Environment Working Party
31 January, 2014

Proposal for a National Emission Ceilings Directive

An Overview

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

Content

Part 1:
Rationale and options assessed

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General rationale for the NECD

Main instrument to implement cost-effective measures across the EU meeting environment and health objectives set out in the 2013 air strategy

Key instrument for limiting transboundary air pollution and contributing to meeting AQ limits through reducing background pollution

Key instrument to enable decisive and significant steps towards EU long term objectives; EAP, WHO health guidelines and CLRTAP critical loads

Key instrument to enable transposition of the 2012 amendment to the CLRTAP Gothenburg Protocol into EU legislation

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General considerations and options

Keep Gothenburg ceilings for 2020 – or tighten

Propose new ceilings for 2025 – or for 2030 – or both

Stick to pollutants in GP – or add new ones: CH4/Hg)

Keep current "strict" approach – or introduce flexibilities

Keep current "narrow" approach – or link closer to AAQD

Build on experience from the current NEC D

Modernize and update in accordance with the current rules (e.g. implementing and delegated acts)

Directive (subsidiarity)– or regulation. Amend existing Directive - or replace and repeal

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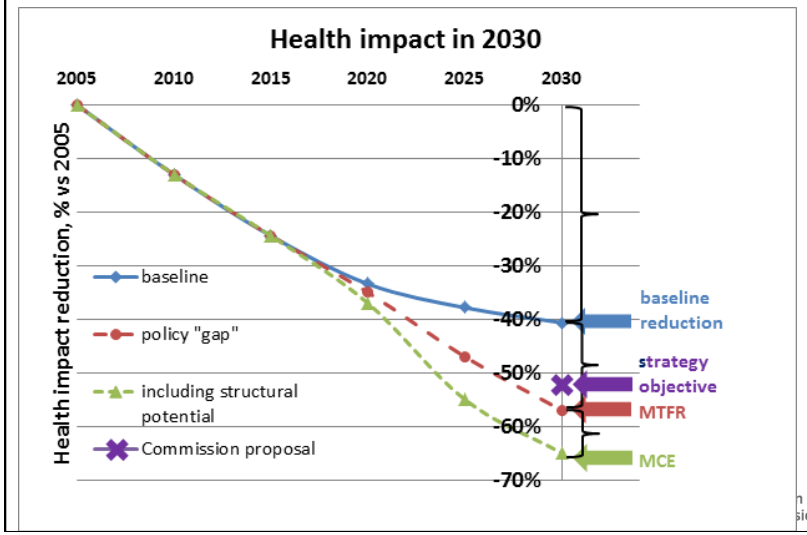
Options and "Gap-closure"



Reduction commitments for 2030

Proposed reduction commitments for EU 28 2005 - 2030:

- SO2: 81%
- NOx: 69%
- NMVOCs: 50%
- NH3: 27%
- PM2,5: 51%
- CH4: 33%

For CH4 proposed commitments are based on "zero cost" scenario

- Will contribute to reduced levels of background ground-level ozone and Short Lived Climate Pollutants

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Health and environmental benefits

In 2030 compared to 2005:

Health

- 52 % reduction of PM2.5 mortality
- 34 % reduction of ozone acute mortality
- Full compliance with the PM2.5 air quality standard (20 ug/m3); 90% compliance with 15 ug/m3; 60% compliance with 10 ug/m3

Eutrophication

- 123 000 km^2 of ecosystems saved from eutrophication
- Corresponds to a 35 % reduction of ecosystem area under eutrophication
- 44% of ecosystems still exposed to excess nitrogen

Acidification

- 19 000 km^2 of forest ecosystems saved from acidification
- Corresponds to a 86% reduction of forest ecosystem area under acidification
- 2% of forests still exposed to excess acids

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Monetised benefits and costs for 2030

Reduced external costs (health only): €40 -140 bn/year, i.e. 12-40 times higher than implementation costs

Reduced direct costs: about €3 bn/year, including:

- Higher productivity of the work force: €1850 m
- Lower health care costs: €650 m
- Higher crop yields due to lower ozone levels: €220 m
- Less damage to buildings: €120 m

Implementation costs: € 3.3 bn per year

- Positive overall impact on GDP growth
- Positive overall impact on employment
- Cheaper if 2030 climate and energy package is implemented

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Part 2:
Key elements of the Directive

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Subject, scope and definitions (Art 1, 2 and 3)

Art 1 Subject matter:

- Limit/reduce emissions of pollutants
- Require national programs
- Monitor pollutant emissions and impacts

Art 2 Scope:

- Pollutants covered
- Geographical scope

Art 3 Definitions:

- Defines and explains concepts
- Based on existing definitions, harmonisation with EU acquis and CLRTAP Gothenburg Protocol

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Reduction commitments (Art 4)

2010: Existing ceilings of 2001/81/EC remain in place until 2020

2020: Reduction commitments

- fully aligned with Gothenburg Protocol agreement
- Reduction obligations SO2, NOx, VOC, NH3, **PM2.5**

2030: Reduction commitments to meet overall 2030 objective set out in strategy through cost-effective measures

- Delivers significant further progress towards long-term objectives of the 7th EAP and WHO guidelines.
- Reduction obligations for pollutants covered for 2020 by cost-effective reductions and CH4 (zero cost option)
- Commitments are "climate-proofed"

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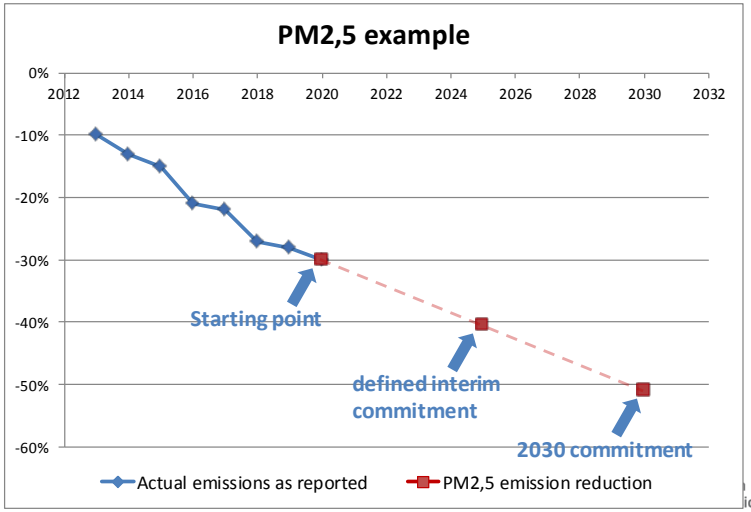
Reduction commitments for 2025



Flexibilities (art 5)

1. Possible offsetting of emission reductions from international maritime traffic for MS

- Relevant for 2025 and 2030 reduction committments
- Applicable for NOx, SO2 and PM2.5
- Requires effective monitoring
- Limited to 20 % of the obtained reductions compared to baseline

2. Possible joint implementation for reaching CH4 ceiling

- Coherent with existing EU climate policy

3. Possible inventory adjustments - coherent with GP; clarified in the NEC D (Annex III, part 4)

- Applied on an annual basis
- MS to inform the Commission on the use of flexibility
- Commission will review

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Air Pollution Control Programs (Art 6)

Main instrument to demonstrate compliance pathway

- Requires coherence with other relevant EU and national policies (including ambient air quality standards)

Develops consultation with public and competent authorities

Includes Black Carbon provision in line with Gothenburg Protocol

- Priority to BC measures when designing measures to meet PM ceiling

Identifies measures in agriculture

- To control ammonia, particulate matter and black carbon emissions

Two year review cycle to allow monitoring of progress

Programs Reports (Art 6)

Describe the current air pollution policy framework at national, regional and local level

Review historic and current air pollution and quality levels and any exceedences of legal obligations

Recap adverse impacts on public health and ecosystems (YOLLs, surface area exceeding critical loads and levels)

Show spatially disaggregated emission inventory data, easily linked both to administrative divisions and AQ zoning

Set out future evolution of emissions and concentrations

Summarise main outstanding problems and drivers

List options to address outstanding problems and the package of measures selected for implementation

Inventories and projections (Art 7)

Coherence with the EMEP requirements and content, IE and IIR) – all pollutants, time series etc (1990 to X-2)

Develop provisional inventories for X-1

Develop black carbon inventories and projections (as in Gothenburg Protocol)

Updated projections every second year (for all years up to 2030, and 2040 and 2050 where available; coherent with GHGs projections)

Development of Large Point Source (LPS) and gridded data under EMEP in accordance with CLRTAP EB 2013 decision (applies from 2015)

Monitoring of impacts (Art 8)

Monitoring of forest, grassland and water ecosystems (as defined by MS)

Collecting information on pollution load and impacts parameters (to secure long term knowledge basis for effects-based approach)

Assessing impacts of acidification, eutrophication and ground-level ozone

Coordinated with monitoring of local air quality (under 2008/50/EC)

Minimum set of parameters and monitoring frequency set out in annex V

Reporting by MSs (art 9)

Every year:

- **Updated inventories SO2, NOx, VOC, NH3, POPs and HM (1990 to X-2) and PMs (2000 to X-2)**
- **Provisional emissions X-1 for pollutant with commitments**
- **CH4 emissions** coherent with reporting under the MMR
- **Inventory reports**

Every two years:

- **National programs**
- **Gridded emissions and LPS**
- **Projections**
  - **SO2, NOx, VOC, NH3, PM2.5 and BC**
  - **For all years up to 2030, and where available 2040 and 2050**
  - **Coordinated with GHGs reporting**

Every four years

- **Ecosystem network (siting etc) and data**

When occuring

- **Information on optional use of flexibilities**

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Part 3: Administrative costs

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Methodology

Costs for national programs assessed based on

- Size of country (small - medium - large)
- Initial plan and updates on average every 5 year
- Outsourcing (in accordance with IA of the MMR proposal)
- Labour estimates supported by interviews with selected MS (based on 2002 programs)

Costs for ecosystem monitoring

- Based on proxy of number of ecosystems types defined under the Habitats Directive (3. Freshwaters, 6. Grasslands and 9. Forests)
- Based on 2008 study of investment costs, and operational costs per parameter and site

Costs for BC inventories/projections

- Includes an extension of current methodology (as defined in the updated EEA/EMEP guidebook)

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Summary

- **Most obligations in the proposed NEC D covered by current EU legislation or CLRTAP obligations**
- **New key components include national programs, ecosystem monitoring, black carbon inventories**
- **Standard cost model accounts for national labour costs, investment/initial costs**
- **Administrative cost at EU level:**
  - €6.9 m initially
  - €2.5 m annual costs
  - Conservative (upper estimates)
- **No extra administrative cost identified for the SMEs and industry**
- **Administrative costs are independent of the chosen ambition level of commitment**

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Part 4: Summary -comparison

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Summing up - comparative overview

	New NECD	Current NECD
Objectives	In Strategy and preambles. Focus on PM2.5 health and eutrophication	Related to reviews and future ceilings. Focus on ecosystems and ozone health
Scope	SO2, NOx, VOC, NH3, PM2.5 and CH4 Flex also including marine pollution control areas	SO2, NOx, VOC and NH3
Ceilings/reduction commitments	Relative for 2020, 2025 and 2030 with 2005 as base year	Absolute for 2010 and beyond
National programs	From 2017 and updated every two years. Link to AQ, CC	2002 and 2006, where necessary. No link to AQ objectives
Flexibility	International maritime shipping; methane NERC; adjustment procedure	None (indirect through the 2012 CLRTAP GP adjustment)
International cooperation	CLRTAP, IMO ICAO, UNEP,	CLRTAP, IMO and ICAO
Comitology	Impl. Acts: Art 5 and 6 Del. Acts: Annexes I, III part 1, IV, V	Inventories (annex III)
Commission review	General provision	Explicit for a number of items
Transitional arrangement	Up to 2019 (avoids legal uncertainty)	

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Council Environment Working Group
31 January, 2014

Proposal for a Council Decision on the Acceptance of the Amendment to the 1999 Gothenburg Protocol

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LRTAP EB Decision 2012/2 adopted by the Parties to the GP in May 2012

Ratification by Standard Proposal for a Council Decision

- based on Art. 192(1) and 218(6)(a) TFEU
- 3 standard provisions on the acceptance of the GP amendment
- full text of Decision 2012/2 annexed

Early ratification feasible:

- substantive changes to GP already set in existing EU legislation
- reduction commitments achievable by 2020 for all MSs

Early ratification desirable:

- as a means to promote ratifications and implementation of GP across the UNECE area.