

Combustion installations

Streamlining the application of the current
scope of the EU ETS

Findings from the NAP1 and NAP2 process

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Overview

- The mandate
- Overview on framework
- NAP1
- NAP2
- Current state of play
- Conclusions
- Annexes with definitions

The mandate

The Commission:

- streamline application of current scope, notably on combustion installations;
- explore how to give further clarity on specific types of combustion installation and their coverage under the Directive.

The ECCP group:

- explore how to **give further clarity on specific types of combustion installations** covered by the Directive, **building on Commission's 2005 further guidance** on NAP2;
- as necessary, **develop more specific technical descriptions** of such additional types of combustion installations to facilitate harmonised application by MS;
- potentially **building upon work already done in this regard by MS** for purpose of NAP2.

Scope of the Directive as it stands

- Mandatory critical mass of large industrial installations with ca. 2 billion tonnes of emissions, about 45% of total EU's CO₂ emissions
 - combustion installations
 - mineral oil refineries
 - coke ovens
 - metal ore roasting and sintering
 - pig iron and steel
 - cement clinker and lime
 - glass
 - ceramics
 - pulp, paper and board
- Certain thresholds provided for installations
- Extension possible through voluntary opt-ins to other activities and to other measurable GHGs: e.g. N₂O from fertiliser production, CH₄ from coal mines
- Voluntary opt-outs limited to NAP1, not relevant for NAP2

Focus here: Combustion installations

- Precise definition in Annex I to the Directive
- *„Energy activities: Combustion installations with a rated thermal input exceeding 20 MW (except hazardous and municipal waste installations)“*

Starting point for NAP1

- Debate on exact notion of combustion installation
- *3 theoretical* concepts for interpretation
 - „**narrow** scope“: only installations in the energy sector, i.e. basically only power plants
 - „**medium** scope“: only installations generating energy separately from other production processes, i.e. excludes, for instance, crackers
 - „**broad** scope“: all installations generating energy, even if together with other production processes, i.e. includes, for instance, crackers

2 “big schools” applied in NAP1

- 2 „big schools“ finally applied in reality of NAP1 by about 50% of Member States each
- „**Medium** scope“: e.g. UK, Germany
- „**Broad** scope“: e.g. Netherlands, Denmark
- Detailed application found not to be exactly the same within each school
- MS resisted common approach in NAP1

Result of discussions between Commission and MS in 2005

- Divergent application on combustion installations in NAP1 potentially leads to significant distortions of competition and the Internal Market
- This should be sorted out in NAP2
- Necessary to find solution for NAP2 on basis of current Directive, since amendment not possible in time

Guiding principles for NAP2

- Acceptance by MS: EU ETS most cost-effective climate policy instrument for large emitters.
- Acceptance by Commission: Expansion should not include many additional small installations
- The same type of installation should ideally be treated the same in all MS, i.e. either be excluded or included in NAP2.
- Search for practical and workable solution: MS with „medium scope“ to include some installations, while MS with „broad scope“ may exclude some

The Commission's guidance of December 05

- Legal concept of „broad scope“ followed
- Enforcement priorities identified for **„combustion processes typically carried out in larger installations causing considerable emissions“**, i.e. going more or less half-way
- 5 main types of installations to be included *in any event* on this basis: crackers, carbon black, flaring, furnaces and integrated steelworks (further specifications in footnotes)

Implications from guidance

- The Commission has communicated that it will follow a **strong enforcement** approach with respect to these **priority types** of installations
- MS having used the medium scope in NAP1 need to include these installations in NAP2
- MS having applied the broad scope in NAP1 have discretion as to whether to exclude installations not being priorities

The Climate Change Committee's co-ordinated definitions of May 06

- General support of Commission's guidance
- Pragmatic search by Commission and MS of more detailed definitions for priority types in order to ensure consistency in NAP2 application across MS
- Definitions included in 31 May 2006 record of Climate Change Committee (see Annexes to this presentation)

Experience made so far in NAP2

- The Climate Change Committee has urged the Commission to follow a strict enforcement approach on combustion installations
- All Member States with assessed plans have finally decided to comply
- A number of Member States have been convinced successfully to follow co-ordinated approach and to amend their NAP2 where the initial notification deviated or was ambiguous

Quantitative effects of this NAP2 approach (approximative numbers)

- MS with decisions taken and having added additional emissions:
 - Belgium: 5 Mt
 - Germany: 11 Mt
 - Lithuania: 0.05 Mt
 - Netherlands: 4 Mt (on balance)
 - Slovakia: 1.7 Mt
 - Spain: 6.7 Mt (some already covered for part of NAP1 phase)
 - Sweden: 2 Mt
 - UK: 9.5 Mt
 - MS with decisions taken and not having added additional emissions: Greece, Ireland (slightly reduced scope), Latvia, Luxembourg, Malta, Slovenia
 - The Commission does not comment on remaining NAPs of MS where a decision has not yet been taken.
- Preliminary total: ca. 40 Mt extra**

Conclusions

- Workable solution found for NAP2 thanks to pragmatic mindset of MS
- Distortions of competition and the Internal Market significantly reduced in NAP2
- Additional emitters included -> increased environmental benefit of EU ETS in NAP2
- NAP2 approach can serve as an inspiration for the review but is not yet a perfect solution
- To be discussed here how definition of combustion installation in Annex I can be further improved for post-2012 through review

Annex (1): Co-ordinated definition for petrochemical crackers

Combustion emissions from chemical installations with processes designed for the production on an industrial scale, either individually or in combination, of propylene and ethylene. Within this, "industrial scale" is product output of at least 50 ktpa.

Annex (2): Co-ordinated definition for integrated steelworks

“Production and processing of ferrous metals:

- Metal ore (including sulphide ore) roasting or sintering installations;
- Installations for the production of pig iron or steel (primary or secondary fusion) including continuous casting, with a capacity exceeding 2.5 tonnes per hour.

Additional combustion activities at integrated steelworks including rolling mills, re-heaters, annealing furnaces and pickling”.

“Integrated steelworks are sites comprising of several separately identifiable processes, which are carried out as sequential operations on a single site, to convert iron ores and other raw materials into semi-finished steel products, such as slab, bloom or billet, and a variety of finished products, including plate, sections, bars, rods, hot and cold rolled sheet and coil together with various types of coated flat products”.

Annex (3): Co-ordinated definition for flaring

“The combustion of materials derived from the exploration, appraisal, production, storage and processing of offshore oil and gas (including imported oil and gas stored in offshore reservoirs), for purposes other than energy production, where such activities are undertaken at offshore oil and gas facilities or onshore oil and gas reception terminals that are designated combustion installations with a rated thermal input exceeding 20 MW”.

Annex (4): Co-ordinated definition for carbon black

"Activities of installations for the production of carbon black involving the carbonisation of organic substances such as oils, tars, cracker and still residues with combustion plant rated thermal input exceeding 20 megawatts."

Annex (5): Co-ordinated definition for furnaces

"For the purposes of Phase II of the EU ETS combustion installations shall include CO₂ combustion emissions from furnaces which are defined as the heat source for the following activities:

All furnaces already covered in the assigned sectors of Annex 1 such as (this list is not exhaustive):

- the fractional distillation column in oil refineries
- the manufacturing of glass, including glass fibre, at installations with a melting capacity exceeding 20 tonnes per day
- the processing of ferrous metal ore and the production of pig iron and steel (primary or secondary fusion), including continuous casting, with a capacity of more than 2.5 tonnes per hour, including the heat driving rolling mills, re-heaters, annealing furnaces and pickling at integrated sites

And the following additional combustion furnaces:

- the production on an industrial scale (>50ktpa) of propylene and ethylene
- the manufacture of mineral wool insulation material, using rock, glass or slag
- the production of carbon black involving the carbonisation of organic substances such as oils, tars, cracker and still residues."

Annex (6): Co-ordinated definition for stone wool (rock wool), as part of furnaces

“Installations for the manufacture of mineral wool insulation material, using rock, glass or slag, including all fuel combustion on site related to the manufacture of mineral wool products (with a melting capacity exceeding 20 tonnes per day).”