

Defra Consultation on Environmental Targets

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Would you like your response to be confidential: No

Who are we: Environmental Protection UK is a national charity that provides expert policy analysis and information on air quality, land quality and noise. Our members are environmental experts, who, as practitioners, investigators, or advisors, have considerable experience of the practical side of environmental protection. They include local authorities, environmental agencies, industries, consultants, and private individuals.

Response:

Air Quality

There is widespread public and political support for tackling air pollution and the severe mortality and morbidity it causes. The target now proposed by the Government does not measure up to the scale of the problem or to the level of public concern. In effect it implies business as usual, and no serious attempt by the Government to use the air quality challenge to motivate and accelerate the transition to cleaner vehicles, cleaner domestic heating, and cleaner industrial and agricultural processes.

Q.45 Do you agree or disagree with the level of ambition proposed for a PM_{2.5} concentration target? Proposed target is 10 micrograms per cubic metre ($\mu\text{g m}^{-3}$) to be met across England by 2040.

Disagree

We support a target of 10 $\mu\text{g}/\text{m}^3$, and believe that this could, and should, be achieved by 2030. This would be widely supported having regard both to the public health benefits of a more ambitious target, and to the related carbon reduction and climate change benefit that could be achieved.

Further targets should be set to bring levels of PM_{2.5} down to 5 $\mu\text{g}/\text{m}^3$ as soon as reasonably practicable after 2030. This is in line with the latest World Health Organisation (WHO) Air Quality Guidelines.

A target for the 24-hourly mean concentration of PM_{2.5} should also be set and be guided by the 2021 WHO Air Quality Guidelines.

Reducing PM_{2.5} levels should not be the only objective of air quality policy and the only one for which more stringent target levels should be set. The WHO guidelines should also be used to influence new, and more ambitious, targets for PM₁₀, nitrogen dioxide, and ozone. Guidance should be issued for measuring and managing concentrations of black carbon and ultra-fine particulates.

We would question the need for the proposal that, if three out of the four previous years are met, then the target is assumed to have been met. This seems unnecessarily lenient, and there are other approaches that can be taken to account for unusual meteorological events or contributions from natural sources, both of which can still cause health impacts.

The target needs to be non-regressive and reviewed at least every 5 years to reflect the latest health advice and research. Targets should also have regard to those set by the European Union, to ensure that air quality and air quality objectives in the UK do not fall behind standards of air quality in the EU.

What reasons can you provide for why the government should consider a different level of ambition?

The detailed evidence report states that the Secretary of State must be satisfied that the targets are achievable and that actions taken to deliver them are proportionate. In March 2022, The Clean Air Fund published a report: The Pathway to Healthy Air in the UK, Imperial College London. The report states that by 2030 most of the UK will comply with $10 \mu\text{g}/\text{m}^3$, if policies that are already planned are implemented. It goes on to state that this achievement of $10 \mu\text{g}/\text{m}^3$ by 2030 can be done at virtually no additional cost. Achieving $10 \mu\text{g}/\text{m}^3$ by 2030 should therefore be very achievable and would bring about significant public health benefits more quickly.

The CAF report details various positive health impacts of achieving the $10 \mu\text{g}/\text{m}^3$ target by 2030. This includes 98,000 life years gained, 3,600 fewer respiratory hospital admissions per year and a reduction in the number of symptom days in asthmatic children of 388,000 per year.

The report also states that the monetary value for the life years gained and reduced disease, assuming $10 \mu\text{g}/\text{m}^3$ is maintained, is over £380 billion.

The Committee on the Medical Effects of Air Pollutants published a statement in January 2022 in strong support of a reduction in $\text{PM}_{2.5}$ to $5 \mu\text{g}/\text{m}^3$ with $10 \mu\text{g}/\text{m}^3$ being set as an interim target.

In October 2019, the Mayor of London published a report: Roadmap to meeting World Health Organization guidelines by 2030. This report concluded that with additional powers and measures, that London can meet this target. The disparity between the Mayor's report and the Government's analysis is unclear and needs an explanation as to the differing assumptions and levels of ambition.

Additional targets and guidance should be set for other pollutants to maximise health benefits.

The detailed evidence reports states that emissions data post 2030 was only available for transport and energy sectors so other sectors were maintained at a 2030 level. This appears overly conservative and assumes no ongoing

improvement. It ignores the scope for technological advancement, for example, to reduce tyre and brake wear.

Figure 33 in the evidence report shows the matrix of feasibility of different scenarios. It demonstrates that $11 \mu\text{g}/\text{m}^3$ is likely to be achievable by 2030 based on the 'High' (government preferred) scenario. It is unfortunate that the years in between 2030 and 2040 have not been modelled to see when $10 \mu\text{g}/\text{m}^3$ would be met under this scenario. It is also unfortunate that the report does not contain any detail on the policy measures proposed to enable us to assess the assumptions made.

The matrix referred to above labels specific concentration levels as being 'unlikely', 'possible' and 'likely' to be achieved. No information has been provided on the degree of uncertainty.

We would also question why the NECR scenario isn't baseline as it demonstrates compliance with the UK's international commitments to reduce emissions of air pollutants. Compliance with the NECR forms part of the UK's international commitments to reduce emissions of air pollutants under the Gothenburg Protocol. It should therefore be assumed that this emission reduction will be delivered as a minimum.

Only a reduction in primary PM_{2.5} emissions as part of the NECR obligations has been assumed in other scenarios. Compliance with NECR will also result in a reduction of secondary PM_{2.5} brought on by a reduction in other pollutants.

The results show that meeting all the NECR commitments alone would result in PM_{2.5} concentrations in 2030 that are better than that delivered by the 'High' scenario, which is the government's preferred option. The evidence report outlines that, with NECR compliance, $10 \mu\text{g}/\text{m}^3$ would 'possibly' be met by 2030. This further supports the case for setting a $10 \mu\text{g}/\text{m}^3$ target by 2030.

Q.46 Do you agree or disagree with the level of ambition proposed for a population exposure reduction target? Proposed target is a 35% reduction in population exposure by 2040 (compared to a base year of 2018).

Ambitious interim targets are recommended to check progress with the overall target. The detailed evidence report states that a population exposure reduction target needs to be set for at least 15 years in the future. Whilst we understand the reasons for this, an interim target for 2030 is recommended to ensure ongoing improvement.

The target needs to be non-regressive and reviewed at least every 5 years to reflect latest the health advice and research. Targets should also have regard to those set by the European Union.

What reasons can you provide for why the government should consider a different level of ambition?

An ambitious exposure reduction target should be set as reducing the exposure of the whole population to particulate matter PM2.5 is assumed to achieve the greatest overall public health benefit.