

# CLEARING THE AIR:

**Transport + Lung Health**

Download the report:

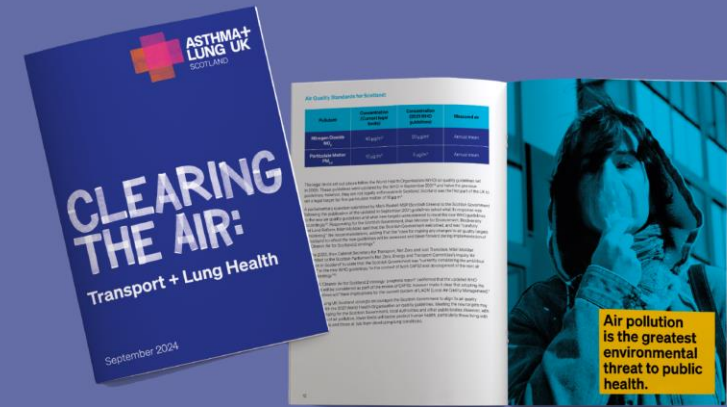


First major report looking at transport and air quality this parliament (2021-2026)

Follows successful launch of our domestic burning report in October 2023.

Estimated that up to 2,700 people die prematurely linked to air pollution in Scotland.

**Air pollution is the greatest environmental threat to public health.**



# Key Findings

## Key Findings in the report:

- All automatic air quality monitoring stations were within the current legal limits for nitrogen dioxide (NO<sub>2</sub>) and fine particulate matter (PM<sub>2.5</sub>) in 2023.
- Less than half of monitoring sites would meet the World Health Organisation (WHO) 2021 air quality guidelines for PM<sub>2.5</sub> and just over two-thirds would meet these new guidelines for NO<sub>2</sub>.



## Key Findings in the report:

- 41% of ScotRail's train fleet is diesel trains and the percentage of services using diesel trains is increasing at a greater rate than that of electric trains.
- Bus travel is the most popular method of public transport with 301 million passenger journeys taken in 2023.



## Key Findings in the report:

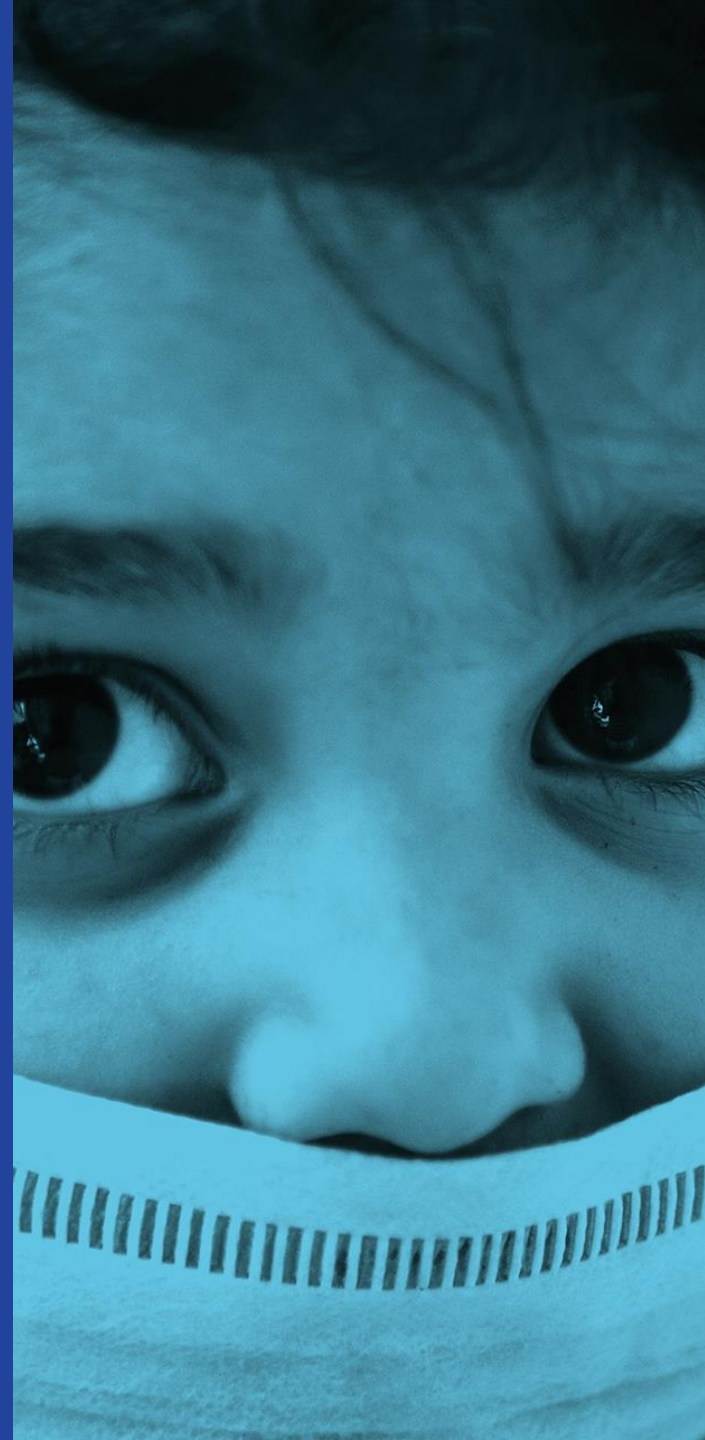
- Ultra-low emissions vehicle (ULEV) sales are increasing year-on-year, but demand for public charge points fell by 37% between July 2023 and June 2024.
- Only one fine has been issued to a driver for vehicle idling in the last three and a half years, with over 1,158 complaints made to 20 councils over the same period.



# **Your Health + Air Pollution**

## Lung Health + Air Pollution

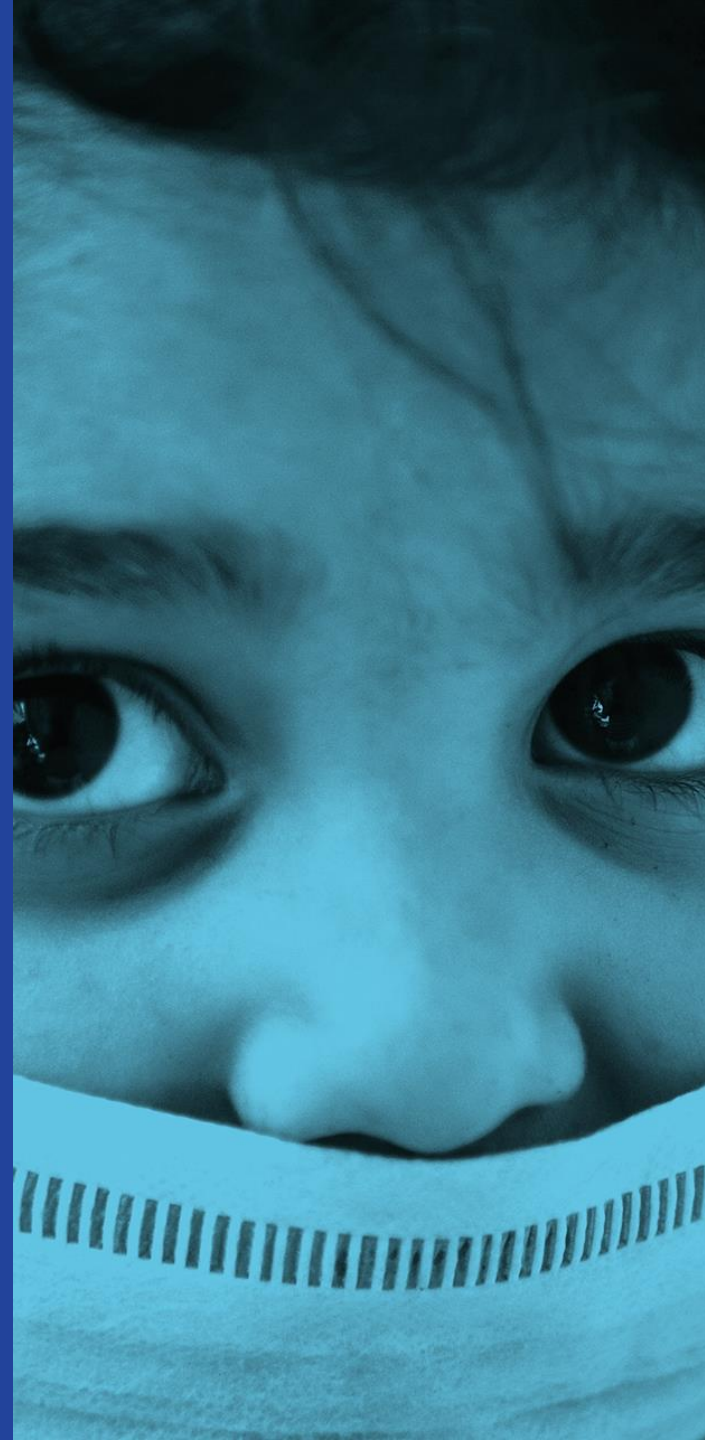
- Pollutants irritate the airways and exacerbate symptoms.
- Triggers, like air pollution, can result in hospitalisation for asthma and COPD.
- Can cause new lung conditions and linked to development of lung cancer.





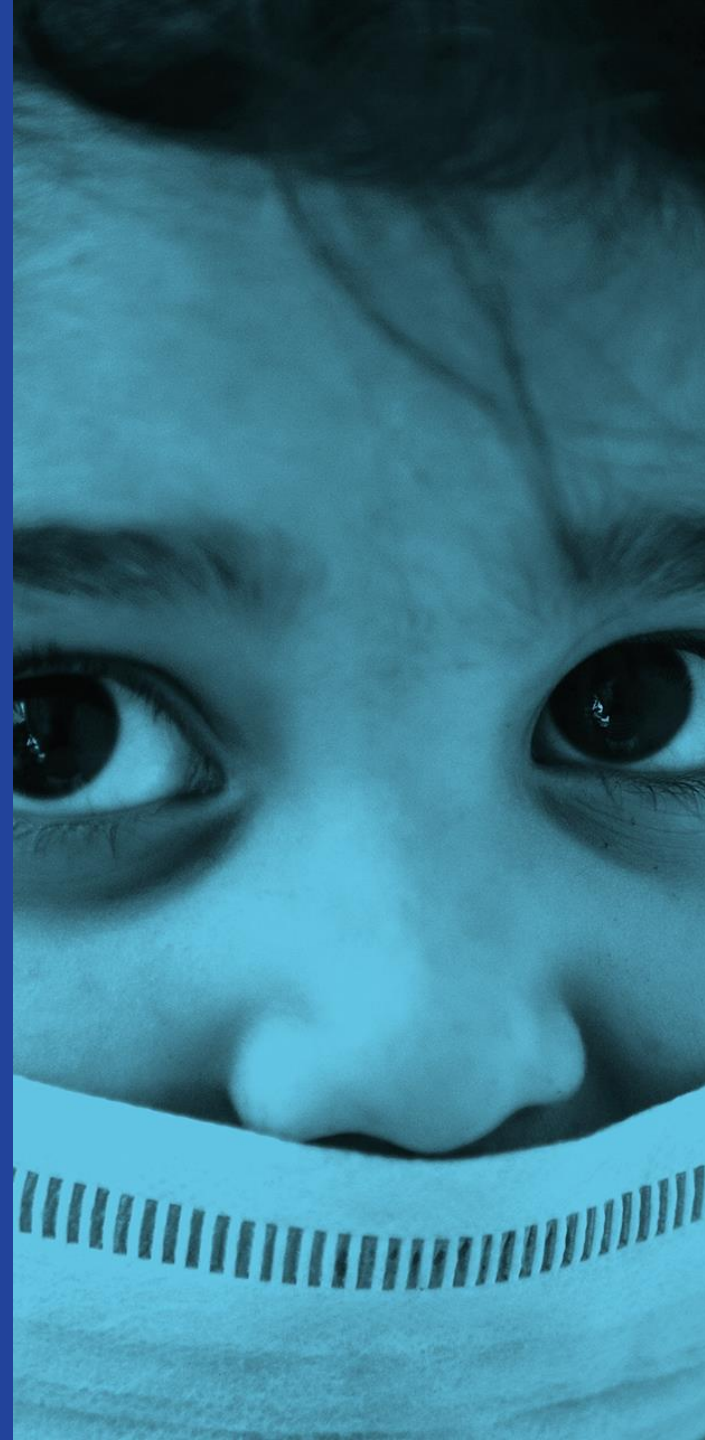
## Air Pollution + Inequalities

- More than a public health issue – also social justice.
- People on lower incomes or with existing health conditions, children and the elderly are disproportionately impacted by, and exposed to, toxic air.
- Growing evidence that ethnic minority groups are more at risk from air pollution.



## Air Pollution + Children

- Children are more vulnerable to air pollution.
- Their lungs and airways are not fully grown, they breathe faster, and they are closer in proximity to vehicle emissions.
- Exposure to air pollution as a child increases the risk of developing asthma in childhood and later life, as well as chronic obstructive pulmonary disease (COPD) as an adult.



## People with lung conditions told us that:

They have difficulty breathing when air pollution levels are high (43%)

They avoid going places where they know air pollution is higher (34%)

They avoid exercise outdoors when air pollution is worse (24%)

Being exposed to air pollution makes them feel low or depressed (10%)

**Key players +**

**Emissions targets**

## The key players + emission targets for Scotland

- Two key pollutants we look at for road transport-
  - Nitrogen dioxide (NO<sub>2</sub>)
  - Fine particulate matter (PM<sub>2.5</sub>)
- Based on the 2005 WHO air quality guidelines, current legal limits (annual mean) in Scotland for both:
  - NO<sub>2</sub> = 40 µg/m<sup>3</sup>
  - PM<sub>2.5</sub> = 10 µg/m<sup>3</sup>
- **Scotland met these targets for the first time in 2022.**



## The key players + emission targets for Scotland

- In 2021, WHO updated the air quality guidelines.
  - NO<sub>2</sub> limit was **halved to 20 µg/m<sup>3</sup>**
  - PM<sub>2.5</sub> limit was **halved to 5 µg/m<sup>3</sup>**
- Using local authority data, we found that:
  - **60/85** NO<sub>2</sub> monitoring sites would meet the new WHO air quality guidelines.
  - **35/82** PM<sub>2.5</sub> monitoring sites would meet the new WHO air quality guidelines.
- The Scottish Government has repeatedly said they are considering the new 2021 guidelines.



## **Recommendation**

**1**

**Legislate to adopt the 2021 World Health Organisation (WHO) air quality guidelines as legal targets.**

# Monitoring + Alerting



## Monitoring + Alerting

- There are 100 automatic monitoring sites in Scotland
  - Not in every local authority
  - Not all recording NO<sub>2</sub> or PM<sub>2.5</sub>
- The Net Zero, Energy and Transport Committee in it's 'Air Quality in Scotland' inquiry heard that there should be a more robust monitoring system.
- Environmental Standards Scotland has questioned if the existing monitoring network was “comprehensive enough to detect poor air quality” in Scotland.



## Monitoring + Alerting

- Calls for monitoring sites to be placed near vulnerable groups, such as schools and hospitals.
- Asthma + Lung UK Scotland backs these calls and using the data, enhance the free alert system for air pollution.
  - Less than 1 in 10 people with a lung conditions received alerts.
- Use the alerts to protect people with lung conditions and alert GPs, hospitals, schools and care homes to prepare for exacerbations on people with lung conditions.



**Recommendation**

**2**

**Increase the automatic monitoring network across Scotland so that every local authority is accounted for, prioritising areas around schools, hospitals, maternity units and care homes.**

**Recommendation**

**3**

**Improve the alert system using greater monitoring under recommendation 2 so that people with respiratory conditions and other existing health conditions can take action to protect their health during periods of higher air pollution, and GPs, hospitals, schools and care homes are alerted to prepare for exacerbations of people with lung conditions.**

# Public Transport - Rail

## Public Transport - Rail

- Passenger numbers are increasing – accounting for 16% of all passenger journeys in 2022/23.
- 57% of people polled for ALUK Scotland said that they are concerned about being able to afford public transport.
- 50% said they are likely to use their cars for travelling to city centres, with only 30% using public transport.
- ALUK Scotland welcomed the trial to end peak fares. We would like to see peak fares scrapped to encourage the modal shift from private car use.



## Public Transport - Rail

- Widely accepted that rail is a more environmentally friendly way to travel – **depends on the route and train.**
- Scottish Government aims to decarbonise the rail network by 2035 – using electric and greener methods.
- FOIs show that diesel trains account for a thirds of all rail services run and 41% of the train fleet .
- Diesel services increased by 15% between 2021/22 and 2023/24. Greater increase than for electric trains.



**Recommendation**

**4**

**Scrap peak rail fares beyond the trial ending on 27 September 2024, creating the conditions for more affordable rail travel.**

**Recommendation**

**5**

**Accelerate the roll out of electric trains and buses and reduce the proportion of routes using diesel vehicles.**

# Public Transport - Bus



## Public Transport - Bus

- Bus is the most common form of public transport – with 76% of all passenger journeys in 2022/23.
  - 84% of all bus journeys were in urban areas.
- 38% of our supporters said they use buses less than once a week and 36% less than once a month.
- Main reasons for lack of use are infrequent services, length of journeys and because of their own conditions.
- Local authorities have the power to run their own local bus services, as well as new franchise models.



## Public Transport - Bus

- 32% of people with a lung conditions say they want a more reliable public transport system to reduce air pollution.
- ALUK Scotland polling during the pandemic found almost two-thirds of people said they felt safer travelling in cars.
- Bus travel has become more environmentally friendly in recent years due to greener technologies and investment by operators and national and local governments.
- Tailpipe emissions are decreasing – but static for emissions from road abrasion and tyre and break wear.



**Recommendation**

**5**

**Accelerate the roll out of electric trains and buses and reduce the proportion of routes using diesel vehicles.**

**Recommendation**

**6**

**Utilise the powers of the Transport (Scotland) Act 2019 to support bus travel in underserved communities, create council-run services that are more affordable and accessible.**

**Ultra-low emissions vehicles**

**+ the charging network**

## Ultra-low emissions vehicles (ULEVs)

- Private car use long has been the largest contributor of NO<sub>2</sub> emissions in Scotland. Petrol and diesel vehicles make up 94% of all vehicles on Scotland's roads.
- Growth in ULEV sales increasing year-on-year.
- Manufacturers warned of slowing sales in Spring 2024, calling for more incentives for purchasing ULEV.
- The average cost of a new ULEV is c.£60,000.
  - The average earnings in Scotland for full-time employment in around £35,500.



## Ultra-low emissions vehicles (ULEVs)

### Support for policies encouraging more electric vehicle ownership



Source: Asthma + Lung UK Scotland, 2024



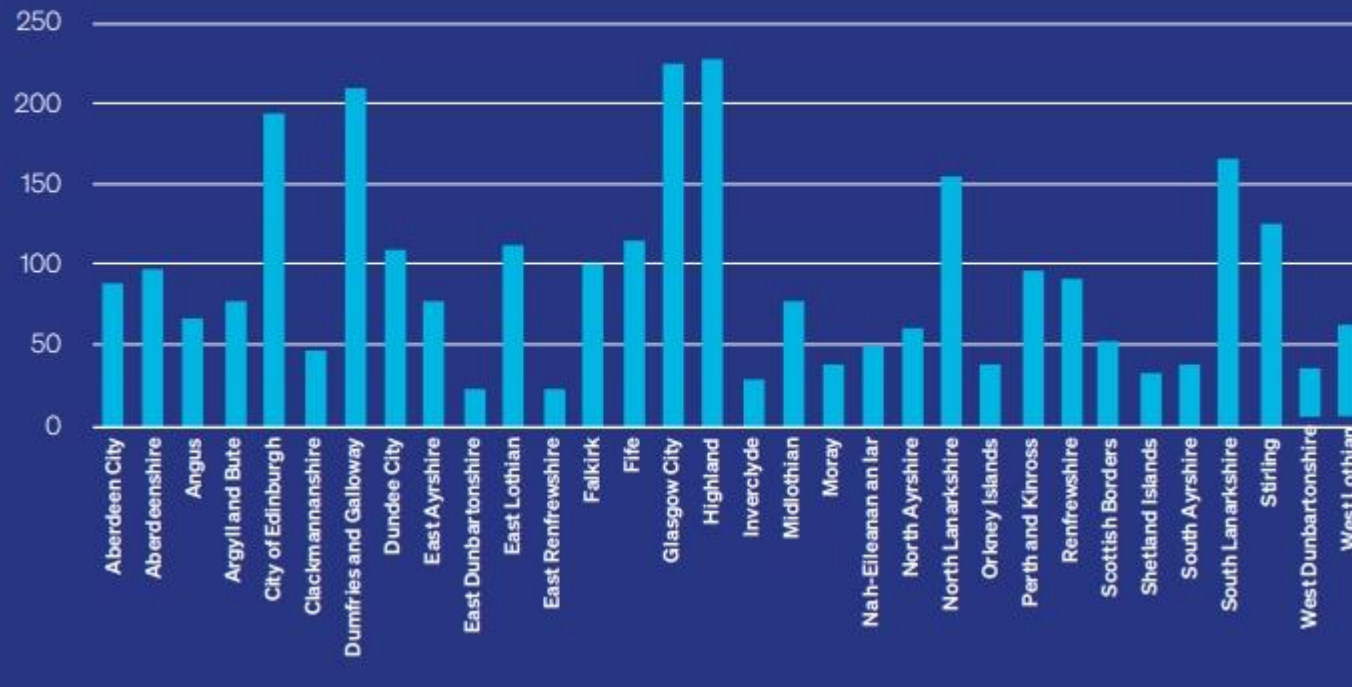
## The charging network

- Creating the infrastructure for ULEVs is crucial to encourage the uptake of ULEV ownership.
- The Scottish Government and local authorities have invested millions in public charging points across the country.
- In July 2024, there were 2,876 public charging points.
  - Up from 2,487 in July 2023.
- However, usage dropped by 36.7% between July 2023 and June 2024.



## The charging network

Total number of chargers per area (June 2024)





**Recommendation**

**7**

**Offer greater incentives of £5,000 or more to purchase new ultra-low emissions vehicles to encourage the phasing out of petrol and diesel vehicle sales.**

**Recommendation**

**8**

**Audit the electric vehicle charging network annually to find gaps in supply and demand, reporting when and where anomalies are found in charging point data.**

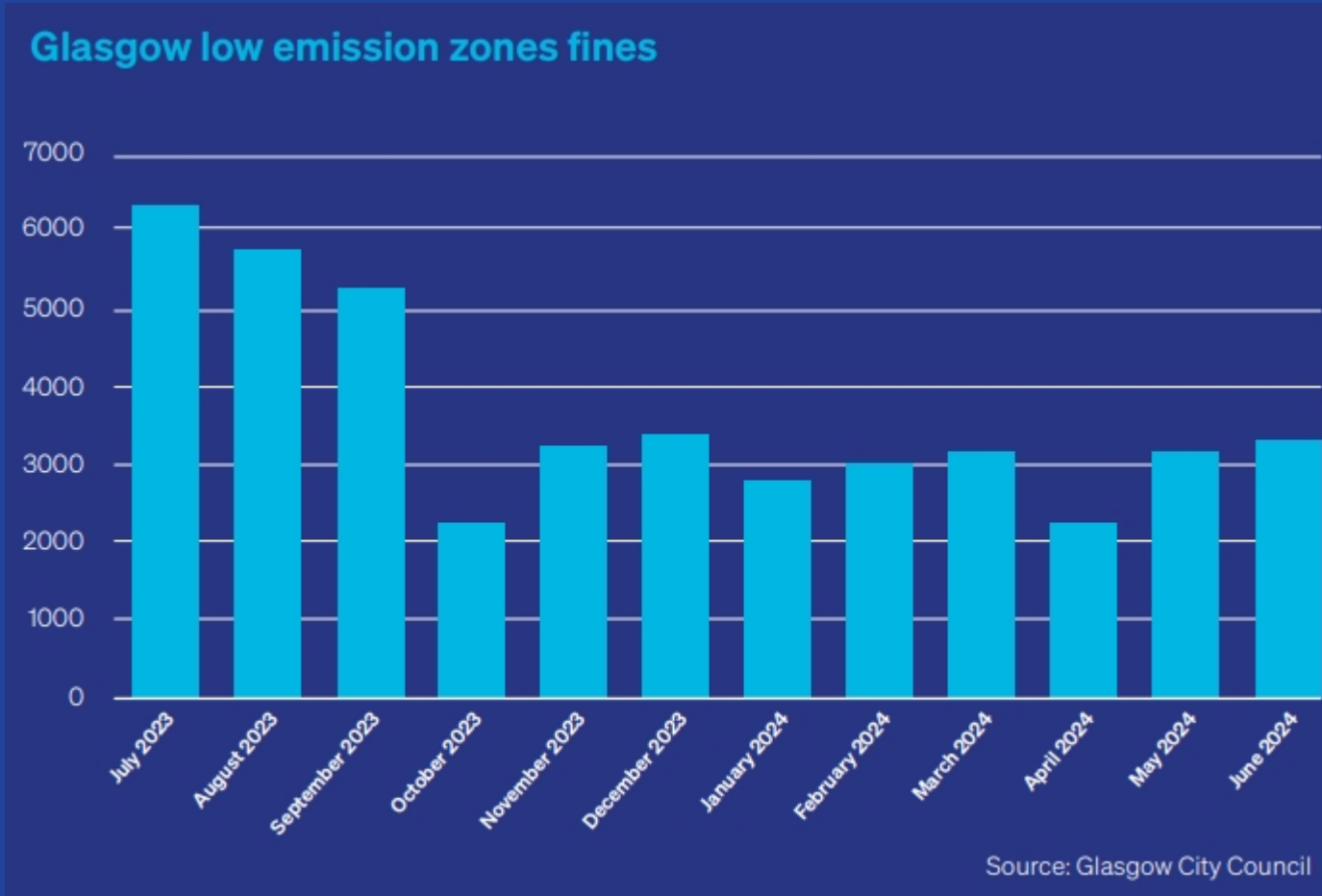
# Low Emissions Zones

## Low Emission Zones

- Now enforced in all four big cities:
  - Aberdeen, Dundee, Edinburgh and Glasgow.
- Only 10% of all vehicles do not meet the criteria.
- Asthma + Lung UK Scotland had long championed LEZs.
- News last week that Glasgow's air quality has improved, with traffic flow largely unchanged.
  - Similar success has been witnessed with the ULEZ expansion in London.



# Low Emission Zones



**Recommendation**

**9**

**Implement Low Emission Zones (LEZ) in further cities and large towns in Scotland and expand the existing LEZ boundaries in Glasgow, Edinburgh, Aberdeen and Dundee by 2030.**

# Vehicle Idling

## Vehicle idling

- A public nuisance, harming the lungs and health of children and other vulnerable groups.
- Not all councils have adopted the powers or enforce them.
- Only one fixed penalty notice issued since 2021.
  - Over 1,150 complaints recorded.
  - Almost 4,000 forms of other enforcement.
- The guidance is not strong enough and the level of fine should be greater to act as a real deterrent.



**Recommendation**

**10**

**Implement and enforce the ban on vehicle idling across Scotland and increase the fixed penalty notice to act as a greater deterrent.**





**ASTHMA+**  
**LUNG UK**

**ANY  
QUESTIONS?**

**ASTHMA+  
LUNG UK**

**THANK YOU**



Clearing the Air: Transport +  
Lung Health report

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