



BRIEFING PACK

What	You are appearing at the Committee for Net Zero, Energy and Transport to give evidence for their air quality enquiry.	
Where	Scottish Parliament	
When	Date: 25 th April 2023 Time: 10:40 – 12:00	
Key Message(s)	<p>Compared to the rest of the UK and other parts of Europe, Scotland enjoys a high level of air quality.</p> <p>Levels of the main air pollutants have declined significantly over the last three decades. This has been achieved through tighter regulation, improved fuel quality, cleaner vehicles and an increased focus on sustainable transport.</p> <p>In March 2023 we published our improvement plan in response to the recommendations made by Environmental Standards Scotland following its investigation into air quality. We have accepted all six recommendations.</p>	
Who	Net Zero, Energy and Transport Committee (Annex A)	
Why	<p>The Net Zero, Energy and Transport Committee has decided to look at air quality more widely to coincide with the publication of the Scottish Government's air quality improvement report, and issued a call for evidence on 10 February. The Committee has invited the Health and Social Care Committee to participate in the consideration. The Committee will consider:</p> <ul style="list-style-type: none"> • The policies and actions set out in the Scottish Government's Cleaner Air for Scotland 2 strategy; • The implementation and potential impact of Low Emissions Zones (LEZs) in Edinburgh, Glasgow, Aberdeen and Dundee; and • Scotland's performance in relation to international best practice on air quality. 	
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Net Zero, Energy and Transport Committee MEMBERS

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<p><u>Monica Lennon – Member</u></p> <ul style="list-style-type: none"> • Scottish Labour • MSP for: Central Scotland (Region) 		<ul style="list-style-type: none"> • Party Roles: N/A • Previous relevant roles: Party Spokesperson on Energy, Net Zero and Transport. • Interests: No relevant interests
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OPENING STATEMENT – Word Count (292 words approx. 2 minutes)

Introductory Speaking Note

I'm pleased to be here this morning as the Committee continues to take evidence as part of its air quality inquiry.

I welcome the opportunity to highlight the wide range of policies and initiatives that the Scottish Government and partners are implementing to further improve air quality.

Air quality has improved markedly in recent years, and Scottish air quality in particular compares well with the rest of the UK and Europe.

I am delighted to announce that for the first time, outside of recent lockdown periods, no monitoring sites in Scotland are exceeding air quality objectives. This important achievement shows that actions being put in place are delivering for the people of Scotland.

As our knowledge about the effects of air pollution on human health continues to develop, it is becoming increasingly clear that that we need to build on successes to date and take continued action to drive down pollution levels still further.

And that is what we are doing.

Our Improvement Plan sets out how we are delivering all six of Environmental Standards Scotland's recommendations, following its investigation into air quality.

In May 2022 Low Emission Zones were established in Scotland's four largest cities, which is a key initiative in further improving urban air quality.

We are also taking forward many other actions under our air quality strategy - Cleaner Air for Scotland 2 - to improve air quality.

Scotland was the first country in Europe to include in legislation the World Health Organisation 2005 guideline value for fine particulate matter which is a pollutant of particular concern for human health.

This is supporting our vision of Scotland having the best air quality in Europe – a quality of air that aims to protect and enhance health, wellbeing and the environment.

Q&A - ESS RECOMMENDATIONS

What is the Scottish Government's response to Environmental Standards Scotland's (ESS) recommendations following their investigation into air quality?

- The Scottish Government welcomes ESS's air quality investigation and improvement report.
- Scottish Government laid its improvement plan in Scottish Parliament on 29 March 2022.
- The improvement plan sets out our response to the six key recommendations made by ESS in the improvement report.
- In response to the first three recommendations, which relate to local authority responsibilities in relation to air quality, we have worked closely with local authority environmental health officers and SEPA to update the Local Air Quality Management policy guidance which supports authorities in undertaking this work.
- Revised Local Air Quality Management policy guidance was published in March 2023.
- The remaining two recommendations are being addressed by the Scottish Government, SEPA and CAFS2 delivery partners, with full details set out in the improvement plan.
- All six of ESS's recommendations have been accepted by Scottish Government.

What is the Scottish Government doing to improve the effectiveness of the Local Air Quality Management system?

- We have strengthened the local air quality management policy guidance to include more clearly defined requirements for producing, delivering and reviewing air quality action plans.
- SEPA's reserve powers will be used routinely when specified deadlines in relation to statutory local air quality management duties are missed.
- We have committed to a wider review of the local air quality management system by 2024 under our Cleaner Air for Scotland 2 strategy.

Who currently has oversight of the Local Air Quality Management System?

- Under the Environment Act 1995 local authorities are required to review and assess air quality in their areas.
- SEPA is the Appropriate Authority for the Local Air Quality Management (LAQM) regime and it is a statutory consultee for all work in relation to this regime.

Will the Scottish Government introduce a monitoring body with the remit to look at the system of air quality monitoring and compliance holistically?

- Under section 85 of the Environment Act 1995 SEPA has wide-ranging powers to direct a local authority to take appropriate steps should that authority not be properly undertaking its statutory duties in relation to air quality.
- We have strengthened the Local Air Quality policy guidance to include an assumption that these powers should be used routinely, rather than on a case by case basis as was previously agreed.
- Where a local authority is not fulfilling their duties under the Act, SEPA, in dialogue with the Scottish Government, will initiate the enforcement procedure outlined in the revised policy guidance in all cases.

How will LEZs be monitored and enforced?

- A local authority which is operating a LEZ must prepare an annual report on the operation and effectiveness of that scheme, as soon as practicable after the end of the financial year.
- A copy of the annual report, as a minimum, must be sent to Scottish Ministers, and must be laid before the Scottish Parliament.
- A local authority will also publish their annual report in such a manner as it considers appropriate.

Will the Scottish Government extend air quality monitoring to ensure vulnerable receptors such as schools and hospitals are adequately monitored?

- Automatic air quality monitors are complex instruments and costly to purchase, operate and maintain. This places a practical limit on the number of locations that can be monitored in this way.
- For this reason, comprehensive screening tools have been developed to help local authorities identify the most appropriate monitoring sites, together with detailed models for estimating pollution levels at locations where automatic monitoring is not possible.
- Local authorities have progressively adapted their monitoring strategies in accordance with the specific issues in their areas, with monitoring networks extended to cover all potential hotspots.
- This approach makes sure that any areas of concern will be picked up, including those locations where vulnerable groups may be present, such as schools.
- Local authorities working in collaboration with schools have the powers to restrict vehicle access at school gates to ease congestion, improve air quality and encourage active travel to and from school.
- A number of local authorities have introduced such initiatives, for example the City of Edinburgh Council's School Streets initiative and Angus Council's school friendly zones. Both schemes prohibit most vehicular traffic moving within a zone during specified time periods before and after school.
- We have also given local authorities powers to tackle vehicle idling outside of schools. Regulations introduced in 2003 provide powers for local authorities to

issue a fixed penalty notice to drivers of parked idling vehicles who refuse a reasonable request to switch off their engines.

Can the Cleaner Air for Scotland 2 strategy deliver the air quality improvements that are required to meet current and future legal air quality limit values?

- The most recently available projections, published in 2020, suggest that Scotland will be fully compliant with the nitrogen dioxide limit values by 2023.
- Compliance projections are calculated based on a combination of data from the UK wide air quality monitoring network operated jointly by the four UK Governments, and modelling using the UK Pollution Climate Mapping models.

TOP LINES

- **For the first time, outside of recent lockdown periods, no monitoring sites in Scotland are exceeding air quality objectives.** This important achievement shows that actions being put in place are delivering for the people of Scotland.
- **Compared to the rest of the UK and other parts of Europe, Scotland enjoys a high level of air quality.**
- **Scotland was the first country in Europe to include in legislation the World Health Organisation 2005 guideline values for fine particulate matter, a pollutant of particular concern for human health.**
- **The Scottish PM10 objective is more than twice as stringent as the equivalent targets in the rest of the UK and the EU.**
- **Emissions of the main air pollutants have declined significantly over the last three decades.** This has been achieved through tighter regulation, improved fuel quality, cleaner vehicles and an increased focus on sustainable transport.
- **Cleaner Air for Scotland 2 was published in July 2021.** It sets out a series of actions to deliver further air quality improvements over the five years to 2026.
- **The second Cleaner Air for Scotland 2 annual report will be published later this year,** and will demonstrate the significant progress that has been made on implementing actions.
- **The introduction of Low Emission Zones in our four largest cities in May 2022 is a key initiative in further improving urban air quality.** Scotland's first LEZ (with an initial focus on buses) was launched in Glasgow at the end of 2018. LEZ enforcement for all vehicles will commence in Glasgow city centre from 1st June 2023 (with a further 12 months grace period for residents within the zone), and in the city centres of Aberdeen, Dundee and Edinburgh from mid-2024.
- **We have committed to investing at least £320 million, or 10% of the total transport budget, on active travel by 2024-25** – almost triple the levels of 2021-22.
- **In March 2023 we published our improvement plan,** responding to Environmental Standards Scotland's improvement report following its investigation into air quality, the improvement plan accepts all six of ESS's recommendations.

Q & A - AIR QUALITY

How is Scotland performing compared to the rest of the UK and Europe?

- For the first time, outside of recent lockdown periods, no monitoring sites in Scotland are exceeding air quality objectives. Scotland is the first country within the UK to achieve this.
- Compared to the rest of the UK and other parts of Europe, Scotland enjoys a high level of air quality.
- Scotland was the first country in Europe to include in legislation the World Health Organisation 2005 guideline values for fine particulate matter, a pollutant of particular concern for human health.
- The Scottish PM10 objective is more than twice as stringent as the equivalent targets in the rest of the UK and the EU.

How does the Cleaner Air for Scotland 2 strategy take account of the recommendations arising from the independent review of the previous strategy?

- 30 of the 38 detailed recommendations were taken forward as part of Cleaner Air for Scotland 2.
- Of the remaining eight, five are already being delivered under the National Transport 2 strategy.
- Financial support for vehicle scrappage was not taken forward because Scotland already has existing funding mechanisms in place to incentivise the uptake of zero emission vehicles.
- Mandatory supplementary planning guidance for air quality was likewise not considered, as such guidance has been superseded by National Planning Framework 4.
- A recommendation for an independent chair to oversee the CAFS 2 governance structure was not implemented on the advice of the previous strategy's Governance Group.

What funding, resources and governance structures are available for achieving the aims and actions in the Cleaner Air for Scotland 2 strategy?

- The Cleaner Air for Scotland 2 (CAFS2) Delivery Plan sets out the timescales for delivery of actions in the strategy.
- Currently, the actions set out in the Delivery Plan have been assigned either short (to be completed by the end of 2022), medium (to be completed by the end of 2024) or long term (to be completed by the end of 2026) status.
- We have established five expert working groups, a delivery group and a ministerial group to support the delivery of CAFS2 actions.
- The ministerial group has oversight of the delivery of actions and approves the annual progress report.
- We provide annual funding to local authorities to implement actions in their air quality action plans and maintain local air quality monitoring networks

Q & A - WHO GUIDELINES

Does the Scottish Government plan to set new targets to meet the air pollution guideline values set out by WHO?

- The Scottish Government welcomes, and is in the process of carefully considering, the guideline values set out by the WHO.
- The case for making any changes to air quality targets in Scotland to reflect the new guidelines will be assessed and taken forward during implementation of the Cleaner Air for Scotland 2 strategy.

What is the Scottish Government's position on ensuring adherence to the legally-binding air quality limit values that apply in the EU?

- The Scottish Government has made clear its commitment to maintain or exceed EU standards, including air quality limit values, following the UK's departure from the European Union (EU).
- This commitment includes ensuring that EU environmental principles continue to sit at the heart of environmental policy and law in Scotland.

Q & A - LEZs

Will Low Emission Zones be expanded to cities beyond Glasgow, Edinburgh, Dundee and Aberdeen?

- The need for Low Emission Zones is for individual local authorities to consider based on specific air quality parameters within their respective areas.
- To date, no further LEZ proposals have been submitted for Ministerial consideration.

How will LEZs be monitored and enforced?

- LEZ regulations, which came into force on 31 May 2021, outline the requirements for approved devices for the monitoring and enforcement of Scottish LEZs, with Automatic Number Plate Recognition (ANPR) cameras being the Scottish Government's preferred choice.
- ANPR Cameras are to be placed throughout the zones, and not just at entry points. It is up to the local authority introducing the LEZ to determine the best location(s) of camera(s) for effective enforcement.
- A system of escalating penalty charges will be used for vehicles that repeatedly drive with a LEZ within a 90-day period.
- Scotland's LEZs aim to prevent access by the most polluting vehicles and a robust and fair system of compliance will be critical to their success – similar to what is seen in many other cities across the world.
- National LEZ Exemptions will apply to Blue Badge holders, the emergency services, military vehicles, historic vehicles and showmans vehicles.
- LEZs were introduced across [Aberdeen](#), [Dundee](#), [Edinburgh](#) and [Glasgow](#) on 31 May 2022. Local grace periods now apply until enforcement begins.
- Enforcement will start in Glasgow on 1 June 2023 (1 June 2024 for residents within the zone)
- Dundee will start enforcement on 30 May 2024
- Edinburgh and Aberdeen will start enforcement on 1 June 2024
- Local authorities are required to provide an annual report to Scottish Ministers on the performance on the LEZ.

Q&A - FUNDING

What funding support has been provided for LEZs?

- The BEAR (Bus Emission Abatement Retrofit fund) has awarded £21m grants for over 1200 buses and coaches to reduce NOx and particulates by retrofitting Euro 6 exhaust systems.
- To support lower income households and small businesses get prepared, the LEZ Support Fund was introduced to offer a £2000 cash incentive for the disposal of non-LEZ compliant vehicles.
- The LEZ Support Fund also offers 'Travel Better' grants to help people switch to more sustainable modes of transport such as cycling and public transport after disposing of their vehicle with up to a further £1000 per household or business.
- To date, the LEZ Support Fund has resulted in over 2,500 non-LEZ compliant vehicles being disposed of or retrofitted with cleaner technology.
- In 2020/21 the LEZ Support Fund awarded £1.7m in grants, £3.85m in 2021/22.
- A further £5m was awarded through the LEZ Support Fund in 2022/23.
- Over 280 taxis have also been retrofitted to Euro 6 technology, reducing emissions ahead of LEZ enforcement.
- In 2022/23 £3.4 million grant funding was provided to the four LEZ cities to allow for introduction and enforcement of their LEZ.

What funding support has been provided for local authorities for local air quality management purposes?

- £1 million of funding is awarded annually to local authorities through the Local Air Quality Management grant fund for the operation and maintenance of air quality monitors.
- £1 million of funding is awarded from the Air Quality Action Plan fund to support local authorities to implement measures in their air quality action plans.
- A variable allocation is awarded annually from the Transport Scotland Air Quality Fund to support local authority interventions for improving local air quality which focus specifically on transport, including introduction of Low Emission Zones (LEZ) in Scotland's four biggest cities
- £500,000 is awarded annually from the Vehicle Emissions Testing fund, this grant scheme supports local authorities to undertake roadside emissions testing and enforce anti vehicle idling legislation to reduce air pollution, prioritising action at local hot spots.
- Funding is allocated to local authorities through an application process, with each application being assessed on its individual merits and the overall priorities for the year.

Q & A - LOCAL AIR QUALITY MANAGEMENT

How are the Scottish Government working with local authorities to improve air quality?

- We recognise the important role of local authorities in improving air quality.
- We work closely with local authorities on delivering the actions in the Cleaner Air for Scotland 2 (CAFS2) strategy.
- Local authorities are represented at each governance level for CAFS2 (ministerial group, delivery group and working groups).
- We provide annual funding to local authorities to implement actions in their air quality action plans and maintain local air quality monitoring networks.

Is this Scottish Government aware of a potential skills gap in the Environmental Health profession due to a decline in new graduates joining the profession?

- We are aware of the shortage of people entering into the profession and the resulting vacancies in local authorities.
- In February 2023 Scottish Government officials met with representatives from the Royal Environmental Health Institute Scotland (REHIS) and Society of Chief Officers of Environmental Health Scotland (SCOEHS) to discuss these concerns.
- We are aware that currently only one University in Scotland is offering the accredited undergraduate course and local authorities across Scotland are struggling to fill positions.
- Scottish Government resilience team, is working with the professional organisations through Environmental Health Policy Co-ordination Group, to look at next steps and working with the organisations on plans for engaging more widely on environmental health as a potential career and looking at how they could develop more access routes into environmental health.

Q&A – HEALTH

What impact does air pollution have on human health?

- We are in no doubt that air pollution has a negative impact on health.
- Our vision is for Scotland to have the cleanest air in Europe.
- The relationship between air pollution and health is extremely complex.
- It is widely documented that air pollution has a negative impact on health, however the types of illness that air pollution can exacerbate can also be affected by multiple other factors – such as obesity, alcohol, smoking and genetics.
- It is not generally possible to say with any certainty what impact air pollution can have on a specific individual.

Is poor air quality a health inequalities issue?

- Poor air quality is a health inequalities issue due to the disproportionate effects on some members of the population such as people who are very young, the elderly and those with pre-existing medical conditions.
- The relationship between deprivation and air quality is complex, and it is not always the case that the most deprived areas will experience the worst air quality. At the same time, those who generate the least air pollution are often those who suffer its effects most.

What are the Scottish Government doing to protect vulnerable groups, such as children, from poor air quality?

- Our ambition is to have learning environments that are the healthiest they have ever been, and ensuring good air quality in these spaces will help us to achieve that goal.
- Air quality monitors are located to cover areas of concern, including those locations where vulnerable groups may be present, such as schools
- Local authorities working in collaboration with schools have the powers to restrict vehicle access at school gates to ease congestion, improve air quality and encourage active travel to and from school.
- A number of local authorities have introduced such initiatives, for example the City of Edinburgh Council's School Streets initiative and Angus Council's

Q & A - WOOD BURNING STOVES

What is the Scottish Government doing to address other pollution sources, such as wood burning stoves?

- I am aware that smoke and odour from domestic fuel burning can be a significant nuisance issue.
- Our air quality strategy includes a range of actions to address this.
- For example, we are working closely with business and industry to raise awareness of and encourage good burning practice amongst the public.
- We are taking forward plans to ban the sale of house coal and the most polluting manufactured fuels, and we are also reviewing the Clean Air Act to ensure it remains fit for purpose.
- We are also considering how to incentivise uptake of the most modern stoves on the market, which can have up to 90% lower emissions than an open fireplace and up to 80% lower than older stoves.
- When fully implemented, this package of measures will deliver major improvements in emissions from domestic burning.

Q & A - PLACEMAKING

What role can the planning system play in addressing air quality?

- National Planning Framework 4 (NPF4) cross-cutting outcome ‘lifelong health and wellbeing’ is clear that its strategy and policies support development that help to improve health and wellbeing.
- NPF4 policy 14 ‘Design, quality and place’ supports development proposals that are consistent with the six qualities of successful places. The ‘Healthy’ quality includes improved air quality.
- NPF4 policy 23 ‘Health and safety’ has a clear outcome to improve health and reduce health inequalities The policy:
 - Doesn’t support development proposals that are likely to have significant adverse effects on air quality;
 - Is clear that development proposals will consider opportunities to improve air quality and reduce exposure to poor air quality;
 - Is clear that an air quality assessment may be required where the nature of the proposal or the air quality in the location suggest significant effect are likely.
- Our Place Standard Tool with an Air Quality Lens can help to structure conversations with people about their places and includes additional prompts about air quality.
- The forthcoming public consultation on Phase 3 of our Review of Permitted Development Rights will seek views on changes to such rights for flues for wood burning stoves and biomass boilers.

Q & A - VEHICLE IDLING

What action has Scottish Government taken to tackle vehicle idling?

- The Road Traffic (Vehicle Emissions) (Fixed Penalty) (Scotland) Regulations 2003 provide local authorities with powers to issue fixed penalty notices to drivers of parked idling vehicles who refuse a reasonable request to switch off their engines.
- It is for individual local authorities to decide how to make use of their powers. The Scottish Government provides guidance and financial support to assist authorities in undertaking these duties.

Q & A - CLIMATE CHANGE

How is the Scottish Government joining up its policies to deliver action on both air quality and climate change?

- We have committed to investing at least £320 million, or 10% of the total transport budget, on active travel by 2024-25 – almost triple the levels of 2021-22.
- As part of our Climate Change Plan update we have committed to phase out the need for new petrol and diesel cars and vans and reduce car kilometres by 20% by 2030.

Q & A - AGRICULTURE

What is the Scottish Government doing to reduce emissions from agricultural activity?

- We have committed to working with the agricultural industry to develop a voluntary code of good agricultural practice for improving air quality in Scotland.
- Measures to reduce ammonia emissions from the agriculture sector will be incorporated in to the revised Prevention of Environmental Pollution from Agricultural Activity (PEPFAA) code
- Work revising the PEPFAA code is expected to be complete by the end of 2023.

BACKGROUND INFORMATION – AIR QUALITY

Air Quality in Scotland

- Compared to the rest of the UK and other parts of Europe, Scotland enjoys a high level of air quality.
- The Scottish PM10 objective is more than twice as stringent as the equivalent targets in the rest of the UK and the EU.
- Scotland was the first country in Europe to include in legislation the World Health Organisation 2005 guideline value for particulate matter PM2.5.
- Emissions of the main air pollutants have declined significantly over the last three decades
- Between 2005 and 2020 (the latest year for which figures are available), nitrogen oxide emissions have decreased by 61%, fine particulate matter (PM) by 52% and sulphur dioxide by 92%.
- Air quality monitoring data shows that for the first time, outside of recent lockdown periods, there are no monitoring sites in Scotland exceeding air quality objectives.
- This reflects a long term downward trend in air pollution – for nitrogen dioxide from 14 in 2013 to zero in 2022; for particulate matter from 17 in 2013 to zero in 2022.
- This has been achieved through tighter regulation, improved fuel quality, cleaner vehicles and an increased focus on sustainable transport.

Cleaner Air for Scotland 2

- Our air quality strategy will build on our already significant achievements in reducing air pollution.
- The strategy sets out a series of actions to deliver further air quality improvements over the period 2021 to 2026.
- There is an enhanced focus on non transport emissions sources, particularly agriculture and domestic fuel burning.
- Good governance is one of the ten priority areas in our Cleaner Air for Scotland 2 (CAFS2) strategy.
- Oversight of progress against delivery of CAFS2 actions is assessed and reported on at ministerial level on an annual basis.
- We have established a CAFS2 delivery group and five specialist working groups to support the delivery of CAFS2 actions and to encourage collaborative working across sectors.
- We report annually in June on progress delivering CAFS2 actions.

Local Air Quality Management

- Under the Environment Act 1995 and associated regulations, all Scottish local authorities are required to regularly review air quality in their areas against objectives for several pollutants of particular concern for human health.
- If this work indicates that any objective will not be achieved by the due date, the authority concerned must declare an Air Quality Management Area (AQMA) and produce an action plan setting out how it will tackle the issues identified.
- Currently there are 33 AQMAs across Scotland. All local authorities have air quality action plans either in place or, for more recent declarations, in development, and are working closely with the Scottish Government and other partners to implement them.
- There are several AQMAs that are now compliant with the air quality objectives. The Scottish Government and SEPA are working closely with local authorities on revocation of compliant AQMAs.

Current air quality laws applicable in Scotland (domestic and retained EU)

- The 2008 EU ambient air quality directive (2008/50/EC) sets legally binding limits for concentrations in ambient (outdoor) air of major air pollutants that are known to have a significant impact on human health. EU air quality legislation was made law in Scotland through the Air Quality Standards (Scotland) Regulations 2010.
- The UK Government leads on the UK's input to International and European legislation relating to Air Quality, with input from the Scottish Government, and the other devolved administrations.
- It is recognised, that despite strategic measures, areas of poor air quality would likely remain, and that these will best be dealt with using local measures implemented through the Local Air Quality Management (LAQM) regime. Part IV of The Environment Act 1995 sets provisions for protecting air quality in the UK and for local air quality management.
- The objectives adopted in Scotland for the purpose of Local Air Quality Management are set out in the Air Quality (Scotland) Regulations 2000, the Air Quality (Scotland) Amendment Regulations 2002 and the Air Quality (Scotland) Amendment Regulations 2016
- Under the LAQM regime local authorities across Scotland are required to review and assess the air quality within their geographical areas. Where an area of exceedance is identified, the local authority is required to declare an Air Quality Management Area (AQMA) and implement an Air Quality Action Plan to improve air quality within the areas.
- Under Section 85 of the Environment Act (1995) with the approval of Scottish Ministers, SEPA have reserve powers to take action where local authorities have made insufficient progress in delivering their duties under the Act.

BACKGROUND INFORMATION – ESS INVESTIGATION

Environment Standards Scotland Report

- In November 2021 Environmental Standards Scotland (ESS) announced that its first investigation would consider air quality, specifically focusing on compliance with the nitrogen dioxide limit value set in Directive 2008/50/EC on ambient air quality and cleaner air for Europe, which forms part of retained law following the UK's exit from the European Union.
- After taking evidence from the Scottish Government, SEPA and local authorities, ESS published its conclusions and recommendations in the form of an improvement report which was laid in Scottish Parliament on 29 September 2022.
- The report makes six recommendations. The first three are to introduce requirements for local authorities to do the following in the shortest time possible:
 - Complete and publish air quality action plans (AQAPs) by a specified target date following the declaration of an Air Quality Management Area (AQMA);
 - Achieve AQMA and AQAP objectives by a specified target date; and
 - Review and, where necessary, update AQAPs.
- The remaining three recommendations are for the Scottish Government to:
 - Critically analyse the protocols surrounding the siting of monitoring stations and data provision;
 - Identify or introduce a monitoring body with the remit to look at the system of air quality monitoring and compliance holistically (including the monitoring of the implementation and effectiveness of Low Emission Zones); and
 - Revise its most recent air quality strategy to include specific and measurable timescales for reaching compliance.

Scottish Government Improvement Plan

- Scottish Government laid its improvement plan in Scottish Parliament on 29 March 2022.
- The improvement plan sets out the Scottish Government's response to the six key recommendations made by ESS in the improvement report.
- The updated policy guidance was published in March 2023.
- The remaining two recommendations are being addressed by the Scottish Government, SEPA and CAFS2 delivery partners, with full details set out in the improvement plan.
- All six of ESS's recommendations have been accepted by Scottish Government.

BACKGROUND INFORMATION – LOW EMISSION ZONES

Low Emission Zones

- LEZs are key to improving air quality, protecting public health, supporting Scotland's wider emission reduction ambitions by encouraging more sustainable transport options.
- Scotland's first LEZ (with an initial focus on buses) was launched in Glasgow at the end of 2018; as such, we met our PfG commitment to put in place the first LEZ by 2018.
- LEZs (covering other vehicle classes) were formally introduced in Aberdeen, Dundee, Edinburgh and Glasgow formally on 31 May 2022.
- All 4 LEZs apply to the city centre areas only, approx. 1 mile square in area in each city.
- The introduction of LEZs will ensure that all of us, but particularly the oldest, youngest and those with pre-existing medical conditions are protected from the harmful impacts of poor air quality in our city centres.
- Improving air quality in our city centres is good for the public realm, making them even more attractive places to live, work, shop and spend leisure time in.
- Enforcement of LEZs will commence on 1 June 2023 in Glasgow (1 June 2024 for residents within the zone), 30 May 2024 in Dundee and 1 June 2024 in Aberdeen and Edinburgh.
- To support lower income households and small businesses get prepared, the LEZ Support Fund offers financial support towards the disposal of non-LEZ compliant vehicles and offers 'Travel Better' grants to help households to switch to more sustainable modes of transport.
- In 2020/21 the LEZ Support Fund awarded £1.7m in grants, £3.85m in 2021/22.
- A further £5m was awarded through the LEZ Support Fund in 2022/23.
- To date, the LEZ Support Fund has resulted in over 2,500 non-LEZ compliant vehicles being disposed of or retrofitted with cleaner technology.
- The BEAR (Bus Emission Abatement Retrofit fund) has awarded £21m grants for over 1200 buses and coaches to reduce NOx and particulates by retrofitting Euro 6 exhaust systems.

BACKGROUND INFORMATION – CLIMATE CHANGE PLAN

Climate Change Plan

- In December 2020 an update to Scotland's 2018-2032 Climate Change Plan was published, including over 200 policies and proposals to reduce Scotland's greenhouse gas emissions.
- A draft of the next Climate Change Plan is due to be laid before Parliament by November of this year.
- The new Plan will set out our pathway to meeting our emissions reduction targets from 2024-2040.
- The Plan will be supported by new sectoral Just Transition Plans and reflect our ongoing commitment to a fair transition for all.
- The Plan will also set out the costs and benefits of the policies it contains, as well as setting out how it will affect different sectors of the Scottish economy and different regions in Scotland.
- As we develop this Plan, we will be looking at our economy and where we can reduce emissions in industry, construction and food production and looking towards the latest evidence regarding our lifestyles, for example how we heat our homes and how we travel, considering measures that will reduce costs to consumers while also reducing emissions.

GHG emissions reduction

- Scotland is at the forefront of the global journey to reach net zero emissions and a climate resilient future. We are committed to taking lasting action to drive down our emissions in a way that is just and fair for all.
- The latest emissions data [for 2020] shows that Scotland's emissions are down by over 50% since the 1990 baseline, over half way to net zero. We continue to be ahead of the UK as a whole in delivering long-term emissions reductions.
- We are already making progress to decarbonise our energy system – in 2020 Scotland generated the equivalent of 98.8% of our gross electricity consumption from renewable sources.
- Action being taking now will deliver significant emissions reductions in years to come.

BACKGROUND INFORMATION – HEALTH

Health – general

- We are in no doubt that air pollution has a negative impact on health.
- Our vision is for Scotland to have the cleanest air in Europe.
- The relationship between air pollution and health is extremely complex.
- It is widely documented that air pollution has a negative impact on health, however the types of illness that air pollution can exacerbate can also be affected by multiple other factors – such as obesity, alcohol, smoking and genetics.
- It is not generally possible to say with any certainty what impact air pollution can have on a specific individual.

Health - schools

- Our ambition is to have learning environments that are the healthiest they have ever been, and ensuring good air quality in these spaces will help us to achieve that goal.
- Local authorities working in collaboration with schools have the power to restrict vehicle access at school gates to ease congestion, improve air quality and encourage active travel to and from school.
- A number of local authorities have introduced such initiatives, for example the City of Edinburgh Council's School Streets initiative and Angus Council's school friendly zones. Both schemes prohibit most vehicular traffic moving within a zone during specified time periods before and after school.
- In August 2021, funding of £10m was made available to local authorities in relation to improving ventilation in schools. Additionally, in January 2022, funding of up to £4.8m was made available to local authorities.
- All learning, teaching and play spaces were equipped with a CO2 monitors in advance of the winter period, and local authorities continue to review CO2 monitoring data.
- Our existing collaborative working arrangements with local authorities are being fully utilised to reinforce the importance of continuing to use CO2 monitors, which are installed in each learning, teaching and play space.
- Air cleaning technology is an area of active ongoing research, building on international research and experience, and the Scottish Government is continuing to keep this work under review and consider its relevance for the school environment.

BACKGROUND INFORMATION – PLACEMAKING

Placemaking

- National planning Framework 4 was adopted 13 February and marks the culmination of an ambitious 3-year process of preparation.
- It supports delivery of the Place Principle approach.
- NPF4 signals the key priorities for ‘where’ and ‘what’ development should take place at a national level and is combined with national planning policy on ‘how’ development planning should manage change.
- NPF4 recognises that we must think differently about our places and lead the transition to stronger, greener, fairer and healthier communities across Scotland.
- NPF4 now forms part of the statutory development plan, along with the LDP applicable to the area at that time and its supplementary guidance.
- NPF4 is a crucial document to support the challenges we face in climate and nature and guide land use planning across Scotland.
- The adoption of NPF4 signals a shift from policy making to policy implementation and delivery, which is Scottish Ministers’ priority for NPF4 moving forward.
- NPF4 policy 13 ‘Sustainable transport’ has clear intent to encourage, promote and facilitate developments that prioritise walking, wheeling, cycling and public transport for everyday travel and reduce the need to travel unsustainably. This supports connectivity, place-based approaches and local living.
- Policy 13 is clear that local development plan spatial strategy should reflect the sustainable travel hierarchy.
- Policy 33 ‘Minerals’ support for sustainable extraction of minerals is dependent on a number of considerations including air pollution.
- National development 6 ‘Urban mass/rapid transit networks’ statement of need is clear that the national development will help reduce transport related emissions overall and improve air quality.
- National development 8 ‘National walking, cycling and wheeling network’ statement of need is clear in its support for delivering multiple outcomes including air quality improvement.

Permitted Development Rights

- The forthcoming public consultation on Phase 3 of our Review of Permitted Development Rights (PDR) will seek views on changes to such rights for flues for wood burning stoves and biomass boilers. This follows up on the related action point in the CAFS2 strategy.
- Phase 3 also proposes extensions to existing PDR for alternative renewables technology, such as air source heat pumps and solar panels.

BACKGROUND INFORMATION – WHO GUIDELINES

WHO guidelines and EU Green Deal

- On 22 September 2021 the World Health Organisation published updated air quality guidelines, reducing the previous recommended limit for fine particulate matter by 50% and for nitrogen dioxide by 75%.
- Interim targets have also been set for each pollutant, which are intended as manageable steps towards ultimate achievement of the guidelines.
- The guidelines are set at pollutant concentrations for which current evidence suggests there will be minimal human health impacts. They do not take into account the economic, practical or technological feasibility of adoption as policy objectives or in legislation.
- The policy implications of the World Health Organisation’s updated air quality guidelines are being considered in the context of Cleaner Air for Scotland 2 delivery.
- In October 2022 the European Commission proposed stronger rules on ambient air, surface and groundwater pollutants, and treatment of urban wastewater.
- The proposals are a response to the European Green Deal zero pollution ambition of having an environment free of harmful pollution by 2050.
- The commission proposes to tighten allowed levels of air pollutants to more closely with WHO recommendations, while putting the EU on a trajectory to achieve zero pollution for air at the latest by 2050.

	Interim 1	Interim 2	Interim 3	Interim 4	2021 guideline	2005 guideline	Current Scottish objective
PM10	70	50	30	20	15	20	18
PM2.5	35	25	15	10	5	10	10
Nitrogen dioxide	40	30	20	-	10	40	40

BACKGROUND INFORMATION – AGRICULTURAL EMISSIONS

Emissions

- Agricultural emissions related to air quality are dominated by ammonia and is estimated to account for around 90% of total ammonia emissions in Scotland.
- Ammonia is a nitrogen-based gas which is released when slurries, manures and nitrogen fertilisers come into contact with the air.
- The most effective measures to reduce impacts are those which directly reduce emissions of ammonia into the atmosphere.
- Changes to the way that slurry and digestate is stored and spread on farms could lead to a reduction of up to 70% of the harmful ammonia that is released.

The Water Environment (Controlled Activities) (Scotland) Amendment Regulations 2021

- Ammonia, and therefore the nitrogen content of fertiliser, can be lost whenever slurry or manure is exposed to the atmosphere. Adopting measures such as improved storage and application reduces losses to the atmosphere and water bodies and, by retaining as much nitrogen as possible, maximises nitrogen use efficiency and benefits the returns on farm.
- The Water Environment (Controlled Activities) (Scotland) Amendment Regulations 2021 (CAR) require improved controls on the storage of slurry and digestate to reduce leakage, and more targeted spreading to maximise the nutrient benefit and reduce emissions. These regulations stipulate that all farms where slurry is produced must have sufficient capacity to store the total quantity of slurry likely to be produced in 22 weeks by housed cattle or 26 weeks by housed pigs by 1 January 2026; and for all spreading of slurry to be applied by precision equipment from 1 January 2027.

Agricultural Transformation Fund (ATF)

- The Agricultural Transformation (Programme) Fund (ATF) is a capital budget which is intended to underpin support for the agricultural sector to reduce greenhouse gas emissions, improve efficiency and enhance Scotland's natural environment through the period of transition.
- The capital budget for ATF 2023 of £5 million will be used to provide an extension of support for slurry storage across Scotland (except in Nitrate Vulnerable Zones (NVZ) which have previously been supported to meet regulatory requirements).
- To simplify administration, the ATF 2023 budget has been allocated in full to the Agri-Environment Climate Scheme (AECS) to allow the procedures already available for slurry storage to be used.
- The application period closed on 29 March and approvals will be issued by end April 2023. Applicants are expected to carry out the work and submit their claims by 29th February 2024.

Prevention of Environmental Pollution from Agricultural Activity (PEPFAA) code

- The purpose of the PEPFAA code is a voluntary code set up under the requirements of the Nitrates Directive. Its purpose is to identify the principal environmental risks and to offer practical guidance for farmers, crofters and land managers on minimising the risks of environmental pollution from agricultural activities.
- The code was produced by the Scottish Government in collaboration with the Scottish Environment Protection Agency, the National Farmers Union Scotland, and the Scottish Rural College.
- The guidance covers a range of activities which could lead to pollution, including the collection, storage and application to land of livestock slurries and manures and the prevention and control of emissions to air.
- Work is currently underway with SAC Consulting and SEPA colleagues to update the PEPFAA code and a revised draft version covering manure handling and storage is currently under review with relevant officials.

BACKGROUND INFORMATION – RIGHT TO A HEALTHY ENVIRONMENT

- The Scottish Government has committed to introducing a new Human Rights Bill during the current parliamentary session.
- This will be a significant milestone in Scotland’s human rights journey, building on past work to embed a human rights culture across Scotland.
- The Human Rights Bill will give effect to a wide range of internationally-recognised human rights – belonging to everyone in Scotland – within the limits of devolved competence.
- It will include the right to a healthy environment as recognised by the UN General Assembly.
- It will strengthen domestic legal protections by making rights enforceable in Scots law.
- It will create duties on those delivering devolved public functions to give effect to and realise the rights for the people of Scotland.
- It will strengthen access to justice for rights holders who are seeking remedy in relation to the rights and duties contained in the Bill.
- The Human Rights Bill will demonstrate global human rights leadership, placing Scotland at the forefront of human rights policy and, most importantly, practice.
- We will consult on proposals for the Bill in the first half of 2023.

The Bill will recognise and include the right to a healthy environment

- We are still developing our approach to the right to a healthy environment in the Human Rights Bill.
- We will be guided by the underpinning international framework including the UN Framework Principles on Human Rights and the Environment and the Aarhus Convention.
- At international level, clean air is an important part of the right requiring states to take steps reduce air pollution and ensure everyone is able to breathe clean air when living, working and playing.
- We will carefully consider how this appropriately aligns with the unique Scottish context as we develop the right in Scots law.
- We will be engaging with duty bearers, civil society groups, and environmental rights groups as part of our consultation.

Mark Ruskell MSP - previous PQs on air quality

30 January 2023: To ask the Scottish Government what impact Low Emission Zones have had on air quality in Scotland's cities, in light of reported figures published by Friends of the Earth Scotland.

Answer: I welcome these positive achievements on air quality, which show that our actions to tackle air pollution are delivering for the people of Scotland.

The modelling undertaken by each of the cities shows that the Scottish LEZs are capable of delivering significant improvements in air quality. LEZ enforcement will begin in June 2023 in Glasgow, it is therefore too early to say with any certainty what the impact of Low Emission Zones has been.

The four cities introducing LEZs are required to report on air quality annually, and specifically on the performance of the LEZs one year after enforcement starts. I look forward to reviewing these reports when available.

30 January 2023: To ask the Scottish Government whether it is considering expanding Low Emission Zones to cities beyond Glasgow, Edinburgh, Dundee and Aberdeen, in light of the latest reported figures on air quality from Friends of the Earth Scotland.

Answer: The need for Low Emission Zones (LEZs) is for individual local authorities to consider based on specific air quality parameters within their respective areas. To date, no further LEZ proposals have been submitted for Ministerial consideration.

11 March 2022: To ask the Scottish Government whether it will provide an update on the timescale for revising the Clean Air Act 1993 in coordination with local authorities and SEPA, as outlined in Cleaner Air for Scotland 2.

Answer: Our new air quality strategy 'Cleaner Air for Scotland 2 - Towards a Better Place for Everyone' sets out a series of actions intended to deliver further air quality improvements over the period to 2026. Amongst these actions are several which focus on reducing emissions from domestic fuel combustion including work with local government and SEPA to consider revision of the Clean Air Act 1993.

An expert working group, which met for the first time in January 2022, has been established to advise the Government on taking forward these actions. Further information will be made available as this work proceeds.

7 January 2022: To ask the Scottish Government what recent discussions it has had with COSLA regarding the use of local authority powers to tackle vehicle idling.

Answer: The Scottish Government regularly engages with COSLA on air quality matters. However there have been no recent discussions on the specific issue of local authority powers to tackle vehicle idling, as the authorities themselves are best placed to make decisions on implementation.

7 January 2022: To ask the Scottish Government what action it has taken to tackle idling of private vehicles, and whether it will introduce further measures to tackle idling.

Answer: The Road Traffic (Vehicle Emissions) (Fixed Penalty) (Scotland) Regulations 2003 provide local authorities with powers to issue fixed penalty notices to drivers of parked idling vehicles who refuse a reasonable request to switch off their engines. It is for individual local authorities to decide how to make use of their powers. The Scottish Government provides guidance and financial support to assist authorities in undertaking these duties.

The Government's new air quality strategy 'Cleaner Air for Scotland 2 - Towards a Better Place for Everyone', which was published in July 2021, sets out a wide range of measures intended to deliver further air quality improvements over the period to 2026.

7 Jan 2022: To ask the Scottish Government how many fines for vehicle idling have been (a) issued and (b) paid in each year since 2016, also broken down by local authority.

Answer: This information is not held centrally and is a matter for individual local authorities. Guidance issued by the Scottish Government to assist authorities in undertaking vehicle idling enforcement duties encourages the issuing of fixed penalties only if a reasonable request to switch off a parked idling vehicle is refused.

30 September 2021: To ask the Scottish Government what its response is to the World Health Organization (WHO) publication, *Global Air Quality Guidelines*, on 22 September 2021, and what plans it has to set new targets to meet the new air pollution levels set out by WHO.

Answer: The Scottish Government welcomes, and is in the process of carefully considering, the recommendations set out in this important publication. The case for making any changes to air quality targets in Scotland to reflect the new guidelines will be assessed and taken forward during implementation of the Cleaner Air for Scotland 2 strategy.

8 September 2021: To ask the Scottish Government when its modelling estimates that all Air Quality Objectives that apply in Scotland will be met.

Answer: All air quality limit and target values that apply under the Ambient Air Quality Directive are currently being met in Scotland, other than nitrogen dioxide. I

refer the member to the answer to question S6W-02787 on 23 September 2021 for information on compliance with the nitrogen dioxide limit value.

Domestic air quality objectives set under the Environment Act 1995 and associated regulations are the responsibility of local authorities.

8 September 2021: To ask the Scottish Government whether the Cleaner Air for Scotland 2 (CAFS 2) Ministerial Group will have oversight of transport policies that are not mentioned in the CAFS 2 strategy but which could deliver air quality benefits.

Answer: The purpose of the Ministerial Group will be to oversee at a strategic level implementation of the actions set out in Cleaner Air for Scotland 2(CAFS 2) and the accompanying delivery plan. The transport section of CAFS 2 sets out current Scottish Government transport policy as it relates to air quality.

8 September 2021: To ask the Scottish Government what its position is on ensuring greater adherence to the legally-binding air quality limit values that apply in the EU.

Answer: The Scottish Government has made clear its commitment to maintain or exceed EU standards, including air quality limit values, following the UK's departure from the European Union (EU). This commitment includes ensuring that EU environmental principles continue to sit at the heart of environmental policy and law in Scotland.

8 September 2021: To ask the Scottish Government when it estimates Scotland will meet the legally-binding nitrogen dioxide limit values in the EU Ambient Air Quality Directive, and how this estimate was calculated.

Answer: The most recently available projections, published in 2020, suggest that Scotland will be fully compliant with the nitrogen dioxide limit values by 2023. Compliance projections are calculated based on a combination of data from the UK wide air quality monitoring network operated jointly by the four UK Governments, and modelling using the UK Pollution Climate Mapping models.

8 September 2022: To ask the Scottish Government what oversight the Minister for Transport will have over the delivery of the Cleaner Air for Scotland 2 (CAFS 2) strategy.

Answer: The Minister for Transport will have oversight of Cleaner Air for Scotland 2 actions which are within his portfolio responsibilities.

8 September 2022: To ask the Scottish Government when it will announce the membership of the Cleaner Air for Scotland 2 (CAFS 2) Delivery Group

Answer: Work to establish the Cleaner Air for Scotland 2 Delivery Group is currently in progress. Membership will be announced shortly.

Other recent PQs on air quality

4 Oct 2022: To ask the Scottish Government when it expects to meet air quality limit values, in light of the recent report from Environmental Standards Scotland.

Answer: Current data indicate that EU limit and target values have been achieved across Scotland for all air quality pollutants, with the exception of six locations for nitrogen dioxide – three in North Lanarkshire, two in Glasgow and one in Edinburgh. The most recent assessment projections estimate that all of these bar one of the North Lanarkshire locations will become compliant during 2022, with that location following by 2023.

12 May 2022: To ask the Scottish Government when it will undertake research into the impacts of Non-Methane Volatile Organic Compound (NMVOC) emissions from Scotch whisky maturation, as indicated by the Environment and Forestry Directorate.

Answer: The Scottish Government intends to commission research into the impacts of Non-Methane Volatile Organic Compound emissions from Scotch whisky maturation later in 2022. Updates on progress will be made available as the work is taken forward.

11 Feb 2022: To ask the Scottish Government what plans it has to legislate regarding “Ready to Burn” certification for firewood and briquette suppliers, and when will any such legislation come into force.

Answer: The Scottish Government has no immediate plans to introduce such legislation. However our new air quality strategy 'Cleaner Air for Scotland 2 - Towards a Better Place for Everyone' sets out a series of actions intended to deliver further air quality improvements over the period to 2026. Amongst these actions are several which focus on reducing emissions from domestic fuel combustion.

An expert working group, which met for the first time in January 2022, has been established to advise the Government on taking forward these actions. Further information will be made publicly available as this work proceeds.