April 2013

NGO comments to DG Environment following the fifth SEG meeting on the review of the Thematic Strategy on Air Pollution (TSAP)

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.

Change of approach

We note that there appears to have been a shift in the overall approach for arriving at a suitable level of ambition, away from the "effects-based and cost effective" approach that was used for the 2001 NEC Directive, the 2005 Thematic Strategy on Air Pollution and the Gothenburg Protocols of 1999 and 2012.

In the TSAP report # 10, the starting point for establishing a suitable level of ambition was found by starting from comparing the marginal costs and the marginal benefits – the latter based solely on the benefits of reduced mortality impacts of $PM_{2.5}$, and using only the lowest mortality valuation (i.e. the median value of a life year lost, VOLY). After establishing this health ambition level, various levels of ambition for the other health impacts and for the environmental impacts were investigated.

While investigating "marginal cost versus marginal benefits" may provide interesting additional information, using this as an approach to establish suitable levels of ambition brings with it the obvious risk of paying much higher attention to those air pollution impacts that can currently be monetized (i.e. health damage) than to the very significant and important damage air pollution causes to natural and semi-natural ecosystems, biodiversity, agricultural crops, modern materials and cultural monuments.

Moreover, if using this new "marginal cost versus marginal benefits" approach, a minimum requirement would be to include all the monetizeable benefits, i.e. not only those for PM mortality based on median VOLY. Instead all the health benefits and the full range of valuation (from median VOLY to the mean value of a statistical life, VSL) should be included, as should the monetizeable benefits of reduced ozone impacts on health and those of reduced air pollutant damage to crops and modern materials.

We suggest that for the Cost Benefit Analysis the cumulative health benefits are also calculated, in order to assess how benefits accumulate over time, and how high the benefits will be if action to control and reduce emissionsis taken earlier rather than later. We think that policy-makers should have this information available when making decisions on target years for the revised TSAP and NEC Directive and for additional source-sector measures.

The presentation at the SEG5 meeting by Markus Amann (IIASA) showed that using mean VSL instead of median VOLY mortality valuation would raise the "optimal" ambition level from 76 to 92 per cent gap closure for PM health impacts. Going for the

latter, more ambitious, PM health gap closure level would bring significant benefits also for the environment.

Overestimation of costs and underestimation of technological progress

In the context of comparing costs and benefits it should also be recognized that the costs are likely to be highly overestimated. Current estimates of the costs for implementing EU air quality policies are calculated using the GAINS computer model and are based primarily on technical "end-of-pipe" abatement measures.

This means that a number of structural measures and behavioural changes are not included, despite the fact that some of these measures can reduce emissions at zero or low net cost, and many of them will also reduce emissions of greenhouse gases. Examples of such measures include those aimed at improving energy and transport efficiency, fuel switching, increased use of renewables and greening of agricultural policy.

In addition, GAINS cost estimates are based on existing available technologies and current cost data, which mean that innovation and improvement in abatement techniques that can be expected to take place over the coming years up to 2025 - 2030 are not accounted for.

In summary, we are very concerned that the approach taken is one that overestimates the costs and underestimates the benefits, especially because the approach used may significantly influence the overall level of ambition. In our view, the overall level of ambition must be guided primarily by the objectives of the 6th EAP. It clearly cannot be based solely on a limited cost-benefit analysis.

Level of ambition

Towards the 6th EAP objective

The overall objective of EU air quality policy is to achieve the long-term objectives set out in the EU's Environmental Action Programmes (EAPs). Improving air quality is listed as one of the priorities in the EU's 6th EAP, and in article 2 it is stated that the programme aims at "contributing to a high level of quality of life and social well being for citizens by providing an environment where the level of pollution does not give rise to harmful effects on human health and the environment..."

For air quality specifically, the stated objective (in article 7) is to achieve "levels of air quality that do not give rise to significant negative impacts on and risks to human health and the environment". Among the key measures listed are the review and updating of air quality standards and national emission ceilings, with a view to achieving the long-term objective of not exceeding critical loads and levels. Reference is also made to World Health Organisation (WHO) guidelines. Largely the same long-term objectives had already been established in 1992-93 by the EU's 5th EAP.

It is therefore logical to expect that the review of EU air pollution policy and the forthcoming revised Thematic Strategy on Air Pollution (TSAP) and proposed revised National Emission Ceilings (NEC) Directive should include an identification of the emission reductions that are required to reach the long-term objectives for air quality, and the measures and actions that are needed for their attainment, i.e. it should show

not only what needs to be done, but also how, and by whom. We are highly concerned that the objective to reach the 6th EAP goal seems to have been dropped.

Scientific evidence calls for highest level of ambition

The preliminary WHO REVIHAAP results, which were presented at the end of January, and which will be fully available soon, clearly underline the need for the highest level of ambition and the urgency of action. The WHO concluded that health effects can occur at lower levels than previously thought, and also that the range of effects has broadened.

In light of this evidence, the WHO will be revising its global guidelines, and has issued a call for stronger EU policies. Consequently, the level of ambition must be increased in order to ensure that policy decisions are in line with the latest science.

Full consideration of all scenarios

Previous analyses of emission reduction potentials (e.g. for the 2001 NEC Directive and for the 2005 TSAP) were restricted by environmentally inadequate energy and agriculture scenarios and by traditional "end-of-pipe" technical emission abatement measures.

This is unfortunate because it hides the true potential for emission reductions, and results in grossly overestimated abatement costs. It is also paradoxical because it is well known that our society's current addiction to fossil fuels is not sustainable – fast and drastic cuts in emissions of the main greenhouse gas carbon dioxide are necessary if we are to keep global temperature rise below the high-risk level of 1.5-2 degrees.

Last year we were encouraged by the development of new, lower-carbon energy scenarios and the inclusion of some non-technical measures in the so-called Maximum Control Efforts (MCE) scenario, presented at the SEG3 meeting in June.

However, at the recent SEG5 meeting we noted with great concern that the MCE scenario (and the underlying decarbonisation scenario, DECARB) had not been updated. Moreover, it appeared to not have been at all considered when investigating suitable levels of ambition for future target years (2020/2025/2030).

Again, the analysis of possible ambition levels was restricted to and constrained by the technical (primarily end-of-pipe) measures of the Maximum Feasible Technical Reduction (MTFR), and by “current policy” scenarios for energy and agriculture.

If the total energy used - and especially the share generated from fossil fuels - is overestimated in the model calculations, the estimated cost of reducing emissions to a certain level will also be exaggerated. An overestimation of future energy use will also result in an underestimation of the potential to reduce emissions of air pollutants, thus weakening the ambition of interim environmental quality targets. Inflated cost estimates are also likely to lower the political acceptability of the more ambitious initiatives.

Consequently, if the EU and its member countries take action that is necessary to reduce emissions of carbon dioxide, the costs of reducing emissions of "traditional" air pollutants will be significantly lower.

Those cost savings should be used to further improve the protection of human health and the environment from the damaging impacts of air pollution. This would mean aiming for a higher level of environmental ambition.

It is clear that analyses, such as that done for the TSAP and the NEC Directive, should be based on more environmentally sound energy and agriculture scenarios. This would not only result in more accurate cost estimates, but also in strategies that provide the double benefits of reducing local as well as European air pollution and related environmental problems, while at the same time reducing emissions of greenhouse gases.

The gravity of the current air pollution situation calls for a strategy that establishes a very high level of ambition. It cannot be acceptable that even in 2030 – some forty years after agreeing the 5th EAP – air pollution will still cause hundreds of thousands of premature deaths among EU citizens, and that millions of hectares of sensitive ecosystems will still be exposed to pollution in excess of their critical loads and levels.

Focus on compliance

During the last SEG meeting, DG Environment presented three main objectives for the review, the first one being "to ensure compliance with present air quality policies and coherence with the revised Gothenburg Protocol as soon as possible".

Once again, it is important to remind ourselves that existing EU legislation for air quality is currently far from sufficient to protect human health and the environment. This has again been highlighted by scientists and health institutions such as the WHO in the context of the review process. Therefore, the implementation of and compliance with existing legislation is a necessity, not an objective for future EU air policies.

Further, compliance with EU laws is an obligation on all EU Member States.. The role of the Commission, as guardian of the Treaty, is to ensure that these laws are respected and in particular to use its right of infringement action when Member States are not in compliance. This principle has particular relevance when it comes to EU air quality standards, breaches of which have direct adverse impacts on human health, but is also a general principle of EU law and a matter of credibility for the EU and its legal system and founding principles. The fact that too many Member States are continuously breaching EU air quality laws should not lead to any lowering of the ambition level of EU air policy.

Therefore, the focus on compliance should mean strict enforcement by the Commission and, in the context of the review, the rapid adoption of EU-wide source legislation in areas where EU policy is currently lacking and/or not delivering, for instance concerning emissions of agriculture, domestic heating, road and non-road machinery. However, when it comes to the general objective of the review, even in the medium-term, the focus should be and remain the attainment of the 6th EAP objective and compliance with the WHO guidance, not the EU limit values.

Flexibility

We are concerned by the Commission's emphasis on flexibility, which threatens to critically undermine the effectiveness of EU air policy. We acknowledge that there is inherent uncertainty in a policy framework which is based on the calculation and projection of

emissions of several pollutants from different sectors over a long period. It is therefore sensible to make provision for situations where unforeseen factors lead to substantial divergence from models. However, the solution is not to make the obligations on Member States more flexible. Clear and firm legally binding standards and objectives with clear deadlines for compliance are essential as they provide certainty for national and regional decision-makers, industry and citizens and drive reductions in emissions of pollution.

Clear and firm legal obligations should remain, with a focus on ensuring that governance and implementation arrangements are adequate to ensure that Member States are better able to meet them (see further below). Where, notwithstanding those arrangements, Member States are still unable to comply due to unforeseen circumstances beyond their control, then the Commission is under no obligation to take infringement action. On the contrary, it is well established that the Commission has absolute discretion on whether to take action against Member States. There is therefore already considerable flexibility when it comes to enforcement.

The aim of EU air policy is to reduce harm to the environment and human health. An undue focus on avoided non-compliance through introduction of flexibility risks losing sight of that objective and delaying progress. This is particularly dangerous given the Commission's stated intention of tightening air quality limit values only once the necessary progress has been made on tackling emissions.

We understand that the Commission is considering whether to replicate the flexibilities introduced by the Gothenburg Protocol in the NEC Directive, and whether to introduce further flexibilities, including joint implementation and compensation between different pollutants.

The flexibilities introduced in the revised Gothenburg Protocol are not necessarily appropriate for the NEC Directive. These flexibilities were agreed in part to accommodate countries from Eastern Europe and Central Asia. There is less need for flexibility within the EU context, as EU member states typically have more complete emission inventories and better emission projection capacity than new signatories to the Gothenburg Protocol. Another crucial distinction is that in the EU context, the Commission has the power to propose new EU-wide measures, such as stricter source legislation, where Member States are having difficulty achieving objectives.

We are particularly concerned by the flexibility mechanism which would, if replicated in the NEC Directive, allow Member States to adjust their emissions inventories or emission reduction obligations (EROs) under certain circumstances. This could create a serious loophole, with Member States essentially deciding for themselves what legal obligations applied to them. Even where strict conditions are laid down in the Commission proposal, there is a risk that these safeguards will be watered down in co-decision. Even if strict conditions are included in the final directive, the experience from the time extension provisions introduced by Directive 2008/50/EC is that ensuring compliance with such conditions takes up a great deal of the Commission's resources, and even then they are not always consistently applied, not least because the Commission is reliant on data provided by Member States, which is open to manipulation.

The introduction of any additional flexibility mechanisms such as joint implementation would be wholly unjustified, impractical and would critically undermine the effectiveness of EU air

policy. The health and environmental impacts of pollutants governed by the NEC Directive depend very much on which pollution is being addressed, and where it is being emitted. For these and other reasons, flexibility mechanisms such as joint implementation have been repeatedly assessed as unfeasible and overly complex.

Finally, it should be be recognised that the more flexibility that is introduced, the more complex the legal framework becomes and the harder it is for the public to understand it. EU citizens have the right to know if and to what extent their and other countries are complying with their obligations under EU law and if necessary, take action before national courts.

Governance

We welcome the Commission's stated intention of improving governance arrangements within the revised NEC Directive, which has the potential to reduce the likelihood of widespread compliance problems and therefore the need for flexibility.

In particular, the obligations relating to reporting and the preparation of national programmes need to be considerably strengthened so that there is an "early warning system" which identifies potential cases of non-compliance early and ensures that corrective measures are taken (at the national or EU level as appropriate) to avoid infringement.

National programmes under the NEC Directive must also be required to be coherent with plans prepared under article 23 of Directive 2008/50/EC (in particular the requirement that the exceedence of limit values be kept "as short as possible") and other plans and programmes prepared pursuant to relevant EU legislation e.g. industrial emissions, energy efficiency and renewables directives.

The revised NEC Directive must fully implement the Aarhus Convention, to guarantee full access to relevant information, public participation in the preparation and adjustment of national programmes and access to national courts where its provisions are breached.

Partnership Implementation Agreements

It is well established that the Commission enjoys absolute discretion as to whether to initiate infringement proceedings against Member States. Further, it has discretion as to the timetable by which those proceedings progress. Where infringement cases are brought, the Commission enters a constructive dialogue with Member States. We therefore do not see how the introduction of Partnership Implementation Agreements (PIAs) would improve the current situation.

On the contrary, there is a risk that PIAs undermine the credibility and effectiveness of EU air policy. Unless PIAs are strictly enforced and robustly negotiated, they would amount to nothing more than de facto time extensions. The use of a test of "best efforts" would be a departure from the well-established principle of EU law that limit values impose a strict duty to achieve, not merely a duty to take best efforts. PIAs would also risk frustrating national enforcement efforts (for example the mere suggestion that the Commission was considering PIAs was repeatedly raised by the UK Government in ClientEarth v SSEFRA).

At a minimum there would need to be complete transparency around the PIA and the process for agreeing and implementing it, including strict timelines for implementation of measures

and clear consequences for breach of the terms of PIAs. PIAs must be compliant with the Aarhus Convention, with full public participation in the formulation of plans which underpin them. Finally, PIAs would need to be agreed according to clearly defined, objective and consistently applied criteria to ensure equal treatment between Member States and ensure as far as possible that negotiations are not influenced by wider political considerations.

Strengthening EU Air Quality Standards

The Ambient Air Quality Directive is a key instrument for the protection of citizens' health and the environment, and EU air quality standards have been the major driver of action for cleaner air, especially at the local level. There are now many cities which are leading the way in taking measures to further reduce emissions.

We welcome reassurances from the Commissioner and DG Environment staff that there will be no weakening of the Directive. It is absolutely essential that the Commission takes a stand against any attempts to undermine this vital piece of EU legislation, which enshrines the right of EU citizens to clean air.

However, standing still on strengthening air quality standards is not acceptable, given that even reaching compliance with the current standards does not adequately protect human health.The WHO REVIHAAP scientists have highlighted that "there is a strong need to re-evaluate and lower at least the limit value stage 2 for $PM_{2.5}$" We would therefore welcome some indication from the Commission as to how it intends to respond to this recommendation. In addition, failing to tighten EU air quality standards puts the EU at serious risk of falling behind the US in health protection, as the US have recently aligned their $PM_{2.5}$ standard almost to the WHO guideline value.

In the last SEG meeting, the Commission stated that there no revision of Directive 2008/50/EC is planned for 2013. We urge the Commission to come forward with a timeline and a clear date for the revision, in order to bring the discussion on strengthening air quality standards back on the agenda.

Methane

Methane is both a powerful greenhouse gas and an ozone precursor. Reducing methane emissions therefore has simultaneous benefits for both climate change mitigation and human health. However, there is currently no direct regulation of methane emissions in the EU. Methane is specifically excluded from the NEC Directive and inadequately addressed in the Industrial Emissions Directive. It is only indirectly addressed through (often poorly implemented) directives on waste, landfill, biofuels and nitrates and through the Common Agricultural Policy.

The forthcoming revision of the NEC Directive is an opportunity to fill this regulatory gap, delivering significant benefits for human health, biodiversity and crops through reduced emissions of ozone precursors, with important co-benefits for climate change mitigation. These benefits can be achieved through the adoption of cost effective measures, some of which will also deliver reductions in ammonia emissions from the agriculture sector.

Inclusion of methane within the revised NEC Directive would also help to ensure that member states meet their current targets for 2020 under the Effort Sharing Decision and support more ambitious targets within the climate and energy framework for 2030.

Finally, the adoption of methane ceilings by the EU could pave the way for methane reductions outside Europe through future revisions of the Gothenburg Protocol.

Mercury

Mercury is a global pollutant which does not respect national nor regional boundaries and has severe adverse impacts on human health and the environment. The need to control emissions of mercury into the air has been highlighted in the 2005 Community Strategy on Mercury and more recently with the draft agreement of the Minamata Convention on Mercury, which is expected to be adopted in October 2013.

The main source of emissions of mercury in the EU is the burning of coal, but significant emissions also come from non ferrous metal industries, cement production and crematoriums. Other sources of mercury emissions include pig iron and steel, chlor-alkali production, oil refining and product waste. In 2010 the EU was responsible for 87.5 tonnes of mercury emissions in to the air, with around 50% being released from coal combustion plants[1].

Mercury is directly addressed through the Industrial Emissions Directive, but only with respect to waste incineration. No specific measures have been taken so far to regulate total mercury emissions into the air.

The forthcoming revision of the NEC Directive is an opportunity to fill this regulatory gap and provide a framework to reduce overall emissions of mercury into the air. It would complement action under the EU Mercury Strategy and would ensure that total mercury emissions actually decrease independent of future economic developments. It could deliver significant benefits for human health, ecosystems, wildlife populations and the environment.

These benefits can be achieved through the adoption of cost effective measures addressing the relevant sources.

Addressing mercury via the revision of the NECD would also provide further incentives to control mercury emissions from the most problematic sources such as Large Combustion Plants, for which environmental performance levels are currently being revised.

Finally, the adoption of mercury ceilings by the EU could pave the way for mercury reductions outside Europe and would contribute to the implementation of the newly adopted global mercury treaty.

EU source policy

It is essential that DG Environment proposes a comprehensive strategy to address emissions from sources which are particularly problematic because of their large emissions of harmful air pollutants. Addressing air pollution at source has from the outset been recognized as a

[1] UNEP Global Mercury Assessment 2013, p.11-12

priority in the review of the TSAP and many stakeholders have called for the EU to act in this field as a matter of the highest priority. Several important sources have been identified during the review, in particular where the EU legislative framework is inadequate, out of date or simply non-existent. Concrete solutions to address air pollution from these sectors are usually well documented.

We would therefore strongly encourage DG Environment to set ambitious target and to propose relevant strategies and regulations to address emissions from the agriculture sector (NH3, CH4, primary PM), domestic solid-fuel combustion (PM, VOCs), small industrial combustion plants (NOx, SO2, PM), road vehicles (NOx, PM), non-road mobile machinery (NOx, PM), international shipping (SO2, NOx, PM) and solvent use (VOCs) as part of the review.

For all these sectors, the EU has the means and legitimacy to regulate emissions, and in some cases the framework is already in place and is set to be reviewed or revised (e.g. the Industrial Emissions Directive). However, at the final SEG Meetingwe were surprised by the relatively low level of details, guarantees and commitments given on specific solutions to reduce pollution at source.

In addition, the scenario currently under consideration by DG Environment does not seem to recognize the possibility for further improvements in emissions controls for road and non-road vehicles. Scenarios for these two sectors seem to be completely 'frozen' at the current technology, i.e. Euro 6/VI for road vehicles and Stage IV for non-road machines.

Last but not least, we would strongly encourage the Commission to further explore ways to tackle emissions from international shipping, a growing source of air pollution in Europe, which, if left unregulated could alone exceed the emissions from land-based sources by 2020. In addition to coordinating the Member States' approach towards ECA development in Europe, the Commission could also explore the possibility of setting up EU-wide emissions standards or emissions charges.

Contacts:

EEB: Louise Duprez (louise.duprez@eeb.org)
T&E: Antoine Kedzierski (antoine.kedzierski@transportenvironment.org)
AirClim : Christer Ågren (christer.agren@airclim.org)
HEAL : Anne Stauffer (anne@env-health.org)
ClientEarth: Alan Andrews (aandrews@clientearth.org)