Input into call for evidence

Health and the NEC fitness check: weak level of ambition results in missed opportunity to save lives, prevent disease and save costs

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The Health and Environment Alliance (HEAL) welcomes the opportunity to input into the Commission's call for evidence on the evaluation of the National Emission reduction Commitments (NEC) Directive, in place since 2016, and successor of the National Emission Ceilings Directive. HEAL and other health organisations had extensively provided expertise and advocated during the negotiations for the current NEC, highlighting that the directive needs a high level of ambition in order to deliver clean air and health benefits.

Complementary to the Ambient Air Quality Directive (AAQD) that regulates maximum concentrations of key air pollutants for our health and the environment in ambient air across the EU, the NEC Directive is a critical instrument to reduce emissions of key air pollutants at Member State level. It aims at limiting transboundary air pollution between different countries, thus contributing to improving ambient air quality locally with benefits for people's health and nature. Achieving emission reductions under the NEC has the potential to bring significant socio-economic benefits.

HEAL strongly considers that the unacceptably high health and environmental burden from air pollution is largely preventable through firm political will expressed via legislation.

Unfortunately, in this respect the current NEC is a missed opportunity to save lives, prevent disease, and save costs for health and for farming, for the reasons listed below.

HEAL considers that the NEC should be revised, to address several shortcomings and tackle new pollution developments (inclusion of methane, intermediate binding targets, stronger action on black carbon, etc). Such a revision is the logical next step in the EU's efforts for zero pollution and tackling climate change.

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1. Current NEC falls short on urgency to act and ambition level

- Unacceptably high health effects of air pollution require urgent policy action: Air pollution is Europe's top environmental risk to health, leading to an estimated hundreds of thousands of premature deaths annually and hundreds of billions in cost. The 2021 updated air quality guidelines by the World Health Organization (WHO) considerably tightened recommended maximum concentrations for PM2.5, NO2 and PM10, compared to the 2005 guidelines that were available when the current NEC was negotiated. The 2021 recommendations revealed that no safe level of air pollution exists. This led over 100 organisations across the EU to call for stricter, WHO aligned EU air pollution limits. The current NEC is therefore based on outdated science.

- Ongoing revision of the Protocol to Abate Acidification, Eutrophication and Ground-Level Ozone ("Gothenburg protocol") to reflect urgency to act: The current NEC Directive aligns emission reduction commitments under EU law with international reduction commitments following the revision of the Gothenburg Protocol in 2012. This alignment is about to become outdated since on 15 December 2023, the UNECE announced the revision of the Gothenburg Protocol, as "while emission reductions have been achieved, countries in the Pan-European region and North America are set to suffer long-term damage from air pollution to human health, ecosystems, crop yields, and climate. As current efforts will not be sufficient to avoid these harmful effects, further targeted emission reduction measures across sectors including agriculture, energy, transport and shipping, and wide-ranging societal changes in areas such as diet and heating, are needed. In addition to further reductions needed in emissions of nitrogen oxides (NOx), volatile organic compounds (VOCs) and methane (CH4) within the region, global CH4 reductions are also needed to further reduce ground-level ozone (O3) in the region."

- Current NEC too slow in reducing emissions: Back in 2016, the EU co-legislators failed to show the appropriate level of political will to respond to the health emergency from air pollution by not including a 2025 binding target, even though a 2014 Complementary Impact Assessment by the European Parliament underlines that such a target would have been cost effective "even in the most conservative assessment of health benefits". In addition, civil society repeatedly called for an interim 2025 binding target.

  In 2023, the EEA underlined that "Member States need to do more to achieve the national emission reduction commitments set for the period 2020-2029. 13 Member States failing to meet their emission reduction commitments in 2021 for at least one of the five main air pollutants" (see Annex below).

- Emissions of fine particulate matter's (PM2.5) precursor ammonia (NH3) not decreasing enough: According to the EEA 2023, "10 Member States will have to further reduce NH3 emissions by up to 10% to meet their 2020-2029 national emission reduction commitments. In many Member States, NH3 emissions have decreased only slightly since 2005 or in some cases increased, highlighting the challenge of tackling these

emissions. NH3 emissions impact biodiversity and contribute to the formation of secondary PM2.5, the main air pollutant driving premature death in EU Member States. Reducing NH3 emissions is critical to achieving the zero pollution action plan target of reducing by 25% the EU ecosystems where air pollution threatens biodiversity."

- Reductions in mercury (Hg) emissions at risk due to political delays on speedy coal phase out: Mercury is a global air pollutant which has severe adverse impacts on human health and the environment. At EU level, the main source of mercury emissions to air is the burning of coal, but significant emissions also come from non-ferrous metal industries, cement production as well as crematoria. With the lack of speed in the coal phase out in certain Member states, mercury exposure continues in the EU and may reduce children's IQ, and consequently decrease their educational and working achievements over a lifetime, with implications for society and the economy overall. Overall efforts on reducing mercury pollution need to be strengthened.

2. List of pollutants covered is incomplete

- Methane (CH4) not covered as a major precursor for ozone (O3), allowing for climate, health and environmental impacts which are preventable: The original Commission proposal in 2013 included CH4 in the list of pollutants under the NEC, however methane was taken out by the co-legislators for the final directive. In addition to being a powerful greenhouse gas, methane contributes to the formation of ground level ozone (O3). Exposure to ozone can lead to more frequent hospital admissions and increase deaths from heart and respiratory diseases. Elevated levels of ozone can also damage plants, leading to reduced agricultural crop yields and decreased forest growth. Reduction of methane emissions in the EU urgently needs to accelerate, as evidenced by the EEA.

- We breathe climate change; we need to invert the ozone (O3) pollution curve: The science on the health impacts of ozone keeps increasing. According to the results of the EU funded Exhaustion project exposure to (the secondary pollutant) ozone and heat leads to increased mortality in cities. In a study published in the British Medical Journal in 2020, the researchers underline the health benefits of ozone pollution reductions (in addition to reaching WHO air quality guidelines).

3. Emerging concerns and gaps in policy coherence

In addition to the above, HEAL would like to bring to the attention of the Commission the following non exhaustive set of concerns and risks of gaps in policy coherence that emerged since the current NEC was adopted in 2016:

- Growing concerns about black carbon and wood burning emissions: In recent years, the burning of wood in private homes, in power or heat plants has increased, and is hailed by many as a climate-friendly alternative. Wood burning is classified by the EU as a renewable energy source, despite major concerns about the air pollution and CO2

emitted in the burning. Wood burning – especially in single room furnaces – is a large and growing source of black carbon ultrafine particles and PAHs emissions which impact health. According to the German Environment Agency, PM emissions from wood combustion in heating systems or power plants even surpass already well documented high levels of PM emissions from the combustion of fossil fuels.

Wood burning is thus a false solution, it is fuelling the climate crisis and harms health. With the war in Ukraine, and high fossil energy prices, biomass burning is set to become even more prominent, and is actively subsidized by governments as a renewable energy form. As decision-makers at EU and national level consider energy options, the health perspective on wood burning is a much needed and overdue part of the deliberations. In 2022 HEAL organised a webinar on this topic with climate and health experts.

- Insufficient monitoring pesticides emissions: Current EU law does not require monitoring of pesticides in outdoor air, which contributes to an important knowledge gap on hazards to health and the environment. The French ANSES however has been pioneering in this field and in 2020 the Agency identified "32 top priority substances for which further investigation is required to guide this monitoring activity."

ANNEX: Percentage emission reductions (compared with 2021 levels) required by EU Member States to meet their emission reduction commitments for 2020-2029 and 2030 onwards (EEA)

Country Name	2020-2029					2030				
	NH_3	NMVOC	NO_x	$PM_{2.5}$	SO_2	NH_3	NMVOC	NO_x	$PM_{2.5}$	SO_2
Austria	🟡	✓	✓	✓	✓	🟠	✓	🟣	🟠	✓
Belgium	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bulgaria	🟡	✓	✓	✓	✓	🟠	🟠	🟡	🟠	✓
Croatia										
Cyprus	✓	✓	✓	✓	🟣	🟡	✓	🟠	🟣	🔴
Czechia	✓	✓	✓	✓	✓	🟠	🟠	🟠	🟠	✓
Denmark	🟡	✓	✓	✓	✓	🟡	✓	🟠	🟠	✓
Estonia	✓	✓	✓	✓	✓	✓	🟠	✓	✓	✓
Finland	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
France	✓	✓	✓	✓	✓	🟡	🟠	🟠	🟠	✓
Germany	✓	✓	✓	✓	✓	🟠	✓	🟣	🟡	🟠
Greece	✓	✓	✓	✓	✓	✓	🟡	✓	🟡	✓
Hungary	🟡	✓	✓	🟡	✓	🟠	🟣	🟣	🔴	🟠
Ireland	🟡	✓	✓	✓	✓	🟡	✓	🟠	🟠	🟡
Italy	✓	✓	✓	✓	✓	✓	🟠	🟠	🟠	✓
Latvia	🟡	✓	✓	✓	✓	🟡	🟡	🟡	🟠	✓
Lithuania	🟡	🟠	🟣	✓	✓	🟡	🟣	🟣	🟠	🟡
Luxembourg	🟡	✓	✓	✓	✓	🟠	🟡	🟠	✓	✓
Malta	✓	✓	✓	✓	✓	🟡	🟡	🔴	✓	✓
Netherlands	✓	✓	✓	✓	✓	🟡	🟡	🟠	✓	✓
Poland	✓	🟠	✓	🟡	✓	🟡	🟠	🟡	🔴	🟠
Portugal	🟡	✓	✓	✓	✓	🟠	🟠	🟠	🟣	✓
Romania	✓	✓	🟡	🟠	✓	🟡	🟠	🟣	🔴	✓
Slovakia	✓	✓	✓	✓	✓	🟡	✓	🟡	🟡	✓
Slovenia	✓	✓	✓	✓	✓	🟡	🟠	🟠	🟣	🟠
Spain	✓	✓	✓	✓	✓	🟠	🟠	🟠	🟣	✓
Sweden	🟡	✓	✓	✓	✓	🟡	✓	🟣	✓	✓

Current emission levels below the emission reduction commitment	✓
Emission reduction needed by less than 10% from current levels	🟡
Emission reduction needed by 10% to 30% from current levels	🟠
Emission reduction needed by 30% to 50% from current levels	🟣
Emission reduction needed by 50% or more from current levels	🔴

For more information:

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