

**Glasgow City Council****Environment, Sustainability and Carbon Reduction City Policy Committee****Report by Executive Director of Neighbourhoods, Regeneration & Sustainability****Contact: Gavin Slater Ext: 78347****LOW EMISSION ZONE: FINAL SCHEME DESIGN AND FORMAL SUBMISSION****Purpose of Report:**

To provide Committee with details of the final scheme design of the Glasgow Low Emission Zone, the outcomes of publishing the final scheme design and the intention to submit the final scheme design to the City Administration Committee and Scottish Ministers for approval.

Recommendations:

It is recommended that Committee notes the contents of this report, including;

- 1) The progress being made in establishing Phase 2 of the Glasgow Low Emission Zone
- 2) The outcomes of the formal publication of the LEZ final scheme design
- 3) The content of the LEZ final scheme design
- 4) The intention to submit the LEZ final scheme design to the City Administration Committee and Scottish Ministers for approval

Ward No(s):

Citywide: Local member(s) advised: Yes No consulted: Yes No **PLEASE NOTE THE FOLLOWING:**

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1 Glasgow Low Emission Zone – Background

- 1.1 At its meeting on [28th September 2017](#), the City Administration Committee (CAC) agreed to a set of proposals for introducing the Low Emission Zone (LEZ) and identified key elements of Glasgow’s journey towards this goal. Since that date, the Environment, Sustainability, Carbon Reduction and City Policy Committee has considered updates on the progress of the LEZ on [20th March 2018](#) and [11th June 2019](#) which detailed the introduction of Phase 1 of the LEZ and progress in the development of Phase 2.
- 1.2 A further LEZ update was considered on [6th October 2020](#) noting the revised timescale for introduction of Phase 2 due to the impacts of the pandemic on the legislative program. The meeting of [8th June 2021](#) considered the detail of the preferred scheme design and sought approval to take this design to statutory public consultation.
- 1.3 The results of the public consultation were presented on [23rd November 2021](#), including the independent consultant’s report on the findings. The report also detailed the intention to make minor amendments to the scheme boundary, based upon the feedback received, and proceed to formal publishing of the final scheme design.

2 Communications and Engagement

- 2.1 An extensive campaign of general LEZ awareness has been underway since 2018, across a variety of online and offline platforms, with paid-for advertising extending the council’s communication reach further. Communication methods used include social media, webpages, news features, digital adverts with local news outlets, outdoor adverts (including at supermarkets, fuel stations and on buses/bus shelters) radio campaigns, podcasts, media releases, webinars, workshops, seminars, in-person events and attendance at third party events, Clean Air Day activities (including electric taxi info), two separate consultations and direct mail to zone residents.
- 2.2 The council website holds a wealth of information about the LEZ including a prominent note on the landing page that signposts to funding availability. A direct LEZ email address was set up several years ago (again shown prominently on our LEZ webpages) which allows for direct contact. This communications method has proved popular and a channel which is monitored closely to consider/adapt to any emerging issues or areas where communication could be improved as well as to ensure that prompt responses are issued. The LEZ has also featured prolifically through broadcast and print media.
- 2.3 In addition to local communications, Transport Scotland operate a wider, national communications campaign which the council feeds into, supports and always seeks to cross promote content, in particular around the funding streams available. GCC officers have also supported events held by both Transport Scotland and the Energy Saving Trust (usually around funding schemes

operated/administered by them, and loans that promote channel shift away from private vehicle) to encourage participation and increase engagement.

- 2.4 Whilst COVID-19 curtailed face to face events, the council ran and heavily promoted two consultations (2020 and 2021) resulting in a high level of engagement. These consultations contributed toward the final LEZ scheme design. Stakeholders including the taxi trade and other transport related businesses were invited to directly participate. Specific outreach in respect of the taxi trade (complementing more generic outputs and the cross promotion of the LEZ Retrofit Fund) would include general invitations to LEZ awareness events (pre-COVID) and a large-scale bespoke event for the trade at the Royal Concert Hall in 2019 which every operator was invited to by letter. Three identical information sessions were run across the day to work around operator shift patterns. Officers have also supporting [drop-in events for taxi drivers](#) to promote retrofit solutions and worked in partnership with Glasgow taxis to pilot an LEZ [compliant sticker scheme](#). LEZ literature has been placed within the GCC taxi inspection area at Polmadie as well as at Glasgow Taxis HQ. There is a link to the LEZ webpages from our taxi licensing webpage and council officers have also engaged directly, including speaking at licensing committee meetings and at retrofit seminars hosted by EST.

3 Development of the LEZ Final Scheme Design

- 3.1 The Glasgow Low Emission Zone began with phase 1 in 2018, targeting a rolling improvement in emission standards for the scheduled bus fleet. Phase 2 of the LEZ was originally scheduled to begin in 2022 and require the relevant emission standards to be applied to all other vehicle types.
- 3.2 Development of phase 2 has been ongoing since the introduction of phase 1, with extensive air quality and transport modelling of the various options, an integrated impact assessment, an initial public consultation on LEZ options and a statutory consultation on the preferred scheme design. All these reports are available at <https://www.glasgow.gov.uk/LEZ>
- 3.3 During this process there has been extensive engagement with the public, zone residents, industry, business groups, community representatives and other affected stakeholders. This engagement has contributed to the development of the final scheme design.
- 3.4 The initial public consultation on LEZ scheme options was conducted between 17th February and 29th March 2020, the results of which were reported to Committee on 6th October 2020. Comment was invited on specific issues including proposed boundary options, emission standards, vehicle types, grace periods and any unintended consequences. The feedback from this initial consultation directly influenced the details of the preferred LEZ scheme design, particularly in relation to the LEZ boundary and grace periods.

- 3.5 The preferred LEZ scheme design was subject to statutory public consultation between 24th June 2021 and 2nd September 2021. The consultation invited comment on all aspects of the scheme, including those elements which are mandatory under the Transport (Scotland) Act 2019. Full details of the preferred scheme design which went to public consultation can be found [here](#). The independent report on the consultation findings is available [here](#).
- 3.6 The feedback from the statutory public consultation resulted in further minor changes to the LEZ boundary and development of a program of targeted communications to address common misconceptions regarding the LEZ. This led in turn to the development of the LEZ final scheme design.

4 LEZ Final Scheme Design Publishing

- 4.1 The LEZ final scheme design was formally published on 9th December 2021. Legislation and regulations require that a minimum period of 28 days be allowed for the receipt of objections to the proposals. Since this period would include the Christmas and New Year period, six weeks was allocated for the receipt of objections, ending on 20th January 2022.
- 4.2 In accordance with regulations and guidance, notice of the final scheme design was published in the local press and on-street notices within affected streets. Similar communications channels as utilised for the consultation were used to spread awareness of the scheme publication. Statutory consultees were also informed, as were those previously directly contacted as part of the consultation.
- 4.3 Details of the final scheme design; including details of the consultation exercise and any changes to the preferred scheme resulting from this, were published on the glasgow.gov.uk/LEZ website. Small changes to the LEZ boundary were made in response to consultation feedback and incorporated into the final scheme design. The full final scheme design report as published can be found [here](#).
- 4.4 The notice of publication included provision for respondents to raise objections to any aspect of the scheme design or indeed the scheme design as a whole. Any objection must be made in writing and contain a statement outlining the grounds of the objection.

5 LEZ Final Scheme Objections

- 5.1 A total of 134 objections were received by the end of the formal objection period. Of these, 123 were from persons identifying themselves as operators or drivers within the hackney taxi trade with their objections based on the perceived impact on this trade. 49 of the 123 objections followed a template response. One of these objections was a comprehensive statement of reasons received from Unite the Union Glasgow Cab Section with four main grounds for objection.

The 11 objections from those not identifying themselves as part of the taxi trade included a variety of grounds for objection with some citing multiple reasons.

5.2 Four main themes were identified in respect of taxi related objections. These were:

- Impact of the pandemic – The objection cites the loss of income for the sector due to restrictions during the period of the pandemic. This has restricted the ability to invest in compliant vehicles and is not sufficiently mitigated by the corresponding delay to LEZ enforcement.
- Compliant vehicle availability – The objection cites the high cost of electric taxis and suitable Euro 6 diesel taxis. It also states that there is limited availability of Euro 5 vehicles to be purchased and then retrofitted to achieve compliance.
- Net Zero targets – The objection states that exempting taxis from the LEZ for a few years will allow for the market in electric vehicles to mature and become more attractive and cheaper for operators. The objection also states that the adoption of new diesel vehicles, with their expected operational lifespans, will have an adverse impact on EV adoption and therefore upon net zero targets.
- Scottish LEZ enforcement dates – The objection notes the difference in proposed enforcement dates between Glasgow and the other Scottish LEZ cities and states that there must be parity for taxi fleets between the major cities. This part of the objection also makes claims that the emissions impact from the taxi fleet is limited in scope and geographic extent.

5.3 Non-taxi objections included the following themes, in rough order of prevalence:

- Adverse impact on those with low incomes.
- Adverse impact on businesses.
- Poor / expensive public transport.
- Electric vehicle cost / infrastructure.
- Penalty charges are too high.
- Pandemic impacts.
- Money making scheme for the Council
- Personal impact.
- Won't produce the required reduction in pollution.

5.4 A comprehensive report on the LEZ objections has been prepared and is presented in Appendix A. Each of the above objection themes have been considered in detail with a focus on the mitigation and funding available to those affected by the introduction of the LEZ, particularly the taxi sector and those on low incomes.

5.5 Low emission zones are designed to improve air quality by excluding those vehicles which do not meet the emission standards from areas of high pollution. As an exclusionary policy, their introduction will unavoidably have some degree of impact on affected individuals and groups. Those who would have continued

to drive into the zone using a non-compliant vehicle will have to adjust either their method or means of travel.

- 5.6 The emission standards that apply to LEZs in Scotland are such that, by the time of enforcement, a relatively small proportion of the fleet will be directly impacted. However, it is this part of the fleet which has a disproportionate impact on emissions and resulting pollution levels.
- 5.7 Recognising that some people and sectors may find it more difficult to adjust to the introduction of an LEZ, the Scottish Government has made available the LEZ support fund in various forms. This is a targeted and proportionate response, making financial aid available to those least able to adapt to the changes and encouraging the overall aim of a shift from personal vehicle use, particularly within our city centres.
- 5.8 The hackney taxi fleet in Glasgow is unique from other taxi fleets in the country in that it comprises a large number of older, non-compliant vehicles. This results in this sector being a significant contributor to the air quality problems experienced within the zone, particularly in those streets which experience the highest levels of NO₂. However, the taxi fleet is also an important part of the transport mix within a busy and vibrant city centre, serving workers, residents, tourists and the night time economy. For these reasons, a generous program of support for taxi improvement is a core element of the LEZ support fund.
- 5.9 Engagement with the taxi sector with regards to the LEZ pre-dates the implementation of phase 1 in 2018 and has continued regularly since. The engagement has shaped the representation made to the Scottish Government by the Council in respect of the details of the LEZ support fund. Details of this engagement are available in section 2 of this report and section 4.1.1 of Appendix A.
- 5.10 Taxi operators are eligible for various funding options to help them to become LEZ compliant. These funding options and the application process are detailed at <https://www.lowemissionzones.scot/funding> and have been extensively promoted by GCC, Transport Scotland and the Energy Saving Trust. As of February 2022, 55 funded retrofits have been undertaken for vehicles registered in the city. This leaves a significant number eligible for the funding but with limited time to become compliant.

- 5.11 The table below contains a breakdown of the taxi fleet as of December 2021 with their LEZ compliance status / eligibility included.

Table 1: Glasgow taxi fleet December 2021

Dec 2021	Count	%
All taxis	1419	100.0%
> Jan 2017 registration	340	24.0%
Retrofitted	55	3.9%
< Jan 2017 but Euro 6	6	0.4%
> Jan 2017 but not likely to be Euro 6	6	0.4%
LEZ compliant	395	27.8%
Non-LEZ compliant	1024	72.2%
Models with CVRAS retrofit approval	894	63.0%
Exchange to retrofit	130	9.2%

Almost 28% of the fleet is currently LEZ compliant, with an additional 63% eligible for retrofit. In all cases there is an exhaust treatment solution commercially available with 80% of the cost, up to £5000, covered by an EST grant. Transport Scotland data indicates that costs of exhaust treatment solutions are currently around £7000 with the amount above the grant maximum payable by the operator. There is also an alternative scheme available for some vehicles allowing for the installation of a new engine and subsequent conversion to run on LPG. This scheme similarly covers 80% of the cost, up to £10000. Again, data from Transport Scotland indicates that the cost of this treatment is currently around £13,800, with the amount above the grant maximum payable by the operator. It should be noted that this cost can be offset by the lower operating costs of a new, LPG fueled engine.

- 5.12 For ~9% of the current fleet there is no retrofit solution available. However, in response to this and following representation from taxi operators, GCC amended the licensing conditions allowing for older vehicles to be purchased and registered which are eligible for retrofit. Operators may also be able to benefit from the disposal scheme element of the support fund which provides £2500 for disposal of non-compliant vehicles. It should be noted that these vehicles generally comprise of the oldest in the fleet, some of which are more than 20 years old.
- 5.13 It should be noted that a considerable number of taxis will be required to be retrofitted by the time enforcement of the Glasgow LEZ begins, should their operators choose to do so. This has potential implications on the capacity and timescale for the completion of this work. It is therefore important that operators have certainty over the start of LEZ enforcement to allow time to complete this process.
- 5.14 The impact of the pandemic has been severe for the taxi sector in particular. This is a partial reason for the lack of uptake of the support available to operators thus far, given that there is still the requirement for an operator

contribution. Should the final scheme design receive the necessary approvals and the Phase 2 enforcement date of 1 June 2023 be set, it would be expected that with this certainty there would follow an increased uptake of retrofit activity. The expected recovery from the pandemic, the support available, and the delay in LEZ enforcement, all serve to suggest that this sector should be able to become LEZ compliant in the time remaining before enforcement, at a reasonable contributory cost, should they choose to do so.

- 5.15 For the above reasons, and the more detailed responses to the particular grounds for objection detailed within the objections report, it is proposed that no further changes be made to the LEZ final scheme design and it be implemented according to the scope and timescale previously published.

6 LEZ Final Scheme Details

- 6.1 It is proposed that the Glasgow LEZ be implemented as detailed within the [LEZ Final Scheme Design](#). The design comprises the following elements:

6.2 The LEZ Scheme Objectives

- Improve public health of residents of and visitors to the City of Glasgow by contributing towards meeting the air quality objectives prescribed under section 87(1) of the Environment Act 1999.
- Contribute towards the emissions reduction targets set out in Part 1 of the Climate Change (Scotland) Act 2009 through the promotion of low and zero emissions vehicles and the promotion of public and sustainable transport options.
- Improve the amenity of Glasgow through the promotion of the Glasgow City Council Strategic Themes of A Vibrant City, A Healthier City and a Sustainable and Low Carbon City.

- 6.3 The area covered by the LEZ in the form of a [map](#) and [road listing](#).

- 6.4 Introduction date for the LEZ Scheme and Grace Periods.

It is the intention of Glasgow City Council to introduce the LEZ on **31st May 2022**. Glasgow City Council has committed to improving air quality by enforcing the LEZ at the earliest opportunity and therefore proposes a one year grace period, meaning enforcement of entry restrictions will begin on **1st June 2023**. A further grace period is proposed for vehicles registered to **residents within the LEZ**, reflecting their restricted options in respect of choosing to enter the LEZ. Therefore, enforcement of entry restrictions for vehicles which fall within this category will begin on **1st June 2024**.

6.5 Operating Hours of the LEZ

The Glasgow LEZ will operate at all times, 365 days a year and 24 hours a day. The Glasgow LEZ is proposed in respect of breaches of the annual mean nitrogen dioxide objectives and therefore emissions at all times contribute to these breaches. Glasgow City Council may temporarily suspend the operation of the LEZ scheme for a specified period where it is considered appropriate to do so for the purposes of a significant national or local event. A suspension may also be issued in relation to a temporary diversion into the LEZ where vehicles follow the signed diversionary route.

6.6 The Scope of the LEZ Scheme

- The Glasgow LEZ will apply to all vehicle types, with the exception of motorbikes and mopeds, and those vehicle types or uses considered exempt in Regulations.
- Entry to the LEZ by the above vehicle categories will only be permitted if they meet or exceed the nationally consistent emissions standards as set out in [The Low Emission Zones \(Emission Standards, Exemptions and Enforcement\) \(Scotland\) Regulations 2021](#)
- Vehicles which have been retrofitted with a suitable emissions abatement system, such that their tailpipe emissions now meet or exceed the relevant emissions standard for their vehicle type as detailed above, will be permitted access to the LEZ. Such retrofitted vehicles must be suitably accredited by an independent scheme such as the Clean Vehicle Retrofit Accreditation Scheme (CVRAS).
- Vehicles which have undergone repowering, either through the installation of a new engine or other power type, will also be permitted access to the LEZ, should the repowering result in emissions which meet or exceed the above emissions standards.
- For practical purposes, it is generally the case that diesel engine vehicles registered after September 2015 and petrol vehicles registered from 2006 onwards will meet these standards. Buses, coaches and HGVs registered from January 2013 onwards will also generally meet the LEZ standards.

6.7 Exemptions and Time-Limited Exemptions

A number of vehicle types are exempted from LEZs within Scotland, as defined in [The Low Emission Zones \(Emission Standards, Exemptions and Enforcement\) \(Scotland\) Regulations 2021](#).

Table 2: National Exemptions Applying to the Glasgow LEZ

Vehicle type or classification	Description
Emergency Vehicles	<p>The vehicle is being driven by any person who is:</p> <ul style="list-style-type: none"> • undertaking their duty as a constable • providing a response to an emergency at the request of the Scottish Ambulance Service Board • exercising the functions of the Scottish Ambulance Service Board, the Scottish Fire and Rescue Service, Her Majesty's Coastguard or the National Crime Agency
Naval, Military or Air Force Vehicles	<ul style="list-style-type: none"> • Vehicles being used for naval, military or air force purposes.
Historic Vehicles	<ul style="list-style-type: none"> • The vehicle was manufactured, or registered under the Vehicle Excise and Registration Act 1994, for the first time at least 30 years ago • The vehicle is no longer in production, and • The vehicle has been historically preserved or maintained in its original state and has not undergone substantial changes in the technical characteristics of its main components.
Vehicles for Disabled Persons*	<ul style="list-style-type: none"> • the vehicle is being driven by any person who is in receipt of a badge (a blue badge) that has been issued under section 21(2) of the Chronically Sick and Disabled Persons Act 1970, • a passenger in the vehicle has been issued with a badge under that section of that Act, or • a badge for the vehicle has been issued under section 21(4) of that Act, • a reduction in annual rate of vehicle excise duty applies because the vehicle is being used by a disabled person in receipt of personal independence payment at the standard rate, or • Vehicles registered with a 'disabled' or 'disabled passenger vehicles' tax class e.g. the vehicle is exempt from payment of vehicle excise duty under paragraph 19(1) or 20(1) of schedule 2 of the Vehicle Excise and Registration Act 1994 (exemptions from excise duty for vehicles used by disabled persons).
Showman Vehicles	<ul style="list-style-type: none"> • Vehicles described as either “showman’s goods vehicle” or “showman’s vehicle” according to section 62(1) of the Vehicle Excise and Registration Act 1994. Note: these are highly specialised vehicles used for the purposes of travelling showmen, where the vehicle is used during the performance, used for the purpose of providing the performance or used for carrying performance equipment

*Note: blue badges are assigned to a person, not a vehicle, so a blue badge holder could travel in any vehicle and the rules of the blue badge would need to be applied to that vehicle on that day of travel.

- The Transport (Scotland) Act 2019 allows local authorities to grant non-compliant vehicles or vehicle types a time limited extension which would permit them to operate within a LEZ. These extensions are limited to a maximum of one year but may be renewed by the local authority. Glasgow City Council does not propose a general exemption of this type for any particular vehicles or vehicle types.
- The LEZ scheme will allow for applications for a time limited exemption under circumstances where entry of a non-compliant vehicle is required for a specific, defined purpose not considered in legislation or Regulations. Applications will be determined on their individual merits. Examples of this may be, but are not limited to; abnormal loads or machinery transport, historic vehicles or vehicles of particular speciality not covered by other exemptions and used for a specific purpose, or any other non-compliant vehicle use deemed appropriate on application to Glasgow City Council.
- Applications for time limited exemptions will not normally be considered for the routine transport of people or goods or for routine commercial operations. It is expected that these exemptions will only be granted in rare or exceptional circumstances.

6.8 Penalty Charges for Non-Compliant Vehicles

- Penalty charges for non-compliant vehicle entry into a LEZ in Scotland are set at a national level as seen in [The Low Emission Zones \(Emission Standards, Exemptions and Enforcement\) \(Scotland\) Regulations 2021](#).
- The initial penalty charge is set at £60 and is reduced by 50% if paid within 14 days. Where repeat entry by the same vehicle is detected within a 90 day period, this penalty charge rate will double, doubling again on each subsequent entry up to a maximum determined by vehicle type. Where no subsequent entry by a non-compliant vehicle is detected within a 90 day period, the penalty charge is reset to the initial penalty charge rate of £60. Full details of the applicable penalty charges are shown in Table 3 below.

Table 3: Scottish LEZ penalty charges

Vehicle Category	Initial penalty charge	Subsequent penalty charges			
		1	2	3	4
Light passenger vehicle	£60	£120	£240	£480	-
Minibus	£60	£120	£240	£480	£960
Bus and Coach	£60	£120	£240	£480	£960
Light goods vehicle	£60	£120	£240	£480	-
Heavy goods vehicle	£60	£120	£240	£480	£960
Special Purpose Vehicle (SPV)	£60	£120	£240	£480	-

6.9 Full details of the final LEZ scheme design will be compiled into a report for submission based on the [Low Emission Zones Guidance](#). This report follows the template provided in guidance and includes all the relevant information contained within the Ministerial Approval Submissions Checklist. The report for submission will be made available at <https://www.glasgow.gov.uk/LEZ>

7 Next Steps

7.1 Should Committee accept the recommendations of this report, a report including the LEZ scheme design details and the report for submissions will be presented to the City Administration Committee for formal approval.

7.2 The LEZ scheme will be submitted to Scottish Ministers for a decision on final approval. Should this be received, the Glasgow LEZ will come into effect on 31st May 2022, beginning the relevant grace periods before LEZ enforcement on 1st June 2023 for general vehicles and 1st June 2024 for vehicles registered to zone residents.

7.3 Should the final scheme design receive the necessary approvals and the LEZ enforcement date of 1 June 2023 be set; it would be expected that this certainty would encourage an increased uptake of retrofit options. Officers will work with colleagues in licensing to letter those taxi operators with non-compliant vehicles to make them aware of the most up to date funding available from the Scottish Government as well as the change in licensing conditions that supports retrofit. Direct mail in combination with an updated area on the LEZ webpages would ensure that operators are fully aware of the funding options available to them and serve to encourage uptake.

8 Policy and Resource Implications

Resource Implications:

- Financial:* Grant funding for the LEZ and associated projects is provided by the Scottish Government and administered by Transport Scotland.
- Legal:* Progress on the LEZ is dependent on the Transport (Scotland) Act 2019 and the associated Regulations which came into force on 31st May 2021.
- Personnel:* LEZ actions will be undertaken using existing staff resources, partner organisations and consultant support.
- Procurement:* Procurement has been undertaken in respect of LEZ projects such as communications and engagement, consultant support and consultation activities. Procurement of capital purchase for enforcement equipment, infrastructure and back office is underway.

Council Strategic Plan:

The recommendations of this report support the following Strategic Plan themes:

- A Vibrant City
- A Healthier City
- A Sustainable and Low Carbon City

The following Strategic Plan actions are supported:

- Glaswegians are active and healthier
- Glasgow is healthier
- The city is clean and public spaces are well maintained

The following Strategic Plan Priority is supported:

61. Develop options for the city to introduce Scotland's first low emission zone and work with partners on a cleaner fleet of buses and cars – including electric.

Equality and Socio-Economic Impacts:

- Does the proposal support the Council's* Generally supportive of the stated outcomes.

Equality Outcomes 2021-25? Please specify.

What are the potential equality impacts as a result of this report?

The LEZ is aimed at protecting the health of some of Glasgow's most vulnerable residents. An EQIA screening of the first phase of the LEZ has been undertaken - [Link](#)

A further EQIA for phase 2 of the LEZ has been undertaken as part of the [Integrated Impact Assessment](#).

Poor air quality differentially impacts on residents with prior health conditions and improvements in air quality should therefore provide benefits.

Please highlight if the policy/proposal will help address socio-economic disadvantage.

Socio-economic impacts have been considered as part of the Integrated Impact Assessment of Phase 2 of the LEZ.

Climate Impacts:

Does the proposal support any Climate Plan actions? Please specify:

Development of the LEZ directly addresses actions 22 and 53 of the Climate Plan. It also contributes towards actions 26,33,54,55 and 56.

What are the potential climate impacts as a result of this proposal?

One of the statutory objectives of any Scottish LEZ is to contribute to climate change targets. This is expected to provide a slight beneficial impact based on preferential entry conditions being applied to low and zero emissions vehicles. Impacts have been further quantified through [modelling conducted by SEPA](#) as slight beneficial. Further beneficial impacts will be achieved through ancillary measures.

Will the proposal contribute to Glasgow's net zero carbon target?

The LEZ will contribute to the reduction of carbon emissions within the city centre and beyond through the promotion of low and zero emission vehicles. Impacts of direct emission impacts have been quantified through modelling conducted by SEPA. Ancillary benefits will continue to be quantified as the LEZ progresses.

**Privacy and Data
Protection Impacts:**

This report has no immediate impacts upon privacy or data protection. However, data collection as part of any enforcement of the LEZ will be fully considered for compliance with relevant legislation and procedures.

9 Recommendations

It is recommended that Committee notes the contents of this report, including;

- 1) The progress being made in establishing Phase 2 of the Glasgow Low Emission Zone
- 2) The outcomes of the formal publication of the LEZ final scheme design
- 3) The content of the LEZ final scheme design
- 4) The intention to submit the LEZ final scheme design to the City Administration Committee and Scottish Ministers for approval

Appendix A: LEZ Objections Report

1 Background

The Glasgow Low Emission Zone began with phase 1 in 2018, targeting a rolling improvement in emission standards for the scheduled bus fleet. Phase 2 of the LEZ was originally scheduled to begin in 2022 and require the relevant emission standards to be applied to all other vehicle types.

Development of phase 2 has been ongoing since the introduction of phase 1, with extensive air quality and transport modelling of the various options, an integrated impact assessment, an initial public consultation on LEZ options and a statutory consultation on the preferred scheme design. All these reports are available at <https://www.glasgow.gov.uk/LEZ>

During this process there has been extensive engagement with the public, zone residents, industry, business groups, community representatives and other affected stakeholders. This engagement has contributed to the development of the final scheme design.

The LEZ final scheme design was formally published on 9th December 2021. Legislation and regulations require that a minimum period of 28 days be allowed for the receipt of objections to the proposals. Since this would include the Christmas and New Year period, six weeks was allocated for the receipt of objections, ending on 20th January 2022.

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Details of the final scheme design; including details of the consultation exercise and any changes to the preferred scheme resulting from this, were published on the [glasgow.gov.uk/LEZ](https://www.glasgow.gov.uk/LEZ) website. Small changes to the LEZ boundary were made in response to consultation feedback and incorporated into the final scheme design. The full final scheme design report as published can be found [here](#).

The notice of publication included provision for respondents to raise objections to any aspect of the scheme design or indeed the scheme design as a whole. Any objection must be made in writing and contain a statement outlining the grounds of the objection.

2 Objections Summary

A total of 134 objections were received by the end of the formal objection period. Of these, 123 were from persons identifying themselves as operators or drivers within the hackney taxi trade with their objections based on the perceived impact on this trade. 49 of the 123 objections followed a template response.

One of these objections was a comprehensive statement of reasons received from Unite the Union Glasgow Cab Section with four main grounds for objection.

The 11 objections from those not identifying themselves as part of the taxi trade included a variety of grounds for objection with some citing multiple reasons.

Two responses were received indicating an objection to the LEZ but did not include any reasons for the objection. These have not been included in the figures above.

3 Objection Themes

3.1 Taxi Objections

49 responses from the taxi trade included the following statement or a minor variation thereof,

“Please note my objection to the LEZ start date of 01/06/2023 for Hackney cabs. The pandemic has had a devastating financial impact on their business. It will be impossible for them to meet the current deadline.”

The objection from the Unite the Union Glasgow Cab Section stated the following grounds:

- Impact of the pandemic – The objection cites the loss of income for the sector due to restrictions during the period of the pandemic. This has restricted the ability to invest in compliant vehicles and is not sufficiently mitigated by the corresponding delay to LEZ enforcement.
- Compliant vehicle availability – The objection cites the high cost of electric taxis and suitable Euro 6 diesel taxis. It also states that there is limited availability of Euro 5 vehicles to be purchased and then retrofitted to achieve compliance.
- Net Zero targets – The objection states that exempting taxis from the LEZ for a few years will allow for the market in electric vehicles to mature and become more attractive and cheaper for operators. The objection also states that the adoption of new diesel vehicles, with their expected operational lifespans, will have an adverse impact on EV adoption and therefore upon net zero targets.
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3.2 Non-taxi objections

Non-taxi objections included the following themes, in rough order of prevalence:

- Adverse impact on those with low incomes.
- Adverse impact on businesses.
- Poor / expensive public transport.
- Electric vehicle cost / infrastructure.
- Penalty charges are too high.
- Pandemic impacts.
- Money making scheme for the Council
- Personal impact.
- Won't produce the required reduction in pollution.

4 Objection Response

4.1 Taxi Objections

4.1.1 Background

Officers from GCC have engaged extensively with the taxi trade and the Union since the LEZ was initially proposed. This has included written communication, presentations at licensing committee meetings, presentations to the Taxi and Private Hire Trade Group and special events at the Royal Concert Hall to ensure that the trade were fully informed of the LEZ plans and the financial aid available to operators to become compliant. Officers have also promoted communications and events organised by Transport Scotland / the Energy Saving Trust to encourage uptake of the various grant options open to operators. This engagement pre-dates the adoption of the original LEZ timescale in [June 2018](#) and has continued since.

4.1.2 Pandemic Impacts

The original timescale for phase 2 of the LEZ called for all vehicles to be compliant by 31st December 2022. However the pandemic [delayed this timescale](#) and the current proposals are for enforcement of the LEZ to begin on 1st June 2023. Studies carried out on behalf of the LEZ cities showed that the expected recovery from the pandemic would result in a return to unacceptable air pollution levels. This has been observed through measurements for 2021 following compliance in 2020, reflecting the lessening of restrictions from the initial lockdown period. It is therefore considered essential that the LEZ be implemented as soon as possible within this delayed timescale to reduce the period where the public are exposed to pollution levels above the health based objectives to as short as possible.

Taxi operators are eligible for various funding options to help them to become LEZ compliant. These are detailed at <https://www.lowemissionzones.scot/funding> and have been extensively promoted by GCC, Transport Scotland and the Energy Saving Trust. Despite the level of support for this sector being second only to that available to the bus sector, the support scheme for taxis has seen limited uptake from operators in Glasgow, with many citing the pandemic impact for their inability to upgrade

vehicles. At the time of writing, 55 funded retrofits have been undertaken for vehicles registered in the city. This leaves a significant number eligible for the funding but with limited time to become compliant.

The table below contains a breakdown of the taxi fleet as of December 2021 with their LEZ compliance status / eligibility included.

Dec 2021	Count	%
All taxis	1419	100.0%
> Jan 2017 registration	340	24.0%
Retrofitted	55	3.9%
< Jan 2017 but Euro 6	6	0.4%
> Jan 2017 but not likely to be Euro 6	6	0.4%
LEZ compliant	395	27.8%
Non-LEZ compliant	1024	72.2%
Models with CVRAS retrofit approval	894	63.0%
Exchange to retrofit	130	9.2%

Almost 28% of the fleet is currently LEZ compliant, with an additional 63% eligible for retrofit. In all cases there is an exhaust treatment solution commercially available with 80% of the cost, up to £5000, covered by an EST grant. Transport Scotland data indicates that costs of exhaust treatment solutions are currently around £7000 with the amount above the grant maximum payable by the operator. There is also an alternative scheme available for some vehicles allowing for the installation of a new engine and subsequent conversion to run on LPG. This scheme similarly covers 80% of the cost, up to £10000. Again, data from Transport Scotland indicates that the cost of this treatment is currently around £13,800, with the amount above the grant maximum payable by the operator. It should be noted that this cost can be offset by the lower operating costs of a new, LPG fueled engine.

For ~9% of the current fleet there is no retrofit solution available. However, in response to this, GCC amended the licensing rules allowing for older vehicles to be purchased and registered which are eligible for retrofit. These operators may also be able to benefit from the disposal scheme which provides £2500 for disposal of non-compliant vehicles. It should be noted that these vehicles generally comprise of the oldest in the fleet, some of which are more than 20 years old.

While the taxi trade has been adversely impacted by the pandemic, these solutions allow for the vast majority of operators to become compliant with most of the cost provided through the grant funding. The expectation is that the recovery from the

pandemic will continue and those operators who wish to continue to operate taxi services in the city post LEZ implementation should take advantage of the funding available at the earliest opportunity to ensure they meet the emission standards by the implementation date.

4.1.3 Compliant Vehicle Availability

As discussed in the previous section, the vast majority of the taxi fleet (90.8%) are either LEZ compliant, or can be made so through a grant funded retrofit solution. The remaining 9.2% of the fleet will have to explore some form of vehicle replacement if the operators wish to continue to operate a hackney taxi within the LEZ once enforcement begins.

Following engagement and consultation, the meeting of the Licensing and Regulatory Committee on the [14th August 2019](#) agreed, “To the removal of the 5 year age policy for all taxi applications for new and substitute vehicles subject to the replacement vehicle being a newer vehicle than that is currently licensed”. This was a direct intervention to increase the options available to operators of vehicles unsuitable by reason of age for retrofit.

The objection cites the decreased availability of suitable vehicles in the second hand market available for those operators to take advantage of this option. While the market for second hand taxis may fluctuate, this remains an option for many. Other options include new vehicle purchase with interest free loans available for certain models through the Energy Saving Trust. It should be noted that operators may take advantage of the £2500 grant for disposal of a non-compliant vehicle.

Operation of a taxi business will on occasion require capital investment costs. The actions of GCC, Transport Scotland and the Scottish Government have served to significantly reduce the capital investment required for the taxi trade to become compliant with LEZs in Scotland.

4.1.4 Net Zero Targets

The primary objective of the LEZ is to contribute towards meeting the air quality objectives in relation to NO₂ levels. Another objective of the Glasgow LEZ is to, “Contribute towards the emissions reduction targets set out in Part 1 of the Climate Change (Scotland) Act 2009 through the promotion of low and zero emissions vehicles and the promotion of public and sustainable transport options.”

The emission standards for Scottish LEZs are set in terms of oxides of nitrogen (NO_x) emissions and do not specifically set limits on CO₂ emissions. Therefore the CO₂ reduction purely from emission standards is likely to be small, as set out in the Scottish Environment Protection Agency report [Consideration of Carbon Dioxide Emissions Within an LEZ Scheme: Glasgow](#).

The CO₂ reduction element of the scheme objectives will be achieved through the ancillary promotion methods detailed above and through the co-benefits between the

LEZ and other confirmed GCC policies such as the Glasgow Transport Strategy, the City Centre Transformation Plan, Glasgow's Climate Plan and other initiatives such as the Glasgow Car Free Zone and the Avenues Project.

Progress has already been made in this respect with the direct use of LEZ funding to introduce bus gates at Union St and Oswald St. LEZ funding was also allocated to the Public Transport Provision fund which saw the electrification of all Co-Wheels city centre car club vehicles with associated charging facilities (including public charging), expansion of the NextBike cycle hire scheme to an additional six locations (including the provision of electric bikes) and improvements to traffic signal infrastructure at two locations to reduce congestion. GCC will continue to explore other initiatives where LEZ actions can improve upon projects to reduce CO2 emissions, particularly within the city centre.

It should be noted that, while the emission standards do not mandate low or zero emission vehicles, these vehicles are inherently LEZ compliant and the LEZ can act as an incentive for their increased adoption. However, with NO2 levels increasing to unacceptable levels as the pandemic recovery continues, it is not acceptable to delay introduction on the basis of increased EV uptake at a later date.

Whilst legislation and regulation allow for the provision of a maximum of one year for a time limited exemption, this is unlikely to result in a significantly improved market for taxi EVs. Although this can be extended if the LEZ authority deems necessary, it cannot be determined beyond one year initially and cannot be conditional on EV uptake at a later date since this is outwith the scope of the LEZ emission standards. Any changes to emission standards or exemptions can only be made after changes to national LEZ legislation. This should give comfort that the current standards will apply to existing registered taxis for a significant period of time. It is also important that the investment required to meet LEZ standards is acknowledged in the consideration of the lifespan of that investment while incentivising the uptake of zero emission capable vehicles in the medium to long term.

4.1.5 National LEZ Enforcement

LEZs are being introduced in the four largest cities in Scotland in response to longstanding breaches of the air quality objectives. All LEZ cities are free to design and implement their LEZs within the context of the legislation and regulations, reflecting their own individual circumstances. While the other cities have chosen to adopt a two year grace period before adoption, Glasgow has committed to implementing the LEZ as soon as possible following the initial delay. This approach has included consideration of a number of factors such as the nature and extent of the pollution levels, the expected recovery from the pandemic and impact on future pollution, the delay from the original timescale and the financial aid available to affected groups and individuals.

Glasgow has historically recorded the highest levels of NO2 pollution of any Scottish city and has been the first to monitor a return to NO2 levels above the objective during recovery from the pandemic. Therefore, taking into account the delay in the original

timescale due to the pandemic, it is reasonable that Glasgow enforce the LEZ at the earliest opportunity to reduce the health impacts on those who live, work and use our city centre for retail and leisure and who would continue to be subject to harmful levels of pollution during any further delay to the LEZ.

This section of the objection also states that Gordon St is the only area where NOx emissions can be significantly attributed to the taxi trade. This is not the case. Source apportionment undertaken under the National Modelling Framework by the Scottish Environment Protection Agency shows that NOx emissions from taxis represent around 11% of the total road transport emissions within the proposed LEZ area. However, this contribution rises significantly in those streets which record the highest pollution levels. Therefore, the contribution from taxis is significant across the LEZ, particularly in those streets where NO2 levels are highest such as, but not limited to, Gordon St. Exemption from the LEZ would significantly reduce the effectiveness of the proposals and the likelihood of achieving its aims.

The objection suggested action against idling vehicles could deliver the required air quality benefits. While idling vehicles contribute to emissions, ranking taxis tend to move frequently and this makes idling enforcement difficult. Officers from GCC will continue to visit suspected idling locations and advise drivers of their responsibilities as well as enforce idling regulations wherever possible or necessary. However, idling enforcement cannot be a substitute for improved vehicle emissions standards.

Of the four Scottish LEZ cities, only Glasgow and Edinburgh operate a significant hackney taxi fleet. However, the licensing conditions between the two cities in respect of vehicles differ significantly. Edinburgh produced an update to their policy in 2021 stating, "Effective 1 April 2023 no Taxi or PHC will thereafter be accepted for test unless it is Euro 6 or above. Separately to this requirement, any Euro 5 Taxi or PHC that has passed its test and is licensed prior to 1 April 2022 may continue to be operated until its licence expires or 31 Mar 2023 whichever date is earliest." While there is an appeals process for an exemption on an individual basis, to be considered by the licensing committee, the general condition applies. Therefore Edinburgh taxis submitting for their annual test must be LEZ emissions standard compliant from 1 April 2023. Additionally, taxis licensed in Edinburgh are subject to a maximum age of 10 years, significantly reducing the proportion of the fleet which is non-compliant with the LEZ emission standards.

4.1.6 Taxi Objections Response Summary

The taxi sector is eligible for substantial grant funding to achieve compliance with the LEZ. More than 90% of the existing fleet is either already compliant or eligible for retrofit funding. Of the remainder, mainly those vehicles without a retrofit solution due to age, aid is available in the form of disposal grants and/or interest free loans for certain vehicles. Alternatively, a second hand vehicle, eligible for retrofit, may be purchased and brought to LEZ compliance through the grant funded retrofit. Although uptake of these funds has been less than expected thus far, the recovery from the

pandemic and the time remaining before enforcement begins should allow the vast majority of operators to become compliant should they wish to do so.

Although the uptake of electric vehicles is preferable in respect of air quality and carbon emissions, it is not a requirement of the LEZ. The LEZ scheme will contribute towards achieving climate change targets as detailed above and the scheme is fully compliant with this objective. Achieving the air quality objectives for NO₂ is the priority and would be negatively impacted by introducing a delay pending an uncertain improvement in the availability and cost of electric taxis.

All LEZ cities are free to design and implement their LEZs within the context of the legislation and regulations, reflecting their own individual circumstances. For Glasgow it was determined that introducing the LEZ as soon as possible following the delay due to the pandemic was most appropriate given the particular circumstances which apply in the city. The urgency of this requirement in Glasgow can be seen in the return of pollution levels in excess of the objectives in 2021 as the pandemic recovery progresses.

Emissions from the taxi fleet make a significant contribution to the high NO₂ levels experienced within Glasgow city centre. Due to the age and composition of the fleet this is more of an issue for Glasgow than it is for the other LEZ cities. Differences in licensing conditions across the Scottish LEZs also means that, in general, the Glasgow fleet have a longer period than other cities to become compliant. A Glasgow city LEZ which exempted taxis would not be as effective in achieving the air quality objectives across the city centre. It should also be noted that taxi drivers suffer particularly high personal exposure to air pollution and air quality improvements benefit them more than most other sectors of the population. This is reflected in the fact that taxi operators are not unanimous in their opposition to the LEZ. Several taxi operators have written to express their support for the measures and the existing timescale, both during the previous consultations and during the objection period.

4.2 Non-Taxi Objections

The 11 non-taxi objections included the themes detailed in section 3.2. These are addressed below.

4.2.1 Adverse impact on those with low incomes.

The potential impact of the LEZ on those with low incomes has been extensively considered, including within the [Integrated Impact Assessment](#) on the proposals. The primary objective of the LEZ is to reduce air pollution by reducing the emissions profile of vehicles which enter, and the emission standards favour newer vehicles since emissions have improved with time.

However, owners of a non-compliant vehicle do not necessarily have to invest in a new vehicle if they wish to continue to drive into the LEZ. Since diesel vehicles, from

September 2015 onwards, and petrol vehicles, from 2006 onwards, are generally LEZ compliant, by the time of enforcement of the LEZ a relatively small proportion of the vehicle fleet will be non-compliant. Diesel vehicles around 8 years old and petrol vehicles around 17 years old will still be able to enter the zone without penalty. As well as affecting relatively few vehicles this opens up a significant portion of the second hand car market to those seeking a compliant vehicle. It is entirely possible for someone affected to “trade down” their vehicle from a non-compliant diesel to an older compliant petrol vehicle.

The Scottish Government have also introduced various funding options for those affected by the LEZ. These options are means tested to target those least able to afford any potential costs. Eligible households can apply for a £2000 cash grant to incentivise disposal of a non-LEZ compliant vehicle. This will include an additional offer of up to two £500 mobility grants or *Travel Better* vouchers for people to purchase a bike, e-bike or public transport voucher.

In 2021/22 £3.7M was allocated for the support fund and this is expected to be fully subscribed. As of January 2022 uptake of the various funds are as seen in the table below.

Glasgow	
Paid Grants	FY 21-22 YTD
Households (disposal grant)	377
Business (disposal grant)	192
Households (Travel Better grant)	175
Business (retrofit)	19

This represents a total spend in the Glasgow area until January 2022 of £1,474,460.00. Glasgow City Council have made representations to Transport Scotland and the Scottish Government that this funding be extended and continued to include the period until enforcement across the LEZ cities begins.

4.2.2 Adverse impact on businesses.

Impacts on business has been similarly considered with the majority of businesses, especially those involved in logistics operations, predicted to be fully LEZ compliant by the time of enforcement. It is noted that some smaller businesses may find themselves having to become LEZ compliant and improve the emissions from their

vehicles sooner than they would normally have done in the course of their business planning.

The LEZ support fund contains provisions for sole traders and microbusiness affected in this way. The disposal grant is available to them at an increased rate of £2500 for the disposal of a non-compliant vehicle. To be eligible a business must have an operating site within 20km of a proposed LEZ, employ fewer than 9 full-time employees and meet certain turnover and balance sheet conditions. Full details are available at <https://energysavingtrust.org.uk/grants-and-loans/low-emission-zone-support-fund-for-businesses/>. In the year to date 2021/22, 192 vehicles belonging to businesses in the Glasgow area have been disposed of under this scheme.

Some objections were based on the perceived impact of the LEZ on footfall within the city centre. For the purposes of transport modelling of the LEZ it was assumed that each journey currently undertaken by a non-compliant vehicle would be replaced by the same journey by a compliant one. This represents a worst case scenario in terms of both transport and air quality modelling. It is not predicted that LEZ measures on their own will have a significant impact on traffic figures within Glasgow city centre. However, it is expected that some people affected by the introduction of the LEZ will choose to access the zone by public or sustainable transport. This is incentivised by the inclusion of the mobility grant or *Travel Better* vouchers within the LEZ support fund. As of January 2022, 175 of these have been administered to applicants within the Glasgow area.

One of the objectives of the Glasgow LEZ is to, “Improve the amenity of Glasgow through the promotion of the Glasgow City Council Strategic Themes of A Vibrant City, A Healthier City and a Sustainable and Low Carbon City.” Improvements in the air quality within the city centre will make the area more attractive for people to work, shop and visit, thus acting as an incentive for people to visit more regularly and for longer. This will in turn contribute to making the area more attractive for businesses to operate within.

It should be noted that the Glasgow Transport Strategy seeks to reduce total car kilometres travelled by 30% by 2030. This goes further than the Transport Scotland target to cut vehicle kilometres across the country by 20% by the same date. It is of note that these measures are intended to promote alternative transport choices, make our city centres a more attractive place to be, and therefore not impact negatively on footfall for commercial businesses.

4.2.3 Poor / expensive public transport.

Glasgow is one of the best connected cities in the UK with an extensive local rail and bus network and the city centre acts as a transport hub at several locations. However, early in the process of developing the LEZ it was identified that buses in particular were a major contributor to the air pollution problems. This was the reasoning behind introducing the LEZ for scheduled service buses first in 2018. This has seen a rolling improvement in the emission standards of buses which is already showing benefits in the monitored pollution levels.

At the same time it was recognised that improved public transport was also a core part of the answer to the city's air quality problems. LEZ funding has been used to install bus gates at Union St and Oswald St, improving bus speeds and emissions in congested areas where the highest pollution levels are recorded. Scottish Government funding has also been provided to retrofit relatively new but non-compliant buses to Euro VI standards. Additionally, funding has been provided under the Scottish Ultra Low Emissions Bus Fund and its successor, the Scottish Zero Emission Bus Fund, to incentivise the uptake of electric buses. This has already resulted in the provision of significant numbers of new electric buses within Glasgow and a firm program for the delivery of more by operators.

The Glasgow Bus Partnership (GBP) brings together a number of organisations as a voluntary partnership. This includes the eight Glasgow City Region local authorities, Strathclyde Partnership for Transport, bus operators (through their new alliance, GlasGo) and bus passenger representative groups (to address current challenges to bus travel and to improve the passenger experience for communities across the Region).

The vision of the Glasgow Bus Partnership is of a City Region where bus services form part of a network of connectivity, enhancing the opportunities and wellbeing of those who live or visit here - providing safe, affordable, enjoyable connections and reducing road congestion, noise and air pollution.

Aims of the GBP include:

- Improving bus priority mechanisms and reducing congestion to improve bus journey times and reliability
- Ensuring buses are given higher priority in any future city planning
- Improving the accuracy of real time passenger information and exploring options to introduce an integrated ticketing system

The GBP also supports the delivery of Glasgow's LEZ and brings together key partners to develop bus priority funding bids to [Transport Scotland's Bus Partnership Fund](#).

The work of the GBP seeks to positively impact upon the affordability and accessibility of the bus network and assist with creating the conditions that will increase bus patronage. A faster, cheaper, and better-connected bus network will benefit all bus passengers across the City Region as well as the environment.

4.2.4 Electric vehicle cost / infrastructure.

A number of objections cited the high cost of electric vehicles as a reason for objection. As noted previously, the LEZ does not require a vehicle to be electric to enter the zone and this is a common misconception which will be addressed through targeted communication and information campaigns.

4.2.5 Penalty charges are too high.

Penalty charges are set within legislation and regulations and are common to all LEZs in Scotland. They are set at a level, and rise with subsequent entries, to discourage entry to the LEZ by non-compliant vehicles. The penalties are set at a level to serve to exclude non-compliant vehicles from the zone rather than to serve as a cost for entry. This is a decision taken to minimise the number of entries into an LEZ by non-compliant vehicles.

4.2.6 Pandemic impacts.

The impacts of the pandemic have been extensively considered throughout the development of the LEZ. These have been subject to an [Uncertainty Summary Note](#) and a more detailed [LEZ Modelling Report](#) exploring likely recovery scenarios. The pandemic has had an impact on the community in terms of their ability to prepare for the LEZ and on the legislative process for the establishment of the LEZ itself.

The pandemic has resulted in a delay in enforcement of the Glasgow LEZ from 31st December 2022 to 1st June 2023 and this will help towards allowing people and businesses extra time to prepare. The impacts of the first lockdown saw NO₂ levels meet the objectives for the first time since measurements began. However, this has not continued as recovery progresses with 2021 observing a return to objective exceeding levels. With the projected recovery process, it is likely that these levels will increase further as economic activity and traffic levels and patterns continue to recover to pre-pandemic levels.

4.2.7 Money making scheme for the Council

The LEZ cities are reliant on Scottish Government funding for the establishment and implementation of LEZs, in accordance with the Government policy to introduce them to the four largest cities. The penalty charges are set at a level to discourage entry and therefore the LEZs are expected, and intended, to receive limited income in terms of penalty charges. It is expected that LEZs will be revenue negative for the cities that introduce them and be reliant on ongoing funding for their operation. The net costs of operating an LEZ is likely to increase over time as fewer vehicles are non-compliant and therefore fewer penalties are issued.

The purpose of the LEZ is to improve air quality within the zone and the surrounding areas. In the unlikely event that any extra revenue is received as a result of its operation, legislation states that this must be used to facilitate the achievement of the schemes objectives i.e. towards further efforts to improve air quality.

4.2.8 Personal impact.

An LEZ is designed to improve air quality through excluding the most polluting vehicles from an area of high pollution. As an exclusionary policy it is inevitable that it will have

an impact on a portion of the population who will have to change either their transport choices or their vehicle as a consequence.

The choice of emission standards, the implementation of the various retrofit and support options and the notice that has been given of the measures have all sought to minimise the impacts on people as far as possible while still achieving the aims of the scheme in a reasonable timescale. This support has also been targeted to help those who need it most.

4.2.9 Won't produce the required reduction in pollution.

The largest contribution to poor air quality within the LEZ is from road transport. While previous emission standards have not produced the real world reductions in emissions that were predicted, the emission standards that will apply to Scottish LEZs have shown considerable improvement. Implementing the LEZ is modelled to reduce total NOx emissions from road traffic within the zone by just over 50%. Thus demonstrating that it is a small number of vehicles which have a disproportionate impact on air quality. The predicted improvements in air quality are demonstrated within the [Glasgow Low Emission Zone – Evidence Report](#) by SEPA.

Modelling and monitoring of the impact of phase 1 of the LEZ was also conducted by SEPA, demonstrating that introducing the rolling improvement in bus emissions was beginning to have a positive impact on pollution levels. This report is available [here](#).

The available evidence clearly shows the LEZ will have a significant and beneficial impact on air quality.

5 Conclusions

Low emission zones are designed to improve air quality by excluding those vehicles which do not meet the emission standards from areas of high pollution. As an exclusionary policy, their introduction will unavoidably have some degree of impact on affected individuals and groups. Those who would have continued to drive into the zone using a non-compliant vehicle will have to adjust either their mode or method of travel.

The emission standards that apply to LEZs in Scotland are such that, by the time of enforcement, a relatively small proportion of the fleet will be directly impacted. However, it is this part of the fleet which has a disproportionate impact on emissions and resulting pollution levels.

Recognising that some people and sectors may find it more difficult to adjust to the introduction of an LEZ, the Scottish Government has made available the LEZ support fund in various forms. This is a targeted and proportionate response, making financial aid available to those least able to adapt to the changes and encouraging the overall aim of a shift from personal vehicle use, particularly within our city centres.

The hackney taxi fleet in Glasgow is unique from other taxi fleets in the country in that it comprises a large number of older, non-compliant vehicles. This results in this sector being a significant contributor to the air quality problems experienced within the zone. However, the taxi fleet is also an important part of the transport mix within a busy and vibrant city centre, serving workers, residents, tourists and the night time economy. For these reasons, a generous program of support for taxi improvement is a core element of the LEZ support fund.

The impact of the pandemic has been severe for the taxi sector in particular. This is a partial reason for the lack of uptake of the support available to operators thus far, given that there is still the requirement for an operator contribution. However, the expected recovery, the support available, and the delay in LEZ enforcement, all serve to suggest that this sector should be able to become LEZ compliant in the time remaining before enforcement, at a reasonable contributory cost, should they choose to do so.

For the above reasons, and the more detailed responses to the particular grounds for objection detailed earlier, it is proposed that no further changes be made to the LEZ final scheme design and it be implemented according to the scope and timescale previously published.