Net Zero, Energy and Transport Committee

12th Meeting, 2023 (Session 6)

Tuesday 18th April 2023

Consideration of Air Quality Improvement Plan

Background

1. The Net Zero, Energy and Transport Committee is scrutinising the Scottish Government's Air Quality Improvement Plan. The Plan was prepared in response to an Improvement Report published by Environmental Standards Scotland (ESS) into nitrogen dioxide (NO2) levels in Scotland.

2. ESS's investigation was triggered in response to a European Court of Justice (ECJ) ruling in 2021 that found breaches of air quality limit values for NO2 had been 'systematic and persistent' across the UK between 2010 and 2017. The subsequent Improvement Report produced by ESS raised a number of issues in relation to the governance and monitoring of air quality standards in Scotland. Also included in the Report were six recommendations to the Scottish Government.

3. As part of its consideration of the Improvement Report, the Committee has also agreed to examine wider issues in relation to air quality policy as part of its scrutiny. Three key topics the Committee will consider are—

- 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.

Scottish Government Improvement Plan

4. On 27 March, the Scottish Government laid its Air Quality Improvement Plan before the Scottish Parliament. Under the UK Withdrawal from the European Union (Continuity) (Scotland) Act 2021, the Scottish Parliament has 40 days to resolve if the plan should be approved. (This does not include any recess period lasting more than 4 days, which in this case means that the Easter recess period is not counted within the 40 days.)

5. The Improvement Plan sets out what actions the Scottish Government will take to address the six recommendations highlighted by ESS in its Improvement Report. Included in the Plan are commitments to—

- Update policy guidance for Local Air Quality Management (LAQM) to include—

    i. a more clearly defined requirement for Air Quality Action Plans (AQAP) to be published within as short a time as possible and no later than 12 months from AQMA designation.

    ii. specified target dates for completing each AQAP measure, well defined milestones towards completion, a clearer requirement for assessing the estimated reduction in pollutant concentrations contributed by each AQAP measure and more explicit requirements for joint working with Transport Scotland and SEPA on actions which lie outside direct local authority control.

    iii. a requirement that current AQAPs should be reviewed and, where necessary, updated within one year of the revised guidance being published, and every five years subsequently. To also regularly assess approaches to monitoring to ensure technological and analytical developments are being capitalised on.

    iv. Explicit reference to the wide-range of enforcement powers which Scotland's regulator of air quality, Scottish Environment Protection Agency, can utilise to compel local authorities to take appropriate actions to comply with their duties in relation to air quality. Under the new guidance, SEPA will be expected to more readily use its enforcement powers if local authorities are not fulfilling their duties and if deadlines for taking appropriate actions are not being met.

- Progress the Scottish Government's review of air quality data collection and reporting in Scotland to ensure air quality monitoring sites are optimally located.

- Amends the Delivery Plan accompanying Cleaner Air for Scotland 2 to provide a more detailed assessment of milestones for monitoring progress being made towards objectives outlined in the strategy.

Net Zero, Energy and Transport Committee Scrutiny of Air Quality

6. The Committee launched a targeted call for views on 11 February, to seek written evidence from stakeholders on the issue of air quality. 12 written submissions have been received so far. A copy of the call for views text can be found in **Annexe A**.

7. At its meeting on 18 April, the Committee will commence oral evidence taking by holding a roundtable discussion with stakeholders to ascertain their views on air quality in Scotland and what measures could assist with tackling air pollution. Afterwards, the Committee will hold an evidence session with a panel of local authority representatives to discuss good practice in relation to air quality management at a local level and what progress has been made in Scotland's cities regarding the introduction of LEZs.

8. The Committee will hear from—

- Dr Gary Fuller, UKRI Clean Air Champion and Senior Lecturer in Air Quality Measurement, Imperial College London;
- Stuart Hay, Director, Living Streets Scotland;
- Craig McLaren, Director, Royal Town Planning Institute (RTPI) Scotland;
- Gavin Thomson, Air Pollution Campaigner, Friends of the Earth Scotland; and
- Paul White, Director, Confederation of Passenger Transport (CPT) Scotland.

And then from—

- Kenny Bissett, Lead Officer, Land and Air Quality Team, Fife Council;
- Dom Callaghan, Assistant Group Manager, Sustainability, Glasgow City Council; and
- Shauna Clarke, Environmental Health Officer, The City of Edinburgh Council.

9. The Committee has received written submissions from the following witnesses—

- RTPI Scotland (**Annexe B)**
- CPT Scotland (**Annexe C**)
- Dr Gary Fuller (**Annexe D**)
- Living Streets Scotland (**Annexe E**)
- Fife Council **(Annexe F)**
- The City of Edinburgh Council **(Annexe G)**
- COSLA (**Annexe H**)

10. The Committee has also received written evidence from—

- Asthma + Lung UK Scotland
- Prof Jill Belch, Immediate Past President of European Society of Vascular Medicine, Division of Molecular and Clinical Medicine, Ninewells Hospital and Medical School
- Environmental Rights Centre for Scotland
- Dr Campbell Gemmell, Partner, Canopus Scotland and Hon Prof. Glasgow University and Visiting Prof. Strathclyde University Law School

- Dr Heather Price, Senior Lecturer in Environmental Geography, Biological and Environmental Sciences, University of Stirling
- Royal College of Physicians of Edinburgh
- Scottish Environment Protection Agency (SEPA)
- Sustrans Scotland

Next steps

11. On 25 April, the Committee will conclude its evidence taking on the Air Quality Improvement Plan by holding evidence sessions with ESS and the Scottish Government.

12. The Committee will then agree a short report to the Scottish Parliament. A motion seeking the Scottish Parliament's approval of the Improvement Plan will be lodged and taken in the Chamber before the 40-day period concludes on 21 May.

13. If the Parliament approves the Improvement Plan, the Scottish Government must publish it. If the Parliament resolves that the plan should not be approved, Scottish Ministers must update their plan to incorporate the views of the Parliament and lay a revised copy within a period of 3 months.

Clerks
Net Zero, Energy and Transport Committee

Annexe A

Notification to stakeholders of a targeted call for views on air quality being undertaken by the Net Zero, Energy and Transport Committee

We are contacting you because the Scottish Parliament's Net Zero, Energy and Transport Committee is conducting a targeted call for views on air quality issues. We would be very grateful if you were able to respond.

Environmental Standards Scotland Improvement Report

On 29 September 2022, Environmental Standards Scotland (ESS) issued an improvement report to the Scottish Government following its investigation into compliance with air quality limit values.

The report was instigated following a European Court of Justice (ECJ) ruling that the UK was breaching its air quality limits for Nitrogen Dioxide (NO2). The report recommends actions to address issues highlighted on air quality standards, including introducing clear and robust local authority air quality action plans underpinned by measurable objectives to be achieved within specific deadlines.

It proposed the Scottish Government should be required to—

- "identify or introduce an appropriate monitoring body;
- critically analyse the protocols surrounding the siting of monitoring stations and data provision; and
- revise its most recent air quality strategy to include specific and measurable timescales for reaching compliance."

Under the UK Withdrawal from the European Union (Continuity) (Scotland) Act 2021, the Scottish Government must produce an Improvement Plan outlining the steps it has taken to address key issues highlighted by ESS. This must be within a period of six months, or nine months if Scottish Ministers consider it necessary to consult with stakeholders on the plan. The Scottish Parliament then has 40 days to consider the Improvement Plan.

Consideration of Air Quality Issues

The Net Zero, Energy and Transport Committee has agreed to seek written views on wider air quality issues in advance of the Scottish Government Improvement Plan being laid. The Committee would welcome your views on—

The Scottish Government's, Cleaner Air for Scotland 2 (CAFS2):

- Priority areas for action;
    - Effectiveness of the strategy's aims and actions; and
    - Funding, resources and governance structures for achieving the strategy's aims and actions.

- Progress towards delivery of Scotland's low emission zones in Glasgow, Edinburgh, Dundee and Aberdeen, including—
    - The scale, ambition and proposed implementation of Scotland's LEZs;
    - Implementation of the bus low emission zone in Glasgow; and
    - Monitoring and enforcement of LEZs.
- Scotland's compliance with international standards on air quality—
    - Scotland's performance in meeting international guidelines regarding limit values for air pollutants.
    - Scotland's performance compared to other European countries.
    - International examples of best practice and how this could be applied in Scotland.

Annexe B

Response from RTPI Scotland to the Net Zero, Energy and Transport Committee's call for views on air quality

The Net Zero, Energy and Transport Committee has agreed to seek written views on wider air quality issues in advance of the Scottish Government Improvement Plan being laid. The Committee would welcome your views too-

The Scottish Government's, Cleaner Air for Scotland 2 (CAFS2):

- **Priority areas for action;**
  - Effectiveness of the strategy's aims and actions;
    And
  - Funding, resources and governance structures for achieving the strategy's aims and actions.

Exposure to air pollution is harmful to people's health in terms of premature mortality and morbidity, mainly related to respiratory and cardiovascular disease. It is also widely accepted that outdoor air pollution causes damage to human health across a wide range of conditions, from pre-birth to old age. Air pollution is also harmful to the environment generally, in particular to sensitive habitats and the wildlife depending on these, across Scotland, from local emission sources and more widely through dispersion and long-range transport of air pollutants. The planning system has an important role to play in improving air quality and reducing exposure to air pollution. Through development planning, land uses can be allocated to make sure existing, sustainable transport links between the home, workplace, educational, retail and leisure facilities are used. It also functions to plan for new sustainable transport links and for identifying appropriate locations for potentially polluting industrial development. Through development management, air quality considerations of individual schemes can be scrutinised both in terms of the direct local implications and wider potential strategic and regional impacts[1]. This important link between land use planning and air quality has been recognised in current Scottish Government policy, as set out in the Cleaner Air for Scotland 2 (CAFS2) and the recently adopted National Planning Framework 4 (NPF4). The explicit connection has been made between CAFS2 and the 'Liveable places' national policy section in NPF4 which includes such policy areas as blue-green infrastructure, play, recreation and sport, local living and 20-minute neighbourhoods, design, quality and place and health and safety.

Of particular importance regarding air quality is the new health and safety policy which includes a policy trigger for air quality assessments. The 20-minute neighbourhood policy also has great potential to manage issues around air quality. Research from 20-minute neighbourhood type interventions in Outer London during 2016-19 has shown a modal shift away from private vehicles[2] and reduction in air

[1] https://www.ep-scotland.org.uk/wp-content/uploads/2015/04/DeliveringCleanerAirForScotland-18012017.pdf

[2] Aldred, R and Goodman, A (2020) Low Traffic Neighbourhoods, Car Use, and Active Travel: Evidence from the People and Places Survey of Outer London Active Travel Interventions. Transport Findings. September. Available here: https://bit.ly/38maKTn

pollution[3]. It should be noted that a number of National Developments set out in the NPF4 will support the implementation of CAFS 2 especially National Developments for Urban Mass/Rapid Transit Networks and the National Walking, Cycling and Wheeling Network.

RTPI Scotland supports a place-based approach to tackling such issues and engaging with the community. A place-based approach is about considering all aspects of a place when considering an intervention. RTPI Scotland believes that the planning system should a central, coordinating stakeholder in delivering a place-based approach, set within the context of wider public service reform. This is a particularly important consideration when reflecting on comments made in the Air Quality Investigation Improvement Report from Environmental Standards Scotland (ESS) around governance and oversight arrangements associated with air quality being overly complex and opaque.

It is vital that effective community engagement is integrated within place-based strategies including interventions improving air quality. The Place Standard tool is an existing tool which can help achieve such an approach by providing a simple framework to structure conversations about place. This includes both physical and social elements of place structured around 14 themes. RTPI Scotland are aware that a version of the Place Standard Tool has been developed specifically from an air quality perspective[4].

In order to deliver community engagement surrounding air quality, support the implementation of 20-minute neighbourhoods, and ensure the appropriate scrutiny of the development proposals and their respective air quality assessment, the planning system needs to be effectively funded. This is especially important to consider given the context of resourcing difficulties experienced in the planning system over recent years, with recently published RTPI research[5] showing that:

- The planning service is the one of the most severely affected of all local government services in terms of budgets with a reduction of 38% since 2010;
- A quarter of planning department staff have been cut since 2009;
- Planning application fees do not cover the costs of processing planning applications;
- The new Planning Act has introduced 49 unfunded duties to local authorities which could cost between £12.1m and £59.1m over 10 years to implement;
- It is estimated that over the next 10 to 15 years the planning sector will have demand for an additional 680 - 730 entrants into the sector; and
- The planning workforce has both demographic and succession challenges in the short, medium and long term

Notwithstanding the clear case for bringing in more resource into the planning system, RTPI Scotland believes we need to develop new ways of working to ensure the effective running of planning services across Scotland. We note a number of workstreams being undertaken within the Planning, Architecture and Regeneration

[3] Dajnak, D et al. (2018) Air Quality: concentrations, exposure and attitudes in Waltham Forest. July. Available here: https://bit.ly/3sWUjoo

[4] https://www.ourplace.scot/sites/default/files/2022-01/PST%20Air%20Quality%20lens.pdf

[5] https://www.rtpi.org.uk/research/2022/december/resourcing-the-planning-service-key-trends-and-findings-2022/

Division at Scottish Government to streamline procedures which can improve local air quality, such as ongoing work on permitted development rights to enable roll out of EV charging infrastructure and active travel infrastructure. We also note that the Building Standards Division is consulting on legislative requirements for EV chargers in new developments.

Regarding funding more broadly, RTPI Scotland would stress the need to align and coordinate any funding streams with, in particular, the NPF4, the Infrastructure Investment Plan (IIP), the Strategic Transport Projects Review 2 (STPR2) and the National Strategy for Economic Transformation (NSET) but also take consideration of, for example:

- Place Based Investment Programme
- Vacant and Derelict Land Investment Programme
- Strategic Transport Funding
- Affordable Housing Supply Programme
- City Region Deals and Regional Growth Deals
- Levelling-up funds

Progress towards delivery of Scotland's low emission zones in Glasgow, Edinburgh, Dundee and Aberdeen, including-

  - The scale, ambition and proposed implementation of Scotland's LEZs;
  - Implementation of the bus low emission zone in Glasgow; and
  - Monitoring and enforcement of LEZs.

RTPI Scotland do not comment on specific local project, plans or strategies. As set out in the ESS Air Quality Investigation Improvement Report there was a recommendation for Scottish Government to critically analyse the protocols surrounding the siting of monitoring stations and data provision. Implementing this recommendation will allow stakeholders to better comment on the effectiveness of LEZ's introduced. It should be noted that in the NPF4, only the Glasgow City Centre LEZ is mentioned in regard the Spatial Planning Priorities - a section containing information intended to guide the preparation of Regional Spatial Strategies and Local Development Plans to help deliver Scotland's national spatial strategy.

- **Scotland's compliance with international standards on air quality-**
  - Scotland's performance in meeting international guidelines regarding limit values for air pollutants.
  - Scotland's performance compared to other European countries.
  - International examples of best practice and how this could be applied in Scotland.

RTPI Scotland is aware that according to provisional analysis from Friends of the Earth, Scotland did not breach legal air pollution limits in 2022 for the first time[6], which is an improvement -notably in Glasgow likely through the implementation of the LEZ. However, as set out in the Air Quality Investigation Improvement Report from ESS, concerns have been raised that there is "*uncertainty as to whether air quality limit values will be met in the future, especially given the longer term European Union programme of reducing limit values further and the Scottish Government's*

[6] https://foe.scot/press-release/scotland-meets-air-pollution-limits-thanks-to-clean-air-zones/

commitment to 'keeping pace' with developments emanating from Europe."[7] It should also be recognised that numerous locations in Scotland are continually found to breach both the Scottish, UK and EU's shared annual average target limit on air pollution[8], with air pollution estimated to contributing towards 2,500-3,500 premature deaths annually[9].

[7] https://www.environmentalstandards.scot/wp-content/uploads/2022/09/20220929-ESS-AIR-QUALITY-INVESTIGATION-REPORT-IESS.21.013.pdf

[8] https://www.iqair.com/world-most-polluted-cities/world-air-quality-report-2019-en.pdf

[9] https://foe.scot/press-release/new-research-means-2500-deaths-a-year-in-scotland-are-from-air-pollution/

Annexe C

Response from CPT Scotland to the Net Zero, Energy and Transport Committee's call for views on air quality

Thank you for your invitation to submit views on air quality issues to inform the Committee's consideration of air quality in Scotland, in advance of the Scottish Government's publication of an Improvement Plan on this issue.

Modal shift: necessary, desirable and possible

As Cleaner Air for Scotland 2 (CAFS2) and the National Transport Strategy (NTS2) recognise, modal shift from travel by private car to mass transit is crucial to reducing emissions and improving air quality (rather than switching the type of car). CAFS2 also identifies bus as "arguably the single most important mode for reducing transport-related air pollution".

A 2022 report commissioned by CPT[10] agrees that technological change, for example, electrification of the car fleet, will not be enough and concludes that the UK will not meet its net zero ambitions without shifting some of the demand for cars into bus and coach travel. In addition to the direct difference in car and bus emissions, modal shift to buses and coaches can improve air quality by reducing congestion, a key driver of air pollution. Modelling for this report suggests a total of 5,600 ton reduction in nitrogen oxides (NOx) and 121 ton reduction in PM10 up to 2050, resulting from modal shift from car to bus.

A further report, published in February 2023[11], assesses the different policy options required to produce the scale of modal shift demonstrated as necessary. Although "75% of public transport trips are taken by bus" (CAFS2), passenger numbers are in decline, therefore a range of policies are needed which increase the attractiveness of the bus network, make buses cheaper, discourage the use of cars, and make behavioural interventions to influence consumer choices. The example package of policies modelled in this report could result in not just improvements to air quality but other health and socio-economic benefits.

The largest component of this policy package to make the modal shift required is ambitious investment in bus services and infrastructure. In terms of national funding for bus prioritisation measures this is delivered via the Scottish Government's £500m Bus Partnership Fund, which allows local authorities in partnership with bus operators to invest in bus priority measures and infrastructure,

The Fund, announced in 2019 and relaunched in 2021, has so far committed just £25m of its £500m budget, with operators and authorities highlighting the current Scottish Transport Appraisal Guidance (STAG) process as being overly burdensome.

[10] '*The decarbonisation dividend: The economic, environmental and social benefits of more bus and coach journeys*', July 2022, WPI Economics. https://www.cpt-uk.org/media/fc0bzccy/decarbonisation-dividend-report.pdf

[11] '*Bus and Coach: The route to net zero in Scotland'*, February 2023, WPI Economics ADD LINK

CPT Scotland believes that bus prioritisation measures should also be delivered at a strategic level at the same pace, at the same time and with the same priority as active travel measures. If bus prioritisation and car demand management is delivered properly, it offers a huge opportunity to reduce car use and congestion which will result in more affordable and reliable buses, which will attract more people to make the modal shift away from their cars, reducing car use and congestion even further. If the two are tackled separately it can mean they end up competing for the same limited road space, impacting on bus routes and journey times, and contributing to congestion and air pollution. Instead, active travel and public transport complement each other, for example, most bus journeys begin with a walk to the bus stop.

Cross-sectional studies have assessed differences between car, bus and train commuters in level of physical activity. In one study, those who walk to and from public transport stops obtained an appreciable amount of daily transport-related physical activity (median of 19 minutes). This study also suggests that 29% of public transport (train and bus) walkers achieve 30 minutes of daily physical activity solely by walking to and from transport stops. Overall, 21% of bus users achieved 30 minutes a day of physical activity in the course of their journeys.'[12]

Decarbonisation of vehicles

It is important to note that only around 5% of road transport emissions are attributable to bus and coach, compared to around 55% from private car.

A lot of progress has been made by the industry in reducing emissions and investing in zero emission vehicles. Supporting modal shift through policy interventions designed to increase passenger numbers and improve infrastructure also improves the economic and environmental case for operators (whatever their model of ownership/delivery)to invest in zero emission buses and coaches.

The Scottish Government has a stated aim that zero-emission buses will replace "the majority" of diesel buses in Scotland by the end of 2023. Work to progress this aim includes the Scottish Bus Decarbonisation Taskforce, a joint initative between industry and government, which published 'Scotland's Pathway to Zero Emission Buses'[13] in August 2022. This sets out what has already been achieved, the current picture and what is still to be done to realise a future where all buses are zero emission. It details the roles and responsibilities of partners including Scottish Government, bus operators, the energy sector, the finance sector, manufacturers and the supply chain.

Some funding support for new vehicles has been made available via the Scottish Ultra-Low Emissions Bus Scheme and Scottish Zero Emission Bus (ScotZEB) Challenge Fund (Phase 2 of this will be awarded later in 2023), however these still require a majority investment by the operator. There is also a limited supply chain – there are only a limited number of zero emission bus manufacturers in the world - and with many countries decarbonising their fleets, this means high demand.

In addition to the vehicles themselves, a supporting infrastructure, for example charging points and depots is also required. The set up and running costs of these,

[12] https://lovemybus.scot/about/choose-bus-for-health/
[13] https://www.cpt-uk.org/media/2mtn2efb/scotlands-pathway-to-zero-emission-buses-august2022.pdf

particularly in the current climate of soaring energy costs, are also a large barrier to realising this Scottish Government target.

Coaches also provide a multitude of services including transporting tourists, home to school transport and school trips, travel to large scale events including sports fixtures, other private hire and as replacement for other modes. As many coaches also carry luggage as well as passengers and travel longer distances than a bus serving a scheduled route, these vehicles require different strategies for both vehicle and infrastructure to transfer to zero emission, research on which is being led at a UK-wide level by CPT's Zero Emission Coach Taskforce.

A report on the second phase of this work will be published later in March 2023, and focuses on possible solutions from Government, suppliers and operators to the particular challenges the coach sector faces in transitioning. We would be happy to share this with the Committee if useful.

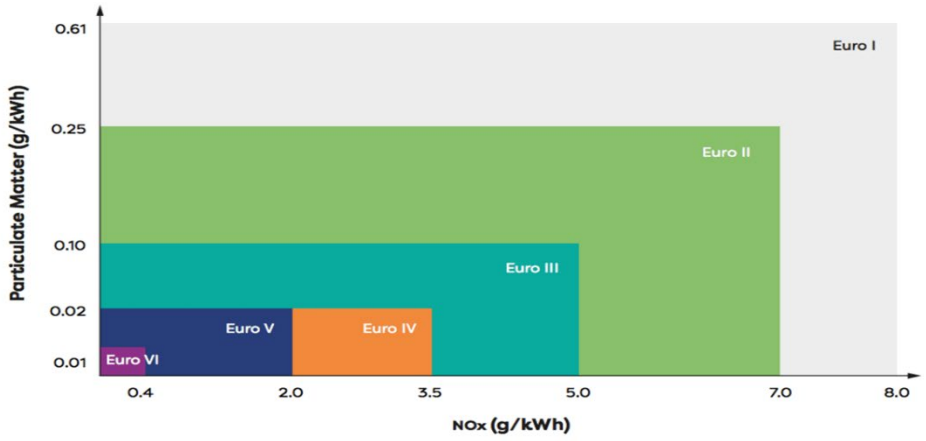
Low Emission Zones

Scotland's first Low Emission Zone, which only applied to buses was introduced in Glasgow at the end of 2018, with enforcement for other vehicles to begin in June 2023. LEZs have now been formally introduced in Aberdeen, Dundee and Edinburgh with enforcement due to begin in 2024. It is encouraging that these cities have not chosen to single out bus for early enforcement as was done in Glasgow.

It is unfortunate that the Low Emission Zone introduction was not more closely aligned with the Bus Partnership Fund. Meeting LEZ targets generates a cost to the operator as they accelerate fleet renewal. The two levers that operators can pull to meet additional costs are to increase fares or reduce services. However, investment in bus priority measures, be that through the Partnership Fund or directly by authorities, frees bus from congestion, reduces the operational costs of service provision, increases punctuality and reliability, attracts passenger growth and enables operators to generate the revenue needed to invest in fleet renewal.

A further benefit of introducing priority measures is the improvement in air quality that prioritising bus brings.

It is also unfortunate that Low Emission Zones set targets as they relate to the latest Euro diesel engine standards. The reasoning is sound in terms of the vastly improved emission profile of a Euro VI bus compared to a Euro III bus.



However, to meet LEZ targets operators faced investing in new diesel vehicles or retrofitting older vehicles to meet the emissions standards while targets for Zero Emission Buses (ZEBs) are round the corner. The average life span of a service bus is 13 years. It is difficult to make the business case to replace a Euro VI vehicle purchased to meet LEZ targets with a ZEB to meet the Programme for Government commitment on decarbonisation only a few years later.

Annexe D

Written submission from Dr Gary Fuller to the Net Zero, Energy and Transport Committee's call for views on air quality

Regarding the remit of the round table I'd be happy to talk about the measured effectiveness of the ULEZ and previously the LEZ in London. I have some experience of bus only LEZs too. Beyond issues with NO2 it is important that we also consider actions on PM2.5 and the integration of air pollution and climate policies. There is a substantial opportunity to ensure that our path to net zero is optimised for the best outcome for air pollution and public health. At the moment there are areas where climate policies such as biomass burning, the dieselisation of our vehicle fleet and urban CHP have been harmful for air pollution and it is unclear if they have helped climate too. So for the future the difficulties of attaining WHO guidelines for NO2 could be made worse by decisions to burn hydrogen or hydrogen fossil methane mixtures for building heating etc in our urban areas. For PM there are on-going questions around non-exhaust emissions from traffic as well as other sources including solid fuel heating and agriculture. It is also important that air pollution evidence is clearly communicated to the public and decision makers. Regarding public engagement I would be happy to describe some of our projects at Imperial including our work with schools and the Breathe London project.

Annexe E

Response from Living Streets Scotland to the Net Zero, Energy and Transport Committee's call for views on air quality

Introduction

Living Streets Scotland welcomes the opportunity to present evidence to Net Zero, Energy and Transport Committee on air quality management.

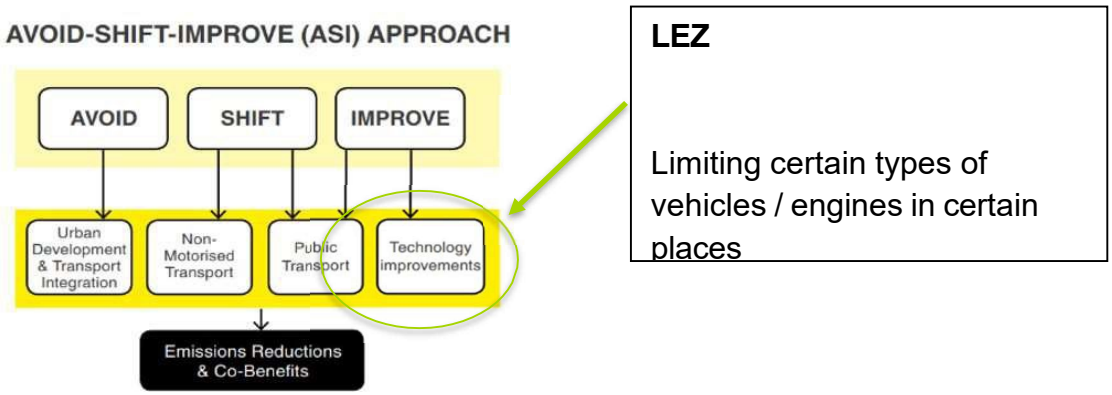
As a leading UK wide walking charity and advocacy charity for pedestrians, air pollution from vehicles in urban areas is a major concern. Walking offers a convenient, cheap, and healthy alternative to driving in many cities, town centres, small towns, and suburban areas. Fewer car trips reduce emissions. Lower levels of emissions will encourage walking. Achieving shifts in behaviour is a win-win scenario.

Observations on the approach to air quality in Scotland

We believe the approach to low emissions zones is very top down and technocratic, which focuses on vehicles and engines and less on people and sustainable travel choices.

The focus on specific classes of polluting vehicles whilst scientifically sound has several limitations including:

1. Failure to tackle wider problems with car use in urban areas, including local congestion, and road casualties.
2. Failure to tackle harmful emissions from tyres and brake wear, which may be more prevalent in heavier electric vehicles. The approach is not future proofed.
3. Failure to deliver wider health benefits through tackling Scotland's inactivity crisis, which leads to high levels of conditions such as obesity, heart disease and diabetes.
4. Recognising alternatives to the car are needed, including better walking and cycling infrastructure and public transport services.
5. A heavy focus on clean vehicles discriminates against poorer households who might have no alternative to driving but can't afford the upgrade costs.
6. A focus on material changes to vehicle access, without considering the wider factors that win hearts and minds and deliver behaviour change e.g., individual beliefs and societal norms. See Scottish Government guidance.[i] This would include a deeper look at barriers to walking and cycling and beliefs that reinforce car dependence locally.



(Image: Sustrans)

Policy Change: Towards a more holistic approach

Living Streets believes that improved air quality needs to be delivered in holistic way, which includes:

1. **A focus on overall traffic reduction** through focusing national targets on shorter and more harmful urban journeys where alternatives exist or can be put in place. A national traffic reduction target stated in terms of kilometres is optimised toward longer journeys. This could ignore short local trips which are more harmful per mile and easier to substitute.

2. **Targeting specific types of local journeys** including the school run across Scotland (up to one quarter of morning peak journeys), where substantial reductions can be made. For example, Living Streets' WOW programme only works with 171 schools across Scotland and only schools two in Glasgow. This is despite the potential to remove 5-10% of these journeys[ii]. Independent evaluation shows these changes can be achieved relatively quickly (within an academic year), and this compares favourably against the static national trend.

3. **Reducing emissions at school gates** is an easy win, with strong public support for tackling vehicle idling outside schools, yet few councils have found capacity for enforcement outside schools. Scottish polling by Asthma and Lung UK in 2022 found 77.4% support for action on anti-idling outside schools[iii]. The same research found higher levels of concern about air quality outside schools.

4. **More proactive and faster roll-out of 20 mph limits** on all urban streets. Slower speeds not only greatly increase safety, but they also reduce particulates from car tyre and brake wear when stopping. This also complements the uptake in hybrid and electric vehicles, which are better designed for efficiency at low speeds than petrol equivelants[iv].

5. **A grown-up debate about parking and how this affects streets and communities**, and how free parking subsidises more affluent households and discourages / competes with alternatives including walking, cycling and public transport and rolling out car clubs. Parking also reduces the options for green barriers such as urban tree planting, and rain gardens.

6. **A more compelling vision for 20-minute neighbourhoods** that demonstrates how quality of life improves via better walking and cycling

infrastructure, car sharing, local facilities, and access to frequent, reliable, and direct bus services. Research by Living Streets shows that many neighbourhoods lack basic walking infrastructure (well-maintained accessible pavements and safe crossings) plus basic public bus services.[v]

7. **Application of a fuller behaviour change approach** which considers individual beliefs, societal norms as well as material changes to access and infrastructure (ISM). This would start with wider and deeper community engagement.

Summary

A more holistic approach to urban air quality management
The approach to promoting air quality in Scotland needs to be much broader to deliver wider economic, social, and environmental benefits, and go far beyond relying on car manufacturers and consumers using cleaner vehicles within specific cordons. This needs to consider all aspects of an Avoid, Shift Improve approach.

Avoid: Deliver fewer local trips by cars
Overall car use and factors such as parking need to be considered. This includes better planning of 20-minute neighbourhoods with local facilities which can be reached via good walking, cycling and public transport options.

Shift: Achieve easy wins e.g., tackle the school run and idling
There are several relatively low-cost opportunities for targeted behaviour change, such as tackling the school run, which need to be rolled out. A 5-10% switch from car trips to active travel is achievable outside most urban schools, where air quality is likely to be a particular issue. This would be part of shift in strategy focused on behaviour change and social marketing to win hearts and minds.

Improve
Continue to do what we are doing with the right balance of carrots and sticks to change the types of vehicles in LEZs.

References

i Scottish Government (2013) Influencing behaviours - moving beyond the individual: ISM user guide.
ii Derek Haldane Consulting (2022) Review of WOW of Programme for Living Streets
iii Opinion Matters (2022) Poll for Asthma Lung UK of 1000 Adults
iv Energy Saving Trust (2017) Efficient driving in electric and low emission vehicles.pdf (energysavingtrust.org.uk)
v Living Streets (2023) 20 Minute Neighbourhoods a Community Perspective

Annexe F

Response from Fife Council to the Net Zero, Energy and Transport Committee's call for views on air quality

FIFE COUNCIL'S WRITTEN SUBMISSION TO THE SCOTTISH PARLIAMENT NET ZERO, ENERGY AND TRANSPORT COMMITTEE MEETING

18 APRIL 2023 AT 10:45

1. Introduction

1.1 The air that we breathe is fundamental to human life and the quality of our environment. Despite the undoubted improvements in air quality over recent years, continued and systemic action will be required to ensure we are addressing known and emerging risks.

1.2 Since Fife Council's Air Quality Strategy was first published in 2015 (covering the period 2015-2020) we have made significant steps in improving air quality in the

Fife area. This has been particularly relevant in our work in tackling road traffic pollution. These actions have all been detailed in our annual progress reports which are available at www.fife.gov.uk/airquality

1.3 Our updated Air Quality Strategy for 2021-2025 sets out the proposals for delivering further air quality improvements over the next five years and is set around the 9 key areas of approach of the Cleaner Air for Scotland 2 document[14] (2020). In doing so, we seek to ensure consistency in the approach in tackling air quality issues across Scotland. It is believed that a coherent and integrated outlook is key to avoid the risk of health-related impacts. Minimising air pollution levels will bring lasting benefits, with positive effects on public health, economic development, and population wellbeing. Our updated Air Quality Strategy seeks to contribute to Fife becoming a healthier, more sustainable, prosperous, and desirable place to live, work and visit.

1.4 However, we understand that the work is not complete and there is still more to be done as even low levels of air pollution have a detrimental effect on human health and the environment. As our understanding of other pollutants and sources of pollutants improves, we must continue to be proactive to ensure that any impacts are minimised as much as possible.

1.5 Our Strategy provides a framework which sets out how Fife Council will work with other organisations within Fife to build on the achievements already seen in reducing air pollution. This will be achieved through the promotion of best practice, use of the best available technology, awareness raising and encouraging behavioural change.

1.6 The good progress made in implementing the aims and objectives of our first Air Quality Strategy was acknowledged at the Convention of Scottish Local Authorities (COSLA) excellence awards 2017. Fife Council received a bronze award in the category of “Tackling Inequalities and Improving Health”. With this Strategy we aim to continue this good work. For over 15 years Fife Council has been successfully tackling the issue of air pollution in the region through its proactive commitment to the Local Air Quality Management (LAQM) regime. This Strategy is a commitment to seeking further improvements through a holistic approach.

2. Background to Fife Council’s LAQM and AQ Strategy

2.1 Fife Council is required by environmental legislation to periodically review and assess air quality in relation to statutory objectives. Our Air Quality Team within Protective Services undertakes extensive automatic and diffusion tube air quality monitoring throughout Fife. Pollution from road vehicle emissions is the key air quality issue in Fife, with Nitrogen Dioxide (NO_2) and Particulate Matter) being the pollutants of concern.

Air Quality Management Areas

2.2 Where exceedances of air pollutant objectives are identified or considered likely the local authority must declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place

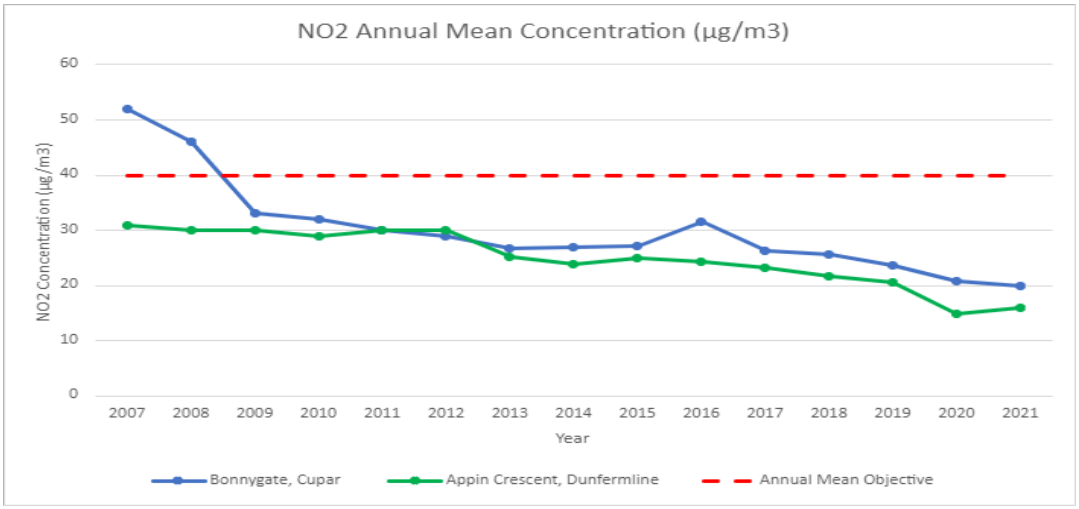
[14] https://www.gov.scot/publications/cleaner-air-scotland-2-towards-better-place-everyone/documents/

to achieve the objectives. Air Quality Action Plans have been prepared and updated as appropriate for the Bonnygate, Cupar[15] and Appin Crescent, Dunfermline[16] Air Quality Management Areas (originally declared in 2008 and 2011 respectively).

2.3 The development of each action plan began with an inception meeting, which was attended by several local authority officers and representatives from relevant organisations, forming the Air Quality Steering Group. This Group considered a comprehensive set of action plan measures in seeking the necessary air quality improvements. This included traffic management, fleet (includes Fife ECO Stars scheme), behavioural (e.g., walking/cycling initiatives) and strategic (local development plans) measures. This Group is referred to as the Fife Core Air Quality Steering Group and meets quarterly to ensure adequate progression of action plan measures for tackling air quality issues.

2.4 Both the Appin Crescent and Bonnygate Air Quality Action Plans have been successful in improving air quality in these Air Quality Management Areas and the Action Plans have been subject to numerous updates over the years. Action Plan measures include the introduction of road traffic management measures such as a "co-ordinated traffic queue relocation system" (more specifically the implementation of new Urban Traffic Management and Control system and changes to pedestrian crossings) in Bonnygate, Cupar in 2009 and revised lane markings and associated road traffic signage in Appin Crescent, Dunfermline in 2012. The subsequent air quality improvements have allowed for the amendment of the official Air Quality Management Area Orders to remove the pollutant Nitrogen Dioxide because of the significant decline in concentrations of this pollutant (see Figure 1).

Figure 1 - NO_2 automatic monitoring results for 2007 to 2021 in Cupar and Dunfermline



Annual Progress Reports

2.5 The results of our Fife-wide monitoring and progress with our Action Plan measures are reported annually.

[15] https://www.fife.gov.uk/__data/assets/pdf_file/0027/252864/AQAP_Appin-Crescent_200721.pdf
[16] https://www.fife.gov.uk/__data/assets/pdf_file/0028/252865/AQAP_Bonnygate_2021-2025_200721.pdf

2.6 The latest Air Quality Annual Progress Report for 2022[17] assesses the data collected in 2021 and discusses the implications for air quality management in Fife.

- Nitrogen Dioxide (NO_2)

  Fife Council carry out monitoring of nitrogen dioxide (NO_2) at four automatic stations in Cupar, Dunfermline, Kirkcaldy and Rosyth. Non-automatic monitoring of NO_2 was carried out using diffusion tubes at 42 sites (total of 58 tubes). All NO_2 concentrations measured during 2021 were below the annual mean objective of 40 micrograms per cubic metre (µg m-3).

- Particulate Matter (PM_{10} & $PM_{2.5}$)

  PM_{10} and $PM_{2.5}$ is measured at the four automatic sites within Fife at Cupar, Dunfermline, Kirkcaldy and Rosyth. During 2021 all concentrations were below the annual mean objective of 18 µg m^{-3} for PM_{10} and 10 µg m^{-3} for $PM_{2.5}$.

- Carbon Monoxide, Sulphur Dioxide, 1,3-Butadiene and Benzene

  The review of all available data relating to carbon monoxide (CO), sulphur dioxide (SO_2) and benzene monitoring during 2021 indicates that it is unlikely that any air quality objectives relating to these pollutants were exceeded during 2021.

2.7 The 2020 Mossmorran & Braefoot Bay Independent Air Quality Monitoring Review Group Annual Report has now been published (delays due to COVID) and new Expert Advisory Groups (includes Air Quality) established. Based on the available data reviewed in 2020, it is concluded that the emissions from the Shell and ExxonMobil plants at Mossmorran and Braefoot Bay continue to pose no significant risk from air pollution to the health of members of the local community. The full 2020 Annual Report can be viewed at Mossmorran and Braefoot Bay | Fife Council

Fife's Air Quality Strategy

2.8 Fife's Air Quality Strategy outlines our continued intention to maintain and improve air quality in Fife.

2.9 As noted above, the Strategy aligns itself with the Cleaner Air for Scotland 2 document by raising awareness of air quality issues, promoting our best practice work, and is centred around the nine keys areas:

1. Health – Protecting residents and visitors from the harmful effects of air pollution.
2. Integrated Policy – Integrating air quality within Council plans and strategies.
3. Placemaking – Meet the future environmental, economic, and social needs of its residents and maintain good air quality.
4. Data – Provide high quality data that will accurately inform mitigation decision making.

[17] https://www.fife.gov.uk/__data/assets/pdf_file/0027/252864/AQAP_Appin-Crescent_200721.pdf

5. Public Engagement and Behaviour Change – Engage with people about how air pollution affects them and what they can do to make a difference.
6. Industrial – Support the control and reduction of air pollution from industrial sources.
7. Non-transport – Control and reduce air pollution from non-transport sources such as domestic household biomass boilers and agricultural emissions.
8. Transport – Maintain the reductions achieved in NO_2 and PM_{10} concentrations from road traffic.
9. Governance – Deliver improvement to air quality in partnership with key stakeholders.

2.10 Our Strategy for 2021-2025 has received a commitment from key Fife Council stakeholders as well as a range of external organisations.

2.11 Both the Scottish Government, and their official appraisers of Annual Reports on Air Quality, have cited the production of our Strategy as an example of "best practice" and Environmental Standards Scotland in their "Air Quality Investigation Improvement Report" September 2022[18] submitted to the Scottish Parliament have identified certain positive approaches taken by Fife Council in tackling air quality issues including the formation of a Core Air Quality Steering Group.

3. Progress and Ongoing Work

3.1 Full details of progress and work actioned in 2021/22 can be found in our Annual Progress Report for 2022. However, a summary of progress and work actioned in 2021/22 is provided below:

- Increased membership of Fife's ECO Stars scheme This is a free, voluntary scheme which provides recognition, guidance, and advice on operational best practice to fleet operators. To date, there are 270 commercial fleet members (9460 vehicles) and 150 taxi and private hire operator members (622 vehicles). These schemes are currently funded by Scottish Government air quality grant which is the subject of a competitive bidding process each financial year.

Photograph 1 Fife ECO Stars launch event at Town House, Kirkcaldy 16th October 2014

[18] 20220929-ESS-AIR-QUALITY-INVESTIGATION-REPORT-IESS.21.013.pdf (environmentalstandards.scot)

- By the end of the 2021/22 period Fife Council's Fleet Operations had 55 full electric vehicles and 19 hybrid vehicles in service. The size of the Fife Council fleet decreased in 2021 (to 1398 vehicles) and now stands at 1355 (a 3% reduction) in vehicles.

- In the last 5 years Fife Council have reduced their diesel consumption by over 1 million litres this equates to over 2,500 tonnes of CO_2. This is as a result of a combination of factors i.e., reduced fleet, purchase of new fleet items with better emission technology, adoption of alternative fuel vehicles, modern vehicle telematics and smarter ways of working (e.g., mobile working, route planning, depot rationalisation and hybrid working).

- For Clean Air Day 2021, Fife Council provided two primary schools (Southwood Primary School, Glenrothes and Pupil Support Services, Glenrothes Campus – Rimbleton) with an educational package, including materials to carry out their own monitoring studies.

- The "Walk Once a Week" Campaign is a partnership between Fife Council and Living Streets Scotland that continues to promote active travel. 2021/22 saw a maximum of 19 school and 4,207 pupils take part.

- The Hands Up Scotland is a joint survey (funded by Transport Scotland) between Sustrans and the 32 Scottish local authorities. Each September, schools complete the survey by asking their pupils 'How do you normally travel to school?' and the results provide a valuable annual snapshot of typical school travel habits. The results for 2021 show that there was a slight decrease in active travel within Fife Primary schools from 59.4% in 2020 (50.1% walking, 4% cycling and 5.3% scooter/skate) to 53.9% in 2021 (46.4% walking, 3.3% cycling and 4.2% scooter/skate). In association with this decrease in active travel there was an increase in pupils being driven to school (from 19% in 2020

to 23.1% in 2021) and those opting to park and stride (from 15.4% in 2020 to 16.5% in 2021).

- Cycling is promoted through encouraging active schools and is further promoted within schools via the Bikeability scheme. Over 2021 the number of pupils signed up to take part across Levels 1 and 2 of Bikeability were: Level 1 – 1,357 pupils from 31 schools (100% of pupils passed) and Level 2 – 1,240 pupils from 28 schools (100% of pupils passed). The Cycle Training Assistant course is now being offered to enable Bikeability training be provided to more schools.

- An electric vehicle purchased via Scottish Government grant to replace a diesel van in the Council fleet used for Meals-on-Wheels.

- The Northern Link Road Dunfermline dispersion model was updated in March 2022 using the most recent available data. These results show that no exceedances of the annual mean NO_2, PM_{10} and $PM_{2.5}$ Scottish air quality objectives within the Appin Crescent Air Quality Management Area (AQMA) are predicted for any of the future scenarios assessed. Fife Council will utilise the updated model to consider air quality issues in and around Dunfermline as part of the planning process.

- A Real-World Driving Emissions Study was undertaken over one week within the Appin Crescent and Bonngate AQMAs in February/March 2022 and gathered data from nearly 13,000 and 12,000 vehicles respectively. The data from these monitoring studies will be used to inform future decision making and policy changes.

- A survey on domestic fuel use within both AQMAs was undertaken in March 2022. This survey looked specifically at identifying the extent of solid fuel burning in and around the AQMAs, and whether open fireplaces, solid-fuel stoves and biomass boilers are used as a source of heat by householders and businesses. Of the 2,020 surveys sent out a total of 556 responses were received, 339 (24%) from the Bonnygate area and 217 (37%) from the Appin Crescent area, meaning an overall response rate of 28%. Of the responses received, 24 (12%) from Bonnygate and 36 (17%) from Appin Crescent answered ‘yes’ to using solid fuel burning as a head source. Around a third of survey respondents want to learn more on the best practice in terms of running and maintaining their appliance. The findings of this fuel use survey will aid in the production of such promotional materials.

3.2 Fife Council will continue to progress with its Local Air Quality Management duties and Action Plan measures. A summary of works to be actioned is provided below:

- Ongoing monitoring of nitrogen dioxide and relevant particulate matter concentrations and the publication of the Annual Progress Report in 2023.

- Continued implementation of Action Plan measures. Monitoring of both Nitrogen Dioxide and fine Particulate Matter will continue within the two AQMAs to assess the effectiveness of action plan measures.

- Await the outcomes of the Scottish Government intercomparison study of particulate monitors (anticipated in 2023) to inform decision regarding the possible full revocation of both AQMAs (as reported to the Environment and Protective Services Sub-Committee on 18th November 2021[19]).

- Deployment of new portable AQMesh units at key areas of concern (City Road, St Andrews and St Clair Street, Kirkcaldy) and an additional unit to be deployed in the Bonnygate AQMA to further inform the revocation decision making process.

- Continued implementation of Fife Council's travel plan, encouraging walking and cycling infrastructure and initiatives. Undertaken by Roads & Transportation Services, this forma part of a wider programme to encourage active travel through the provision of improved infrastructure and promotion of the benefits of active travel. Fife Council Travel Plan encourages employees to consider alternatives to car use for personal and business travel. Periodic employee surveys are carried out to gauge employee views and travel choices.

- Continuation of Fife ECO Stars recognition schemes (fleet and taxis). This initiative continues to attract significant membership and is seen as an integral part of Fife's Air Quality Strategy.

- As part of Clean Air Day 2022, Fife Council received Scottish Government grant funding to have EnviroTechnology Services' Smogmobile visit three primary schools in Dunfermline (Carnegie, St Margaret's RC and Duloch / Calaiswood). The Smogmobile gave pupils the opportunity to learn about air quality and monitoring techniques in an interactive manner and included the use of a mobile monitoring van which gave the children a chance to see air quality monitoring equipment in action (see below Photograph 2). Fife Council intends to promote future Clean Air Day activities subject to Scottish Government grant funding.

Photograph 2 The Smogmobile at Carnegie Primary School, Dunfermline during Clean Air Day 2022

[19] Agenda-and-Papers-for-Meeting-of-Environment-and-Protective-Services-Sub-Committee-of-18-November-2021.pdf (fife.gov.uk)

- Building of an air quality and climate change co-benefits evidence base to evaluate the likely impact and benefits of actions being considered by Fife Council in relation to the Fife Council Climate Action Plan 2020-30[20].

- Undertake a two-part anti-idling engine campaign. An educational package is being provided to primary schools along-side a competition to produce posters and banners with an air quality and anti-idling theme. The winning banner and posters are to be produced and displayed at the winning schools, with additional posters being produced for placement across the Fife area. Members of Fife's ECO Stars schemes will be encouraged to publicly support the anti-idling campaign via social media. The campaign aims to complement educational activities, ECO Stars and Clean Air Day.

4. Conclusions

4.1 Fife Council is demonstrating its ongoing commitment to improving air quality through the production of its Air Quality Strategy 2021-2025.

4.2 It has been confirmed that air quality has improved in Fife's two Air Quality Management Areas because of completed and ongoing Air Quality Action Plan measures.

4.3 Fife Council has been commended for its efforts by the Scottish Government, SEPA, Environmental Standards Scotland and Defra and cited as demonstrating "best practice" in this field of work.

[20] https://www.fife.gov.uk/__data/assets/pdf_file/0017/193121/ClimateActionPlan2020_summary.pdf

Annexe G

Response from The City of Edinburgh Council to the Net Zero, Energy and Transport Committee's call for views on air quality

Approach to managing air quality in the City of Edinburgh Council.

In dealing with air quality and particularly the implementation of the Low Emission Zone, the council has taken the approach to try and align Transport and Planning priorities, particularly in the City Centre. In practice this involved developing the Low Emission Zone in tandem with the City Mobility Plan and the Edinburgh City Centre Transformation, cumulating in a combined consultation 2017 & 2019 (3-projects).

Integration with the Councils new Climate Strategy also ensured multi-disciplinary benefits and conflicts were considered.

Nationally, CAFS recognises alignment is needed with these disciplines. The National Transport Strategy and the National Planning Framework also need to ensure that economic growth is delivered in the most sustainable, strategic way and that there is sufficient infrastructure to support the level of development. At regional level, there is also a strong requirement for spatial planning decision-making to be undertaken holistically.

Local Air Quality Management & Air Quality Action Plans (AQAPs)

The City of Edinburgh Council revised the Air Quality Action Plan for Edinburgh in 2022. A copy is provided attached.

The draft AQAP was produced in collaboration with external bodies, SEPA, Transport Scotland and NHS Lothian, as well as relevant Council disciplines including Placemaking and Mobility, Planning, Climate (Policy and Insight), Regulatory Services, Finance and Communications.

This Plan was developed with these stakeholders in 2022 and presented to the Transport and Environment Committee of the Council in December 2022. It is currently undergoing a period of statutory consultation including workshops, subject of focus groups, public questionnaire and written correspondence with statutory consultees. It is intended that the Plan will be finalised following consultation input before the end of 2023. This stage will also need scrutiny by the Transport and Environment Committee.

AQAP Development

During the initial stages of developing the draft AQAP, a review of the actions in the existing plan was undertaken to consider their success, or otherwise, and help identify those which remain relevant going forward into the updated AQAP. The outcome of this review is summarised below. This was part of wider consideration of relevant national, regional, and local policies, plans and programmes which have the potential to impact air quality in Edinburgh.

The focus of the previous (2010) AQAP was to reduce emissions from buses and freight vehicles operating in the city. A Low Emission Strategy Feasibility study undertaken prior to 2008, concluded that the greatest reductions in NOx and PM10 emissions would be achieved by implementing a mandatory emissions reduction scheme for bus and road freight operators. Voluntary Partnership Agreements were deemed the next best option. Further Assessments at St John's Road and Great Junction Street AQMAs also identified that buses were the main contributors of NOx emissions.

NB Further source apportionment work and LEZ development work identified the need for all vehicle types to be addressed in future action planning.

Cleaner Vehicles – Actions on Buses

Ongoing work with bus operators has developed since the AQAP was published, through voluntary partnerships, retrofitting existing buses and assisting bus operators with renewal of the fleet through Scottish Government funding. Buses will be further targeted through the Low Emission Zone (LEZ). In terms of impacts on emissions in the city centre, this group of ongoing measures is likely to have had the largest impact and will continue to help improve air quality as the bus fleet moves away from diesel.

Cleaner Vehicles – Actions on Freight

The main measure relating to freight has been the implementation of the ECO Stars scheme, which has expanded to include over 10,000 vehicles and 312 operators, becoming the largest scheme in the UK. Heavy Goods Vehicles (HGVs) have seen the largest proportional reductions in emissions with increasing Euro standards (particularly Euro 6), and therefore this measure is likely to have brought forward emissions reductions sooner than would otherwise have been the case.

Policy Planning and Assessment

The 2010 AQAP included a measure to run a series of seminars on air quality monitoring, establish a city-wide inventory of development sites, and develop further modelling of air quality impacts around current developments. Although this area of work hasn't progressed as much as those discussed above, air quality assessments ensure that air quality is fully considered within the planning process.

Transport Planning

At the time of the 2010 AQAP the Local Transport Strategy (LTS) was the key transport planning policy document. Since then, the Edinburgh Active Travel Action Plan has been updated periodically and the LTS has been replaced by the City Mobility Plan which, among other aims, has set a target for transport to be net zero carbon by 2030. Throughout the evolution of transport policy in Edinburgh since the AQAP was published, air quality has been considered within the process, with air quality professionals collaborating on policy to reduce both vehicle numbers and emissions. The implementation of the City Mobility Plan will be key to the updated AQAP.

Traffic Management

Traffic management measures have focussed on traffic signalling (implementation of SCOOT and MOVA at various junctions across the city) and 20 mph zones. At the Newbridge Roundabout (Glasgow Road AQMA) a feasibility study of three specific

options was undertaken. Modelled emission reductions for NOx, PM10 and CO2 were 47%, 29% and 43% respectively, for the afternoon peak period with implementation of MOVA. Vehicle time delays were assessed pre-and post-installation with results showing that there was a significant reduction in waiting time on the A8 westbound corridor. In most cases these systems will reduce stop start traffic at specific junctions will result in localised and marginal reductions in emissions.

Cleaner Vehicles - Council Fleet

Some progress has been made in both driver training (eco-driving) and in telematics use in council vehicles. There has also been a gradual fleet renewal with an increase in electric vehicles (100% for cars) for the Council fleet. Notably, an electric 15-tonne mechanical street sweeper entered operation in 2020, which is the first of its type in Scotland. Although the Council fleet is not a large proportion of overall traffic in Edinburgh, and therefore will not have a large impact, it is important to show leadership and increase public awareness of the use of low emission vehicles.

Other

Other measures in the AQAP included staff awareness training, which although would not have had a large impact on emissions, raised awareness about air quality more widely across the Council. Measures progressed since the AQAP was published include the Edinburgh Tram, Borders Rail Link, Electric Vehicle infrastructure and extensive feasibility work on the LEZ.

Progress on actions in the plan and other measures the Council is undertaking which affect air quality have been reported annually within Edinburgh's Annual Progress Report (APR). The APR has also reported a general downward trend in concentrations of NO_2 across Edinburgh. This will be as a result of both local measures (for example those to reduce emissions from buses and freight), measures being implemented by the Scottish Government (through Cleaner Air for Scotland) and those at a wider scale (such as those to reduce emissions from vehicles/improved Euro Standard vehicles). However, despite improvements, there remain areas of poor air quality which the revised AQAP will need to address.

AQAP Approach

The revised draft AQAP focuses on locations where there are current exceedances of the NO_2 statutory objectives, but also identifies strategic measures which will ensure concentrations of several pollutants are reduced across Edinburgh, even below current objectives. This precautionary approach to public health is supported by the Cleaner Air for Scotland 2 Strategy (CAFS2) 2021.

The AQAP has been created in tandem with emerging placemaking and mobility-led strategies and actions plans including the Street-space Allocation Framework and action plans covering active travel, public transport, road safety and parking. This approach maximises delivery of relevant strategic objectives in the Council's City Mobility Plan, 2030 Climate Strategy, and emerging City Plan 2030.

The Plan is intended to complement the substantial amount of work which has been undertaken in relation to the Low Emission Zone (LEZ), which was implemented on 31 May 2022 (and will be enforced from 1st June 2024).

The draft Plan's actions are summarised under eight key themes;

1. Low Emission Zone
2. Strategic Transport
3. Active Travel
4. Public Transport
5. Low Emission vehicles
6. 2030 Climate Strategy
7. Integrated Policy
8. Domestic Emissions

As per the template Action Plan, each action includes the Council department or other organisation who is responsible for delivery, expected benefit in terms of pollutant emission and/or concentration reduction (where possible), implementation timescale, and how progress will be monitored.

Funding streams and costs (where known) are also highlighted within the Plan.

AQAP Priorities & Results

The draft Plan recognises key issues that need to be prioritised as follows:

- Implementation of the LEZ, which should reduce concentrations of nitrogen dioxide in central Edinburgh to a level which achieves the air quality objectives and Limit Values at most locations,
- Specific action in other areas of poor air quality such as St Johns Road AQMA and continued action in areas where AQMAs are being revoked to ensure air quality continues to improve e.g., Inverleith Row AQMA,
- Through collaborative working, ensure that wider strategic air quality action is implemented through existing policy areas. This will include strategic transport improvements, promotion of behaviour-change to reduce private vehicle use, promotion of low emission vehicles and controlling domestic emissions, and,
- Plans being developed and implemented for placemaking, climate change and noise reduction are closely co-ordinated and aligned with those for air quality in order to maximise co-benefits.

It is judged that with the implementation of the LEZ, the actions outlined in this draft Plan and the Council's wider commitments, the current air quality objectives for NO2 will be achieved within the duration of the Plan.

There are several air quality policy areas that are outside of the direct control of the Council, such as vehicle emissions standards. The Council will therefore continue to work with regional and central government and key stakeholders on policies and issues beyond the Council's direct influence, particularly where local evidence can be provided to support and influence change.

Annexe H

Response from COSLA to the Net Zero, Energy and Transport Committee's call for views on air quality

Dear Edward

Re : Your inquiry on Air quality in Scotland

Thank you for inviting us to respond to your inquiry on air quality.
We agree with the NZET Committee's view that air quality is an important issue, especially with regard to the health implications associated with air pollution. At the same time, and in the context of limited resources, COSLA's recent priority and focus has necessarily been on the wider net zero and just transition agenda, to which we have spoken to your committee.

Our observations on the ESS (Environmental Standards Scotland) report on air quality are therefore at a high level, and reflect the observations of local government professionals engaged in this field. We are also aware that Councils across Scotland are affected in very different ways.

We understand that, in general, the recommendations by the ESS have been perceived as positive amongst a number of Local Authorities. They are seen as providing clarity to the Local Air Quality Management process. Equally however, there were a number of concerns raised by Local Authorities on this topic.

The requirement to publish an Air Quality Action Plan (AQAP) within twelve months of the declaration of an Air Quality Management Area (AQMA) is seen as too short a timescale and it could be challenging for a number of local authorities to meet. The internal approval processes within individual local authorities, formal consultation requirements, limited staff resources, outsourcing to consultants, Scottish Government funding limitations, internal procurement procedures and the need to engage with relevant stakeholders were all cited as being potential barriers.

Local Authorities may not be able to guarantee delivery of action plan measures and revocations within specified timescales and by specific dates due to financial restraints, staff resource and sources of pollution outside their direct control. Some measures may also be ongoing tasks with no set end date.

It has been raised with us that there is a need for discretion to be used by SEPA in employing their enforcement powers on a case by case basis rather than routinely.

In my opinion, the situation here reflects the wider one that Local Government in Scotland finds itself with, i.e. a keen commitment by Local Government to deliver improvements and ensure the wellbeing of our local communities, set against the reality of significant resource restraints. We have raised the issue of resource restraints both with your own Committee, as well as with the Local Government, Housing and Planning Committee in greater detail.

With kind regards
Cllr Gail Macgregor