

Air Pollution (Monitoring and Control) Bill FAQs

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Q: What is the Air Pollution (Monitoring and Control) Bill?

A: The [Air Pollution \(Monitoring and Control\) Bill](#) is draft legislation, written by Environmental Defense Fund Europe, that sets out an ambitious but achievable directive to reduce and then eliminate air pollution from man-made, controllable sources as soon as reasonably practicable, and no later than 2030. The Bill would put in place a framework that allows England to achieve this target, which is in line with climate change commitments to eradicate greenhouse gas pollution by 2050, and would have substantial public health benefits.

Q: What does the Bill require?

A: The Government must prioritise health outcomes, and strategically reduce and eliminate emissions from controllable sources of pollution as quickly as possible – by 2030 at the latest. The Bill contains several elements to put in place a robust process for current and future governments to lower air pollution and protect people’s health including:

The Bill introduces the following duties to:

- install a more comprehensive air quality monitoring network across the country;
- maintain a register of all pollutants and, importantly, the controllable activities that are causing them and available clean technologies that can replace them;
- obtain advice from an independent advisory body;
- set legally binding targets to eliminate controllable sources – starting where there is most exposure to harm;
- introduce policies to meet targets;
- publish monitoring data in publicly accessible ways, including warning of poor air episodes; and
- report to Parliament regularly on progress against key targets and indicators.

Q: What does the phrase “controllable sources” mean and how can they be identified?

A: By and large controllable sources are synonymous with man-made sources of emissions. This means sources such as power plants, factories, boilers, wood burning stoves, mobile and stationary machinery, building sites and, importantly, transport. Inventories of activities in a given area and improved monitoring and analysis techniques can provide a more accurate picture of the sources of air pollution and their relative contribution to the problem.

Q: Isn’t 2030 very ambitious? Is it feasible?

A: 2030 is ambitious, but it is also feasible – and necessary. Technologies already exist today that can be deployed quickly to substantially cut harmful emissions. And where technology does not yet exist, we need to incentivise innovators to bring them to market. If Government is given a new duty to introduce meaningful changes in policy and to direct its efforts towards action where most harm is being done, it will be possible

to eliminate controllable emissions by 2030, as well as meet World Health Organisation (WHO) targets for particulate matter by the same date.

The urgent twin challenges of poor air quality and climate change require our cities to be 100% clean as soon as possible. The clean electricity sector – for which costs have quickly fallen – shows what can be achieved with a clear policy framework that unlocks investment commitments.

Q: Why is now the right time for the Bill?

A: Domestic clean air legislation has not been updated for 25 years. With the UK's impending exit from the European Union (EU), we now have a critical opportunity to ensure we both enhance efforts to protect the air that we breathe and reduce the risks of climate change.

The national Clean Air Strategy acknowledges that poor air quality remains one of the most persistent problems across the country, with some of the highest levels of air pollution in Europe.

The negative impacts of air pollution are not evenly felt – vulnerable populations, including those that live near significant sources of harmful emissions (such as road transport and rail), older people and children bear a higher proportion of the impact. Rather than stopping at meeting World Health Organisation (WHO) guidelines, the Government must protect the health of all its citizens more broadly, with a particular focus on vulnerable populations.

To that end, the Bill sets out an ambitious but achievable directive to eliminate controllable emissions as soon as reasonably practicable, and no later than 2030.

Q: Are the costs of the Bill worth the benefits?

A: Yes. The necessary monitors to help us target action and track progress can be installed for under approximately £20 million – a drop in the ocean for a trillion pound economy.

It is also important to consider the societal benefits inherent in measures that clean the air. The UK government estimates that the annual health costs associated with poor air quality exceed 8-20 billion pounds. That's because breathing in air pollution can increase the risk of or has been linked to a variety of severe health impacts such as:

- lung cancer,
- respiratory disease, like asthma,

- cardiovascular disease,
- heart attacks,
- strokes,
- premature death,
- premature birth, and
- diabetes.

Therefore reducing air pollution can have significant positive impacts on public health. For example, over 18 years, a 1 microgram/cubic meter reduction in PM2.5 can prevent 50,900 cases of coronary heart disease, 16,500 strokes, 9,300 cases of asthma, and 4,200 lung cancers. The same reduction would also avoid 1.4 billion pounds in healthcare costs.

Eliminating sources of pollution will not only help to prevent the severe health impacts described above, but can avoid many needless deaths. According to a recent [European Environmental Agency report](#), premature deaths from pollutants – like PM2.5, NO2, and O3 – number in the thousands.

Lowering pollution can also result in fewer missed work days, improving economic productivity.

In addition, the cost of clean alternatives (like clean vehicles and non-combustion heating systems and generators) are falling and will continue to fall as demand and deployment grows. For example, Bloomberg New Energy Finance [predicts](#) that electric vehicles will be cost-competitive with internal combustion engine vehicles by the mid 2020s, due to decreasing battery costs.

It is important additionally to remember that a transition to clean technologies need not come at the expense of a robust economy. For example, California simultaneously boasts some of the strictest environmental regulations in the United States, while also being the [6th largest economy](#) in the world.

Q: What clean alternative technologies are available to us now?

A: Clean technologies are those that can replace traditional, polluting sources. The Bill requires creating a register for clean technologies that are available today, like zero emission vehicles, renewable sources of energy and electric heating. The Government has already committed to banning the sale of combustion engine powered vehicles by 2040 and many people are calling for this date to be brought forward.

If clean replacement technologies and solutions do not yet exist, the Bill will make it apparent by introducing a national register for all sources of air pollution and clean

available alternatives. Where no alternatives exist, the Government will need to act to ensure they are brought to market in the timescales of the legislation. This will apply for some sources of pollution that currently arise from all forms of transport, including tyre and brake wear.

The Bill is not about banning particular activities, but making sure they are no longer harmful.

Q: How can we support poorer communities that may not be able to afford the switch to new technologies?

A: Some clean technologies currently have higher upfront costs, such as electric vehicles, and are not within reach for many lower income households and small businesses. The Government therefore needs to identify policies that can close the price gap between clean and polluting alternatives – using such measures as upfront rebates and zero interest loans, as well as ensuring supply of clean technology is equal to demand as a means to grow the market and drive down costs. Eliminating emissions must include the right protections for those least able to pay.

Q: Why are current regulations insufficient?

A: Under current directives, the UK Government has no duties beyond requiring monitoring and the achievement of standards for individual pollutants set by the EU. Policy measures to comply with these standards are left up to Member States. Unfortunately, these standards are [consistently breached in the UK](#), which continues to suffer from harmful levels of air pollution. A new, more effective and targeted approach to air quality management is needed, with more stringent requirements and new duties to act.

Q: How do the new targets in the Bill interact with WHO limits?

A: The WHO guidelines are the most protective available and set limit values on many pollutants, effectively encompassing both controllable and uncontrollable sources. They have been developed by public health experts, based on substantial research, to help the UK and other governments to protect human health. See more at [WHO Air Quality Guidelines](#).

While these values are important guides to harmful levels of pollution exposure, the WHO limits do not cover all sources and cannot adequately address the fact that people have different vulnerability levels.

By focusing on controllable sources of pollution, the Bill creates a more reliable and verifiable way of requiring Government to focus on significantly reducing and ultimately eliminating harmful emissions, which will help meet WHO limits.

Q: Who will have primary responsibility for carrying out the key priorities in the Bill?

A: Many pollution sources cannot reasonably be addressed at a local or city level without a clear strategy and policy framework at a National level. Therefore, the National Government will have primary responsibility for implementation of the duties in the Bill. Based on independent advice, the Secretary of State must provide to Parliament a yearly report on progress starting in 2021.

Q: Is it necessary to have more air quality monitoring?

A: Yes. Air pollution can vary significantly over time and space. The UK's current network of reference sensors are used to model compliance with legal limits, but heavily relying on modelling can miss local hot spots. More extensive monitoring can help improve our understanding of the pollution problem and what is causing it. Placement of monitors and publication of the data can help engage people on the issue and build support for comprehensive solutions.

The Bill envisions at least a "pod in every postcode" – an air monitor in every postcode district across the country (up to 3,000), with additional special emphasis on urban schools and hospitals and other vulnerable communities. Those that are known or strongly suspected to suffer from heightened air pollution or are more susceptible to its impacts include the elderly, children or people with existing respiratory conditions.

Q: How does the Bill empower citizens?

A: The Bill requires dissemination of monitoring data to the public in a format that is readily available and understandable by the average citizen. The framework also requires alerts to be issued when smog incidents are forecast.

Impacted communities would be armed with more information to better protect themselves and push for action by local and national government. Policies that enable short-term interventions to reduce and stop polluting activities during periods of predicted poor air can also be implemented.

Q: What does the Bill require with regard to independent expert advice?

A: The Bill requires the Secretary of State receive expert advice from independent advisors, which would be given without bias and in a way that allows for the setting of interim targets that achieve the overall objective. Independent advisors need to have experience in environmental health, epidemiology and other relevant disciplines to give advice without regard to political consideration. This could be accomplished through a newly formed, separate body or by giving new powers to an existing independent body established by legal statute.

Q: What happens if the Secretary of State does not follow the advice of the independent body?

A: If the Secretary of State chooses to deviate from the advice of the independent advisors, they must give a clear rationale for that deviation in the annual report to parliament established in the Bill, in which the Secretary of State details progress made towards interim targets and the overall objective.

Q: What happens if the UK stays in the EU?

A: Although the UK will still be tied to the stringency of EU law, the Government can go beyond the dictates in EU mandates. In order to reflect the dire air quality challenges in the UK, the Government should strive for more than the EU status quo and become a world leader in clean air action.

Q: What are the primary sources of air pollution in the UK that the Bill would aim to control?

A: Sources of harmful pollutants are explicated in the 2019 Clean Air Strategy published by Defra. Primary pollutants and their sources are as follows:

- *PM2.5*
 - o Domestic wood and coal burning (38%)
 - o Industrial combustion (16%)
 - o Road transport (12%)
 - o Use of solvents and industrial processes (13%)

- *Ammonia*
 - o Agriculture (88%)

- *Nitrogen oxides*
 - Road transport (34%)
 - Energy generation (22%)
 - Domestic and industrial combustion (19%)
 - Other transport (including rail and shipping) (17%)

- *Sulphur dioxide*
 - Energy generation (37%)
 - Industrial combustion (22%)
 - Domestic burning (22%)

- *Non-methane volatile organic compounds (NMVOCs)*
 - Industrial processes (22%)
 - Household products (18%)
 - Agriculture (14%)
 - Residential burning (5%)
 - Transport (5%)