

July 2012

## **NGO comments following the 3<sup>rd</sup> Stakeholder Expert Group Meeting - Priorities for the EU air pollution policy review**

**Submitted jointly by the European Environmental Bureau (EEB), Transport & Environment (T&E), the Air Pollution & Climate Secretariat (AirClim), the Health and Environmental Alliance (HEAL) and ClientEarth. (2012-07-13)**

At the third Stakeholder Expert Group meeting on 21 June, the European Commission invited participants to provide views and comments by 13 July.

With this paper, we would like to make a few additional comments to the ones we made on January 3<sup>rd</sup> after the previous SEG meeting<sup>1</sup>. The comments we made in January are not repeated in this paper but all remain valid. In particular, we continue to stress the need to look closer into the emission reduction potential for some specific source sectors, as well as to possible additional measures (including new or revised EU legislation) to further reduce emissions.

### **1. General comments**

We welcome the work done by IIASA concerning the emission reduction potential for some specific source sectors which are currently poorly or not regulated under EU law (in the documents on transport, small sources and agriculture). We welcome this work as an important first step. We also note that the papers largely confirm our previous comments and the fact that a number of areas show great potential for reductions (shipping, non-road mobile, small combustion, agriculture). We therefore ask the European Commission to consider legislative proposals in line with these findings without any delay. In particular, we would like to see at the next SEG meeting how the preparatory work turns into action, with concrete options for legislative proposals.

### **2. Concerns about the ambition level of the review**

It was shown at the SEG meeting that the TSAP 2012 baseline will not attain the 2020 targets of the 2005 TSAP for PM health impacts, eutrophication and forest acidification. This shows that efforts still need to be made and that none of the existing EU standards should be relaxed – to the contrary, it shows that these standards need to be tightened.

We are particularly concerned by comments raised by a few Member States such as the UK asking for “simplification” of the air quality standards under Directive 2008/50/EC and for “flexibility” in attaining them. It is unclear exactly what stakeholders mean when they call for flexibility. However, it is likely that this means further derogations, flexibility over monitoring and modelling methodology or the downgrading of limit values to target values. Over the last 10 years, EU limit values have been a major driver towards measurable air quality improvements, notably in some major European cities. Cities like Copenhagen,

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<sup>1</sup> Comments to DG ENV on the analysis underpinning the review of EU air pollution policy review: <http://www.eeb.org/?LinkServID=734E1728-5056-B741-DBC1C931FCC71954&showMeta=0&aa>

Stockholm, Berlin, Barcelona, Lyon or Paris (among others) have finally taken action by adopting measures to decrease concentrations levels. Some local actions are even being slowly “exported” to the rest of the EU, as shown by the recent introduction of trial air quality zones, called ZAPAs, in several French cities, which was inspired by the German Low Emission Zones (LEZs). Such steps have recently been taken in the Czech Republic, where low emission zones will be introduced for the first time after years of campaigning from the local community to see these introduced. In all those cases, the actions are taken largely (if not only) due to the existence of EU-wide binding limit values. Calling for flexibility when those limits are slowly delivering improvements in air quality, goes completely in the wrong direction. It would delay progress even further, in a situation where bad air quality remains a huge problem for the EU.

We are concerned by the fact that the call for “flexibility” is coming from Member States which are the subject of infraction action by the Commission under article 258 because of ongoing breaches of their obligations under Directive 2008/50/EC. These Member States should focus on making more efforts to address poor air quality instead of trying to weaken the legislation they cannot meet, as was the case in 2008 when the possibility for derogation was introduced (article 22).

Every day that limit values are exceeded results in greater costs for society. It diminishes the quality of the life and health of EU citizens. Furthermore, those limits have already been negotiated and endorsed by Member States twice over the last 15 years, i.e. when adopting Directive 1999/30/EC and Directive 2008/50/EC. We cannot therefore accept these calls for flexibility by Member States.

With a view to protecting public health, we need a renewed commitment from all levels concerned to strengthen EU air quality standards. The health evidence shows the many acute and chronic effects from air pollution, and the body of evidence continues to grow (e.g. the recent classification of diesel engine exhaust as “carcinogenic to humans” by IARC).

EU air quality limits are still above WHO recommended limits in some cases, so compliance with current limit values for major air pollutants in Europe does not adequately protect our health.

The overall goal should be a “strengthening” of EU standards for health and environment, with the aim of tightening limit values, e.g. by aligning PM standards with WHO recommendations. In the US, the Environmental Protection Agency (EPA) has just proposed to strengthen the annual PM<sub>2.5</sub> standard from 15 µg/m<sup>3</sup> to 13 µg/m<sup>3</sup>, which is much closer to the WHO recommended level of 10 µg/m<sup>3</sup> than in the EU. We urge the European Commission to confirm this aim, and to focus more on the exchange about what air quality managers and decision-makers can do to achieve WHO recommended limits.

The UK makes the argument that simplification would assist in communicating with the public. We welcome the UK’s focus on this important and often overlooked aspect of air pollution policy. Raising awareness of levels of air pollution and its health impacts is key to winning support for city and national measures such as low emission zones. However, there is a contradiction in the UK’s position in calling for both flexibility and simplification. Flexibility introduces further complexity and uncertainty, and makes it very difficult to communicate with the public. The public and the media tend to understand legally binding limits and fixed deadlines. They have much greater difficulty in understand derogations,

conditional time extensions, deductions for natural contributions and limits values which are not confirmed as having been breached until data is ratified and reported to the Commission nine months after the end of the calendar year in which the breach took place.

One of the key aims of the review should be to look at ways in which the public can be engaged in air quality issues, and how EU air quality legislation can facilitate this. Limit values with fixed deadlines are key to this. So are clear provisions on access to information and public participation. Another useful mechanism for engaging the public would be to set alert thresholds for the PM<sub>10</sub> daily limit value and the NO<sub>2</sub> hourly limit value. Current alert thresholds for ozone and sulphur dioxide are so high that they are very rarely triggered.

In order to help Member States comply with the ambient air quality limits, the European Commission should take legislative action to control emissions for all problematic sectors - e.g. residential solid fuel burning, agriculture, shipping, EURO standards problems, non-road mobile – which will help reduce high concentrations of harmful pollutants (and have other benefits on environmental protection and climate mitigation).

### **3. Importance of the 7<sup>th</sup> EAP**

The 6<sup>th</sup> EU Environmental Action Programme (EAP) and the resulting 2005 TSAP have defined the goals and set the level of ambition of EU air quality policies as well as indicated interim targets for 2020.

With a view to strengthening EU air policy, it is key that the next 7<sup>th</sup> EAP confirms the health and environment protection objectives of the 6<sup>th</sup> EAP and sets ambitious targets for air quality again.

As the proposal for the 7<sup>th</sup> EAP is to be launched this autumn, we urge the Commission to include strong proposals for air quality. A strong linkage of the review of air policy process and the 7<sup>th</sup> EAP proposal needs to be ensured.

### **4. The draft TSAP baseline scenario (IIASA)**

It is not clear whether the energy scenarios used by IIASA as described in the IIASA baseline report (page 14) reflect the agreement on the Energy Efficiency Directive which was struck on 13 June 2012 by the European Parliament and Council.

The energy scenario used by IIASA is said to consider policies agreed in the Energy and Climate package “for which national measures have not yet been fully implemented” and which include “legally binding targets for renewable to achieve a 20% overall share and a 10% share in transport” but that “current policies, including the attainment of the legally binding renewable and greenhouse gas targets, do not fully achieve the 20% energy savings target by 2020.”

The new energy efficiency legislation adopted on 13 June sets binding measures which will help the EU to bridge the current gap it faces in meeting its pledge to reduce energy consumption 20% by 2020. It includes obligations towards energy companies. If those obligations were not reflected in IIASA baseline projections, it would be important to include them in the assumptions.

## **5. Transport sources**

The transport sector is a significant contributor to air pollution in the European Union and its importance in future strategies to improve EU air quality is undeniable. We therefore welcome the thorough analysis that has been provided by IIASA and presented during the third SEG meeting. Based on the document that has been circulated, we would like to stress the need to seriously consider the emission reduction potential of this sector and the importance of analysing additional measures to further reduce emissions of air pollutants.

### **5.1. Emissions from road transport**

The report produced by IIASA recognised the fact that the EURO standards haven't delivered as much reductions as expected due to the important gap between the limit values contained in the legislation and the actual emissions from vehicles in real driving conditions. We therefore appreciate the caution that has been used in analysing the potential emission reductions from EURO 6/VI and the different scenarios that have been produced to this effect.

The different scenarios produced by IIASA on EURO 6/VI implementation give a good illustration of the potential negative effects that a failure in the EURO 6/VI real-life performance or a delay in the application of the standard would have. The results of this analysis clearly call for an early introduction of the EURO 6/VI limits and a thorough monitoring of their performance.

In addition to this, we are pleased to see that the analysis took into account the hypothetical introduction of a EURO 7/VII standard to further reduce pollution from road vehicles. Clearly there are different abatement techniques that are already available to reduce emissions well below the EURO 6/VI standards.

We believe that the analysis carried out by IIASA was necessary to understand what would be the effects of the current regulatory regime and the potential future regulations on emission reductions. We would very much appreciate precise information on how this analysis will be reflected in concrete policy options and actions as part of the ongoing review process.

In our view, the potential of control options for the existing fleet (e.g. retrofitting) should also be investigated, in particular as it will be a means by which the gap between the EURO standards and the real-life emissions of vehicles can be closed. Retrofit techniques have been available for several years and have proven to be efficient in cutting NOx and PM emissions. Several countries have already adopted policies to incentivise retrofitting, but so far, no EU-wide approach was envisaged. Moreover, there is currently an expert group working under the auspices of UN-ECE discussing harmonised technical requirements for retrofitting (for heavy duty vehicles and non-road equipment). The outcomes of this work could potentially open new policy opportunities to address emissions from the existing fleet.

The decarbonisation scenario that was applied for road vehicles seems to take into account the most important objectives of the transport white paper 2011. However, non-technical measures such as taxation policies, road-charging / congestion charging policies, improvement of transport efficiency, modal shift, etc do not seem to be considered in the analysis. It would be interesting to highlight the potential of these non-technical measures and

include them as part of the initial thinking on the different options to reduce transport emissions.

## **5.2. Emissions from NRMM**

Compared to the road sector, the non-road sector is subject to much more lax regulation. As the SNAP category 8 (non-road mobile sources) cover a very important number of applications, it is very difficult to get a good idea of possible concrete instruments to reduce emissions from specific sub-categories. We note the fact that the current analysis did not take into account emissions from international air and ship traffic in line with the reporting requirements from UNFCCC and CLRTAP. However, because of the transboundary nature of air pollution, we believe that this is crucial to recognise the importance of air pollution from international transport operating in or close to the EU (see next section).

The presentation of the different scenarios for fuel consumption indicates a possible phase out of diesel operations in the rail sector by 2030. While we believe that this should remain an objective of the rail sector in line with the increasing electrification of the European network, we would like to see more information to support this optimistic assumption. In 2006, the UIC published a report (“The Rail Diesel Study”) indicating that diesel traction accounted for about 20% of European railway operations. The intensity of diesel operations is very specific to the different countries but also to the different market segments / types of operations.

When it comes to the impact of current legislation, we believe that this is particularly important to highlight that the fleet turnover in the non-road sector is very low. In addition to this, the EU has agreed in 2011 on a flexibility scheme (Directive 2011/88/EU) that will further delay the application of the new emission stage so that the market penetration of new machines equipped with emission control will be relatively slow in the first years. In addition to this, the Directive now includes a specific provision for replacement engines in the rail sector that has the potential to even further delay the uptake of state of the art technologies in the rail sector.

The impact of the current legislation for the non-road sector on PM (including BC and OC) emissions also seems rather optimistic. IIASA noted that the emissions from the road sector will sharply decline as a result of the progressing implementation of emissions controls and in particular the introduction of diesel particle filters. This assumption cannot be directly replicated to the non-road sector as a number of machine manufacturers have already officially announced that they can meet the new emission stages without the use of specific exhaust cleaning systems. As a result, it seems clear that it is possible to go well below the currently adopted standards for the sector.

The European Commission is planning a revision of Directive 97/68/EC on non-road mobile machinery and this would represent an opportunity to update all relevant limit values and introduce new emissions stages for all categories of equipment covered by the Directive. When it comes to new emissions stages, IIASA has already considered in its analysis a stage V that would mainly reduce the NO<sub>x</sub> emissions of the sector. However, during the adoption of the flexibility scheme for the NRMM Directive (Directive 2011/88/EU), the EU legislators called for a full alignment of the non-road and road standards and the adoption of PN limit values to ensure effective control of ultra-fine particles:

*(recital 2) The revision of Directive 97/68/EC is currently being prepared by the Commission in line with the requirements of Article 2 of Directive 2004/26/EC of the European Parliament and of the Council of 21 April 2004 amending Directive 97/68/EC. In order to ensure that the revised Directive is in line with Union standards for good air quality, and in the light of experience, scientific findings and available technologies, the Commission should, in the upcoming revision of Directive 97/68/EC and subject to impact assessment, consider:*

- establishing a new emission stage – Stage V – that should be based, subject to technical feasibility, on the requirements of Euro VI standards for heavy-duty vehicles,*
- introducing new requirements for the reduction of particulate matter, namely a particulate number limit that applies for all compression ignition engine categories, where technically feasible, so as to ensure an effective reduction of ultra-fine particles,*
- taking a comprehensive approach to promoting emission-reducing provisions and retrofitting of after-treatment systems on the existing fleet of non-road mobile machinery on the basis of the currently ongoing discussions under the auspices of the United Nations Economic Commission for Europe regarding harmonised requirements for retrofit emission control devices; this approach should support Member States' efforts to improve air quality and to promote the protection of workers,*
- establishing a method providing for the periodic testing of non-road mobile machinery and vehicles, in particular to establish whether their emissions performance complies with the values given at registration,*
- the possibility of authorising, under certain conditions, replacement engines that do not comply with Stage III A requirements for railcars and locomotives,*
- the possibility of harmonising the specific emission standards for rail with relevant standards at international level so as to ensure the availability of affordable engines that comply with the emission limits set.*

Last but not least, the MTFR scenario does not seem to include measures on emissions of the existing fleet. As with what we have suggested for the emissions of road vehicles, we believe that the potential of control options for the existing fleet (e.g. retrofitting) should also be investigated. As most of the NRMM equipment is used by public operators or within the framework of public contracts, the opportunity to introduce retrofitting programmes should be further investigated (as part of public procurements, etc.). The outcomes of the work carried out on technical requirements for retrofitting will also be relevant for the non-road sector.

### **5.3. Emissions from shipping**

While the analysis provided by IIASA includes some figures on fuel consumption and emissions of inland vessels, domestic shipping and domestic aviation, it did not take into account emission inventories nor potential additional emission abatement measures for

international ship and air traffic that nevertheless can represent an important source of pollution for EU countries.

Compared to inland shipping which is covered by the current NRMM directive, sea-going vessels are currently only subject to international regulations from the IMO and the EU directive on sulphur in marine fuels.

A provisional agreement was reached by the EU co-legislators on the revision of the EU sulphur in marine fuels directive in May 2012. If the European Parliament confirms this agreement in its plenary vote, it could already provide reduction of SO<sub>x</sub> and PM emissions from the sector. But further efforts should still be made and the final results from the study by VITO should give a clear overview of the reduction potential of different scenarios, including specific regulation in territorial waters, extension of the emission control areas, regulated speed regimes, etc.

While the regulation on sulphur in marine fuels will impact both new-builds and existing fleet, the impact of the IMO NO<sub>x</sub> regulations are in practice limited to the new fleet. However, technologies already exist to significantly reduce NO<sub>x</sub> emissions and retrofitting of after-treatment systems such as SCR has proven to be technically feasible, commercially available and have the potential to sharply cut emissions. As a result, we believe that the initial analysis should not be limited only at the strict application in the EU of the IMO regulations, but should also investigate policy instruments that could be used to ensure significant NO<sub>x</sub>-reductions from the existing fleet of ships. Examples of such policy instruments include mandatory emission standards (possibly limited to the biggest emitters or to certain categories of ships, e.g. passenger and cruise ships) and economic instruments (e.g. emission charges). Options to reduce NO<sub>x</sub> emissions from existing ships should also be included in the integrated assessment analysis.

In its report, IIASA indicated that shipping is expected to become the single biggest source category for black carbon emissions among non-road mobile sources (and this without taking into account the emissions from international shipping in EU sea regions). As a result, shipping is expected to become an important source sector of BC particles. This problem has been already highlighted a number of times in different fora (CLRTAP, IMO, etc.) and we therefore encourage the European Commission to carefully investigate the emissions of black carbon from international shipping, their impact on human health, the environment and the climate. In addition, we recommend considering different policy options to reduce primary PM from shipping (and in particular BC) and to analyse their emission reduction potential.

## **6. Small combustion sources**

We welcome the very good study provided by IIASA on the impacts of the Eco design work for air pollution as a good basis for further policy making in this field.

We would like to encourage the European Commission to considerably strengthen the PM limit values for wood boilers which have been proposed for the Eco design LOT 15. The most stringent limit (Tier 3, to enter into force six years after adoption of the final document) is already easily met by certain products on the market. Serious concerns about the lack of ambition of the proposed standards and their late entry into force have been raised by several Member States during the last consultation forum on July 12<sup>th</sup>. We call on the European

Commission to raise the current ambition level of PM emission limit values under LOT 15; otherwise the actual benefits for air quality will be insignificant.

While we believe that the Eco design preparatory work on LOT 15 is very relevant from an air quality perspective, we would like to ask DG Environment to broaden its scope of study and not to limit itself to the Eco design – especially since the potential for the Eco design to significantly reduce air pollution from the domestic sector may be limited.

In particular, we call upon the Commission to propose ways to address the following problems:

- Emissions from existing installations (as opposed to new installations)<sup>2</sup>;
- Emission from boilers above 500 kW (not covered by LOT 15);
- Emission from open burning (also not covered by the Eco design work).

We also recommend considering transitional measures for new installations until the new limits enter into force, bearing in mind that the Tier 3 obligations for LOT 15 will not enter into force before 2018 at the earliest – i.e. six years after the adoption of the limits which are currently being discussed.

Finally, we would like to stress the need to address the more fundamental problem coming from the incentives to use biomass. A report from the EEA's scientific committee<sup>3</sup> shows that counting bio fuels and biomass as 'zero emissions' is wrong because it ignores the emissions that come when the fuels are burned, assuming that this impact is automatically offset when new plants grow. In many cases these emissions will not be offset because increased demand for land for bio energy will just displace emissions elsewhere. These findings, together with evidence of high PM emissions harming people's health, seriously question the appropriateness of policies promoting the use of biomass.

## **7. Power generation and industrial combustion**

In our previous comments, we asked for updated information concerning an ongoing study looking at the possible inclusion of combustion installations smaller than 50 MW<sub>th</sub> under the Industrial Emissions Directive. The study was to be finalised by mid-2012 but we are not aware of any result being published yet. We would therefore like to ask again whether the study will be ready in time to be considered and included in the integrated assessment modelling and in the proposals due in the autumn 2013.

## **8. Agriculture**

Once again, we would like to emphasise the importance of the agriculture sector for air pollution in Europe. We call upon DG Environment to use the opportunity of the TSAP review to come up with legislative proposals that will reduce emissions from agriculture at the

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<sup>2</sup> See suggestions in our [previous comments](#) dated January 2012

<sup>3</sup> Opinion of the EEA Scientific Committee on Greenhouse Gas Accounting in Relation to Bio energy, European Environment Agency, Scientific Committee, 15 September 2011. Available at: <http://www.eea.europa.eu/about-us/governance/scientific-committee/sc-opinions/opinions-on-scientific-issues/sc-opinion-on-greenhouse-gas>



source. We believe that such measures should be part of the air package which will be proposed in the autumn 2013.

More than 90 per cent of total EU ammonia emissions come from agriculture. By 2020, under current legislation, emissions are not expected to come down at all, as compared to their levels in year 2005. They are even expected to increase by 2030. As outlined in our last comments, there is significant potential to cut ammonia emissions from agriculture – under the MTFR scenario, emissions in 2020 are 34 per cent lower than in 2005. If considering also non-technical abatement measures, emissions could come down even further.

At the last SEG meeting, the need to regulate agriculture sources of air pollution clearly appeared as a priority for many stakeholders in the room (Member States, regions, cities, NGOs). In particular, cities and regions have expressed concerns orally about background concentrations of PM coming from agriculture and which could not be controlled at the local level.

We take note of the fact that several regions and countries have expressed concerns about the importance of ammonia emissions and their impact on local concentrations. These concerns were voiced by representatives from Spain, Germany and Dutch regions, and are shared by the organisations we represent. We would like to see how DG Environment will translate such concerns into legislative proposals which will help deliver on many fronts:

- It would improve European people's health, as ammonia is a contributor to PM concentrations;
- It would help the environment by reducing adverse effects such as eutrophication of sensitive marine and terrestrial ecosystems, acidification and other changes in ecosystems;
- It will help Member States to comply with their current (and new) obligations under the current (and new) NEC Directive;
- It will help local authorities comply with current PM air quality standards under Directive 2008/50/EC.

The remarks made at the last SEG only reinforce the case for regulating emissions of ammonia from agriculture, which was already supported by a strong body of evidence on the solutions and cost-effectiveness of actions<sup>4</sup>. It is clear that finding new ways of regulating ammonia and nitrogen management must be a top priority for the ongoing review and that legislative action will need to accompany the air package to be proposed next year.

Finally, we note that methane is not currently regulated under the NEC Directive, despite having an important role in the formation of tropospheric ozone, as well as being a powerful greenhouse gas. A report was commissioned in 2005<sup>5</sup> which concluded that “The inclusion of methane within the NEC Directive would focus Member State attention on methane and could

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<sup>4</sup> See for more information:

- Our [previous comments](#) from January 2012
- IIASA TSAP report #3: Emissions from agriculture and their control potentials
- Options for revising the annexes to the Gothenburg Protocol to Abate Acidification, Eutrophication and Ground level Ozone: annex IX (June 2011). Can be downloaded from: <http://www.unece.org/fileadmin/DAM/env/documents/2011/eb/wg5/WGSR49/ece.eb.air.wg.5.2011.16.e.pdf>
- The European Nitrogen Assessment: Sources, Effects and Policy Perspectives. Can be downloaded from: <http://www.nine-esf.org/ENA-Book/>

<sup>5</sup> Entec UK Ltd “National Emission Ceilings Directive Review, Additional Task – Methane, Final Report (May 2005): <http://ec.europa.eu/environment/air/pollutants/pdf/methane.pdf>

therefore be a means by which Europe can move towards the MTFR scenario.” However, the report recommended that more research be conducted before inclusion of a methane ceiling within the NEC Directive. We would welcome an update on whether this issue is being given further consideration, particularly in light of recent studies which have shown the high potential for methane mitigation measures to achieve cost-effective human health and climate benefits.<sup>6</sup>

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<sup>6</sup> For example, UNEP “Near-term Climate Protection and Clean Air Benefits: Actions for Controlling Short-Lived Climate Forcers” (2011):

[http://www.unep.org/pdf/Near\\_Term\\_Climate\\_Protection\\_&\\_Air\\_Benefits.pdf](http://www.unep.org/pdf/Near_Term_Climate_Protection_&_Air_Benefits.pdf)