Position Paper

Revision of the National Emission Ceilings (NEC) Directive

October 2014

EXECUTIVE SUMMARY

The National Emission Ceilings (NEC) Directive is a critical instrument to reduce air pollution in the European Union (EU). It ensures reductions of emissions of a number of pollutants which are harmful to our health and environment. It limits 'exports' and 'imports' of air pollution between different EU countries. By doing so, it helps improve ambient air quality locally and improve people's health and quality of life; it helps prevent air pollution's adverse impacts on nature; it helps prevents damages to land, crops, buildings and monuments; and it brings significant socio-economic benefits to the EU.

The Directive will only deliver sufficient benefits if it sets targets which are ambitious enough and establishes effective mechanisms for achieving them. The NEC Directive's goal should be aligned with the EU's air quality objectives set in the 7th Environmental Action Programme, i.e. the achievement of "levels of air quality that do not give rise to significant negative impacts on, and risks to human health and environment". This should be achieved by 2030 at the latest. To reach this objective, the European Parliament and Council must strengthen the European Commission's proposal and ensure that:

- Emission reduction commitments (ERCs) lead to the achievement of "levels of air quality that do not give rise to significant negative impacts on, and risks to human health and environment" by 2030 throughout the entire EU territory.
- ERCs for 2020 and 2025 are legally binding and form a linear trajectory towards the achievement of the above mentioned 2030 ERCs.
- ERCs are set for methane and mercury for all three targets years (2020, 2025, 2030);
- Flexibilities such as adjustment of emission inventories and offsetting of emissions between land and sea are rejected to prevent undermining the environmental objective of the Directive.
- The right of citizens and NGOs to access national courts to challenge breaches of the Directive is given explicit recognition in the Directive.
- All relevant sectors are addressed through measures developed at EU and national level (e.g. domestic heating, road, non-road machines, shipping, solvents, combustion plants, agriculture).
- The Commission commits to proposing the alignment of ambient air quality limit values with the latest WHO health recommendations, to take effect by 2020.

CONTENTS

AIR POLLUTION IN THE EU

- ### *Impacts on human health*

  Air pollution is the leading environmental cause of death in the European Union (EU). Each year, over 400,000 Europeans die prematurely because of air pollution.[1] Premature deaths come in addition to increased illness (asthma, bronchitis, heart and respiratory problems), hospital admissions, extra medication reduced quality of life, and millions of lost working days. In EU cities, more than 90% of people are exposed to levels of air pollution above World Health Organisation (WHO) recommended levels.

  The health related economic costs of air pollution are enormous, amounting to between €330 and €940 billion for the EU in the year 2010 alone. This includes €15 billion from lost workdays and €4 billion from healthcare costs. The latter (€4 billion) does not correspond to all health care costs but only to costs linked to treatments of chronic bronchitis. New evidence on the impacts of chronic exposure to ozone suggests that the overall cost figures would be higher.[2]

  FOR MORE INFORMATION, PLEASE REFER TO OUR AIR & HEALTH FACTSHEET.

- ### *Impacts on the natural environment*

  Air pollution also has a negative impact on Europe's nature and biodiversity. Almost two thirds of the EU ecosystem area is under severe threat from nitrogen eutrophication, including over 71% of sensitive Natura 2000 protected areas.[3] The impact on biodiversity also results in impacts on the tourism sector, due to loss of amenity and recreational value of the natural landscape.[4] Compared to eutrophication, acidification is nowadays less of a problem but still affects 200,000 km^2 of sensitive forests and freshwater ecosystems in the EU, so there is still progress to be made.

- ### *Other impacts*

  Air pollution damages agricultural crops and natural vegetation due to high levels of ground-level ozone (O_3). Deposition of acidifying air pollutants and high levels of sulphur dioxide (SO_2), nitrogen oxides (NO_X), particulate matter (PM) and O_3 can damage buildings and material, including the precious historical buildings and monuments present in many European cities. Crop yield losses due to air pollution are estimated at €3 billion per year in 2010, while damages to modern buildings are estimated to cost €1 billion per year.[5]

  FOR MORE INFORMATION, PLEASE REFER TO OUR AIR & ECOSYSTEMS AND AIR & CULTURAL HERITAGE FACTSHEETS.

1 European Commission's Impact Assessment
2 European Commission's Impact Assessment
3 European Commission's Impact Assessment, page 14
4 European Commission's Impact Assessment, page 18
5 European Commission's Impact Assessment, page 14

The National Emission Ceilings (NEC) Directive

On 18 December 2013, the European Commission adopted a package of proposals to improve air quality in Europe. The central piece of the package is a proposal to revise the National Emission Ceilings (NEC) Directive. The proposal sets national Emissions Reduction Commitments (ERCs) for six air pollutants. Provided that it is ambitious enough, the NEC Directive could be an extremely useful instrument, for several reasons:

- ***An instrument to cut overall emissions of harmful pollutants***
  The NEC Directive limits overall emissions of air pollutants in the EU, thus reducing overall exposure to air pollution and contributing to the achievement of environmental and health objectives. The directive is necessary to ensure a minimum level of protection for human health and ecosystems at EU and national level.

- ***An instrument to cut transboundary air pollution***
  Air pollution does not stop at national borders. Recent studies show that air pollution travels much further and faster than previously assumed.[6] By adopting an ambitious NEC Directive, Member States improve air quality in their own territory but also in other Member States. Without such concerted action at EU level, domestic efforts to improve air quality would risk being undermined by pollution coming from abroad.

- ***Cutting national emissions helps improve local air quality***
  The NEC Directive contributes to improving local air quality. By reducing overall emissions nationally, the NEC Directive contributes to reducing 'background' air pollution in cities and other pollution hotspots. This helps local authorities in their efforts to comply with concentration limits set in the Ambient Air Quality Directive[7] and to get closer to the concentrations recommended by the WHO.[8]

- ***High socio-economic benefits at stake***
  Tighter ERCs make sense from a socio-economic perspective. Numerous studies have consistently demonstrated that the benefits of additional emission reductions outweigh the costs – in most cases by large margins. But the Directive will only deliver these benefits if it sets targets that are ambitious enough and establishes effective mechanisms for achieving them.

Some of the shortcomings of the Commission's proposal, including proposals for improvements, are presented on the following pages.

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6 See UNECE and UNEP publications: http://www.unece.org/index.php?id=25373 & http://www.unep.org/pdf/ABCSummaryFinal.pdf

7 Directive 2008/50/EC of the European Parliament and of the Council on ambient air quality and cleaner air for Europe

8 http://www.who.int/mediacentre/factsheets/fs313/en/

a. The Ambition Level: National ERCs for 2020, 2025 and 2030

The Commission's proposed ambition level is too low to solve Europe's air quality problems. The good news is that more ambition is possible and would be extremely beneficial as shown by several studies including the Commission's own impact assessment.

i. The proposed ERCs for 2020 are extremely weak

The proposal sets national Emissions Reduction Commitments (ERCs) for five air pollutants for 2020.[9] These 2020 ERCs have been copy-pasted from the 2012 revised Gothenburg Protocol under the Convention on Long-range Transboundary Air Pollution (CLRTAP) without any further consideration of the health and environmental impacts.

The proposed 2020 ERCs are actually even less ambitious than the business-as-usual scenario, i.e. levels that Member States will achieve anyway under existing EU and national legislation.[10] The Commission's analysis shows that most Member States will achieve these reduction commitments, in many cases by a wide margin, just by implementing existing legislation. In most cases they require no extra effort at all, and in some cases, the proposed ERCs would actually result in higher emissions in 2020 than is allowed under the binding emission ceilings set in the existing NEC Directive that apply as from 2010.[11]

As a result of this lack of ambition, air-pollution would still cause 340,000 early deaths in the EU in the year 2020 and the costs of air pollution would amount to €243-775 billion. Also, 65% of EU air quality zones would still breach the WHO recommended level for $PM_{2.5}$.[12]

ii. Lack of legally binding ERCs for 2025

During the review of the Thematic Strategy on Air Pollution (TSAP) and the accompanying consultation of stakeholders (2011-2013), the Commission developed a policy scenario with 2025 as a target year (instead of 2020). However, in the very final political phases of the process, the Commission decided to further postpone action by five more years by proposing binding ERCs for 2030, i.e. sixteen years from now. For 2025, intermediate targets were set, that are merely indicative and non-binding.

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9 Sulphur dioxide (SO_2), nitrogen oxides (NO_x), ammonia (NH_3), non-methane volatile organic compounds (NMVOCs) and fine particles ($PM_{2.5}$).

10 See GAINS online baseline emissions for 2020; Less than 1/3rd of the individual ERCs for the MS are more ambitious than the baseline.

11 NO_x emissions from Austria and Spain, NMVOC emissions from Germany, the Netherlands and Portugal, and NH_3 emissions from Germany and Spain. Austria's NO_x emissions for 2020 under the proposal are 40% higher than the 103,000 tons maximum permitted for 2010 under the existing NEC Directive.

12 European Commission's Impact Assessment, pages 24 and 28

Given the scale of damage caused by air pollution and the urgent need for Member States to take early action, the binding 2030 targets are clearly too far away in the future. The Directive should therefore also set legally binding targets for 2025.

iii. The proposed 2030 ERCs leave us far from the EU's air quality objectives

The 2030 ERCs proposed by the Commission are based on a 67% "gap closure" between the baseline scenario and the so-called maximum technically feasible reductions (MTFR) scenario.

Even at a full 100% gap closure, the concept of MTFR is actually rather limited in scope and far from being the "maximum" that can be done to reduce air pollution. For instance, it does not include non-technical solutions such as fuel switching, promoting sustainable transport modes, increasing energy efficiency, sustainable farming and the use of economic instruments, all of which are measures that are already being implemented in several Member States and need to become standard practice. Technical and non-technical measures combined could take the EU far beyond what is perceived as 'technically' feasible, and often at lower cost. Non-technical measures are largely missing from the Commission's analyses, thus substantially limiting the range of options considered by the Impact Assessment.

The Commission's proposal would still leave enormous health and environmental problems in 2030. It is estimated that over 260,000 premature deaths would still occur in 2030 even after implementation of the Commission's proposed ERCs.[13] In addition, some 20,000 km^2 of acid-sensitive ecosystems and 750,000 km^2 of nitrogen-sensitive ecosystems will still be exposed to deposition of acidifying and eutrophying air pollutants that exceed the critical loads.[14]

This means that, even in 2030, the EU would still be far from the objective set by the 6th and 7th Environmental Action Programmes (EAP), i.e. reaching air quality levels that "do not cause significant impacts on and risks to human health and the environment". This becomes especially unacceptable when we consider that similar objectives were already adopted more than 20 years ago in the 5th EAP.[15]

Today, Europe's citizens are deeply concerned about the problem of air pollution. 95% of the Europeans say that protecting the environment is important to them 'personally' and over half of them state that air pollution worries them more than any other environmental issue.[16] Our 2030 targets must match the urgency of the problem of air pollution and the concerns of the citizens of Europe.

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[13] Cost-benefit Analysis of Final Policy Scenarios for the EU Clean Air Package, Version 2, EMRC, 2014, page 20

[14] The Final Policy Scenarios of the EU Clean Air Policy Package, IIASA TSAP Report #11, February 2014, pages 14–18

[15] http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:51999DC0543&from=EN

[16] Special Eurobarometer 416, Attitudes of European citizens towards the environment, Sept. 2014

iv. Costs exaggerated, benefits underestimated

The cost of implementing the Commission's proposal has been estimated at €3.3 billion/year for 2030. This may seem like a substantial amount but is equivalent to a daily cost of two euro cents per EU citizen or to 0.02% of the gross domestic product (GDP) of EU countries in 2030.[17]

It is important to note that this cost is greatly overestimated, for several reasons:

- **Non-technical measures not included**
  The cost estimate is based on an assumption that purely technical pollution control measures will be employed.[18] This ignores other, often cheaper, methods of reducing emissions, including various structural measures such as fuel switching, improvements in energy efficiency, increased use of renewable energy sources, earlier closure of old and inefficient combustion plants, dietary changes, as well as changes and efficiency improvements in the transport sector.

- **Expected cost-reductions not accounted for**
  It is assumed that these technical emission reduction measures have the same efficiency and costs as current or even outdated technical measures. No allowance has been made for historical experience, which shows that technology improves and gradually becomes cheaper and more efficient.[19] Estimates of future expected costs for environmental measures are often significantly overstated - a fact that has been documented in several studies.[20]

- **Benefits to health and the environment are underestimated**
  In the calculation of the benefits of improved air quality several factors were not sufficiently taken into account. Some health benefits, such as decreased chronic effects of ozone on mortality and reduced damage to health from NO_2 exposure, have not been included.[21] Environmental benefits such as reduced damage to ecosystems due to eutrophication, acidification and ground-level ozone have not been given any monetary value at all. The benefits of reduced air pollution damage to historic buildings and heritage objects have not been included.

  Moreover, the presentation of the results of the cost-benefit analysis has been limited geographically to the EU28.[22] No allowance has been made for health and the

[17] The Final Policy Scenarios of the EU Clean Air Policy Package, IIASA TSAP Report #11, page 26
[18] EC4MACS - The ALPHA Benefit Assessment Model, European Consortium for Modelling of Air Pollution and Climate Strategies (2013), page 84
[19] EC4MACS (2013), page 84
[20] Costs and strategies presented by industry during the negotiation of environmental regulations, Stockholm Environment Institute, SEI (1999); Cry wolf – predicted costs by industry in the face of new regulations. International Chemical Secretariat Report 6:04., ChemSec (2004)
[21] Cost-benefit Analysis of Final Policy Scenarios for the EU Clean Air Package, Version 2, EMRC, 2014, page 9
[22] Cost-benefit Analysis of Final Policy Scenarios for the EU Clean Air Package, Version 2, EMRC, 2014, page 20

environment benefits in non-EU countries, such as Norway, Switzerland, Russia, Ukraine, Belarus, Serbia, Albania, Bosnia-Herzegovina, Macedonia, Moldova, Montenegro and Turkey.

- **Currently applicable climate scenarios not included**
  Measures aimed at reducing greenhouse gases (GHG) are necessary for climate reasons, but also tend to decrease emissions of air pollutants (such as SO_2, NO_x and $PM_{2.5}$) and therefore result in considerable health benefits. However, the energy scenarios used by the Commission do not take into account climate measures needed to seriously address climate change. The scenarios used assume that energy consumption will only be reduced by about 10% between 2005 and 2030 and that GHG emissions would decrease by only about 32%,[23] which is neither in line with the EU's nor the UNFCCC's climate objectives. For example, a 40% reduction of GHG emissions between 1990 and 2030 – as recently proposed by the Commission - would cut the costs of the proposed NEC Directive by more than a third, from €3.3 to €2.1 billion/year.[24]

Even with these shortcomings, the Commission's cost-benefit analysis still supports a higher level of ambition, with the benefits of more ambitious action outweighing the costs. For example, the cost of the maximum technically feasible reduction scenario (MTFR) in 2030 is estimated at approximately €50 billion whereas the health benefits alone are valued at between €58 and €207 billion.[25]

b. Flexibilities

The Commission's proposal foresees several types of flexibilities: A possibility to offset emissions reductions on land with reductions from international shipping, a possibility to jointly implement the methane commitments with other Member States, and a possibility to adjust emission inventories. In addition, greater flexibility has been introduced by moving from absolute national emission ceilings to relative ERCs.

While some degree of flexibility is necessary in a Directive which sets objectives over a very long time scale, too much flexibility will render the Directive unenforceable. Two of the three proposed flexibilities give rise to particular concerns, namely:

- The mechanism to incentivise emissions reductions from international shipping.
- The provision for adjustment of national emissions inventories.

[23] Commission Staff Working Document Impact Assessment accompanying a policy framework for climate and energy in the period from 2020 up to 2030. European Commission SWD (2014) 15 final, page 25
[24] The Final Policy Scenarios of the EU Clean Air Policy Package, IIASA TSAP Report #11, page 41
[25] The Final Policy Scenarios of the EU Clean Air Policy Package, IIASA TSAP Report #11, page 21

i. Measures to reduce emissions from international shipping

The proposal entitles Member States, under certain conditions, to offset emission reductions from international maritime transport if emissions from this sector are less than the emission levels that would result from implementation of current EU legislation.

While encouraging reductions in shipping emissions is a laudable goal, this should not result in higher emissions from other sectors. It is also difficult to differentiate "new" measures to reduce maritime emissions from those measures that would have been implemented anyway. If Member States are allowed to offset emission reductions that would have occurred anyway, the result will be higher overall emissions and a poorer environmental outcome.

New and additional measures to reduce air pollutant emissions from international shipping, especially NOx emissions, are urgently needed and this we understand was the original intention behind the idea of flexibility. We recommend that efforts to introduce NOx emission control areas for new ships in the Baltic and North Seas be stepped up without reverting to a mechanism of offsetting. At EU level, additional measures to tackle NOx from existing ships should be considered separately. Low sulphur fuel legislation to reduce SO_x (and indirectly PM) from shipping is already in place in northern European sea areas, so flexibility incentives are not required.

MORE INFORMATION ABOUT AIR POLLUTION FROM SHIPPING CAN BE FOUND HERE.

ii. Adjustment of national emissions inventories

The proposal enables Member States, under certain conditions, to adjust their emissions inventories in cases where improved emission inventory methods would lead to non-compliance with a reduction commitment. The proposal is broadly in line with the corresponding flexibility in the 2012 Gothenburg Protocol.

This would allow Member States to avoid enforcement action by simply adjusting their inventories. While there are various conditions that must be satisfied, these are open to abuse by Member States and depend on the willingness and capacity of the Commission to enforce them. As we saw with the conditions for time extensions under the Ambient Air Quality Directive (AQD)[26], such conditions are not always applied consistently. This flexibility would therefore risk undermining the enforceability and therefore the effectiveness of the whole Directive.

We believe that the change from absolute emission ceilings (in the 2001 NEC Directive) to percentage reduction commitments represents a significant increase in flexibility, and that additional flexibility is therefore unnecessary. The change to reduction commitments also entails some weakening in comparison with absolute emissions ceilings, in that it

[26] Article 22 of Directive 2008/50/EC

increases uncertainty about the extent to which the targeted environmental objectives will actually be achieved. We therefore believe that the additional flexibility given in the proposal is unnecessary and should be deleted.

c. Air pollutants

i. Additional ERCs for Methane

In addition to being a powerful greenhouse gas, methane contributes to the formation of ground level ozone (O_3). 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. Consequently, methane must be included with national ERCs in the NEC Directive, also as a complementary tool to EU climate policies which set GHG reduction goal but do not tackle methane or ozone formation specifically.[27]

However, methane reduction commitments should also be set for 2020 and 2025, not only for 2030 as in the Commission's proposal.

MORE INFORMATION ABOUT METHANE & NEC CAN BE FOUND HERE.

ii. Tightened provisions on Black carbon

Black carbon is a component of Particulate Matter (PM) which absorbs light. Black carbon is both harmful to human health and a short-lived climate pollutant. The Commission's proposal requires Member States to "prioritise emission reduction measures for black carbon when taking measures to achieve their national reduction commitments for $PM_{2.5}$".[28] We welcome this focus on black carbon. However, the legal effect of this provision is uncertain as it is unclear whether this would be enforceable if Member States chose not to prioritise black carbon.

We therefore advise that the obligation to prioritise black carbon emission should be strengthened.

MORE INFORMATION ABOUT BLACK CARBON, METHANE AND OTHER SHORT LIVED CLIMATE POLLUTANTS CAN BE FOUND IN THE AIR & CLIMATE FACTSHEET.

[27] As part of EU's climate policies, the Effort Sharing Decision (ESD) mechanism sets targets covering all six greenhouse gases (GHGs) regulated by the Kyoto Protocol, including methane. Such targets are set as GHG reduction commitments. ESD targets can therefore be complied with by reducing any of the six GHGs, not necessarily methane. This helps reduce climate change but does not guarantee methane and ozone reductions needed for better air quality.

[28] Article 6,2 (c)

iii. Additional ERCs for Mercury

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. Currently, EU-wide limits on mercury emissions only exist for waste incineration and co-incineration.[29] Emission limits for mercury from large combustion plants, the main source of emissions, are not in place at EU level but are expected to be introduced through the adoption of a revised Best Available Techniques Reference documents (BREF) for Large Combustion Plants (LCPs).[30]

In addition to much needed sector legislation - such as the revision of the LCP BREF - the EU should cap its *total* emissions of mercury into the air through the NEC Directive. This will ensure that overall emissions and transboundary pollution is limited regardless of the nature and number of point sources. Emission reduction commitments for mercury will also contribute to implementation by the EU of the 2005 Mercury Strategy and the recently agreed 2013 Minamata Convention on Mercury, under which the EU committed to reduce overall emissions of mercury into the air.[31]

The NEC should therefore include emission reduction commitments for mercury for 2020, 2025 and 2030.

MORE INFORMATION ABOUT THE INCLUSION OF MERCURY IN THE NEC CAN BE FOUND HERE.

d. National Air Pollution Control Programmes

While EU policies play a major role in limiting air pollutant emissions both overall and at source – for instance in the industrial and transport sectors – several abatement measures are largely or fully within the remit of Member States. The latter include for example energy policy, transport policy (e.g. fuel taxation, congestion charges, low emission zones, public transport) and agricultural policy. The right policy mix to improve air quality will vary from one country to another, depending on the most problematic sources or specific local air quality problems. It is therefore important that Member States design appropriate, effective and timely measures at national level through "national air pollution control programmes" (NAPCPs).

NAPCPs are the main mechanism by which Member States achieve compliance with their ERCs. One of the major weaknesses of the current NEC Directive is that the provisions on

[29] Annex VI of the Industrial Emissions Directive sets emission limit values and monitoring requirements for emissions of mercury from solid or liquid waste incineration plants as well as co-incineration plants (biomass incineration plants are excluded).

[30] The Best Available Techniques Reference documents (BREF) for Large Combustion Plants (LCPs) are currently being revised through an exchange of information process organised by the IPPC Bureau in Sevilla: http://eippcb.jrc.ec.europa.eu/

[31] http://www.mercuryconvention.org/

NAPCPs are not sufficiently prescriptive. The Commission proposes some significant improvements, for instance by requiring an update every two years and by linking NAPCPs with the objectives under the Ambient Air Quality Directive. These provisions need to be maintained and strengthened.

i. National programmes should aim at the achievement of the EU's health and environmental objectives by 2030

The effectiveness of NAPCPs is currently entirely dependent on the ambition level of the ERCs. This will render the provisions around NAPCPs meaningless if the ERCs are not ambitious enough. For instance, if ERCs remain as currently proposed by the Commission for 2020, Member States would be under no obligation to take any additional measures to improve air quality, as they can achieve their targets merely by complying with current EU legislation.[32] Even in the case of strengthened ERCs, there is always room for further adequate air pollution control during the implementation of the Directive, for instance in areas where air quality levels still pose a risk to health.

The measures included in the NAPCPs should therefore demonstrate how they will lead to the achievement of the EU's 7th Environmental Action Programme's long term objectives for air quality by 2030, in particular:

- Achievement of WHO health guidelines.
- No exceedence of critical loads and levels.

ii. The programmes should be linked with other EU policies

It is essential that there is consistency between NAPCPs and other plans and programmes relating to air pollution, such as those adopted under the ambient air quality and industrial emissions directives (such as transitional national plans and pollution permits). Otherwise the improvements made by the NEC Directive risk being undermined by other programmes or projects that would worsen air quality. The Commission's proposal aims to improve coherence in two ways. First, by requiring that NAPCPs "take account of the need to" reduce emissions for the purpose of reaching compliance with air quality objectives.[33] This is a step in the right direction but the current wording is too weak to have any effect. This obligation needs to be framed in mandatory, legally binding terms.

Second, through a more general requirement that NAPCPs "ensure coherence with other relevant plans and programmes established by virtue of requirements set in national or Union legislation.[34] This is standard wording that appears in nearly all environmental

[32] This is due to the fact that 2020 ERCs proposed by the Commission are weaker than the baseline – see section about 2020 ERCs
[33] Article 6, 2 (b)
[34] Article 6, 2 (d)

directives, with very little effect. It needs to be strengthened and should include binding provisions requiring:

- Consistency between plans and programmes adopted under other relevant directives.
- That national plans including strategic environment assessment (SEA) or any project subject to an environment impact assessment (EIA) need to be coherent with the NEC and AQ Directives.

iii. Improved access for civil society

The current provisions of the proposal are inconsistent with EU legislation[35] and case law implementing the Aarhus Convention. Consequently the right to public participation as well as the access to justice, need to be strengthened:

- **Public participation**
  The provisions relating to public participation in the formulation of NAPCPs need to be consistent with the Aarhus Convention, Directive 2003/35/EC and the case law of the Court of Justice of the EU. Most worryingly, it limits rights of participation to "public and competent authorities." It needs to expressly state that environmental and other relevant NGOs and concerned individuals have the right to participate in the formulation of NAPCPs. Participation should not be limited to "significant" updates as this would allow Member States to arbitrarily decide not to provide for participation on the basis that an update was not significant. Given the technical nature of NAPCPs, positive obligations should be placed on Member States to facilitate participation by the public (e.g. offering financial support to facilitate citizens' involvement).

- **Access to justice**
  In order to improve the enforceability of the NEC Directive and ensure public participation, the Directive should include an express right of access to justice for citizens and NGOs.

  The Directive should be consistent with the case law of the European Court of Justice (see Case c—237/07 and joined cases c-165/09 to c-167/09) [and the 7th EAP] by making clear that NGOs and concerned individuals have the right to challenge national programmes before national courts (or equivalent administrative bodies) where they fail to meet the requirements of the Directive.[36] This provision should also be consistent with Article 9(4) of the Aarhus Convention and require that

[35] Directive 2003/35/EC providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending with regard to public participation and access to justice Council Directives 85/337/EEC and 96/61/EC

[36] The 7th Environment Action Programme (EAP), p.55

national procedures be fair, timely, not prohibitively expensive and provide effective remedies.

iv. National programmes should consider measures for all sectors contributing to emissions of air pollutants

We welcome the Commission's approach of listing measures which must be considered in NAPCPs to control emissions from the agricultural sector.[37] The same principle should however apply also to other sectors that contribute to emissions of air pollution. In order to facilitate the attainment of national ERCs, additional measures for agriculture should be included, as well as measures for domestic solid-fuel combustion, domestic and inland shipping, industry and solvents.

This position paper includes an Annex covering important sectoral measures to be added to Annex III of the NEC Directive.

e. Ambient Air Quality Directive

The NEC directive and the Ambient Air Quality Directive (AQD) are the main pillars of the EU's air quality policy. The alignment of the current AQD with the WHO guidelines should be the priority for the EU in the coming years. It would result in health benefits for millions of Europeans as well as financial savings for all EU Member States. Attaining the WHO guidelines for $PM_{2.5}$ in 25 large European cities alone could provide savings of €31.5 billion annually, including savings on health expenditures, absenteeism and intangible costs such as well-being, life expectancy and quality of life.[38]

Consequently, the NEC Directive should set a clear timetable for the Commission to revise and strengthen the Ambient Air Quality Directive. The revised AQD should enter into force by 2020.

[37] Annex III

[38] See findings of APHEKOM study: http://www.aphekom.org/web/aphekom.org/home;jsessionid=CE148BC8B95F7783CA2666B2CFD264B3

Annex I

In this Annex you find an overview of sectors and measures that are not yet specifically addressed and should be added to Annex III of the NEC directive. This Annex is non-exhaustive. In addition to these listed in this Annex, there are other activities contributing to emissions of the air pollutants listed in the NEC Directive. Member States should identify and take **all** appropriate measures contributing to the achievement of the long-term air quality objectives.

a. Agriculture

The agricultural sector contributes to emissions of several air pollutants including 95% of the EU's total ammonia (NH_3) emissions. It also emits methane (CH_4) and primary particulate matter (PM).[39] Many measures to reduce ammonia and methane entail additional co-benefits. In the case of methane mitigation measures such as farm-scale anaerobic digestion can be implemented at no cost because of the significant benefits of methane recovery.[40] Primary PM mainly originates from the burning of agricultural waste. This practice is banned in cross-compliance rules under the Common-Agricultural Policy (CAP) and has additionally been prohibited in several Member States. However it is still common according to satellite observations.[41]

The Commission proposal's lists a series of measures to reduce ammonia and primary PM emissions from the agricultural sector.[42] States are required to include these measures, or measures having equivalent effect, if necessary to achieve their ERCs.

However, there are other measures not listed in the Annex which should be added such as:

- The promotion of crop rotation including leguminous and organic fertilizing methods.
- A ban on urea-based fertilisers and the promotion alternatives;
- BATs for larger cattle farms.
- The promotion of biogas (anaerobic digestion) to reduce methane emissions while preventing possible methane leakage and increased ammonia emissions.
- Promote systems without manure accumulation (pasture based, free range).

[39] Emissions from agriculture and their control potentials, TSAP Report #3, IIASA, November 2012

[40] Non-paper on the methane reduction commitments in the proposed NECD revision, May 2014
Measures and costs for CH_4 implementation by Member State, May 2014
http://ec.europa.eu/environment/air/review_air_policy.htm

[41] Scenarios of cost-effective emission controls after 2020, TSAP Report #7, IIASA, November 2012

[42] NEC proposal, Annex III, part 1

i. Further measures on methane:

Methane emissions are not addressed at all in the list of measures proposed by the Commission. To reduce methane, it is important to include a list of national measures addressing the emission from enteric fermentation in ruminants. These measures include:

- Improve animal health, i.e. by national objectives for different health indicators such as calf mortality. Reducing methane emissions from dairy and beef production is strongly associated with animal health. Healthy animals produce more, thus the methane per product is lower.
- Improve production efficiency - Good growth while maintaining a focus on forage and grazing is important to reduce the amount of methane emissions per kg of meat. This could be achieved by introducing recommended maximum slaughter ages and benchmarks for calving intervals.
- Programmes for a dietary shift towards reduced meat consumption (education and awareness raising).
- Promote extensive livestock and low stocking density farming methods

Reducing air pollution from agriculture within the NAPCPs is a cross-cutting issue with the CAP. Therefore the two policies should be linked. The CAP's second pillar (Rural Development) offers the possibility to set measures which could contribute to the fight against air pollution. Member States should include these measures in their Rural Development programs.

MORE INFORMATION ABOUT AIR POLLUTION & AGRICULTURE CAN BE FOUND HERE.

b. Domestic solid-fuel combustion

Small-scale domestic combustion, such as wood and coal-fired stoves and boilers, are significant contributors to air pollution and account for nearly one third of the EU's total $PM_{2.5}$ emissions.[43] The technical potential for cutting emissions from the burning of solid fuels in small-scale combustion appliances is huge and needs to be promoted at national level.[44]

In addition, the NEC Directive should list a number of measures to be considered by Member States in their national programmes in order to meet the objective of the Directive, including:

- Set benchmark emission limits for stoves and boilers, based on Best Available Techniques (BAT).

[43] IIASA TSAP Report #5, Emissions from households and other small combustion sources and their reduction potential, June 2012

[44] Reduction potentials: see TSAP report #5 - Emissions from households and other small combustion sources and their reduction potential - June 2012: http://ec.europa.eu/environment/air/pdf/review/TSAP-SMALL_SOURCES-20120612[1].pdf

- Economic incentives (e.g. taxes or subsidies) to promote
  - The replacement of old domestic combustion installations with better home insulation, heat pumps, light fuel oil, new wood pellet installations or, in cities, with district heating or gas.
  - Retrofitting of abatement techniques (e.g. PM filters) to existing appliances.
- Ban of solid fuel burning in residential areas and other sensitive areas where WHO's air quality guidelines are not met.
- Information to consumers about how to install and operate stoves and boilers efficiently and preventing unnecessary heating/air conditioning.

MORE INFORMATION ABOUT AIR POLLUTION FROM DOMESTIC HEATING CAN BE FOUND HERE.

c. Road and non-road emissions

Road vehicles and construction machines emit harmful air pollutants and cause significant health problems due to their proximity to population, in particular in cities. The widespread use of diesel engines, exhausts of which have been classified as carcinogenic,[45] makes emissions from road and non-road engines a major public health issue in the EU. There is significant room for non-technical measures to complement technical measures to further reduce vehicle air pollution and improve people's health.

The NEC Directive should list a number of measures to be considered in order to reduce air pollution from road and non-road vehicles, such as:

- Sustainable Urban Mobility Plans with measures such as low emission zones, congestion pricing, parking controls and car sharing schemes.
- Measures to encourage a shift to less polluting transport modes such as the promotion of cycling and walking and clean public transport.
- Sustainable Urban Freight Plans such as the introduction of consolidation centres plus measures to encourage a shift of regional freight from road to rail and water.
- Revision of vehicle taxation rates in recognition of the higher real-world emissions from diesel cars and gasoline direct injection vehicles to encourage sales of less polluting vehicles.
- Public procurement and fiscal incentives to encourage early uptake of ultra low emission vehicles.
- Support for retrofit of particulate filters on diesel machines, trucks, buses and taxis.
- Setting emissions standards equivalent to those for new trucks for non-road vehicles such as tractors, barges, construction equipment, trains and other diesel machines.

MORE INFORMATION ABOUT AIR POLLUTION FROM ROAD VEHICLES AND NON-ROAD MOBILE MACHINES CAN BE FOUND HERE AND HERE.

[45] http://www.iarc.fr/en/media-centre/pr/2012/pdfs/pr213_E.pdf

d. Inland and domestic shipping

Emissions from inland and domestic shipping are included in Member States' national ERCs. While there are EU emission standards for several pollutants for inland waterway vessels in the NRMM directive,[46] emissions from domestic shipping are regulated only by the sulphur-in-fuels Directive[47] and by very weak global NOx standards. Moreover, the current NRMM emission standards for pollutants like NOx and PM are considerably weaker than current standards for trucks, and the NRMM directive only sets standards for new engines. Consequently there is a need both to strengthen the emission standards for new ships and for additional measures to address emissions from existing ships, which have a very long lifetime. Thus, while the Commission is advised also to set emission limits for existing inland vessels, a number of measures should be considered by Member States in their national programmes in order to meet the objective of the Directive, including:

- Making every effort to expand Emission Control Areas (ECAs) to include all European sea areas and to become combined sulphur and NOx ECAs.
- Introduce market-based instruments (e.g. emission charges/taxes) to ensure NOx and PM reductions also from the existing fleet of ships.
- Introduce low-emission technologies such as landline-power stations and LNG-infrastructure.
- Alignment of fuel and emission standards for ships with those for trucks.
- Inclusion of local vessels in low-emission zones.

e. Industrial activities

The Industrial Emissions Directive (IED) currently does not explicitly refer to the NEC directive as constituting an "Environmental Quality Standard", which would require further measures to be laid down in permits. As a consequence, currently a member state can issue permits for large scale industrial installations which result in the national emissions ceiling being exceeded.[48]

The revised NEC Directive must explicitly state that a permit cannot be granted for new installations if it would result in an exceedance of an ERC or an ambient air quality standard. For existing installations, the revised NEC Directive should put in place mechanisms enabling member states to intervene for the purpose of achieving timely compliance. For that purpose the NEC Directive should amend the definition of "Environmental Quality Standard" foreseen in Article 3(6) of the IED in order to make an explicit cross-reference to the NEC Directive.

[46] Directives on emissions from non-road mobile machinery: http://ec.europa.eu/enterprise/sectors/mechanical/documents/legislation/emissions-non-road/index_en.htm

[47] Directive 2012/33/EU on the sulphur content of marine fuels

[48] see joined cases C-165/09-167/09

A number of triggers for compliance promotion should be laid down in the framework of national programmes in order to meet the objective of the Directive. The level of requirements and ambition levels can be staged in relation to potential deviation from required emission reduction trajectories by the Member State concerned and the level / risk of deviation from the overarching EU air quality commitments. Those triggers for further actions should be proportionate and coherent with the polluter prevention and pays principle.

- An obligation to revise existing permits. Level 1: strengthen Emission Limit Values in line with the stricter BAT associated emission level of the most recent sector BREF, constituting performance levels which are already achieved by the sector under economically viable conditions. Level 2: require further emission prevention / capture requirements or reduced operation.
- An obligation to withdraw any derogation provided under Chapter III of the IED (transitional national plan, limited life time derogation, desulphurisation rates, etc.) for Large Combustion Plants.
- An obligation to withdraw / not grant any derogation provided Article 15(4) of the IED.
- Temporary suspension of granting operation of new point sources until the emission reduction trajectory is met.
- Obligation to introduce economic instruments such as pollution charges/ levies.

MORE INFORMATION ABOUT AIR POLLUTION FROM INDUSTRY CAN BE FOUND HERE.

f. Solvents

Everyday products such as paints, varnishes and deodorants release volatile organic compounds (VOCs) when produced, used or disposed. VOCs react to form ground level ozone which is harmful to human health, vegetation and materials. Many EU initiatives could help to further reduce VOC emissions from solvents, in particular extending the scope of the Paints Directive[49] to household products such as hairsprays and deodorants, or setting ambitious Best Available Techniques (BATs) and Best Available Techniques Associated Emission Levels (BATAELs) for relevant production processes including refineries, large volume organic chemicals (LVOCs) and surface treatments using solvents.

But Member States should also adopt measures to reduce the use of solvents in products at national level. For instance, public authorities should actively promote the use of bio-based solvents that are VOC-free through public procurement, for instance by commissioning water-based road markings for motorways.

MORE INFORMATION ABOUT AIR POLLUTION FROM SOLVENTS CAN BE FOUND HERE.

[49] The Paints Directive 2004/42/EC