Low Emission Zones

Progress Update

June 2018
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1. Introduction

1.1 The Environment, Climate Change and Land Reform Committee report on the findings of the Air Quality in Scotland Inquiry was published on the 28 February 2018 at https://digitalpublications.parliament.scot/Committees/Report/ECCLR/2018/2/28/Air-Quality-in-Scotland-Inquiry

1.2 In relation to Low Emission Zones (LEZ), the Committee recommended that the Scottish Government provides an update on the progress being made on the introduction of the four LEZs by the end of June 2018 along with an indication of the date by which they will be enforceable.

1.3 The introduction of LEZs into Scotland’s 4 biggest cities is being led by local authorities, who are best placed to ensure that they are designed in the way that best reflects city specific air quality issues and local needs and ensures that they are embedded into other city wide strategies. Details of the geographic extent, scope and timescales for implementation and enforcement of LEZs will be determined by local authorities as part of the design and consultation process.

1.4 Local authorities are working in partnership with Transport Scotland, Scottish Environment Protection Agency (SEPA) and other public sector partner organisations on the design and implementation of city specific LEZs.

1.5 This report provides an update on key areas of work at both national and local levels that are currently underway to deliver LEZs.
2. Policy Background

2.1 Cleaner Air for Scotland – The Road to a Healthier Future

2.1.1 ‘Cleaner Air for Scotland – The Road to a Healthier Future’ (CAFS) was published on 4 November 2015. It is Scotland’s first air quality strategy and sets out how the Scottish Government and partner organisations plan to deliver further improvements to air quality over the coming years.

2.1.2 CAFS lists 40 actions across a range of policy areas. Many of these actions are transport based to reflect the fact that all but one of the 39 Air Quality Management Areas in Scotland together with all remaining exceedances of EU targets - relate to transport emissions.

2.1.3 CAFS actions in relation to Low Emission Zones are focused on the development of the National Low Emission Framework (NLEF). NLEF will be designed to guide local authorities in the appraisal and implementation of air quality improvement options related to transport, and will support and build on the work already being done through the Local Air Quality Management system. It will be supported by the analysis and evidence provided by the National Modelling Framework (NMF).

2.2 Programme for Government

2.2.1 The Programme for Government (PfG) 2017-18 states that the Scottish Government will work with local authorities to introduce LEZs into Scotland’s four biggest cities between 2018 and 2020 and into Air Quality Management Areas by 2023 where National Low Emission Framework appraisals advocate such mitigation.

2.2.2 Additionally, there are commitments to introduce an Air Quality Fund to support local authorities and to work with the commercial and bus sectors, the Energy Saving Trust and the Low Carbon Vehicle Partnership to establish an Engine Retrofitting Centre in Scotland to support the delivery of LEZs, creating new jobs and with the goal of winning business from outwith Scotland.
3. Progress Towards Introducing Low Emission Zones

3.1 LEZ Leadership Group

3.1.1 In September 2017, Ministers invited elected members of the four city authorities (Aberdeen, Dundee, Edinburgh and Glasgow) to participate in a four-cities LEZ Leadership Group, along with representatives from SEPA and Health Protection Scotland. The Group brings together senior representatives of relevant public bodies to oversee the strategic issues associated with the development and introduction of LEZs.

3.1.2 The aim of the LEZ Leadership Group is to support the implementation of low emission zones by ensuring that they are evidence based, robust, deliver air quality improvements and that stakeholders and the public are both engaged and involved.

3.1.3 The key deliverables of the LEZ Leadership Group are to:

- Oversee the development of LEZs to ensure delivery within the committed timescales
- Oversee the finalisation of the National Low Emission Framework
- Ensure a consistent approach to LEZ delivery is applied on a Scotland-wide basis
- Maximise stakeholder buy in and ensure effective communication is maintained
- Ensure that a legacy is created from the delivery of the first LEZs

3.1.4 The Leadership Group meetings are chaired by the Cabinet Secretary for Environment, Climate Change and Land Reform or the Minister for Transport and the Islands.

3.1.5 The group meets occur on a quarterly basis with the first meeting held on the 13 December 2017 with subsequent meetings on the 14 March and the 13 June 2018. Issues discussed to date include:

- Progress towards introducing LEZs
- Emerging standards for LEZs
- Communications
- Funding
- Delivery of Enforcement
- Bus Emission Abatement Retrofit Programme
3.2 LEZ Consistency Group

3.2.1 In order to help ensure a nationally consistent approach to the introduction of LEZs, a LEZ Consistency Group has been set up to bring together officials from local authorities, and other key public bodies as required, to collectively consider issues related to the design and implementation of LEZs.

3.2.2 The LEZ Consistency Group is chaired by Transport Scotland and supports the design and implementation of LEZs by providing a mechanism to help ensure they are developed in a consistent manner with input from local authority and other public sector delivery partners.

3.2.3 The key deliverables of the LEZ Consistency Group are to:
   - Support the development of a consistent approach to LEZ delivery that can be applied on a Scotland-wide basis
   - Contribute to the finalisation of the National Low Emission Framework
   - Support stakeholder buy in and help ensure effective communication
   - Ensure that a positive legacy is created from the delivery of the first LEZs

3.2.4 The first meeting of the Consistency Group was held on the 7 March 2018 to discuss the key areas where a nationally consistent approach is required to support the successful introduction of LEZs. A second meeting took place on the 4 April to agree the form and content of the signage that would be used to support the introduction of LEZs throughout Scotland.

3.2.5 Further meetings are due to take place during 2018 to discuss issues such as exemptions and approaches to enforcement.
3.3 National Modelling Framework

3.3.1 SEPA is leading on the delivery of the National Modelling Framework (NMF) and is supporting local authorities through the development of detailed local air quality models (which are supporting LEZ decision making).

3.3.2 The NMF sets out a standard process for modelling air quality across local authority areas undertaking detailed assessments for designing and implementing LEZs. The local model element of the NMF provides the mechanism for gathering, analysing and presenting evidence in a consistent manner to support the local authorities in their decision-making process. The NMF sets out a coordinated approach to:

- Data Gathering – Collect appropriate traffic information to inform the development of both the local air quality models and (where appropriate) the city centre traffic models
- Analyse and Visualise – Data and modelled outputs presented and analysed to refine the evidence required for decision-making purposes
- Address Uncertainties – Modelling uncertainties will be quantified and managed to improve the quality of the evidence and
- Transform into Evidence – visualisation tools and access to shared data will help to inform the final decision making.

3.3.3 The modelling element to the NMF (for the 4 cities outlined in the PfG) should be completed in 2018 with the air quality models for the 4 cities being available by the end of 2018. SEPA has continued to provide each local authority with support throughout the development of LEZ options.

3.3.4 In Glasgow, traffic data, including detailed information of bus categories and service routes was collected across Glasgow and the peripheral areas to inform the development of the Air Quality Model. The data and modelled outputs have been visualised and uncertainties have been addressed with SEPA developing a specific tool for assessing and appraising LEZ scenarios. The NMF has provided the evidence for the Glasgow City Council submission of the Traffic Regulation Condition to the Traffic Commissioner for Scotland, with specific tools developed for bus operators. The NMF has supported Glasgow City Council in proposing the scope of the first phase of their LEZ, which will focus on the bus sector, with the aim of introducing the LEZ by the end of 2018.

3.3.5 The second phase of Glasgow’s LEZ will include private vehicles and will be informed by a detailed city centre traffic model and air quality model. Further traffic data has been collected to allow the development of a detailed traffic model for Glasgow city centre. The traffic data has been visualised and analysed against the original traffic data and the traffic model is currently under construction. This model will help to develop and assess restrictions across the city centre for air quality benefits.
3.3.6 City of Edinburgh Council are in the early stages of developing their LEZ scenarios. The traffic data and detailed bus operator data has been collected and visualised. The base model for the City of Edinburgh has been built, with uncertainties being addressed. High-level scenarios are in the process of being tested to inform the potential size and scope of the LEZ for Edinburgh. The visualisation tools developed for the traffic and modelled data are helping to shape the potential scope of the LEZ area(s), whilst the high-level scenarios are providing some early indications of the potential benefits the LEZ could offer. Early discussion with the bus operators has taken place and detailed bus operating data has been collected for inclusion into the NMF outputs with specific tools for the bus operators currently under development. The detailed city-wide traffic model is being developed to help inform future LEZ scenarios which will be assessed for air quality benefits.

3.3.7 Detailed traffic data was collected in 2017 across Aberdeen. This has been visualised in Aberdeen specific tools and analysed against similar traffic data collected in 2012 for a pilot project to inform the development of the local NMF process. Comparisons have been made against two traffic data sets to identify shifts in both traffic composition along with changes in local air quality across the monitoring network. The base air quality model has been built for Aberdeen and is currently being assessed for uncertainties, including non-vehicle sources. As such, detailed models for shipping sources at the harbour have been developed and assessed against local background pollution. The final source apportionment components of the air quality model will be ready to inform future scenario testing by August. Detailed bus operator data is currently being collected and will be visualised in a similar way to the other cities to support the delivery of future LEZ actions.

3.3.8 The development of the Dundee City model is slightly further behind than the other three cities due to delays in the collection of the detailed traffic data as a result of major road works that closed sections of transport corridors within the city, thus resulting in changes in vehicle movement patterns. Traffic data was collected in September/October 2017 and provided for use in January 2018. The traffic data has now been assessed and visualised and the background data for the air quality model has been built. Uncertainties around the air quality model are currently being addressed, including complex city centre road junctions and contributions from other sources. The city air quality model will be ready by September, with the source apportionment visualisation tools developed to help with the future scenario testing. Dundee City Council are also in the process of developing the detailed city traffic model.
3.4 City Specific Updates

3.4.1 Glasgow

3.4.1.1 In September 2017, Glasgow was announced as the location of Scotland’s first LEZ, with the goal of putting the LEZ in place by the end of 2018.

3.4.1.2 In October 2017, Glasgow City Council convened a LEZ Delivery group with a remit to oversee the development and implementation of all phases of the LEZ for the city.

3.4.1.3 The key objectives of the Delivery Group are to:

- Ensure that a programme of work is planned that will deliver a suitable LEZ for the city within the agreed timescale
- Ensure that suitable evidence is collected and presented to allow for the Traffic Commissioner’s role in agreeing the delivery model for the LEZ
- Ensure adequate engagement with all relevant stakeholders throughout the process of delivery
- Ensure the programme of work is delivered on time and to specification
- Scoping of commissioned work to ensure multiple benefits are delivered where appropriate.
- Review progress against deliverables and manage risks to delivery
- Ensure work is conducted in an open and transparent manner, with appropriate reporting to the GCC LEZ Steering Group
- Facilitate an LEZ Forum to ensure wider stakeholder input and feedback is secured

3.4.1.4 The Delivery Group has a range of standing members which includes relevant officers from Glasgow City Council, SEPA, Transport Scotland and Strathclyde Passenger Transport.

3.4.1.5 Glasgow City Council representation covers a range of disciplines including planning, transport planning, traffic, air quality, procurement, legal, communications, equalities and licensing with the facility for input from others as required.

3.4.1.6 On 15 June 2018, Glasgow City Council City Administration Committee agreed the LEZ proposals for introduction over the next 4 years. The proposal will see Glasgow’s LEZ introduced in two phases:

- Phase 1 will cover buses only and will require an increasing percentage of bus journeys within the designated zone to be compliant over a 4 year period. By the end of 2018, 20% of bus journeys will require to be compliant rising in 20% increments per year to deliver full compliance by the end of 2022.

- Phase 2 will cover all other vehicle types, including private cars, with compliance required from the start of 2023.
3.4.1.7 Enforcement regime for vehicles other than buses will come into force from the start of 2023.

3.4.1.8 Glasgow City Council have utilised a 4 year grace period, providing vehicle owners and businesses time to adopt alternative arrangements or upgrade their vehicle before the start of any LEZ enforcement regime.

3.4.1.9 On 17 April, Glasgow City Council submitted a request to the Traffic Commissioner for Scotland requesting that a Traffic Regulation Condition be imposed on bus operators in relation to the proposed emission standards for the LEZs. The Traffic Commissioner has indicated that the determination of the request will take approximately 6 months.

3.4.2 Edinburgh

3.4.2.1 City of Edinburgh Council have confirmed their intention to progress the introduction of their LEZ in 2019.

3.4.2.2 To support the delivery of the LEZ, a Project Board of senior council representatives to oversee implementation has been set up. The Project Board will provide oversight and governance for the delivery group, focusing on ensuring appropriate process, stakeholder and public engagement and resourcing of the delivery group to ensure LEZ are implemented appropriately.

3.4.2.3 City of Edinburgh Council have also set up an LEZ Delivery Group which is tasked with working with stakeholders to develop the evidence base to allow assessment of options for implementing a LEZ. The Delivery Group has representatives from a range of disciplines including planning, transport planning, traffic, air quality, legal, communications and licensing with the facility for input from others as required.

3.4.2.4 City of Edinburgh Council published their ‘Developing Low Emission Zones in Edinburgh’ paper for consideration by the Transport and Environment Committee on the 17 May.

3.4.2.4 The development of a LEZ in Edinburgh is one component amongst a suite of measures being implemented via the Central Edinburgh Transformation project which concerns the future development of central Edinburgh and its public realm.

3.4.2.5 A further report on the development of LEZ options will be presented to their Transport and Environment Committee in August 2018.

3.4.2.6 City of Edinburgh Council have confirmed plans to consult on the principles and high-level options for an LEZ in Autumn 2018 as part of a joint, wider public consultation exercise on Edinburgh’s Transport Strategy and the Central Edinburgh Transformation.
3.4.3 Aberdeen

3.4.3.1 Aberdeen City Council is currently in the early stages of planning for the introduction of an LEZ.

3.4.3.2 SEPA have confirmed that the local base air quality model for Aberdeen is due for completion which will allow detailed consideration of the relative emissions contributions from various vehicle types on air quality and the identification and testing of potential options for the LEZ over the next few months.

3.4.3.3 The completion of the Aberdeen Western Peripheral Route and Haudigan junction improvements are likely to impact upon traffic movements in and around Aberdeen city. Aberdeen City Council highlighted the need to consider the impacts from these changes in assessing LEZ options.

3.4.4 Dundee

3.4.4.1 Dundee City Council is currently in the early stages of planning for the introduction of an LEZ.

3.4.4.2 Funding secured through the Air Quality Fund is supporting the collection of traffic data and the development of a traffic model to support the design of the LEZ. This will be carried out in coming months and will provide essential information for consideration of options.

3.4.4.3 SEPA have confirmed that the base local air quality model for Dundee is due to be complete by September which will allow more detailed consideration of the relative emissions contributions from various vehicle types on air quality and the identification of potential options for the LEZ.
3.5 Transport Bill

3.5.1 The Transport (Scotland) Bill was introduced in Parliament on the 8 June 2018. Details on the Bill can be found at http://www.parliament.scot/parliamentarybusiness/Bills/108683.aspx

3.5.2 The Bill enables the creation, and civil enforcement, of LEZs by local authorities and allows the Scottish Ministers to set nationally consistent standards on matters such as, but not limited to, emissions standards, penalties, exemptions and grace periods primarily though secondary legislation.

3.5.4 It creates a bespoke administrative framework that will enable the establishment, operation and enforcement of nationally consistent low emission zones by local authorities, providing them with flexibility to:

- determine the zone area
- determine the phasing in of different types of vehicles
- setting the objectives of the scheme; and
- allowing for the low emission zone to be amended or revoked in the future if required

3.5.5. The Transport Bill allows for:

- nationally consistent vehicle emission standards to be set in regulations for petrol and diesel vehicles. It may be a reasonable assumption that this will be consistent with the general leading emission standards for low emission zones established in Europe (as outlined in the Building Scotland's Low Emission Zone consultation) – presently Euro VI/6 for diesel vehicles and Euro 4 for petrol vehicles.

- LEZs to operate continuously, 24 hours a day, seven days a week, all year round but with the ability for local authorities to vary the hours of operation taking account of local circumstances

- Scottish Ministers to specify by regulations the standards for the 'approved devices' that may be used in connection with the operation of a low emission zone. It is intended that these regulations will in particular provide for automatic number plate recognition (ANPR) cameras to be used to monitor and enforce low emission zones

- a civil penalty to be payable, subject to the terms of the scheme as to operating hours, in respect of non-compliant vehicles that enter the zone. The amount of the penalty will be set, and may be varied, by the Scottish Ministers in secondary legislation

- general exemptions to be specified in regulations
• a local authority to make provision about time-limited exemptions for vehicles not covered by general exemptions.

• a local authority to temporarily suspend a LEZ for all vehicles for a short period of time for a major event

• a grace period to be set by local authorities for residents within the zone. The Bill requires local authorities to set a grace period for non-residents of no less than one year but no more than four years. An extended grace period for residents of no less than one year but no more than two years after the expire of the grace period applicable to non-residents is also permitted.

• as a minimum, LEZ objectives to incorporate a commitment to demonstrate compliance with the Scottish Air Quality legal objectives set in regulations made under Part IV of the Environment Act 1995.

• A requirement for local authorities to publish a report annually on the effectiveness of LEZs.
3.6 Funding

3.6.1 Funding of £10m capital and £0.8m resource has been allocated to support the introduction of LEZs in the 2018/19 budget.

3.6.2 It is anticipated that approximately 70% of the £10m funding in 2018/19 will be allocated to support the bus industry to prepare for LEZs.

3.6.3 It is anticipated that £2.2m capital funding will be available in 2018/19 to support local authorities prepare for the introduction of LEZs. This will assist with data collection, consultant support for design and assessment work, purchase and installation of approved devices such as Automatic Number Plate Recognition (ANPR) cameras, signage and back-office enforcement set up costs and signage.

3.6.4 An additional £0.4m resource funding is available to support local authorities in meeting costs such as traffic modelling and technical support, appraisal and assessments costs.

3.6.5 Approximately £0.4m resource funding has been allocated to support the delivery of a national communications strategy to raise awareness of LEZs in advance of their introduction and to fund any additional research or assessment required at a national level.
3.7 Bus Emission Abatement Retrofit Programme

3.7.1 The Bus Emission Abatement Retrofit (BEAR) Programme will support bus operators to reduce nitrogen dioxide (NOx) and particulate matter (PM) emissions of existing fleet vehicles through the installation of accredited retrofit technology.

3.7.2 The Energy Saving Trust (EST) has been engaged to support Scottish Government in delivering the BEAR Programme.

3.7.3 In October 2017, £1.6m of funding to deliver BEAR Phase 1 was announced. The Programme was launched in early 2018 and grants of £993,648 have now been awarded to 8 bus operators in relation to 47 buses.

3.7.4 On the 29 March 2018, the Scottish Government announced that 70% of the £10m LEZ funding for 2018/19 (£7.8M) would be allocated to support the bus industry to prepare for LEZs.

3.7.5 Phase 2 of the BEAR Programme is currently being developed with a proposed launch in summer 2018, in tandem with an associated communication and stakeholder engagement phase.
3.8 Communications and Engagement


3.8.2 Considerable engagement has taken place at a national and local level with a broad range of stakeholders including business organisations, bus operators, the Confederation of Passenger Transport, road haulage representative bodies and COSLA. This is a key part in the development and implementation of LEZs and will continue over the coming months to help inform the design of individual LEZs and the Transport Bill.

3.9 National Communications Plan

3.9.1 The need for robust national communications to raise awareness of the changes in advance of the LEZs being introduced has been identified. This is essential to promote understanding of the reasons for and benefits of LEZs and to ensure that individuals and businesses across Scotland can plan for how they will comply with the requirements when they come into force.

3.9.2 Transport Scotland have engaged the BIG Partnership through the Transport Scotland Communications Support Services Contract to support the development and delivery of a LEZ Communications Plan for 2018-2019.

3.9.3 This work will also include the development of a Scottish LEZ website that will host information to support businesses and the public to confirm if and how they will be affected by the introduction of LEZs.
3.9 National Low Emissions Framework

3.10.1 The development of the National Low Emission Framework (NLEF) is the key action in relation to LEZ within the CAFS strategy. NLEF is being designed to assist local authorities in the appraisal and implementation of air quality improvement options related to transport as part of their local air quality management duties.

3.10.2 An initial draft of the NLEF guidance was completed in April 2017. The document is currently being updated to take account of feedback on the initial draft from local authorities and SEPA in order to ensure integration with the existing Local Air Quality Management regime, commitments in relation to the establishment of Low Emission Zones included in the Programme for Government (September 2017) and the outcome of the Building Scotland’s Low Emission Zones consultation.

3.10.3 The intention is that the NLEF guidance document will be published in October 2018, subject to completion of any statutory requirements.

3.10.4 To support development, Transport Scotland and SEPA staff have engaged with local authorities through regional Pollution Control Liaison Groups to seek feedback on the emerging approach.
4. Conclusions

4.1 Significant progress has been made towards the introduction of low emission zones into Scotland’s 4 biggest cities since the publication of the Programme for Government in September 2017.

4.2 Glasgow City Council have agreed proposals which will see the introduction of an LEZ for Glasgow city centre in 2018, with a phased approach initially covering buses for buses but encompassing all vehicle types by the start of 2023.

4.3 City of Edinburgh Council is currently progressing consideration of the design of their LEZ with an initial consultation programmed for autumn 2018.

4.4 Aberdeen and Dundee are in the early stages of planning of their LEZs, working with SEPA as part of the NMF process to secure the data to support options development and scenario testing.

4.5 This is supported by a range of actions at a national level in relation to securing of the legislative framework that will allow the implementation and enforcement of LEZs. Work to deliver robust national communications that raise awareness of the changes in advance of the LEZs being introduced will be progressed this summer, including the setting up of a Scottish LEZ website.