

Setting Benchmarks for Free Allowance Allocation (under the EU ETS after December 2008)

**Climate Strategies Project Workshop
“Tackling Leakage in a World of Unequal Carbon Prices”**

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- **Free allocation is an approach to deal with carbon leakage**
 - Not for all potential leakage problems and probably not the most appropriate
 - However, it (still) exists under the EU ETS
- **Benchmarking (BM) is an approach for free allocation**
 - BM is about measuring/assessing performance
 - Significant differences exist between BM approaches
 - BM adds complexity to the EU ETS
- **(Free) allocation/ BM is not only a distributional problem**
 - Impact on dynamic and allocation efficiency
 - Limiting the potential of distortions is important
- **The focus must be on Europe-wide benchmarks**
 - To limit distributional and efficiency problems
- **The EU ETS is about carbon pricing and not on technical standards**

Conceptual issues of benchmarks within the EU ETS (1)

- **Benchmarks are applied in many fields**
 - Benchmark designs depend on the target function (“Which performance is addressed?”)
 - The “universal benchmark” does not exist

- **Potential use of benchmarks in the EU ETS**
 1. For the determination of sector caps (not after December 2008)
 2. For the distribution of sector caps (not after December 2008)
 3. For (bottom up) free allocation to incumbent installations
 4. For (bottom up) free allocation to new entrants

→ **No differentiation between benchmark used for free allocation to incumbents and to new entrants.**

Conceptual issues of benchmarks within the EU ETS (2)

- **Allocation is more than one benchmark**

Allocation formula

$$A = BM_e \times C \times CF \times AF^* \quad (*\text{system-wide: Art 10a, Nr.5})$$

- Main focus here on emission benchmarks
- All other factors are important
- BM for ex ante allocation!

- **Benchmark types**

- Average level (not after December 2008 ...)
- Best available level (not after December 2008 ...)
- Best achieved level (could play a role, see below ...)
- Top percentile (10% - language of the rev EU ETS directive)
- Hybrid (real implementation of the rev EU ETS directive ...)

Conceptual issues of benchmarks within the EU ETS (3)

- **Reflection of some issues to ensure consistency of the benchmark approach to the overarching rationales of the scheme**
 - Maintenance of a non-distorted price signal for operational and investment decision of the economic entities
 - free (BM) allocation as compensation for carbon & trade exposure (& leakage potential)
 - Indirect emissions should not be included in the design of benchmarks
 - a much more general issue
 - would not be consistent to the overall architecture of the EU ETS
 - Legal constraints
 - allocation beyond expected needs
 - transparency

Benchmarking and the carbon price signal (1)

| CO ₂ price signal creates incentives for | | | Optimal level of | | Optimal intensity for | |
|--------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-----------------------|------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| | | | demand/ product innovation | production | CO ₂ (energy, fuel, other inputs) | Energy |
| Incentivized optimization is | | | System-wide | | Plant-specific | |
| Distortion of CO ₂ price signal = loss of economic efficiency = higher allowance prices in future | | | Comprehen- sive price signal. Least distortion | Price signal for optimal production at given demand | Price signal for optimal specific CO ₂ emissions at plant level | Price signal for optimal energy efficiency at plant level |
| Auctioning | | | X* | X | X | X |
| Free Allocation | No updating | Historic emissions | (X) | X | X | X |
| | | Benchmarking based on | All parameters (products, technology, inputs and/or fuels) | (X) | X | X |
| | Capacity only | | (X) | (X) | X | X |
| | Product-specific only | | O | (X) | X | X |
| | Product- and technology-specific | | O | O | (X) | X |
| | Product-, technology- and input-/fuel- specific | | O | O | O | X |
| | Updating (incl. new entrant allocation) | Historic emissions | O | O | O | O |

O - not ensured. X - ensured. (X) - ensured in general, but depends also from other factors. X* - ensured in general, if no carbon leakage can be assumed

Benchmarking and the carbon price signal (2)

- **Distortions of the carbon price signal result from (direct and indirect) updating provisions of the EU ETS**
 - multi-period system: updating of base periods
 - new entrant allocation (test case for “distortion assessment)
- **Types of carbon price distortions**
 - erosion of carbon price (↓)
 - double counting of carbon price signal (↑)
- **Preliminary results**
 - BM strictly related to products (product clusters), no reflection of processes and /or fuels, raw materials etc. (including CHP)
 - BM related to primary products (clinker, pig iron etc.)
- **However, potential perverse incentives should be considered**
 - Value chain adders – in exceptional cases for complex processes with potential perverse incentives (steel, refineries)
 - Carbon costs go through significant parts of the value chain!

Guiding principles for the benchmarking exercise

- **Transparency**
 - for the political process
 - for the operators
 - for the market
- **As less distortion of the carbon price signal as possible**
 - no technology, site, raw material/fuel preferences
 - as simple as possible, as complex as necessary
- **In line with best available technology/10% best**
 - to avoid major adjustments by other factors in the allocation formula
- **Low (transactional) costs / practicability / simplicity**
 - for the development of the benchmark scheme
 - for the operators
 - for the relevant authorities
- **Acceptability**

**Thank you
very much**

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