Expanding the EU ETS to Other Activities and Gases: Technical Assessment Criteria

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Jochen Harnisch, Ecofys Germany GmbH

Overview

- Criteria
- Methodology
- Results
- Outlook

Criteria

Objectives of Expansion of Scope

- Access further reduction potential ...
- ... at costs lower or comparable to potential in Annex I installations ...
- ... while ensuring that the scheme remains functional with regards to its ecologic targets (III)

Objectives and Criteria (I)

Availability of reduction potential:

- What is the total reduction potential for a sector/technology?
- When can it be made available? (2008-2012? Later?)
- Is the use of available technology acceptable?

Objectives and Criteria (II)

Cost of available reductions:

- What are technical costs/t CO_2-eq. reduced?
- What are costs for participation in the scheme both for operators and administration?
- Who will bear these costs? (Industry, end-user?)
- Can relevant negative side-effects be expected, e.g. competitive disadvantages, price hikes for basic goods?

Objectives and Criteria (III)

Ensuring environmental integrity:

- Uncertainty of monitoring must be comparable to existing Annex I installations at reasonable cost
- Adequate verification must be feasible at reasonable cost

Methodology

Assessment Steps

Step 1 – Criteria addressed were:

- Relevance
- Monitorability
- Enforcement

Step 2 – Criteria addressed were

- Reduction potential and costs
- Transaction costs
- Competitiveness
- Coverage by other instruments

Relevance (Step 1)

- Objective: Keep costs at reasonable level
- Quantitative indicators used

Indicators:

- Emissions relative to EU-25 Emissions in 2003
- Projected emission trend until 2020

⇒ Sectors with an emission share of less than 0.5% and no upwards trend were not considered

Monitorability (Step 1)

- Objectives: Ensure environmental integrity while keeping costs at reasonable level
- Qualitative indicators (++ to --)

Indicators:

- Achievable uncertainty in monitoring
- Feasibility of data collection
- Feasibility to define clear installation boundaries

Enforcement (Step 1)

- Objectives: Ensure environmental integrity while keeping costs at reasonable level
- Qualitative indicators (++ to --)

Indicators:

- Feasibility to define an operator with control over emissions
- Feasibility of verification: Availability of raw data, data for cross-checking

Transaction Costs (Step 2)

- Assessment of costs based on quantitative and qualitative indicators
- Range: low, medium, high

Indicators:

- Installation size and number
- Complexity of production process
- Existing process control

Availability and Costs of Reduction Potential (Step 2)

- Total reduction potential & cost/benefit relation of reduction potential
- Qualitative and quantitative indicators

Indicators:

- Reduction potential
- Reduction options
- Cost specifics

Costs Compared to Other Instruments (Step 2)

- Basic assessment on whether other instruments might offer comparable results at lower cost
- Indicators: Number and size of installations, reduction potential, reduction costs

Alternative instruments taken into consideration:

Legislation e.g. IPPC, Voluntary Commitments, Taxes, Incentive Schemes

Competitiveness (Step 2)

- Objective: Take potential side-effects of an inclusion in the EU-ETS into consideration

Indicators:

- Existence of competition situations with non-EU-producers or with activities already included in the EU-ETS
- Possibility to pass EU-ETS costs through

Results

Sectors Identified in Assessment Step I

CO_2-Sectors	Non-CO_2 (predominantly)
• Offshore/Onshore gas flaring • Gypsum production • Stone wool production • Fertilisers and ammonia production • Petrochemicals • Other Chemicals • Food and Drink products • Waste incineration	• Coal mine methane (CH_4) • Production of adipic and nitric acid (N_2O) • HCFC-22 Production (HFCs) • Semiconductor manufacture (PFCs, SF_6) • Magnesium foundries (SF_6) • Aluminium production (PFCs, CO_2)

Sectors Identified in Assessment Step II

Sector	Gas	Potential Main Barriers
Coal mining	CH_4	
Aluminium production	CO_2, PFCs	Remaining reduction potential, Competitiveness
Gypsum production	CO_2	Smaller installations
Stone wool production	CO_2	
Fertilisers and ammonia production	CO_2, N_2O	Competitiveness
Production of adipic acid	N_2O	Competitiveness
Petrochemical Processes	CO_2	
Waste incineration	CO_2	Availability of reduction potential due to complex environmental requirements

Outlook

Outlook

- A list of candidate activities/gases for addition to ETS has been generated by means of a two-step filtering methodology
- For identification of additional candidates
  - Further differentiation in remaining sectors
  - Analysis of benefits of including low-emitting activities: avoid leakage, competiveness, ...
- Closely follow technology development in sectors with presently low reduction potential

Thank you for your attention!

For further questions please refer to:

Jochen Harnisch, Ecofys GmbH
Nuremberg, Germany
+49 (0)911 994358-12
j.harnisch@ecofys.de