

Consultation on options for revision of the EU Thematic Strategy on Air Pollution and related policies

A EURELECTRIC position paper



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Revising the EU Thematic Strategy on Air Pollution (TSAP) – EURELECTRIC Key Messages

The European Commission is reviewing the EU's air policy and will present its results by the end of 2013. These changes are likely to affect the power sector. EURELECTRIC therefore urges European policymakers to consider the following:

1. The current legislative framework is adequate to reduce emissions from the power sector further by 2020. Changes to 2020 emission limits at this late stage risks undermining the significant investments already underway.

Investments in the power sector are already geared towards lowering emissions by 2020, as required by existing legislation (e.g. Industrial Emissions Directive, Gothenburg Protocol). Changes to 2020 limits at this late stage would undermine these investments. Instead, the review of EU air policy should focus on providing a long-term framework of priorities and targets for 2030, thereby reducing the risk of stranded assets.

2. EU air quality policy for 2030 must be consistent with EU energy, climate, resource-efficiency and transport policy.

Air quality and climate change policies should be developed and assessed together to identify possible interlinking effects. Some air quality measures might support and reinforce other EU policy aims: for instance lowering emissions may have positive effects on both health and climate change. However, other air quality measures may be in conflict with energy, climate, resource-efficiency or transport policy aims. Policymakers should take care to not only focus on 'win-win' policies at the cost of a balanced policy approach.

We oppose the possible move towards maximum technical feasible reduction (MTFR), which does not take into consideration economic feasibility. This approach would deter cost-efficient investments and increase the costs of implementing effective air quality policy.

3. Air quality can be improved by electrification of society, including transport and space heating/cooling

Urban air quality is mainly driven by emissions from transport, households and trade/commerce/services. Electricity can play a major role in decarbonising and depolluting these sectors. In transport and residential heating/cooling, electricity is the way forward: it reduces CO₂ emissions, saves energy, improves air quality, and reduces noise. The current regulatory framework must stop discriminating against the use of electricity in these areas.

Section 2/6: Ensuring compliance with EU air quality requirements and coherence with international commitments in the short term

Question 2: Please feel free to provide written comments on the course of action to ensure compliance with the current air quality legislation

The electricity sector has significantly reduced its own emissions over the years. Between 1980 and 2009 emissions of SO₂ and NO_x were reduced in the EU-27 by around 80% and 57% respectively, while electricity demand grew by 75%. The implementation of the EU environmental legislation and the move to a decarbonised power sector will lead to a further decline in emissions from the power sector. Furthermore the decoupling of electricity generation and emissions means that the emissions per unit of electricity generated will decline steadily, driven by the ongoing implementation of Directive 2010/75/EU on Industrial Emissions (IED) and the corresponding periodic revisions of the sector-relevant Best Available Techniques Reference Documents (BREF).

2020 is too close to enable realistic responses from industry to any change in environmental ambition. It is recommended that the review of the TSAP focuses on the setting of ambition levels for 2030 (see question 6).

Sub-section 3.1.: Ensuring coherence between air pollution and climate change policies

Question 5: Please feel free to provide written comments on the interaction between air pollution and climate change policies

It is crucial that developments in EU Air Quality policy are assessed in a framework which is consistent with EU energy, climate, resource-efficiency and transport policy development, and that they work with, and not against, the process of moving to a low-carbon electricity sector. As the Commission's work programme foresees a new climate and energy framework for the 2030 time horizon, it would be consistent to adopt the same time horizon for the air quality policy. EU Air Quality policy should aim at maximising the synergies between air quality policies and the new climate and energy framework for 2030. For large combustion plants, there is a readily available and cost efficient emission reduction framework in place including the recently established IED and the corresponding BREF process. For these plants, it is not needed to set out additional measures to reduce air pollutant emissions under the framework of the revised strategy.

The development and assessment of air quality and climate change policies should be integrated to identify the interlinking of effects, e.g. the health and climate change impacts of particulates. While it is clearly important to identify co-benefits (such as those arising from a reduction in black carbon emissions) it is also important that areas where there are conflicts – for example the role of SO₂ emission reductions in

increasing radiative forcing – are also assessed and that the focus is not solely on ‘win-win’ policies at the cost of balance. Another example is related to the application of CCS technology to coal fired power plants by which abating CO₂ emissions results in increasing air pollutants emissions as a consequence of reduced energy efficiency of the plant. In this case harmonization of air quality/climate regulation is essential in order to avoid resolving the inconsistency merely passing the additional compliance cost to the operators.

Co-benefits arguments for air quality and climate change measures are principally financial arguments making the case that the cost of air quality policy measures are less than would be otherwise expected due to actions taken for climate change reasons and vice versa. To ensure that costs (and benefits) are fully accounted for, it is essential that clear accounting for costs of measures across all relevant policy areas is undertaken in a manner which allows the overall cost to be assessed in a consistent manner. It is the total cost to business that matters (not which policy area the cost is allocated to).

Electrification of heating/cooling and transport can make a positive contribution to the improvement of air quality and health, in particular in urban areas, as electricity has no emissions at the point of use. The EU electricity sector is strongly committed to reducing carbon emissions and meeting the EU's climate targets for 2020 and its 2050 climate vision. We are also convinced that electricity will have to play a much greater role than now to contribute to the decarbonisation of transport and heating/cooling. This is confirmed by the Commission's Energy Roadmap 2050 and the European Environment Agency. Electricity brings wider benefits in helping the shift towards sustainable transport and residential sectors: it can not only help to decarbonise others sectors, it can also help to de-pollute them. In the short-term, a shift towards electric heating of space and water is already possible. In the medium to longer term, electrification of surface transport would bring additional benefits and help meet the ambitious objectives of the Transport White Paper (2011) while maintaining and supporting economic activity.

Sub-section 3.2.b.: Strategic approach and target year of future air pollution

Question 8: Please feel free to provide comments on the level of ambition

The target year for the revised TSAP should be 2030.

It is very difficult to assess the level of ambition for the 2030 horizon. While we agree that efforts have to be pursued to improve air quality and health in Europe in particular in urban areas/hot spots, the options proposed to make additional progress are loaded with uncertainties as they include no quantitative information. The option “No change: only the level of protection delivered by current legislation” is unclear as the current legislative framework is a dynamic one and the exact contribution of, for instance, the IED/BREF process is not yet known. The implementation of the new IED has just started and the new requirements for existing installations will gradually come into force over the transitional period from

2016 – 2023. The revision of the BREF for Large Combustion Plants (LCP) is well underway and there might be yet another revision process before the year 2030. If we additionally consider the anticipated impacts of existing and forthcoming energy, efficiency and climate policies on activity rates and fuel use associated with conventional electricity generation, it becomes clear that for large combustion plants there should be no need for further additional measures to reduce air pollutant emissions at source.

Similarly, as the level of ambition of the climate and energy framework for 2030 is unknown, so is its associated impact on air quality. At a minimum, it would have been useful to present the final IIASA scenarios/assessments to help form answers. For the same reasons, ranking in question 11 is also difficult as ambition levels are unknown. Besides we cannot subscribe to any option that would consider Maximum Technical Feasible Reduction (MTFR) as a viable option as economic feasibility must be taken into consideration.

The level of ambition needs to be informed by a robust assessment of uncertainties. A sufficiently broad range of baseline scenarios must be assessed as input to the EU review of Air Policy. Furthermore, while policy baselines for air quality legislation should be based on full implementation of climate change policies, the potential for policy failure should be recognised in modelling scenarios to avoid the risk of setting unattainable air quality targets. We consider that 'high emission' and 'RES/GHG policy failure' scenarios are essential as an input to the policy development process. Without consideration of these scenarios which lead to higher emissions in future years, the risk of non-compliance with emission ceilings is increased for Member States.

In view of the dominant role of health effects in impact assessments we urge that time is given to the assessment of policy consequences of uncertainties in this area. As the standards for particulate matter (PM) move to lower concentrations it is essential to understand which fractions of PM are responsible for the reported health effects and which sectors contribute which amount to the releases of the different fractions of PM.

Sub-section 3.3.: Setting priorities

Question 10: Please feel free to provide comments on setting priorities

The priority should be to improve air quality in hot spots and this requires a different approach than the one followed so far. EU policy should move away from achievement of Maximum Technical Feasible Reduction (MTFR) as a goal in itself as what matters is the impact of emissions on health and the environment. Achievement of air quality concentrations is the appropriate goal.

The relative priority to be given to human health and environmental improvements is ultimately a decision for policy makers, informed by the best available scientific evidence. It may be noted that there exist a wide range of potential interventions to improve human health and life expectancy, and that many of the most cost-effective

of these lie outside the scope of the current review of the TSAP. In contrast it may be considered that the Ambient Air Quality Directive (AAQD) and National Emission Ceilings Directive (NECD) represent the most appropriate legislative instruments to improve the health of the natural environment. Furthermore, these Directives ensure amelioration with several positive side-effects and co-benefits to human health.

Sub-section 3.4.: Choice of policy instruments

Question 12: Which other instruments should be used

The joint implementation of the Gothenburg Protocol not only within the European Union but also in a number of emission-relevant EU neighbouring countries will ensure that long-range transboundary air pollution impacting EU territory will steadily decrease. This international convention will therefore significantly contribute to reach the objectives set by the proposed thematic strategy.

Sub-section 4.1.b.: Aligning with latest scientific and technical knowledge (black carbon)

Question 16: Should any other components matter be addressed in the AAQD?

We agree that the reduction of black carbon emissions would benefit both the air quality and climate change policies. However, power plants subject to the IED regime are a very small contributor to total black carbon emissions, and existing particulate control methods are also effective in abating black carbon emissions. More research is needed to gather scientifically sound data on black carbon emissions by sectors and suitable correlations with other air pollutant emissions or process parameters, starting with agreed methodologies and inventory work at member state level (analogous to PM 2.5). At this stage, there should be no additional measurement or reporting obligations at site-level required.

Due to the currently limited knowledge and data on black carbon emissions, it would be premature to adopt binding national emission ceilings or targets for black carbon under the current revision of the NECD and the TSAP.

Sub-section 4.2.a.: Management framework

Question 18: Should any limit values be removed from the AAQD? If so which?

In our view, the discussion should not focus on the removal of any limit values from the AAQD but rather on the experience and development since the last review, which

show that it would be preferable to turn some of these limit values into target values for 2030.

Sub-section 4.2.b.: Management framework

Question 19: Should any *other* monitoring and reporting obligations be reduced in the AAQF? If so, which?

Concerning SO₂ we suggest that monitoring and reporting obligations under the AAQD regime could be reduced because of the fact, that the energy sector has significantly reduced these emissions by extensive measures in the last decades. There do exist efficient abatement technologies and emission monitoring requirements, with the consequence that this component has become less relevant in the field of air quality assessment compared to NO₂ and PM.

Sub-section 4.2.c.: Management framework

Question 22: Please feel free to provide comments on the options for the revision of the AAQ Directive.

Future Air Policy should aim to identify the most cost-effective measures to reduce the more relevant components of PM, rather than total PM concentrations. Treating all PM components as equally harmful reduces the effectiveness of emission reduction policies and may result in costly emission abatement measures being installed which have little or no benefit to health. It is recognized that reducing emissions from the top of tall stacks is less effective in reducing population exposure than the same emission reduction made at ground level. The ambient air quality is more likely to depend on the influences of sectors like agriculture, traffic and domestic combustion. The sensitivity of policy-relevant conclusions to the assumption that secondary inorganic aerosols are of lower toxicity should be examined as part of the analysis informing the TSAP review.

Sub-section 5.1.: Aligning with latest scientific and technical knowledge

Question 24: Should national emissions ceilings be introduced for other new pollutants? (Please provide written comments if you would like to propose ceilings for other pollutants)

We agree that the reduction of black carbon emissions would benefit both the air quality and climate change policies. Power plant are a very small contributor to total black carbon emissions, and existing particulate control methods are also effective in abating black carbon emissions. Besides information on black carbon emissions (no common methodology to monitor emissions and data on emissions as such) are still

insufficient. Significantly more research is needed before the discussion on setting scientifically-sound and fact-based national emissions ceiling for black carbon/elemental carbon could start.

We support the alignment of the Gothenburg Protocol and the revised NECD in terms of the pollutants for which national ceilings are defined. Nevertheless, the inclusion of further ceilings would lead to significant complexity in assessment of cost-effective measures, without any clear benefit.

Sub-section 5.2.b.: Management framework

Question 27: Please feel free to provide comments on the options for the revision of the NEC Directive

The new updated Gothenburg Protocol is in the process of being ratified. The new ceilings reflect the best available information at member state level on anticipated emission trends and sectoral developments up to 2020. The Gothenburg Protocol emission reductions in 2020 will require significant investments to deliver, which are currently being planned. A new NECD will probably not enter into force before 2016. Changes to 2020 limits at this late stage would undermine these investments and the benefits they provide. 2020 NEC ceilings should therefore only match the recently-agreed 2020 ceilings and directly implement the emission reduction commitments under the Gothenburg Protocol for EU member States.

It is strongly urged that to the greatest extent possible the assumptions used in the NECD and the Gothenburg Protocol revisions are made identical. The use of emission reduction commitments (relative ceilings) does introduce potential risks for emitting sectors (if baseline emissions change, will sector limits also change?) and clarity on this should be provided. The NECD management framework should enable the use of all flexibility mechanisms recently introduced into the Gothenburg Protocol. Member states should be allowed to demonstrate compliance on the basis of multi-year-averages and to adjust emission ceilings and emission inventories under pre-defined specific circumstances and after approval by the Commission.

The 2012 revision of the Gothenburg Protocol established new emission ceilings for the year 2020 based on a top-down-approach considering existing policies and availability cost efficient abatement technologies. When aiming at setting new emission ceilings for post 2020, the impact of full IED implementation, on-going BREF revision and existing climate, energy and efficiency policies on emissions from large combustion plants must be considered. However, only cost efficient best available technologies should be applied when assessing the potential contribution of LCPs to achieve the targets of the revised strategy. The application of the so-called concept of the maximum technically feasible reduction (MTFR), which would be the outcome of applying every pollution control measure available in the market, irrespective of cost, would be contradictory and even counterproductive for activities subject to the BREF process established by the IED.

We do support the introduction of flexibility mechanisms and with a 2030 timeframe in mind, mandatory interim targets in 2025 could be counterproductive.

Sub-section 6.1.: Road transport

Question 29: Please feel free to comment on your answers regarding regulation of road transport emissions

The EU electricity industry has reduced its emissions of air pollutants significantly over the last 20-30 years and emissions are expected to decline as a consequence of the move to a decarbonised sector (see question 2). As a consequence of this, the challenging issue for air quality policy has become to improve urban air quality, principally driven by the emissions of transport, household emissions and trade/commerce/services. It is recognised that the full benefits of the decarbonisation of electricity supply for society will only be realised with electrification of transport and heating of homes. The electrification process will clearly by itself contribute to the improvement of urban air quality.

Sub-section 6.2.: Off-road transport and non-road machinery

Question 31: Please feel free to comment on your answers regarding regulation of emissions from off-road transport and non-road machinery

The EU electricity industry has reduced its emissions of air pollutants significantly over the last 20-30 years and emissions are expected to decline as a consequence of the move to a decarbonised sector (see question 2). Other sectors where cost-effective measures are identified should contribute to the improvement of air quality.

Sub-section 6.3.: Agricultural sector

Question 33: Please feel free to comment on your answers regarding regulation of emissions from the agricultural sector

The EU electricity industry has reduced its emissions of air pollutants significantly over the last 20-30 years and emissions are expected to decline as a consequence of the move to a decarbonised sector (see question 2). Other sectors where cost-effective measures are identified should contribute to the improvement of air quality.

Sub-section 6.4.: Small/medium combustion sector

Question 35: Please feel free to comment on your answers regarding regulation of emissions from the small/medium combustion sector

1. Installations above the eco-design threshold and below 50MW

The inclusion of combustion installations above the eco-design threshold and below 50MW into an EU permitting regime (e.g.: “full IED”) would lead to an unmanageable administrative burden for small plants, both for competent authorities and operators. In this context, the excessive administrative burden of a full IED regime associated with public participation in the permitting process, soil and groundwater status report, mandatory inspections and other reporting obligations is of particular relevance and should be avoided for Small Combustion Plants (SCP).

However, if emission reductions from SCPs are economically and environmentally justifiable, then all SCPs below 50 MW could be regulated through specific standards, outside the IED directive regime. It should be noted that the absolute majority of small combustion plants in the electricity industry are already covered by national legislation. EURELECTRIC has commented separately on the AMEC’s reporting on options to control emissions from Small Combustion Plants. We would like to draw attention in particular on the following requirements and derogations of the IED which have to be considered when assessing cost and benefits of the inclusion of SCP under the IED regime for the different capacity classes:

- The aggregation rules under the common stack-approach (Art. 29): many small SCP are made up of smaller combustion units. When assessing different classes and abatement options the impact of the aggregation rules on case numbers, number of stacks, and the presence of different aggregate types that make up the common plant, need to be considered.
- The minimum desulphurization rate derogation (Art. 31) for combustion installations using domestic solid fuels.
- In addition, due consideration must be given to combustion installations with short operating time in nuclear power plants:
 - o Emergency installations: their only function is to guarantee the power supply for cooling of the reactor core in case of loss of external electricity supply. Normally, they are stand-by equipment with a total capacity that could exceed 20 MWth, but in general they work one at a time and for only short periods.
 - o Auxiliary boilers: they only operate at full capacity for two-three weeks a year during plant maintenance outage or start-up, whereas for the rest of the time they are either in stand-by or in shutdown situation.

Permits issued by national Nuclear Regulatory authorities demand periodic tests and set out the operational criteria for this plant. If an IED permit is also required, it could create conflicts between the needs of operation due to nuclear security and the fulfilment of the emissions requirements of the permit. It would also be appropriate to take into consideration not only the power capacity, but also the operating time.

2. Installations falling in the scope of the Eco design Directive

Regarding the small combustion installations falling in the scope of eco-design, we would like to draw attention on the roll-out of the Eco design Directive as it impacts on devices powered by electricity. The use of an old coefficient favours direct-use of fossil fuels instead of electric technologies. This artificial reduction of the efficiency of electrical appliances compared to other appliances stands in the way of electrification of heating for instance which is detrimental to both decarbonisation and the improvement of air quality.

Sub-section 6.5.: Shipping sector

Question 37: Please feel free to comment on your answers regarding regulation of emissions from the shipping sector

The long-range effects of air pollution emissions demonstrate the necessity of equal emissions and air quality standards across EU Member States and in relevant EU neighbouring countries. The important role of emissions reductions from international shipping in protecting human health and the environment within the EU needs to be further addressed in international policy measures.

Final comments

Question 38: Please feel free to provide any further comments related to the revision of the Thematic Strategy on Air Pollution

The long-range effects of air pollution emissions demonstrate the necessity of equal emissions and air quality standards across EU Member States. The important role of emissions reductions from third countries in protecting human health and the environment within the EU needs to be further addressed in international policy measures. Besides this, the quantitative contribution of non-EU emissions or natural phenomenon (airborne particles from Sahara to Southern European countries) to ambient background concentrations must be better taken into account when setting air quality standards at a local/regional level.

Significant investments in the power generation infrastructure will be required in order to deliver climate and energy goals. There is evidence that the economic climate and policy uncertainty are now slowing down decision-making and delaying new projects. The current EU review of Air Policy is one such source of uncertainty and it is strongly desired that the outcome of the TSAP review will be a clear and

stable legislative regime, fully aligned with the decarbonisation drivers and goals for the sector.

Commissioner Potočník has identified that 'for industry we have a solid legal framework in place – the Industrial Emissions Directive'. Linked to this is the current revision of the LCP BREF which will set out the reference for BAT in the period following the publication of the BAT conclusions. The tightened requirements put in place by the IED will require significant choices by operators whether to make substantial investments in further emission abatement equipment, or to limit the operation of power plant. It is this combination of the IED and the LCP BREF revision which forms the appropriate sector-level controls on air pollutants for the electricity generation sector.



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