Integrating Action on Air Quality & Climate Change

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Environmental Policy Implementation Community

Part of the IES family

Introduction to EPIC

- EPIC is the **Environmental Policy Implementation Community** at the Institution of Environmental Sciences
- **Aims** EPIC brings together members from across the environmental sciences to share their experiences and call for ambitious and deliverable policy, as well as providing members with the knowledge, insights and tools to help them deliver on the ground.
- **Members** work in local authorities, consultancies, academia, government bodies and the private sector.
- EPIC was formed in 2023 from **merger of Environmental Protection UK and the IES.**
- Environmental Protection UK had a 125 year old history, including lobbying govt, publishing robust practical guidance for local authorities and others, and creating the Healthy Air Coalition.
- **Membership** is open to all, and free to local authority environmental professionals and to IES members.

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EPIC Plans for 2025/26 https://www.the-ies.org/about_us/epic

- Launch of *A Local Authority Guide to Environmental Implementation*, informed by EPIC's Implementation Science project at the Annual Conference (13th October)
- Biodiversity Net Gain in Practice event series
- Updating our *Land Use Planning and Development Control: Planning for Air Quality* guidance with IAQM
- Lobbying for effective policy frameworks, responding to consultations and advocacy
- Sound, Noise & Vibration Forum is working on the re-launch of Noise Action Week
- National Contaminated Land Officer's Group (NCLOG) lead EPIC's work on this topic, with events on Radon and Part 2A, and advocacy on contamination from landfill site.
- Webinars on emerging issues - underwater noise, local soils guide, OEP environmental inspections report
- Annual Conference for EPIC members 13th October https://www.the-ies.org/events/epic-agm-conference-2025

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Why we created the guidance

1 in 8 people in the world die due to air pollution.

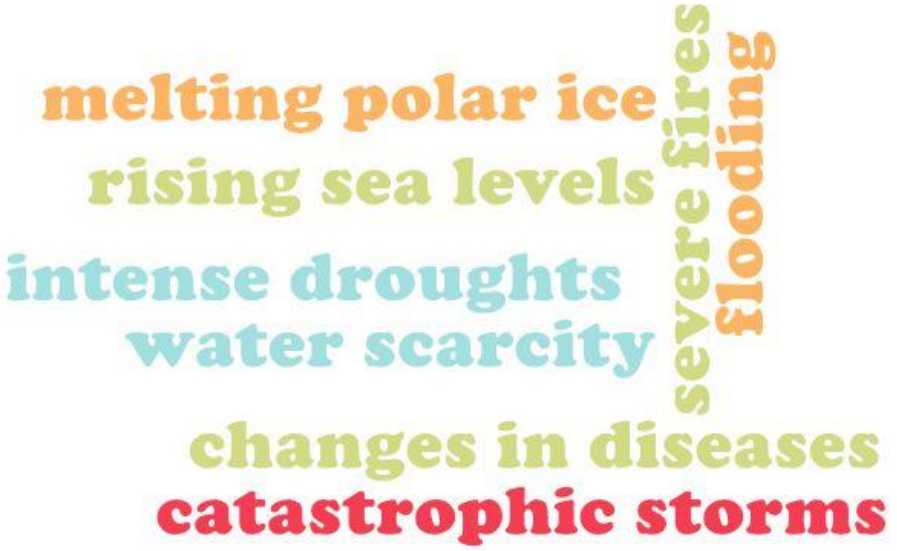
Air pollution has been linked to:

Air pollution:

- causes 7 million premature deaths and the loss of millions more healthy years of life every year worldwide;
- has a disproportionate impact on the young, elderly and ill;
- disproportionately affects deprived communities, linked to environmental justice;
- also affects crops, natural environment & buildings.

We are living in a climate crisis.

Climate change causes:



Climate change will affect every aspect of our society.

Climate change is the biggest threat to human health (WHO).

Air pollution and climate change are closely linked.

Society is changing, and local action can be very effective

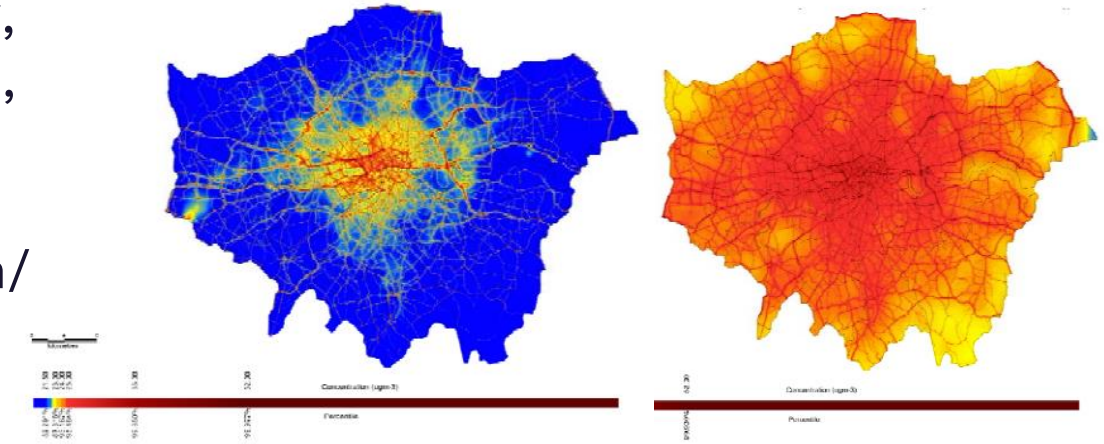
Interactions of Air Pollution and Climate Change

Air pollution impacts on climate change

- Black Carbon Particulates & Ozone
- Action on Short Lived Climate Pollutants (SLCP) could slow down warming by 2050 by 0.6°C, due to their short lifetimes[1]

Climate change impacts on air pollution

- Atmospheric chemistry, high pollution episodes, especially summer smogs, extra health impacts and vegetation/ ecosystem effects



Common emission sources

- Transport, buildings, power & heat, industry

Common actors (& influencers)

- National, city and local governments, developers, industry, consultancy

1 Climate and Clean Air Coalition, based on data from UN Environment Programme & World Meteorological Organization

2 Defra's Air Quality Expert Group, 2007, Air Quality and Climate Change: A UK Perspective

Why we created the guidance

- Air pollution and climate **are closely linked**, with interacting pollutants and impacts, and common sources.
- Local authorities have statutory duties on air quality and transport. Many have also declared a Climate Emergency. When isolated, action on these risk unintended consequences and lost opportunities.
- **Integration can make action more effective**, increase motivation and support, optimise benefits and manage trade-offs, and focus measures where and when they will have the most impact.
- **This practical guidance helps support local authorities understand and integrate action on key measures.** It is aimed for officers in a variety of departments, including transport planning, strategic planning, environmental health and public health, decision-makers and others.

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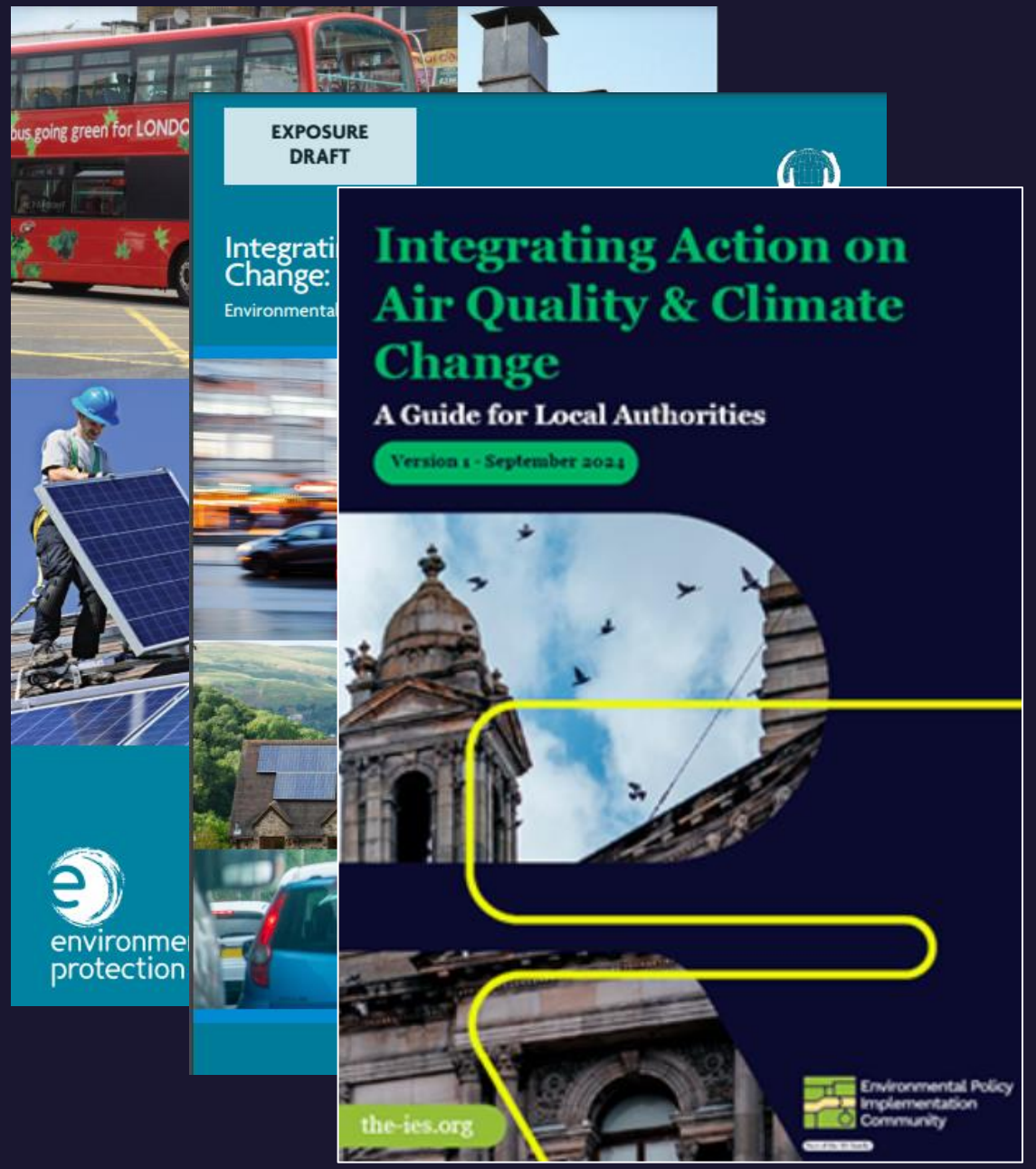
Background to the guidance

- Update of 2013 EPUK Air Quality & Climate Change Guidance for Local Authorities.
- The updated guidance was written by the EPIC Task Group, with support from external contributors.
- An Exposure Draft and local authority focus group helped refine the guidance.
- The new guidance was launched at the EPIC Annual Conference on 10 October 2024.



What is in the guidance?

- **Executive summary**
- **Introduction**
  - Air quality, climate change and local authorities: why this is important, and what role of local authorities
  - Taking an integrated approach, including how to build effective relationships and wider policy development
- **23 measures** that local authorities can take on air quality and climate change
  - Transport
  - Built environment
  - Overarching
- **Appendices** with background information on air quality, climate change and Net Zero plans

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Full list of measures

Transport

Public transport, shared transport and active travel measures

- T1: Active travel
- T2: Buses
- T3: Water vessels
- T4: Shared transport
- T5: Integrated transport management

Vehicle control measures

- T6: Emission control zones
- T7: Parking controls
- T8: Other vehicle access controls
- T9: Anti-idling Vehicles

Measures for reducing emissions from different vehicle types

- T10: Electric vehicles
- T11: Alternative fuels
- T12: Retrofitting vehicles
- T13: Fleet management
- T14: Freight management

Built environment

Buildings

- B1: Construction
- B2: Strategic planning and development management

Public realm

- B3: Public realm
- B4: Green infrastructure

Energy and heat

- B5: Energy efficiency
- B6: Non-combustion renewables
- B7: Addressing wood burning and other solid fuels

Overarching measures

O1: Waste

O2: Sustainable Procurement

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Measures: Approach

- There is **no single approach** to taking action, it depends on need and context. We set out options, issues and support.

- **Each measure has common headings:**
  - Introduction
  - Impacts* - air quality (emissions & hotspots)
    - climate
    - other impacts, e.g. health, economy, safety, vulnerable communities, indoor air quality
  - Support mechanisms
  - What can local authorities do?
  - Other issues
  - Further information

*** Impacts** includes descriptions & a RAG rating, based on the assumptions that the introduced measure is:

- Ambitious, within reasonable constraints, without mitigation;
- on an emissions source which is a significant contributor to the local authority's emissions.

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Example Measure: Active Travel

Public transport, shared transport and active travel measures

T1: Increasing active travel

People walking, wheeling and cycling instead of using motor vehicles reduces emissions and brings health benefits from physical activity. Active travel is particularly feasible for short journeys.

Air quality impacts		Climate impacts
on hotspots	on emissions	on emissions
Positive	Positive	Positive
Many shorter journeys that could be walking, wheeling or cycling are made in more polluted urban areas. Fewer short journeys in cars and taxis means reduced emissions.		Fewer short journeys in fossil-fuelled vehicles means reduced GHG emissions.

Other impacts

Health: Physical inactivity was calculated in 2019 to cost the UK £7.4 billion per year and be responsible for one in six deaths.[10] If more people walk or cycle more, health benefits follow.[11,12] The physical benefits of active travel have also been shown to outweigh the health impacts of people inhaling pollution more deeply when they are physically active cycling and walking. Pedestrians and cyclists are likely to have the highest uptake of pollutants compared to those travelling by other means in polluted areas, due to increased inhalation rates and journey time.[13] Local authorities can help to mitigate these negative health impacts by increasing the number of walking and cycling routes away from traffic, for example through parks and green areas.[14] Other actions to reduce air pollution (such as clean air zones) can further help to mitigate against greater inhalation.	Positive
Local economy: There is evidence that measures to favour active travel benefit local businesses.[15,16,17] This is due to positive impacts on staff wellbeing, productivity and retention, as well as the positive impact of walking and cycling in increasing retail spend and retail rental values.	Minor positive

Safety: Encouraging cycling and walking without improving infrastructure could increase collisions involving cyclists and pedestrians. Health benefits from active travel still outweigh the increased risk of collision. Road collision risks can be mitigated by lower speed limits, driver education and enforcement. Supporting behaviour change through safe cycling training or information campaigns could also mitigate this risk, especially with electric bikes and e-scooters which can reach higher speeds.[18,19]	Negative
Social value: Having more people of all ages on the streets helps make public spaces more welcoming and allows more social interaction. It helps people to enjoy the outdoor environment.[20]	Minor positive

Support mechanisms

The UK Government set up Active Travel England in 2020 to deliver better investment and outcomes in active travel.

In Scotland, Transport Scotland is responsible for the Scottish Government's active travel policy and has published an *Active Travel Framework*.[21]

In Wales, Transport for Wales is responsible for administering the Active Travel Fund programme, which supports the delivery of active travel programs across Wales.[22] Local authorities in Wales have a duty to promote active travel as a way of reducing air pollution, set out in *The Environment (Air Quality and Soundscapes) Act 2024*.[23]

What can local authorities do?

Local authorities can develop local cycling and walking infrastructure plans incorporating the below measures. The Department for Transport has produced technical guidance on developing local cycling and walking infrastructure plans.

Local authorities can support increased active travel in various ways:

- Ensuring active travel measures are incorporated into new developments, and considering rejecting new developments that could force people into car dependence if key services were too far away.
- Providing high-quality walking and wheeling infrastructure, including wider pavements, pedestrian phases on all arms of signalled junctions, good wayfinding, sufficient crossing times and speed limits of 20mph or lower in densely populated areas.
- Providing high-quality cycle infrastructure, including protected bike lanes and accessible cycle parking. Cycle parking also needs to be secure, for instance using bike hangars, shelters or stands from providers such as Cyclehoop. This is especially important near train stations and in high-density neighbourhoods where people do not have space to store bikes at home: theft can be a significant deterrent from cycling. See guidance from the Department for Transport, Cycling UK and Making Space for Cycling.

- Offering try-before-you-bike schemes, bike-share schemes, cycle hire schemes and cycle training. For example, see Newham Council's Try Before You Bike scheme run by Peddle My Wheels. Best-practice try-before-you-buy schemes include e-cycles, since they are more expensive, and adapted cycles for people with disabilities. Cycling UK works in some areas to offer e-cycle loans.
- Implementing play streets, school streets and liveable neighbourhood schemes.
- Promoting walking, including walking school buses, especially on routes with lower pollution levels.
- Supporting schemes such as Living Streets' National Walking Month, Sustrans's Big Walk & Wheel and using Global Action Plan's Clean Air Day to help residents make the link between air pollution and sustainable travel.
- Raising awareness of the importance of air pollution and active travel with key stakeholder groups, including schools and hospitals using Clean Air Frameworks.
- Linking with Business Improvement Districts on consultations linked to active travel schemes.

Other issues

Local authorities can support increased active travel in the long-term by ensuring walking and wheeling infrastructure is designed to withstand extreme weather, such as by mitigating urban heating effects (e.g. considering tree canopy cover) and flooding (e.g. SUDS).

Further information

- TfL: Healthy streets

Example Measure: Energy Efficiency

Energy and Heat

B5: Energy efficiency

Using energy more efficiently mean less needs to be generated. Energy efficiency can be improved by upgrading elements such as wall and loft insulation, installing higher efficiency appliances (boilers, lighting and white goods) and encouraging minor changes in behaviour.

Domestic energy efficiency can be one of the most cost-effective means of reducing GHG emissions. Improved domestic heat efficiency can reduce gas boiler use and associated NO_x emissions. It also helps ensure that people can affordably heat their homes.

Energy efficiency in offices, shops and other commercial premises is another cost-effective way of reducing GHG emissions, including insulation and lighting measures, and using more efficient appliances, such as computers, printers, photocopiers and refrigerators.

Air quality impacts		Climate impacts
on hotspots	**on emissions**	**on emissions**
Minor positive	Positive	Positive
Many homes and commercial premises are heated using combustion appliances (gas, coal or oil boilers). Improving energy and heat efficiency means less fuel needs to be burnt and fewer air pollutant emissions are produced. Upgrading boilers to modern high efficiency models or to non-combustion renewables also improves NO_x emissions directly, as modern boilers are manufactured to meet higher NO_x standards than older models and non-combustion renewables produce no direct emissions. Reducing electricity use in a home and commercial premises also reduces emissions of air pollutants from power stations.		Improved energy efficiency means lower emissions of GHGs, either directly from boilers or indirectly from power stations.

Other impacts

Health: Improved energy efficiency helps people afford to heat their homes.	Minor positive
Local economy: Measures which improve efficiency will lead to lower energy costs or more comfortable buildings. Some measures are free and others have a payback period (through reduced energy costs) of only a few years.	Minor positive
Indoor air quality: There can be a tension between the need for relatively airtight buildings to improve energy efficiency and indoor air pollution. When used effectively, airtight systems can be used to balance indoor and outdoor air pollution. However, building occupiers are not always given adequate information to understand the risks of poor ventilation or to manage and maintain their systems.	Minor negative
Vulnerable communities: Many people in the UK, especially people on lower incomes, live in poor-quality housing whose energy efficiency is also poor. Rises in energy costs fall more heavily on people who cannot afford to or have no power to improve the energy efficiency of the building fabric of their homes. The cost-of-living crisis of the early 2020s has made this inequality worse.	Positive

Support mechanisms

The LGA and Local Partnerships produced a *Green Finance Guide* in 2022, which provides practical guidance and examples of good practice to help find the most appropriate and affordable financial support for local authorities.[92]

Many local authorities are retrofitting existing properties to make them more energy efficient. Local Partnerships produced a *Domestic Retrofit Handbook*[93] in 2021, updated in 2023, which provides practical advice to local authorities. The 2023 edition reflects the cost-of-living crisis and highlights funding initiatives which may be of use.

At the time of writing this document, the Government provides advice to the public on energy efficiency, through the Help for Households campaign. Other organisations also provide advice on domestic energy efficiency, including the Energy Saving Trust, the Centre for Sustainable Energy, Citizens Advice Bureau and charities such as Age Concern.

Residents who live in social housing or claim certain benefits can access additional support from their energy supplier for efficiency measures through the Energy Company Obligation.[94]

What can local authorities do?

Local authorities can:

- Lead by example by improving the energy efficiency of their own premises.
- Set local energy efficiency standards.
- Ensure buildings in their areas comply with minimum energy efficiency standards by reviewing energy performance certificates.
- Ensure that developments minimise emissions from energy use. The London Plan, for instance, requires developers to show that its energy hierarchy has been considered.
- Help point local businesses to appropriate advice and guidance through services such as business advice and licensing, as well as groups such as business/ economic forums, and via links to local chambers of commerce. Corporate social responsibility, brand and reputation drive the behaviour of many private sector organisations. Environmental, social, and governance concerns form part of these concerns. Local authorities can work with local business communities to help connect and communicate work to improve energy efficiency with these concerns.
- Provide energy efficiency funding or sustainable growth grants.

Other issues

Some homes are hard to treat, as common energy efficiency measures such as loft insulation, cavity wall insulation and/ or high efficiency boilers cannot be fitted. Other technologies are available, such as solid wall insulation, but these can be more expensive and harder to access.

The majority of commercial property is rented rather than owned by the occupier. This adds complications due to split responsibilities, where one party is responsible for ownership of the building (and therefore incurs the costs of energy efficiency improvements), whilst another pays for fuel bills.

Further information

- Local Government Association: Financing Green Ambitions
- Help for Households: How to save energy and lower your bills this winter
- Home Energy Scotland
- Centre for Sustainable Energy: Advice and information for households
- UK Government: Help from your energy supplier: the Energy Company Obligation
- Local Partnerships: Domestic Retrofit Handbook
- UK Energy Support: ECO4 Scheme

Summary Table (part 1)

Summary table

	Measure	Likely impact			
		Air pollution hotspots	Air pollution emissions	Climate emissions	Other impacts
4.1 Transport	T1 Active travel	Positive	Positive	Positive	• Positive impacts on health • Minor positive impacts on local economy and social value
	T2 Buses	Minor positive	Positive	Positive	• Positive impacts on vulnerable communities and local economy • Minor positive impacts on health • Typically high cost
	T3 Water vessels	Positive	Minor positive	Minor positive	• Positive impacts on local economy • Minor positive impacts on health • Risk for minor negative impacts on vulnerable communities
	T4 Shared transport	Positive	Positive	Positive	• Positive impacts on vulnerable communities and minor positive impacts on social value • Typically low cost
	T5 Integrated transport modes	Minor positive	Positive	Positive	• Positive impacts on health • Minor positive impacts on noise pollution • Risk of negative impacts on vulnerable communities and community backlash
	T6 Emission control zones	Positive	Positive	Minor positive	• Positive impacts on health, local economy, social value and noise pollution • Typically low cost
	T7 Parking controls	Positive	Positive	Positive	• Positive impacts on health, local economy, social value and noise pollution • Typically low cost
	T8 Other vehicle access controls	Positive	Positive	Positive	• Positive impacts on health and noise pollution • Minor positive impacts on local economy • Risk of community backlash
	T9 Anti-idling	Positive	Minor positive	Minor positive	• Positive impacts on health • Typically low cost
	T10 Electric vehicles	Positive	Positive	Positive	• Minor positive impacts on health • Minor positive impacts on noise • High risk of impact on vulnerable communities • Typically high cost

Getting the right mix of measures

Box 1. Top measures

Most impactful win-win measures:

- Strategic planning and development management
- Walking & cycling
- Non-combustion renewables

Most impactful air quality measures:

- Strategic planning and development management
- Low emission zones
- Reducing emissions from wood burning

Most impactful climate measures:

- Strategic planning and development management
- Energy efficiency
- Electric vehicles

Measures with highest benefits for low-income residents:

- Walking & cycling
- Buses
- Energy efficiency

Measures with highest benefits for the local economy:

- Integrated transport management
- Sustainable procurement
- Buses

Box 2. Spotlight on:

Low-cost measures:

- Anti-idling
- Shared transport
- Construction
- Wood burning
- Sustainable procurement

Measures for schools:

- Other vehicle access controls (school streets)
- Walking & cycling
- Anti-idling

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Case Studies are included throughout

Low Emission Taxi Incentive Scheme – Southampton City Council

Case Study 2

Southampton City Council (SCC) launched its Low Emission Taxi Incentive Scheme in 2018. The scheme, which ran until 2021, provided grants to drivers in the city's SCC-licensed taxi fleet for switching to electric and hybrid vehicles. The scheme was extended in 2020 to include upgrades to cleaner wheelchair-accessible vehicles

Cost

- SCC received over £250,000 of Defra Air Quality Grant funding in 2017 to implement the scheme.
- Additional funding was received through the Clean Air Fund in 2020, which supported the extension of the scheme of cleaner wheelchair and accessible vehicles

Implementation

- The scheme was launched at a taxi and private hire drivers' event.
- Colleagues across the air quality and taxi licensing departments worked together to ensure continuity in the process of applicants.

Impact

- Over 60% of SCC's fleet are now hybrid or electric vehicles, up from less than 5% when the scheme first started.
- The fleet now is estimated to save 7.53 tonnes of NO_x per year.

Lessons Learnt

- More stringent rules were perhaps needed to mitigate dishonest applicant behaviour. For example, despite stating that the vehicle to be replaced cannot be 'recycled' within the SCC taxi fleet, the council still received applications for older vehicles from previous applicants.
- More oversight was required from the licensing department to ensure that the applicant's new vehicle matched what was declared in their application and that this vehicle was kept in ownership for a minimum of three years.

Next Steps

- SCC is continuing to encourage uptake of electric and hybrid vehicles through a "try before you buy" scheme for electric taxis and light commercial vehicles.

You can find more information about this case study, and many others, on the *Air Quality Hub*

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- Ellie Savage, EPIC Policy Officer (ex-efficio)

This EPIC workshop reflects on the publication of EPIC's seminal guide for local authorities. It will include an update on the Guidance, before discussion on:

- How have you used the guidance?
- Are there any corrections or minor changes that are needed?
- What future resources on air quality & climate change would you like EPIC to produce?

Register at www.the-ies.org/events/epic-workshop-air-quality

The Environmental Policy Implementation Community (EPIC) is holding its annual AGM & Conference on the 13th October, with the theme *making planning deliver for the environment*.

Presentations and discussions on topical challenges for local authority officers and others delivering environmental policy on the ground, and launch of the new *Implementation Guidance*.

Register at www.the-ies.org/events/epic-agm-conference-2025

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The guidance is available at
www.the-ies.org/resources/integrating-action-air-quality

Registration for “One-year-on” workshop (6/11) & EPIC Conference (13/10)
www.the-ies.org/events/epic-workshop-air-quality
www.the-ies.org/events/epic-agm-conference-2025

Thank you.

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