax incentive measures
 - *Performance* = the total projected amount of CO₂ stored in the first 10 years of operation



Project Selection for CCS Demo Projects

Criteria:

at least 1 project and at most 3 projects are selected in each project category

at least 3 projects are selected with hydrocarbon reservoir storage

at least 3 projects are selected with saline aquifer storage

Where selecting a project would mean that the above criteria would not be met, the project shall not be selected and the next highest ranked project shall be considered for selection

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Project Proposals

9 November 2010 – Call for proposal

9 February 2011- 153 projects proposed to MS

CCS: 22 projects

RES: 131 projects

9 May 2011 - 78 projects submitted by MS

CCS: 13 projects

RES: 65 projects

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Romania NER 300

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❖ Demo Project for carbon dioxide capture and storage – **GETICA CCS**

❖ Demo project for renewable energy resources - **DANUBE'S GREEN ISLAND ALGAE**



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Candidate projects for CCS (1)



Member State	Project	Field	Type
France	Acellor Mittal	Industrial – cement plant	
Germany	Janswalde	Power	Oxy, existent unit, onshore
Italy	Poero Tolle	Power	PC (amine), new unit USC, offshore
Netherland	CINTRA	Industrial – H ₂ plant	PC (cryogenic), offshore
Poland	Belchatow	Power	PC (amine), new unit USC, onshore
Romania	GETICA CCS	Power	PC (chilled ammonia), existing unit SC, onshore



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Candidate projects for CCS (2)



Member State	Project	Field	Type
UK	Don Valley	Power	PreC, IGCC, offshore
	Progressive Energy	Power	PreC, IGCC, offshore
	CGEN	Power	PreC, IGCC, offshore
	AYRSHIRE	Power	PC (amine), new unit USC, offshore
	LONGANNET	Power	PC (amine), existing unit SC, offshore
	SSE Gen Ltd	Power	PC (amine), existing CCTG, offshore
	DRAX	Power	Oxy, new unit USC, offshore





EIB Due Diligence (1)

Aspects covered:

- ❖ the technical scope
- ❖ the costs
- ❖ the financing
- ❖ the implementation
- ❖ the operation
- ❖ the environmental impact
- ❖ the procurement procedures



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EIB Due Diligence (2)



1. Completeness check – Request of clarification
Dead line: 6 weeks /Report to EC

2. Proposal Due Diligence – Technical and
Financial / Request clarification
-initial ranking of projects by category
- geographical spread out of projects
Dead line : 3 month/ Report to EC

3. Progress report on six month – Due Diligence,
any amends, including elimination of projects
Dead line: 6 month / Report to EC





EIB Due Diligence (3)

4. Evaluation of “Cost Per Unit of Performance” (CPUP) and ranking of projects – projects with positive Diligence

- Ranking of project with CPUP high to low
- Monetization of available allowances
- Allocation of available funds for projects

Dead line: 9 month / Report to EC

5. Award decision

6. Final Report – one month after Award decisions



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WE STAND FOR THE DEVELOPMENT OF CCS PROJECTS IN ROMANIA



Thank you for attention!

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GETICA CCS Demo Project – CO₂ Transport and Storage, June 2011