Combustion plants with a total rated thermal input below 50MW

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Air & Industrial emissions

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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 Review

2. 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.

The report was adopted by the Commission on 17 May 2013 (COM(2013) 286 final)
COM(2013) 286 final

- The review has confirmed that emissions from combustion installations <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.

- Given the significant uncertainties identified, further elaboration and comparison of the impacts of a selection of options is needed before robust conclusions can be drawn on their merits.

- No IED amendment

- Further deepening of the assessment of 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
Review of the Thematic Strategy on air Pollution
Results of the online public consultation

**Question 34: Which additional measures should be taken to address air emissions from small and medium combustion installations (below 50 MW)?**
*(one or more responses)*

<table>
<thead>
<tr>
<th>Measure</th>
<th>All expert/stakeholder responses (371)</th>
<th>business representatives (114)</th>
<th>government representatives (42)</th>
<th>the non-governmental sector representatives (61)</th>
<th>individual experts (142)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulate combustion installations above the Ecodesign capacity threshold but below the 50MW threshold set in the Industrial Emissions Directive (IED)</td>
<td>38.0</td>
<td>18.4</td>
<td>47.6</td>
<td>55.7</td>
<td>43.7</td>
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<tr>
<td>No additional measures should be introduced</td>
<td>8.1</td>
<td>19.3</td>
<td>2.4</td>
<td>1.6</td>
<td>4.2</td>
</tr>
<tr>
<td>Other (please elaborate below)</td>
<td>5.7</td>
<td>10.5</td>
<td>7.1</td>
<td>3.3</td>
<td>2.1</td>
</tr>
<tr>
<td>Don’t know</td>
<td>15.1</td>
<td>27.2</td>
<td>4.8</td>
<td>13.1</td>
<td>9.9</td>
</tr>
<tr>
<td>Don’t know</td>
<td>15.1</td>
<td>27.2</td>
<td>4.8</td>
<td>13.1</td>
<td>9.9</td>
</tr>
</tbody>
</table>
### Review of the Thematic Strategy on air Pollution

#### Results of the online public consultation

**Question 34a:** *Which measures should be introduced to control emissions from combustion installations above the Ecodesign threshold but below 50 MW? (one or more responses)*

<table>
<thead>
<tr>
<th>Measure</th>
<th>All expert/stakeholder responses (141)</th>
<th>business representatives (21)</th>
<th>government representatives (20)</th>
<th>the non-governmental sector representatives (34)</th>
<th>individual experts (62)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A &quot;full&quot; permitting regime with EU-wide emission limit values</td>
<td>38.3</td>
<td>14.3</td>
<td>30.0</td>
<td>50.0</td>
<td>45.2</td>
</tr>
<tr>
<td>A “light” permitting regime or registration regime with EU-wide</td>
<td>22.7</td>
<td>28.6</td>
<td>60.0</td>
<td>0</td>
<td>19.4</td>
</tr>
<tr>
<td>emission limit values</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product standards, applicable for new installations only</td>
<td>31.9</td>
<td>66.7</td>
<td>45.0</td>
<td>5.9</td>
<td>30.7</td>
</tr>
<tr>
<td>EU-wide emission limit values or standards which are only mandatory in</td>
<td>19.9</td>
<td>14.3</td>
<td>15.0</td>
<td>8.8</td>
<td>29.0</td>
</tr>
<tr>
<td>zones where air quality issues exist</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please elaborate below)</td>
<td>5.7</td>
<td>0</td>
<td>10.0</td>
<td>5.9</td>
<td>4.8</td>
</tr>
<tr>
<td>Don’t know</td>
<td>3.6</td>
<td>0</td>
<td>5.0</td>
<td>8.8</td>
<td>1.6</td>
</tr>
</tbody>
</table>
On going work

*Analysis of the impacts of various options to control emissions from the combustion of fuels in installations with a total rated thermal input below 50MW*
General approach

- Develop dataset of combustion plants 1-50MW based on consultation with MSs and stakeholders
  - Sectoral distribution
  - 3 Capacity classes 1-5, 5-20, 20-50MW
  - Fuel used

- Develop dataset of measures/costs for pollution abatement

- Assess emission reductions and associated costs for a range of possible emission control options
EU27 Dataset – 2010 data

Number of plants

- 1-5 MW: 120,000
- 5-20 MW: 20,000
- 20-50 MW: 5,000

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EU27 Dataset – 2010 data

Capacity of plants (MW)

- 1-5 MW: 300,000
- 5-20 MW: 250,000
- 20-50 MW: 200,000
EU27 Dataset – 2010 data

- 1-5 MW
- 5-20 MW
- 20-50 MW

- Other gaseous fuel (PJ)
- Natural gas (PJ)
- Liquid fuel (PJ)
- Other solid fuel (PJ)
- Biomass (PJ)
EU27 Dataset – 2010 data

![Graph showing emissions for different power ranges: 1-5 MW, 5-20 MW, 20-50 MW. The graph indicates the amount of SO2, NOx, and PM emissions.](image)
Options (1): Level of ambition

1. **No EU action**: no change to current regulation in each Member State. All other options are compared against this baseline.

2. **Most stringent MS**: EU wide ELVs set at the level of the most stringent national legislation for existing plants (for each capacity class, fuel and technology type).

3. **LCP**: EU wide ELVs set at the level of the ELVs in the IED for existing large combustion plants in category 50 - 100 MW.

3bis. **primary NO\textsubscript{x}**: NO\textsubscript{x} ELVs corresponding to primary abatement measure (combustion modification only), PM and SO\textsubscript{2} as per option 3.
Options (2): Regulatory approach

A. Integrated permit

B. Emission permit

C. Registration

D. General binding rules

A. Integrated permit

Regulating 1-50 MW plants via a permit including EU wide ELVs for SO₂ NOₓ PM

B. Emission permit

Regulating air emissions from 1-50 MW plants via EU wide ELVs for SO₂ NOₓ PM, with a system of notification/registration (or without)

C. Registration

D. General binding rules
## Summary options

<table>
<thead>
<tr>
<th>Ambition level options</th>
<th>Regulatory options</th>
<th>Capacity Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. No EU action</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2. Most stringent MS</td>
<td>Permitting (A,B)</td>
<td>1-5, 5-20, 20-50MW</td>
</tr>
<tr>
<td></td>
<td>Emission limit values (C,D)</td>
<td></td>
</tr>
<tr>
<td>3. LCP</td>
<td>Permitting (A,B)</td>
<td>1-5, 5-20, 20-50MW</td>
</tr>
<tr>
<td></td>
<td>Emission limit values (C,D)</td>
<td></td>
</tr>
<tr>
<td>3bis. Primary NOx (for SO₂ and PM: same as option 3)</td>
<td>Permitting (A,B)</td>
<td>1-5, 5-20, 20-50MW</td>
</tr>
<tr>
<td></td>
<td>Emission limit values (C,D)</td>
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</tr>
</tbody>
</table>

*different envir. impact (emissions) different administrative costs different compliance costs*
Preliminary results

- Significant and cost-effective emission reductions can be achieved for all three pollutants

- For NOx big difference whether secondary or primary measures are taken (secondary measures ten times more expensive for three times more reductions)

- Administrative burden is limited when the integrated permit option is discarded

- The ratio of administrative costs to total costs is about 5% for 20-50MW in the emission permit option, and about 2% for the registration option 1-5 and 5-20MW
Thanks for your attention

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