



Environment Working Party

31 January, 2014

Proposal for Medium Combustion Plants (MCP) directive

An Overview

European Commission
DG ENV.C.3
Air & Industrial Emissions



Content

Part 1: Rationale and options assessed

Part 2: Key elements of the proposal



Part 1: Rationale and options assessed

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Directive 2010/75/EU on Industrial Emissions

*Recital (28): **The combustion of fuel in installations with a total rated thermal input below 50 MW contributes significantly to emissions of pollutants into the air.** With a view to meeting the objectives set out in the Thematic Strategy on Air Pollution, it is necessary for the Commission to review the need to establish the most suitable controls on emissions from such installations [...].*

*Article 73(2) Review: **The Commission shall review the need to control emissions from the combustion of fuels in installations with a total rated thermal input below 50 MW;***

The Commission shall report the results of that review to the European Parliament and to the Council accompanied by a legislative proposal where appropriate.

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COM(2013) 286 final

Report on the reviews undertaken under Article 30(9) and Article 73 of Directive 2010/75/EU on industrial emissions addressing emissions from intensive livestock rearing and combustion plants

- *Emissions of the key atmospheric pollutants from combustion installations below 50 MW can be controlled and substantially reduced at EU level in such a way that the environmental and health benefits outweigh the compliance costs for operators*
- *Care needs to be taken in assessing potential options for a regulatory approach in order to avoid excessive administrative costs*
- *The most promising options for controlling emissions from combustion installations between 1 and 50 MW will be undertaken in the context of the air pollution policy review*



General approach taken in the assessment

- *GAINS optimisation complemented by a focussed assessment*
- *Stakeholder consultations done as an integral part of the EU air quality policy review process*
- *Special attention to:*
 - **Compliance costs**
 - **Difference between new and existing plants**
 - **SMEs**
 - **Administrative burden**



Emission reduction and compliance costs in 2025

	SO ₂ , kt	NO _x , kt	PM, kt	Cost, M€
MCP	-135	-107	-23	382

- Full application of all the measures in 2025
- Sensitivity analysis shows little variation of emissions reductions and costs for the year 2030

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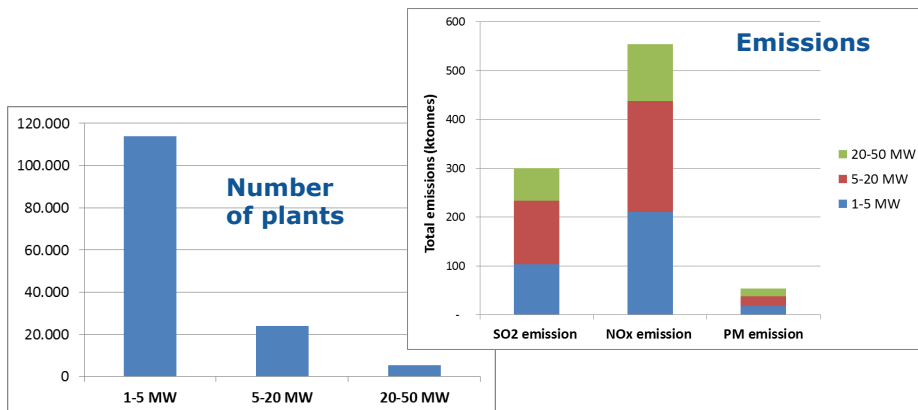
Contribution to emission reduction efforts

Emission reductions and economic effort required to achieve the policy objectives

	SO ₂ , kt	NO _x , kt	PM, kt	Cost, M€
IA central case option 6C* (Table 26)	-753	-574	-420	4680
Contribution from MCP proposal	18%	19%	5%	8%
Adopted Clean Air Policy Package (IIASA webpage)	-681	-452	-396	3334
Contribution from MCP proposal	20%	24%	6%	11%

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The new MCPD: Number of plants and emissions per category



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Options: ambition levels

1. No EU action (baseline)

7A. Most stringent MS: EU wide ELVs for SO₂, NO_x and PM set at the level of the most stringent national legislation for existing plants (per capacity class, fuel and technology type)

7B. LCP: EU wide ELVs for SO₂, NO_x and PM set at the level of the ELVs contained in the IED for existing large combustion plants 50-100 MW

7C. Primary NO_x: Variant of option 7B with NO_x ELVs corresponding to primary abatement measures (combustion modification only), PM and SO₂ as per option 'LCP'

7D. Gothenburg: Variant of option 7C where EU wide ELVs for NO_x, SO₂ and PM are differentiated for new and existing plants (including alignment with those set in the Gothenburg protocol) + exemption for limited number of operating hours

7E. SULES: Variant of option 7D where the ELVs for new plants are set according to the existing or future applicable ELVs in the most stringent Member States

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Options: regulatory approaches

R1. Integrated permit: Integrated permit similar to the Industrial Emissions Directive (IED) regime (covering air, water, soil, waste, etc)

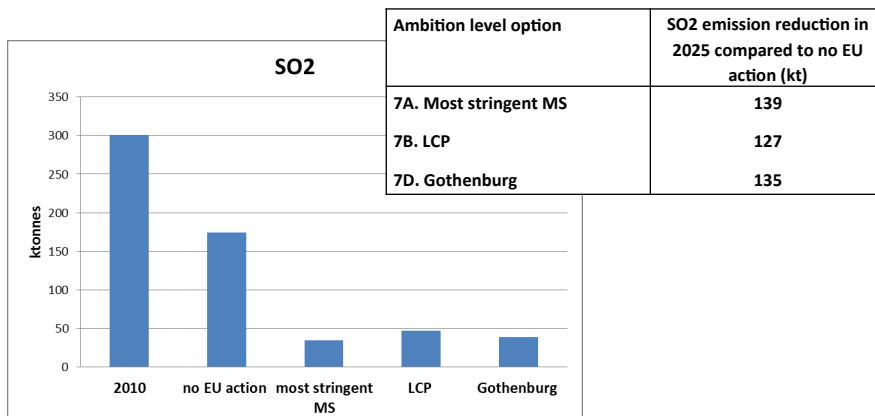
R2. Air emissions permit: Permit covering emissions to air of SO₂, NO_x and PM

R3. Registration: Registration on the basis of notification (no permit)

R4. General binding rules: General binding rules without permit, notification or registration

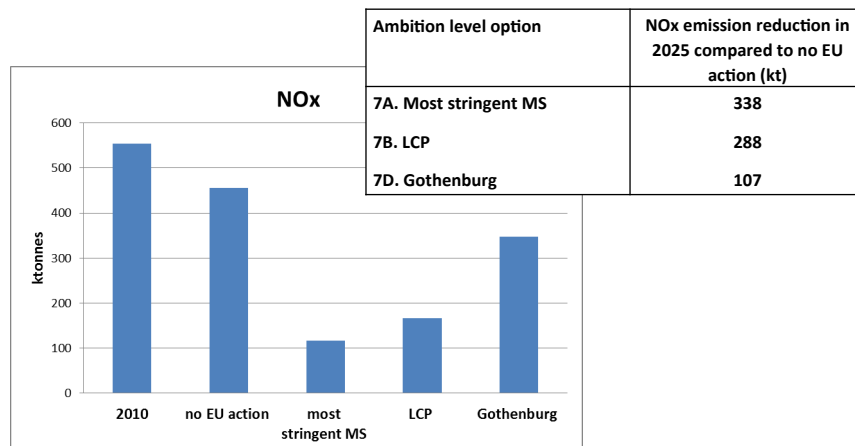


Environmental impacts: SO₂ emissions (2025)





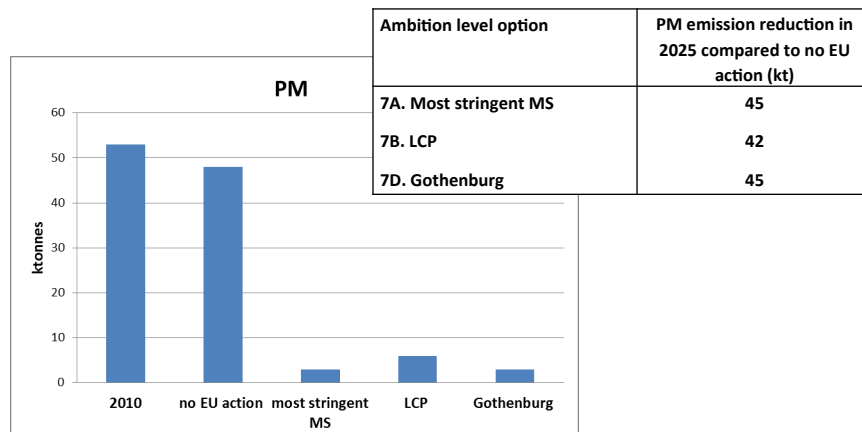
Environmental impacts: NOx emissions (2025)



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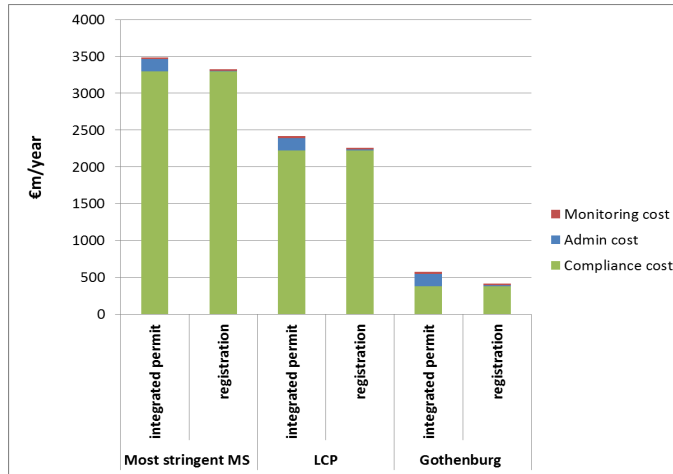


Environmental impacts: PM emissions (2025)



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Total annualised costs for operators (2025)



Removal costs and avoided damage costs

Ambition level option	Abatement cost per ton of pollutant reduced (€/t)			Damage costs (€/t)
	7A. Most stringent MS	7B. LCP	7D. Gothenburg	
SO ₂	2600	1400	1400	7600 – 21200
PM*	5200	2900	2500	14750 – 41650
NO _x	7600	6300	800	5500 – 13900

* To allow comparison in this table, damage costs for PM_{2.5} (29500-83300€/t) have been reduced by half to account for the complex relationship between PM and PM_{2.5}

Comparison of options

	7A. Most stringent MS	7B. LCP	7D. Gothenburg	R1. Integrate d Permit	R3. Registration
Pollutant abatement cost	+	+	-	NA	NA
Administrative costs	NA	NA	NA	+	-
EU compliance with international obligations	Y	N	Y	NA	NA
Impacts on SMEs	+	+	-	+	-

+ means high, - means low
Y means yes, N means no
NA means not applicable

2. Key Elements of the proposal



Subject matter (Art. 1)

Control emissions of SO₂, NO_x and PM from MCP

Definitions (Art. 3)

- **'Existing combustion plant' means a combustion plant put in operation before [2.5 years after entry into force]**
- **'New combustion plant' means a combustion plant other than an existing combustion plant**

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Scope (Art. 2)

Plants with a rated thermal input $\geq 1\text{MW}$ and $< 50\text{MW}$, excluding:

- **Plants covered by IED Chapter III (LCP) and IV (WI)**
- **Plants covered by implementing measures under Ecodesign Directive where ELVs for the pollutants in Annex II are set**
- **Plants in which flue gases are used for direct heating/drying/any other treatment of objects or materials**
- **Post-combustion plants**
- **Apparatus used for propulsion of vehicles, ships or aircraft**
- **Plants covered by implementing measures under the Animal By-Products Regulation where ELVs for the pollutants in Annex II are set**

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Obligation to register (Art. 4)

- **All MCP to be registered by competent authority (information to be provided listed in Annex I)**
 - Notification from operators to competent authority
 - Competent authority to register plants within one month

- **Existing plants exempted from notification provided the required information has been made available to competent authority (e.g. under existing permitting system)**

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Emission limit values (Art. 5 – Annex II)

- **Technology specific: engines, turbines and other plants**
- **Fuel specific with fuel-weighted ELVs for plants with simultaneous firing of several fuels**
- **Difference between new and existing plants**
 - different sets of ELVs (Annex II)
 - different deadlines for compliance:

new	2.5 year from entry into force
existing 5-50 MW	01.01.2025
existing 1-5 MW	01.01.2030

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Benchmarks values for zones not complying with AQ limit values (Art. 5 – Annex III)

- **In zones not complying with AQ requirements benchmark values to be applied (Annex III or stricter MS ELVs) unless it is demonstrated that :**
 - **applying such values would entail disproportionate costs and**
 - **other measures ensuring compliance with AQ requirements are included in the AQ plans**

- **Information exchange on benchmark values**

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Emission limit values: exemptions/derogations (Art. 5)

- **Possible exemptions for plants operating <500hrs/year**
For plants firing solid fuels a PM ELV still applies:
→ existing plant: 200mg/m³, new plant: 100mg/m³

- **Possible derogation (6 months) to comply with SO₂ ELVs in case of shortage of supply of low sulphur fuel**

- **Possible derogation (10 days) to comply with ELVs for gas fired plants in case of interruption of gas supply**

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Emission monitoring and compliance check (Art. 6 , Art. 7, Art. 8, Annex IV)

- **Periodic measurements of SO₂, NO_x and PM**
 - 1- 20 MW: every 3 years
 - > 20 MW: annually
- **Measurements required for pollutants for which an ELV is set for the plant concerned**
- **Plants applying secondary abatement equipment: continuous monitoring of its effective operation**
- **MS to ensure compliance, checking through inspection system or other measures, incl. measures taken in case of non-compliance**
- **Operator to keep information for a period of 10 years and make it available to competent authority upon request**

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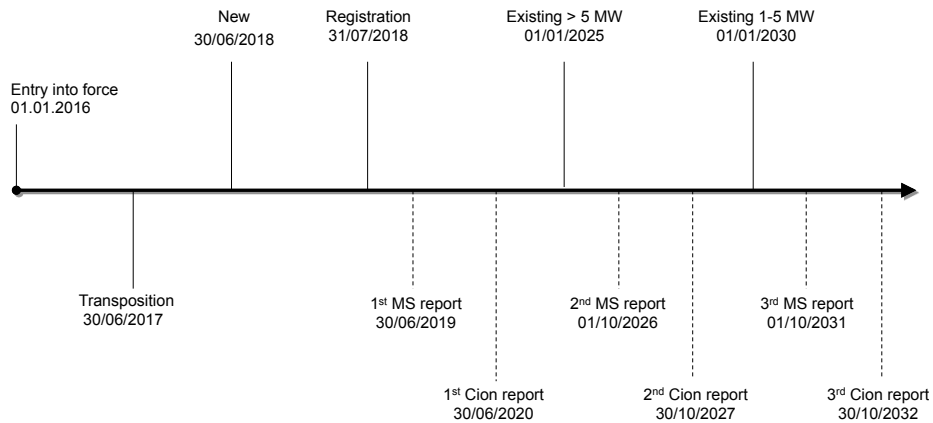
Reporting / Review (Art. 12)

- **First MS report to COM by [3.5 years from entry into force] Summary of the data listed in Annex I incl. total annual emissions and general implementation information**
- **Second MS report by 1.10.2026 also providing overview of implementation by existing plants >5MW**
- **Third and final MS report by 1.10.2031 providing full picture of implementation by all existing plants**
- **COM to report to EP/Council 12 months after MS submission**
- **Second report to inform on the review of the need to revise ELVs**
- **COM to make IT tool available for reporting**

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MCP Directive timeframe (assuming entry into force on 01.01.2016)



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Thank you

More Information:

http://ec.europa.eu/environment/air/clean_air_policy.htm

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