The Review of the EU Air Policy 2011-2013

Findings and Emerging Policy Directions (Tentative)

Ulf Björnholm Ottosson
ENV.C3 Industrial Emissions and Air Quality

Nitrogen Deposition and the Nature Directives Impacts and responses: our shared experiences

3 December 2013 - Peterborough
"If you think the economy is more important than the environment, try holding your breath while counting your money".

Guy McPherson
The "Year of Air"

The EU air quality policy framework is under review

A new EU air policy package is in the making

Air pollution was one of the first environmental areas to be regulated (e.g. UK and US Clean Air Acts)

EU air today is much cleaner than during the "Great London Smog" 1952...

...But air pollution in the EU still kills more than ten times as many as traffic accidents
The air policy review: time frame and process

Evaluation
[ ] [ ]
What worked and what didn't?
How is our H&E affected?

New objectives
Policy development
Updated strategy & policy

Online consultations
Stakeholder meetings
2011 2012 2013

Council / EP
Finalisation
What is needed and possible?
Air pollution - a complex policy area

- Economic
- ENVIRONMENT
- PM
- \( \text{SO}_2 \)
- \( \text{NH}_3 \)
- \( \text{NO}_x \)
- NMVOC
- CH\(_4\)
- HEALTH
- Acidification
- Eutrophication
- Ozone
- Global Warming
- ENVIRONMENT
- Eco-systems
- Cost-effectiveness
- Science-based

EU Treaty / Environmental Action Plan

- Multi-sectoral
- Multi-pollutant
- Multi-effect

- Agriculture
- Energy
- Transport
- Industry
- Waste
- Other

EU 2020
The existing Air Policy Framework

At international level

- UNECE Convention on Long-Range Transboundary Air Pollution (CLRTAP) and its Protocols

At EU level

- EU Thematic Strategy on Air Pollution
- National Emission Ceilings (NEC) Directive
- Ambient Air Quality Directives
- Source specific legislation (incl. IED)

At national level

- National and local legislation and instruments

European Commission
Overall challenges for EU air policy

Overall air quality objective set out in 7th EAP ("no significant negative impacts on health and the environment") and WHO guidelines **not achieved**

Downward emissions trends not fully matched by improved air quality

Significant non-compliance issues remain – with serious health and environmental impacts and considerable economic costs

Main emission sources are (depending on pollutant):

- road transport
- large combustion plants
- energy-intensive industry
- small/medium combustion plants (industrial, domestic)
- agriculture (95% of all ammonia emissions)
- non-road mobile machinery
Air policy works: Emissions of major air pollutants greatly reduced in the past...
...But the concentration of harmful air pollutants is still too high

17 Member States are currently facing infringement cases because they exceed EU air quality standards (PM and NO2)
What is The Problem?

- Total health-related external costs (2010): €330 - €940 bn/yr
- Direct economic damages: €15 bn in lost workdays, €4 bn in healthcare cost, €3 bn in crop damages; €1 bn in building damages
### How Will the Problem Evolve?

<table>
<thead>
<tr>
<th>Headline Indicator</th>
<th>2010</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premature deaths from chronic PM2.5 and short-term ozone exposure</td>
<td>406.000</td>
<td>340.000</td>
<td>330.000</td>
<td>327.000</td>
</tr>
<tr>
<td>Percentage forest area exceeding acidification critical load</td>
<td>9</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Percentage ecosystem area exceeding eutrophication critical load</td>
<td>62</td>
<td>55</td>
<td>53</td>
<td>52</td>
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</tbody>
</table>

<table>
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<tr>
<th>External costs (health)</th>
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<tr>
<td>Low estimate (€ billion)</td>
<td>330</td>
<td>243</td>
<td>224</td>
<td>212</td>
</tr>
<tr>
<td>High estimate (€ billion)</td>
<td>940</td>
<td>775</td>
<td>749</td>
<td>740</td>
</tr>
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Emerging messages relevant for the agriculture sector

- Ammonia emissions cause serious environmental problems (eutrophication, acidification, health impacts - secondary PM)

- 90-95% of ammonia emissions come from agriculture (and 15 - 20% of primary PM)

- Historically, ammonia has not reduced as much as other air pollutants/sectors (SO2, NOx, VOC, PM)

- Baseline emission projections indicate almost no further reductions without additional measures

- IA therefore identifies ammonia reductions as particularly cost-effective, achieving substantial air quality benefits at low cost - one of few remaining "low-hanging fruits"

- Any ambition level chosen in the main impact assessment will be difficult (expensive) to achieve without additional measures for ammonia
Trends: Ammonia reductions so far mostly due to structural changes
Trends: large variation of ammonia reductions in different member states
The air policy review: New objectives and policy options

Objectives

- **Short term**: Define action for resolving present compliance problems by 2020 at the latest
- **Mid term**: Define new targets and action for period up to 2030
- **Long term**: Get on track to reach the ultimate objective ("no significant impacts") and WHO air quality guidelines (2050)

**Main options under consideration**

- Reinforced NECD
- New EU source legislation
- Reinforced national/local action
- Non-regulatory options
Delivering on objective 1: 2020

Making sure that existing EU legislation is implemented
- revised Gothenburg Protocol (2020 emission ceilings)
- Ambient Air Quality Directives
- revised Sulphur in Liquid Fuels Directive
- updated BAT conclusions under the IED
- Euro 6 - Euro 6b standards for vehicles
- Eco-design measures for small combustion plants

... or revised
- Non-Road Mobile Machinery Directive
- Fertiliser Directive

Renewed support for local/national actions
Delivering on objective 2: 2030

**Regulatory Action**
- Revised NEC Directive
- Directive regulating medium combustion plants

**Non-Regulatory Action**
- urban areas
- agriculture
- international level
- research and innovation
More Information

Air policy review:

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