

Statement of Reasons – why Edinburgh needs a Low Emission Zone

- 1.1 The City of Edinburgh Council intends to introduce a Low Emission Zone Scheme (the 'Scheme') in Edinburgh. The Low Emission Zones (Scotland) Regulations 2021 require the Council to prepare a statement setting out the reasons why the Scheme should be made. This document is the Council's statement setting out the reasons why the Scheme should be made.
- 1.2 The Council is committed to delivering a sustainable future for the city and its citizens, as outlined in the recently published City Mobility Plan (CMP) and the 2030 Climate Strategy. The Council's Commitment 18 seeks to improve Edinburgh's air quality and reduce carbon emissions, as well as explore the implementation of Low Emission Zone(s).
- 1.3 Scottish Government's Programme for Government in 2017/18 made a commitment to introduce Low Emission Zones (LEZs) with local authorities in Scotland's four largest cities (Aberdeen, Dundee, Edinburgh and Glasgow) following recommended assessment methodologies outlined in the Cleaner Air for Scotland Strategy (CAFS).
- 1.4 LEZs are an established tool across Europe to reduce harmful emissions from transport by restricting access to urban areas for the most polluting vehicles. LEZs are therefore an important tool to help improve public health by accelerating the use of cleaner vehicles and encouraging behaviour change, alongside other measures. The LEZ will help Edinburgh to meet legal obligations on improving air quality, addressing climate change and synergise with other strategic transport projects.

Air Quality – improving public health and wellbeing

- 1.5 Air pollution is a serious concern for public health, with greatest impacts on the more vulnerable members of society including: the very young and the elderly or those with existing health conditions such as asthma, and other respiratory and cardiovascular diseases. Road transport is a significant contributor to air pollution. Poor air quality is associated with around 200 attributable deaths in Edinburgh and around 22,500 lost life years across the Scottish population annually, with health impacts costing an estimated £15 billion per year across the UK.
- 1.6 The Council's statutory duty under the requirements of the Local Air Quality Management (LAQM) regime (Environment Act 1995, as amended) ensures air pollution across Edinburgh is reviewed and assessed annually. In response to this, the Council has declared five Air Quality Management Areas (AQMAs) due to exceedances of the national Air Quality Objectives for Nitrogen Dioxide (NO₂)

and one AQMA for Particulate Matter (PM10). Road transport emissions are significant contributors to poor air quality, especially for the pollutant NO₂.

- 1.7 The Council is also obliged to produce an Air Quality Action with the aim of reducing pollution. Despite improvements in air quality since the introduction of the Plan (updated in 2010), there remain locations where the Air Quality Objective for annual mean NO₂ are not being met, especially in the Central AQMA. While the number of exceedances of the objective has decreased, the proposed LEZ is to be introduced to accelerate the required compliance.

Reducing Carbon Emissions – addressing the Climate Emergency

- 1.8 The Council declared a Climate Emergency in 2019 setting a vision for Edinburgh to be net carbon zero by 2030. Meeting this target and adapting to the impacts of climate change will require system-wide and transformational change across all sectors of the city.
- 1.9 The CMP and 2030 Climate Strategy implementation plans represent substantial programmes of work to deliver reductions in CO₂ emissions. Delivery of actions to manage traffic demand, decarbonise transport and accelerate a shift to the use of the most sustainable modes of travel (particularly walking, cycling and public transport) will require support from the Council's key partners, including citizens, businesses, communities, Transport Scotland, Scottish and UK Governments.
- 1.10 The LEZ will play an important role in accelerating behaviour change towards more sustainable forms of transport and cleaner vehicle technologies by restricting access to particular vehicles.

Sustainable Transport – creating an accessible, efficient and active transport network

- 1.11 The Council is committed to transforming Edinburgh's transport systems into one that is truly sustainable, accessible and efficient. Edinburgh's 10-year transport strategy – the CMP - sets a programme for project delivery towards reaching the net zero target. A LEZ is a key deliverable of the CMP, alongside the Edinburgh City Centre Transformation project (ECCT) that will prioritise active travel and public transport as desirable and practical travels option across the City Centre.
- 1.12 Behaviour change towards sustainable travel and addressing the Climate Emergency, will be accelerated with financial incentives. The Scottish Government are providing grant funding to the most impacted individuals and businesses. National funding includes provision for public transport infrastructure for local authorities directly affected as well as neighbouring authorities. Funding is also provided for transport operators to retrofit their bus,

coach and taxi fleets as well as for eligible low-income households and micro-businesses located within 20km of a proposed LEZ.

- 1.13 The Council's ambitions for a fully sustainable transport system is evidenced across its current programme of works, such as major capital investments in transport infrastructure (Trams to Newhaven, active travel etc.), expansion of parking enforcement and rollout of electric vehicle chargers, to name but a few. An LEZ, alongside a suite of other tools, will help improve health and wellbeing, placemaking and connectivity, improving the environment for those who live, work and visit Edinburgh.

Background

- 1.14 Design of the final Scheme has been informed by a process of appraisal and analysis of various options and impact assessments. More details are set out below.
- 1.15 Consultation and engagement have been essential parts in developing the Scheme. Details are set out in the Council's Consultation Statement.

National Frameworks for Low Emission Zone development – an evidence-led approach

- 1.16 The Cleaner Air for Scotland Strategy (2015) introduced the National Low Emission Framework (NLEF), which is an evidence-based appraisal process to assist local authorities consider transport-related actions to improve local air quality, where transport is identified as the key contributor to air quality problems. The NLEF also provides the framework to ensure the Scottish Environmental Protection Agency (SEPA) supports local authorities throughout the assessment and decision-making process, by the development of the National Modelling Framework (NMF) local model. As a result, the Edinburgh model developed by SEPA represents a standardised approach to modelling for the appraisal process.
- 1.17 Data gathering and analysis has been extensive under these frameworks, while working in partnership with the Scottish Environmental Protection Agency (SEPA), Transport Scotland, the regional transport authority (SEStran), neighbouring local authorities and other key stakeholders. In addition, regular collaboration with the other three cities implementing LEZs, Aberdeen, Dundee and Glasgow, has helped to try and ensure a consistent approach to how LEZs operate in Scotland.
- 1.18 Key principles underpinning the LEZ appraisal process, in addition to consideration of the Scheme objectives, are detailed here:
 - 1.18.1 Improve air quality - a strong and robust evidence-base via the NLEF, NMF in relation to statutory air quality objectives and air quality progress within AQMAs.

- 1.18.2 Evidence-based, targeted approach – as above and taking account of the COVID19 impact analysis.
 - 1.18.3 Feasibility and deliverability – ensuring Scheme is delivered according to key design principles (including providing a logical diversion route for non-compliant traffic) considering equalities impacts (including for the Covid-19 pandemic), financial costs and public understanding and engagement with the Scheme.
 - 1.18.4 Strategic Placemaking & Sustainable Transport - aligning with ECCT and other CMP projects to contribute to reductions in carbon emissions and improve health and wellbeing by supporting active travel and public transport infrastructure plans and strategies.
- 1.19 Three options were fully appraised for a LEZ scheme in Edinburgh, as detailed below;
- 1.19.1 Option 1 – City Centre LEZ – based on the boundary as proposed for the consultation undertaken in 2019. All vehicle types.
 - 1.19.2 Option 2 – City Centre LEZ – a revised City Centre boundary with smaller geographical spread than Option 1. All vehicle types included.
 - 1.19.3 Option 3 – City Centre and Extended Urban Area LEZs which included either one of the above City Centre LEZs plus the addition of a boundary covering HGVs, LGVs, Minibus, Buses & Coaches in a wider urban area, roughly within the City Bypass.
- 1.20 Conclusions from the appraisal work identified the City Centre area as having the greatest magnitude of traffic related pollution problems and breaches of statutory objectives. A City Centre LEZ would support action towards compliance with the air quality objectives and a strong evidence-base highlighted the Central Air Quality Management Area (AQMA) as the focus for targeted interventions.
- 1.21 The LEZ City Centre Option 1 was preferred for delivering air quality improvement since it includes a wider population and a larger portion of the City Centre, including greater coverage of the Central AQMA. This would also support positive behaviour change (modal shift from private car) and contribute towards the objective to reduce greenhouse gases emissions, tying in with the Council's wider strategies and policies.
- 1.22 Modelling of future scenarios predicted any air quality impacts, related to any traffic displacement would be short-lived. Nevertheless, the Council is developing a road Network Management Strategy to ensure that the traffic network functions effectively following the implementation of the LEZ to manage any displacement impacts.
- 1.23 Modelling of total CO₂ emissions was also undertaken. This indicated some limitations to CO₂ reduction, with fossil-fuelled vehicles prescribed by the

legislation, however reductions were predicted when applying a scenario considering reductions in traffic. This ties in with the Schemes wider objectives of aligning with the Council's sustainable transport policies and national funding provisions.

- 1.24 The preferred option was subject to public consultation and stakeholder engagement in summer 2021.
- 1.25 Based on the modelling work and the consultation process, to help achieve compliance with NO₂ and continue general compliance with Particulate Matter (PM)₁₀ and PM_{2.5} Air Quality Objectives, the LEZ is to apply to all vehicle types, apart from motorcycles and mopeds and those subject to a national exemption outlined in the Low Emission Zones (Emission Standards, Exemptions and Enforcement) (Scotland) Regulations 2021.
- 1.26 Local exemptions are to be limited to ensure the objectives of the Scheme are met.

Impact Assessments

- 1.27 To understand the impacts of the Scheme on individuals and groups, an Integrated Impact Assessment was completed. Its findings highlight the need to ensure support for groups that are most affected, and that time is given (grace period) to ensure stakeholders are well informed and have time to prepare, prior to the enforcement of the LEZ.
- 1.28 The decision to apply 2-year grace periods is driven by feedback obtained through consultation and stakeholder engagement as to how quickly those affected by the introduction of the LEZ in being able to become fully compliant. In addition, the unprecedented impact of the COVID-19 pandemic on society, including the wider environment and economy, needs to be considered. Potential implications for city centre businesses and bus operators suggests that a grace period greater than the required 1 year minimum is appropriate. The 2-year grace periods would be applicable to all vehicle types from the same date to ensure consistency and ease of enforcement and wider communications. No additional grace period for residents of the zone is proposed.
- 1.29 A Strategic Environmental Assessment screening process highlighted the need for the LEZ to be assessed as a part of the wider Edinburgh City Centre Transformation programme and City Mobility Plan work. The SEA work concluded that the cumulative impacts of introducing the LEZ along with other policies and strategies, such as the City Mobility Plan and Edinburgh City Centre Transformation, would generally be positive. An area of concern highlighted in the SEA was the potential for negative impacts on air quality as a result of traffic displacement
- 1.30 In Scotland, during the main Covid-19 pandemic lockdown period in 2020, air pollution (NO₂) levels declined. Transport Scotland commissioned a study to

assess Covid-19 impact on plausible futures scenarios (with varying traffic demand and vehicle compliance levels) against the NMF model assessments for the four Scottish Cities. The assessment work for Edinburgh found proposals were robust to variations in network conditions that may occur in a post-Covid-19 world. The study also concluded LEZs are still required to improve air quality and protect public health in the City Centre.

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