



Effects-based air pollution policy?

EU NERCD negotiations and beyond

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Overview

1. EU legislative package on air pollution
2. (non)use of impacts for the proposal and in the negotiations
3. update on the NERCD negotiations in general
4. support of effects programs to future air pollution policies



Air pollution regulations in EU / Europe

- EU IED and other installation related
- EU traffic and other product related
- EU Ambient Air Quality Directive
- EU NECD (2010→)
- UNECE Gothenburg, HM, POP Protocols (2020→)
- ***EU NERCD (2030→)***
- Various national reg.s...



EU Clean Air Policy Package (Dec 2013)

1. NERC Directive

- national emission reduction commitments for PM_{2.5}, NH₃, NO_x, SO₂, NMVOC
- target year 2030

2. MCP Directive ✓

- technical regulations for medium-sized combustion plants

3. Council Decisions on EU acceptance of amended UNECE Air Convention Protocols

- Heavy Metal Protocol ✓
- Persistent Organics Protocol ✓
- Gothenburg Protocol: same pollutants as NERC Directive, target year 2020



EU Air policy package explicitly refers to effects

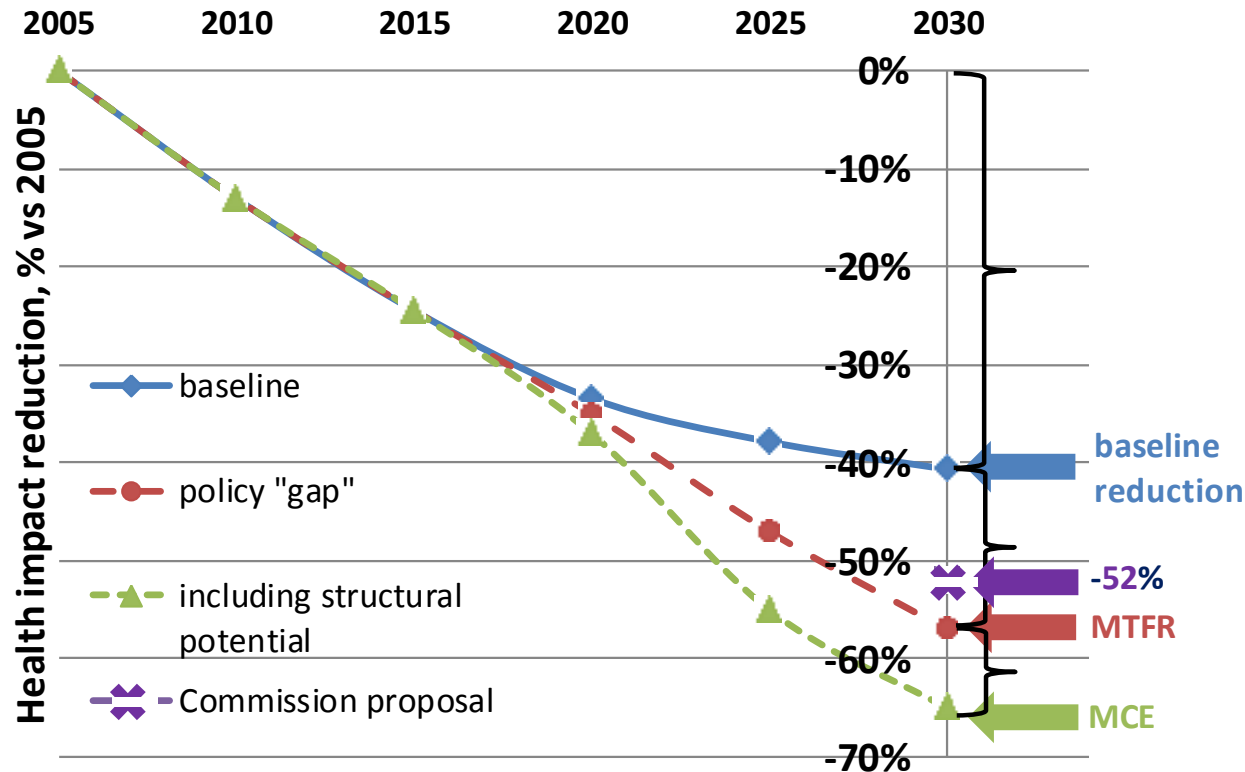
AIM:

*“a robust EU Clean Air package, updating existing policies and directives including the National Emission Ceilings Directive **according to latest science**, and outlining further cost-effective measures to move much closer to the related 6EAP's objective: **to achieve levels of air quality that do not result in unacceptable impacts on, and risks to, human health and the environment.**”*



The gap-closure concept

Health impact in 2030



- Health impact reduction requires drop of secondary aerosol concentrations
- This drives substantial ecosystem co-benefits



Impacts of the COM proposal

In 2030 compared to 2005:

Health

- 52 % reduction of PM_{2.5} mortality
- 34 % reduction of ozone acute mortality
- Full compliance with the PM_{2.5} air quality standard (20 ug/m³); 90% compliance with 15 ug/m³
- 60% compliance with 10 ug/m³

Eutrophication

- 123 000 km² of ecosystems saved from eutrophication
- Corresponds to a 35 % reduction of ecosystem area under eutrophication
- 44% of ecosystems still exposed to excess nitrogen

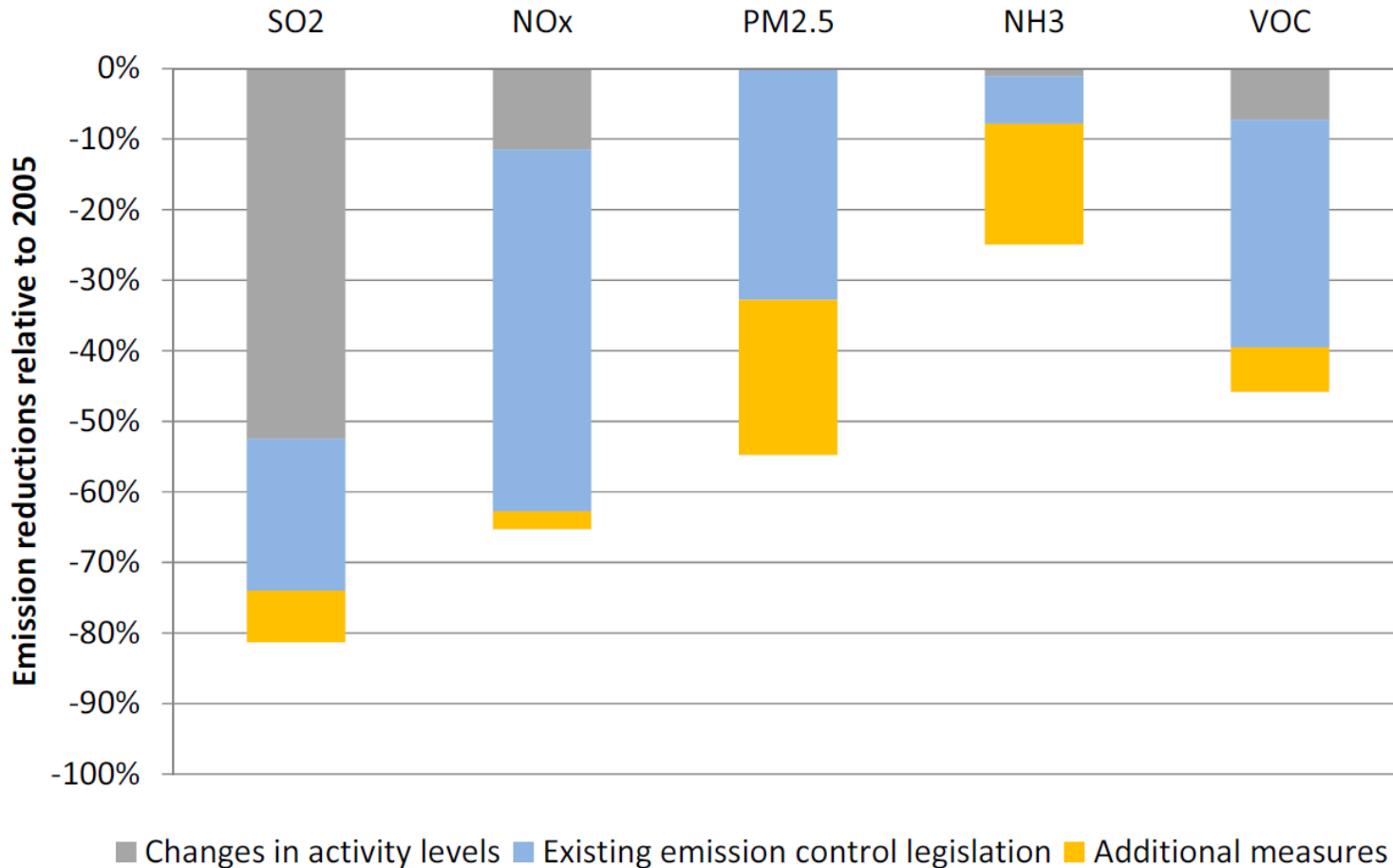
Acidification

- 19 000 km² 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



Most emission reduction will be attained via baseline

...but this differs strongly between pollutants, sectors and countries





Monitoring of impacts in the NERCD

(§8 and Annex V)

- Mandatory (COM / EP) vs. non-mandatory (Council)
- Monitoring of forest, grassland and water ecosystems (as defined by MS)
- Aim: secure long term knowledge basis for effects-based approach explicitly for ecosystems; monitor success of measures
- Coordinated with monitoring of local air quality (under AAQD) and CLRTAP ICPs
- Annex V defines minimum set of parameters and monitoring frequency - but not critical loads!



Status of negotiations

- Revised NERCs in Jan 2015 (TSAP Report #16)
- EP plenary vote October 2015
- Council position December 2015
- Trilogue negotiations ongoing
- 1st reading aimed for but many contentious issues
- Result: mid (end?) 2016



Open issues and outlook

- Level of ambition (NERCs)
- Balance between pollutants, effects, regions
- Monitoring in the NERCD: Harmonized? Mandatory?
- Funding of effects-related work
- EU AAQD review? ...to include non-health effects?
- CLRTAP GP III?
- Regional / global governance on air pollution – only health oriented?