

Clean Air and the Environment Bill

Lords Committee Stage Briefing: Clause 2 (Amendment 20)

Introduction

The Environment Bill provides an opportunity for the UK to become a world leader in the fight against air pollution. To improve the lives of people across the country and promote clean growth, we need wide-reaching and bold legislative and policy reforms. This Bill should provide the starting point for this. As it stands, the Bill instead opens the door to weakening existing legal protections and risks being a missed opportunity for clean air.

This briefing explains why Peers should support the amendment of Clause 2 to ensure that the new legal target for fine particulate matter (“PM_{2.5}”) commits government to reducing this harmful pollutant to within existing World Health Organization (“WHO”) guidelines by 2030 at the latest.

Health and Air Pollution

Air pollution is recognised by the UK Government to be the single largest environmental risk to public health in the UK. The Health Secretary has warned of a growing national health emergency and said that: “[w]e cannot underestimate the very real impact that dirty air – this slow and deadly poison – is having on our lives, our health and our NHS.”

Air pollution affects all of us, from the time that we are in the womb and through to old age. The biggest impact is through cardiovascular disease, where air pollution can trigger heart attacks and strokes. Toxic air also exacerbates respiratory illnesses, such as COPD, increases the risk that asthma attacks result in hospitalisation or worse, and can stunt the lung growth of children making them more susceptible to chronic illness as they grow up. It can cause cancer and there is increasing evidence suggesting impacts on cognitive development, including impairing children’s ability to learn and possible links to dementia. Initial studies are also suggesting that air pollution could increase vulnerability to the most severe impacts of Covid-19.

The inquest into the role that air pollution played in the death of nine-year-old Ella Adoo-Kissi-Debrah has further highlighted just how damaging toxic air is for individuals, their families and the communities in which they live. In April 2021, the coroner’s [Prevention of Future Deaths Report](#) said that to save lives, legal limits for particulate matter pollution should be in line with the WHO guidelines. The UK Government has had to respond to the coroner’s report by 17 June 2021 – the Bill provides them with the opportunity to implement the coroner’s recommendations.

Cleaning up our toxic air will not only protect the health of UK citizens but also makes sense for the financial health of the country too. The [Royal College of Physicians](#) has estimated that the social cost of air pollution to individuals and the health service is over £20bn annually in the UK. Similarly, the [Confederation of British Industry](#) estimates that a £1.6bn annual economic benefit to the UK could be realised by meeting WHO guidelines. This is made up of £1bn per year from 40,000 additional ‘working years’, as the number of people retiring early due to ill-health decreases, and £600m per year from reduced sickness-related absences.

As the UK moves to a post-pandemic green recovery and towards our net-zero carbon targets, action taken today to reduce air pollution will be crucial to ensuring a healthy, resilient nation that will have the additional economic benefits of increased productivity across our communities.

However, toxic air is also driving health inequalities, with the poorest communities often exposed to the highest levels whilst contributing less to the problem. They are also more likely to have a health condition that makes them highly susceptible to harm. Likewise, those with breathing challenges from long-COVID may now also go on to be more vulnerable to these pollutants in the air, as are children, older people and people with chronic illnesses. Air pollution also disproportionately affects people from ethnic minorities, and outdoor and transport workers.

To support Peers' scrutiny of the air quality provisions in the Environment Bill, the following are key facts regarding the impact of toxic air pollution on health:

- Approximately 14 million people in the UK are living with heart and circulatory diseases and/or a lung condition, such as asthma or Chronic Obstructive Pulmonary Disease ("COPD"). For these individuals, a spike in air pollution poses an immediate health threat, worsening their symptoms and increasing the risk of hospitalisation and death.
- Research from the British Heart Foundation has found:
 - A link between exposure to poor short-term air quality and increased hospitalisation rates and deaths due to heart failure and circulatory problems.
 - Particulate matter pollution can enter the bloodstream from the lungs and remain there for several months, showing that the health risk continues long after the initial exposure.
 - Nanoparticles can accumulate in fatty plaques in our arteries, potentially making them more unstable and likely to break off and cause a heart attack or stroke.
 - Air pollution can promote blood clotting and put the heart under additional stress, both of which could increase the risk of heart attack or stroke.
- Research from the British Lung Foundation has found:
 - Nine out of ten patients with lung conditions surveyed have reported air pollution affects their health and wellbeing, with 63% of people with a lung condition feeling out of breath on high air pollution days. As a result, there is a clear increase in the number of people admitted to hospitals and visiting GPs with breathing problems during these episodes.
 - In 2019 over 8,500 schools and almost 3,000 health centres were in areas with levels of PM_{2.5} above that recommended by the WHO, putting at risk the health of millions of children, patients and health workers.
 - Around a third of children in the UK are growing up in areas with unsafe levels of air pollution. Children living in highly polluted areas are four times more likely to have reduced lung function in adulthood.
 - In the UK, 1.1 million children have asthma and one in five of us will be diagnosed with a respiratory condition at some point in our lives.

Key amendment to ensure the Bill works to better protect people's health

Clause 2 – Environmental targets: particulate matter

Amendment 20

Clause 2(2), page 2, line 20, leave out subsection (2) and insert-

“(2) The PM_{2.5} air quality target must-

- (a) be less than or equal to 10 µg/m³;*
- (b) so far as practicable, follow World Health Organisation guidelines, and*
- (c) have an attainment deadline on or before 1 January 2030.”*

Member's explanatory statement

This amendment sets parameters on the face of the Bill to ensure that the PM_{2.5} target will be at least as strict as the 2005 WHO guidelines, with an attainment deadline of 2030 at the latest.

Why do we need the amendment?

The UK Government has already rightly identified the need to take action in this area to better protect people's health and has said it intends to set strong targets for air quality. As part of this, it has specifically committed to adopting a new binding target for PM_{2.5} through the Bill.

This reflects the fact that existing legal limits for outdoor concentrations of PM_{2.5} are not strong enough to protect people's health. They are over two times higher than current WHO guideline of 10 micrograms per cubic metre (“µg/m³”) established by health experts in 2005.

Indeed, in 2019, the then Environment Secretary, Michael Gove said that the Bill should introduce “a legally binding commitment on particulate matter so that no part of the country exceeds the levels recommended by the WHO.”

However, as it stands, the Bill does not set a minimum level of ambition or a deadline for its achievement and Defra's target setting process as currently drafted within the Bill would mean that the new PM_{2.5} target would not be set until October 2022. This leaves space for a less robust target to be set further down the line, and a further delay in action to reduce this harmful pollutant in the meantime.

Given that the WHO has made it clear that there is no safe level of PM_{2.5} for people to be exposed to, it is essential that this Bill guarantees better protection of people's health going forwards.

The proposed amendment to Clause 2 would deliver that strong target whilst sending a clear message that the UK wants to lead the world in efforts to clean up our air.

What does this amendment do?

This amendment is intended to set minimum parameters on the face of the Bill to ensure that the PM_{2.5} target will be *at least as strict* as the current WHO guideline of 10 µg/m³, with an attainment deadline of 2030 *at the latest*. The amendment recognises that the numerical target itself, and

specifications for the means of assessing it, will be established by subsequent secondary legislation, but would ensure the right level of ambition is committed to in primary legislation to avoid stalling on ambition to act.

A similar amendment was tabled by the Chair of the Environment, Food and Rural Affairs, Neil Parish MP, in the House of Commons and received widespread cross-party support, as well as from health and air pollution experts and the public.

By amending the Bill in this way MPs can ensure that the UK has a world-leading legally binding target for tackling these tiny toxic particles.

Why would this help to make the UK a world leader?

The UK already has a legal limit for PM_{2.5}, with which it complies. However, this originates from an EU Directive and is not ambitious enough to adequately protect people's health. Now we have left the EU, we have a major opportunity to set more ambitious targets and better protect UK citizens from harm.

In addition, with the UK hosting COP26 in Glasgow this November it is vital that the UK demonstrates global leadership on tackling air pollution. However, when compared to air quality standards set in other countries outside of the EU, the UK already lags behind in terms of ambition. Our existing annual PM_{2.5} limit value is weaker than the standards applied in other developed countries including the USA, Australia, Norway and Switzerland.

The Government has said it intends to set strong targets, and this amendment would deliver that whilst sending a clear message that we want to lead the world in efforts to clean up our air. This in turn will set a path for British industry and innovators to develop the clean growth technologies and services that we and other countries need.

APPENDIX

FAQs on the WHO air quality guidelines and government ambition

Has the UK Government not already shown world-leading ambition through its 2019 Clean Air Strategy?

In May 2020, the WHO's Director in Public Health and the Environment, Dr Maria Neira, confirmed that the WHO were supportive of the UK's Clean Air Strategy, but she said that with the Environment Bill the Government needs to "*raise the level of ambition*".

Does the WHO intend their guidelines to be legal targets?

The WHO's Director in Public Health and the Environment has confirmed that the guidelines should be the minimum goal for leaders who want to get serious about tackling air pollution.

The WHO also recommends that all governments "*try to move as soon as possible*" to their guidelines, and has stressed that by taking quick and ambitious action leaders "*will be accountable for an important health benefit for [their] citizens*".

As there is no safe level for pollution, is adopting the WHO guideline for PM_{2.5} too simplistic?

The WHO have said that no threshold has been identified below which no damage to health is observed. However, this amendment does not stop the Government from going further or setting other targets to tackle other forms of air pollution, rather, it sets a minimum, evidence-based threshold to drive reductions in air pollution across the country.

Adopting the WHO guideline for PM_{2.5} would guarantee a better level of health protection for everyone including those disproportionately affected by toxic air such as children and older people. The recent inquest into the death of nine year-old Ella Adoo-Kissi-Debrah have put a name and a face to the very real harm that air pollution has - not only on individuals but also on their families. In the inquest, the coroner explicitly highlighted Ella's exposure to levels of air pollution above WHO guidelines and existing legal limits and concluded that this "excessive" pollution contributed to her death.

The Government has proposed a "dual approach" to tackling PM_{2.5} pollution so is this amendment necessary?

We welcome the Government's commitment to also adopting a new exposure reduction target as this would help to drive improvements in areas that may already be below WHO guideline levels. However, this needs to sit alongside an ambitious ambient concentration target that provides a minimum basic level of protection for everybody based on the scientific evidence and within the next decade. A legal framework that drives down average exposure, but allows very high levels of pollution to remain in those areas that are worst affected, would not be a fair one. People should not be condemned to poor health based on where they live, work or study.

Do we need more time to work out the technicalities of this new target?

The UK already monitors and assesses against existing legal limits that set the maximum concentration for PM_{2.5}, and so already has a framework to work within.

In terms of setting a safer concentration for PM_{2.5}, this work has already been done by world experts, including some from the UK, at the WHO. The need for improvements to the monitoring and assessment regimes should not be used as a reason to avoid setting the direction of travel now and start driving much needed action as quickly as possible. The need is urgent and real - according to the [British Heart Foundation](#), around 15 million people in the UK live in areas where average levels of these tiny toxic particles in the air exceed WHO guidelines. [Asthma UK and the British Lung Foundation](#) have further identified 8,549 schools and colleges situated in these same areas.

Is it achievable?

In 2019, [Defra commissioned technical analysis](#) by leading scientists that concluded that achieving WHO guidelines for PM_{2.5} across the country is technically feasible, and that the measures we're already committed to could take us 95% of the way to the WHO's recommendation for what should be the basic level of protection. The Greater London Authority also published [further analysis by King's College London](#) that showed that achieving WHO by 2030 is feasible in what is the most polluted city in the country.

In order to meet the ambition set out in the 2019 Conservative manifesto for the Bill to be the “lodestar” by which the Prime Minister himself has said “we will guide our country to a cleaner and greener future”, the Government must commit to bold targets to ensure action is taken.

The UK currently complies with the less ambitious existing legal limit for PM_{2.5}, but reductions in this pollutant have stagnated over recent years and particularly since compliance was achieved. More ambitious targets will help drive action to better protect people’s health. It is clear that adopting the WHO’s guideline for PM_{2.5} will achieve this much needed outcome.

Why this matters to people across the country

“My daughter, Ruby, has a heart condition and although I can’t quantify the damage being done to her by air pollution, I worry about her health. She talks about tasting the air pollution on the walk to school where we live in Bath and says she feels sick and tries not to breathe.

“It doesn’t seem fair that my children’s generation is bearing the brunt of the slow progress in tackling air pollution. I really wish this had been sorted out ten years ago when the law required it so I didn’t have to worry about the impact on my children’s health. It’s not doing their hearts and lungs any good and I’m worried about how their health will be affected in the future.

“I would ask the government to please commit to stronger clean air laws in the Environment Bill for our children’s sake. It’s such a shame that Bath, which should be a beautiful city to live in, is made so unpleasant and unhealthy by the dirty air. Stronger laws are needed to ensure that effective action is taken to protect my children’s health.”

Sally, Bath

“I first became concerned about air pollution during my first pregnancy when I got a surprise high reading from a routine carbon monoxide test at a midwife appointment. As I didn’t smoke or have any faulty appliances the midwife suggested it might be because of air pollution.

“I felt so helpless. If I smoked I could have stopped, if the gas boiler was leaking poison I could have fixed it, but how could I protect my unborn child from the very air that I breathe! The more I learned about the life-long problems poor air can cause, the more I realised that I had to make changes in my own life. We chose not to buy a car when our baby was born, and now we walk and cycle everywhere. We avoid main roads and stand back from the kerbside on busy roads. But the most important changes need to be made by the government who could drive more ambitious action by all by introducing stronger legally binding air pollution limits!”

Celeste, London

"We spent a great deal of time last year in King's College Hospital with our baby son struggling to breathe. There were many other babies in A&E and the children's ward with the same issue. The doctor thought it was due to high levels of pollution."

"Watching your baby struggle to breathe and in a lot of distress is something parents should not see. Being driven at speed through the night to A&E is not something I will ever forget."

"For the sake of all children, please improve our air quality. We need to see the laws and action to address this public health emergency urgently."

Laura, London

"I am concerned about the long term impacts of air pollution on my family's health. The village we live in has, like so many others, seen massive amounts of house building in the last few years with a commensurate increase in traffic and seemingly little consideration to encourage walking or cycling through the new estates that have been created."

"I am concerned about my son's exposure on his daily bus ride into Maidstone to school, as I know the town has such poor air quality and often, because of a lack of a capacity on the buses, is forced to wait for extended periods on the roadside on the way home for a bus. Maidstone has also been really slow on the uptake with the provision of electric vehicle charging points."

"I think stronger air pollution laws would protect not just me and my family but the whole country, saving NHS resources for other less preventable ailments, which is very important to me."

Merowyn, Headcorn, Kent

"I am a GP and parent of three young children so I have a professional and personal stake in wanting clean air. I simply feel so angry at work when I see patients with diseases that might have been caused by air pollution that they have no choice but to breathe."

"As a doctor I understand that current legal limits for air pollution are not strong enough to protect people's health, including that of my family. I would like to see the government adopt the stricter WHO guidelines especially for fine particulate matter which is known to be very harmful to people's health and commit to meeting these by 2030 at the latest."

Rebecca, London

"I live in Derby, on a busy rat run between two major roads heading into the city. The poor air quality really concerns me. We have young families living on my street and my grandchildren come and stay. This is not a healthy street to live on. My community desperately needs the government to adopt stronger laws that will drive pollution down to the healthier levels recommended by the World Health Organization."

Dave, Derby

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