



Benchmark criteria for ex-ante allocation of CO₂ emission allowances

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**This presentation reflects the views of the consultants and not the
position of the European Commission**

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Content

- Lesson from benchmarking and the EU ETS so far
- Recommended allocation principles for key issues in benchmark based free allocation:

Fuel mix

Number of
benchmarks

Link with non-
benchmarked
sectors /
products

Energy
efficiency

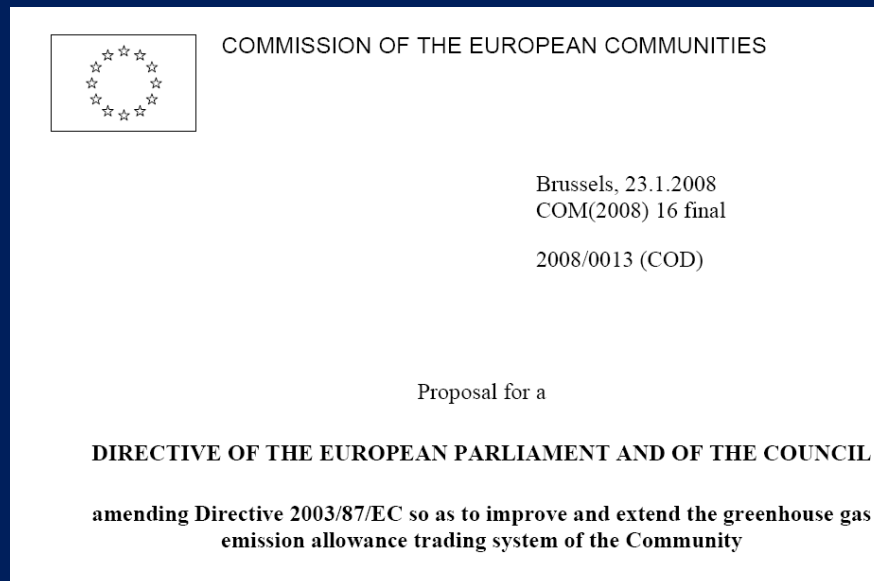
Technology
and fuel mix
corrections

Treatment of
CHP
installations

Choice of
activity
levels

Scope of the project

23 January proposal as starting point:



- Benchmarking only used for direct emissions
- No free allocation for electricity production
- Ex-ante allocation
- Correction factor to ensure CAP for free allocation

The EU ETS and benchmarking so far

- Mainly used for new entrants and the power sector
- Some experience (BE, FR, HU, IT, NL, PL, SE) in use of benchmarking for (some) existing industrial installations.
- Lack of harmonization in:
 - Benchmark emission levels
 - Application of technology / fuel specific benchmarks
 - Activity levels used
- Many industries are proponent of benchmark-based allocation, but no details available
- BAT reference documents useful source, but not directly applicable to derive benchmarks

Benchmark based allocation

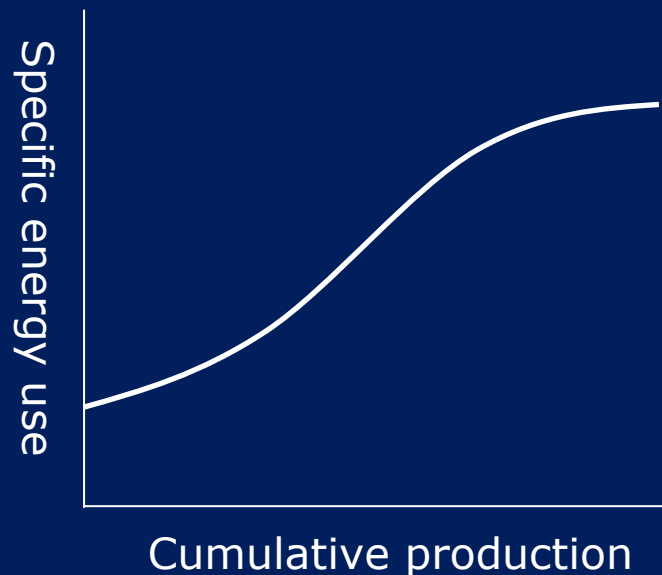
Allowance =

*activity level * energy efficiency benchmark * fuel
mix benchmark*

*+ activity level * process emission benchmark*

Benchmark for energy efficiency level

Benchmark could be based on:




- The actual benchmark curve (e.g. the top quartile best performing plants)
- An externally defined reference (e.g. best available technology)
- An externally defined reference based on thermodynamic considerations

Benchmark for energy efficiency level


Base benchmark on most energy efficient technology

- Defined reference level “ensures” fair and equal treatment of installations in different sectors
- Proposal for revised ETS directive explicitly refers to ‘most-efficient techniques’
- Technology should be applicable at industrial scale
- The use of most GHG-efficient technology enables uniform allocation methodology for incumbents and new entrants


Number of benchmarks and technology corrections



My sector
produces over
a million
products



I need a
correction for
my type of
raw material



I can't use
this
technology in
my plant

Approach should be reasonable, keep incentives to reduce emissions within the system and should not be unnecessary complex

Number of benchmarks and technology corrections

No technology-specific benchmarks for processes producing the same product

No corrections for plant size, age and raw material quality

Separate benchmarks for intermediate products that are traded between installations

Number of products is a political choice. Availability of verifiable production data is prerequisite

Fuel mix

To avoid distortions:

No fuel-specific benchmarks for individual installations or for individual countries

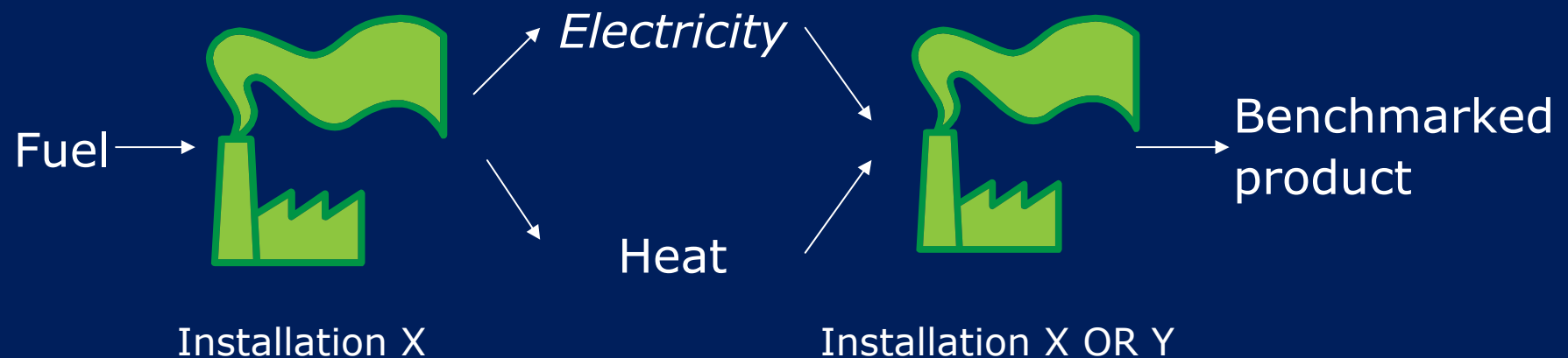
- Fuel mix could be based on best practice, sector average, dominant fuel etc.
- Technology-specific fuel choices to be taken into account

From specific emissions to allowance: activity levels

Use historical production figures for existing
installations

Use verifiable capacity data and sector-specific
capacity utilization figures for new installations

CHP and heat



Two problems:

- 1) **One input, two outputs (electricity auctioned and heat with free allocation) -> how to allocate**
- 2) **Heat used by sometimes other installations for products under an output-based benchmark -> how to allocate**

CHP and heat

- Reference boiler efficiency (e.g. 90% for natural gas, based on CHP directive) for all heat ensures equal treatment of CHP and non-CHP heat
- Required allowances for electricity share of CHP for EU-25 average CHP plants comparable to reference combined cycle power plant from CHP directive
- Reference heat production benchmark could also be used for heat not covered via output-based benchmark (e.g. “other” combustion installations and specialty products)

Further steps in this study

- Analyze and apply recommended allocation principles to selected ETS sectors (Iron and Steel, Pulp and Paper, Lime, Glass)
- Final report to Commission later this year



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