

**Glasgow City Council****Environment, Sustainability & Carbon Reduction City Policy  
Committee 20 March 2018****Report by Acting Executive Director, Land & Environmental  
Services****Contact: George Gillespie Ext: 79106****LOW EMISSION ZONE UPDATE****Purpose of Report:**

The purpose of this report is to update the Committee on progress to introduce Glasgow's Low Emission Zone.

**Recommendations:**

The Committee is asked to:

- (1) note the progress being made towards introducing Scotland's first Low Emission Zone in Glasgow city centre;
- (2) agree to receive a further update report on the extension of the Low Emission Zone to all vehicle types at a future meeting;
- (3) refer the report to the City Administration Committee (as agreed at its meeting on 28 September 2017).

Ward No(s):

Citywide: ✓

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

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## 1.0 Background

1.1 The introduction of Scotland's first Low Emission Zone (LEZ) is about making Glasgow a better place in which to live, work and visit. One key means of doing so is provided by the Council's commitment to introduce the LEZ in the city centre by the end of this year. The Programme for Government has also confirmed national plans for Scotland's four principal cities to introduce LEZs by 2020. The key aims for Glasgow are to:

- Protect public health through tackling poor air quality in the city centre.
- Ensure that Glasgow moves more rapidly towards meeting Scottish and EU air quality objectives for nitrogen dioxide and improve air quality standards within the city.
- Contribute to broader objectives and vision by the City Government to lower vehicle emissions and promote active travel, thereby improving urban livability and supporting a vibrant and thriving city centre offer to residents, visitors, business and tourists.

1.2 At its meeting on 28 September 2017, the City Administration Committee (CAC) agreed to a set of proposals for introducing the LEZ and identifying key elements of Glasgow's journey towards this goal. It is supported by a clear evidence base and the application of robust scientific modelling, which point to an approach based on:

- Phase 1 of the LEZ which focuses on bus movements through the city to reduce emissions and achieve improvements in air quality.
- The application of national funding support to allow local bus fleet upgrade and retrofit for improved emission standards.
- Phase 2 shall include trucks, vans, cars, taxis, and motorbikes in order that all harmful sources of air pollutants are further reduced. Details of vehicles exemptions and sunset periods for phased compliance shall be detailed in a future report to members.

1.3 The report to the City Administration Committee also stated that work would be undertaken with the Scottish Government and local partners so that a further update on progress would be presented to elected members within the next six months. In particular, it was acknowledged that further details would need to be developed on the phased introduction of Glasgow's LEZ. This would relate to both:

- The timescale through which annual improvements to the bus fleet is anticipated.

and

- The timescale for the LEZ to apply to other vehicle types.

1.4 This report addresses both these matters and also provides elected members with a broader commentary on how Glasgow's progress links with national developments.

## **2. Development and Implementation of Glasgow's LEZ**

- 2.1 Following the CAC meeting in September 2017, the Council established a Glasgow LEZ Delivery Group. This consists of officer representation from GCC, Transport Scotland, SPT (Strathclyde Partnership for Transport), NHS Greater Glasgow & Clyde and SEPA (Scottish Environment Protection Agency). The group has looked to address collectively the various technical and legal matters associated with the delivery of this project.
- 2.2 The intention of Phase 1 of the LEZ is to work with the bus industry to improve emission standards of buses. Bus services are vital to the lives of Glaswegians and it is recognised that the introduction of the LEZ needs to be proportionate and managed in such a way that ambition and practicality can be balanced. Engagement has taken place between Council officers, major bus operators, Confederation of Passenger Transport (CPT) and SPT and dialogue is ongoing to outline the potential scope of the LEZ and gain an insight from bus operators on how the Scottish Government funding for retrofitting of the bus fleet will be used by them to deliver a compliant bus fleet.
- 2.3 The hours of operation for Phase 1 of the LEZ will be 24 hours a day, 7 days a week, 365 days per year. Scottish Government funding is to be provided for retrofitting of the bus fleet along with existing commitments through schemes such as the Green Bus Fund and it is not considered operationally practical to change bus service provision based on LEZ hours of operation. For Phase 2 of the LEZ, which brings in the non-bus fleet such as delivery vehicles, taxis, and private cars, the outcomes of phase 1 modelling and consultation will better inform the structure and hours of operation and it may be suitable for LEZ enforcement to be restricted to certain busier times of the day. Further modelling will be undertaken to determine what hours should apply to the second phase LEZ.
- 2.4 The Council and Transport Scotland will conduct appropriate Business Economic Impact Assessments and consult city stakeholders as part of this process. This will allow economic outcomes to be evaluated to ensure the proposed intervention phasing is proportionate, and minimise any adverse impacts on the local economy.

## **3. Consultation**

- 3.1 The Council has been engaging with bus operators individually and as part of regular Statutory Quality Bus Partnership Board meetings in order to outline the potential scope and requirements of the LEZ and to find out how that may impact on bus services within the city. The Council is also engaging with bus operators signed up to the Eco-stars Fleet Management Programme<sup>1</sup>, of which Glasgow's major bus operators are current members. In addition, at

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<sup>1</sup> The Eco-stars Fleet Recognition Scheme aims to help fleet operators improve efficiency, reduce fuel consumption and emissions and make cost savings and reducing their environmental impact.

national level, bus operator workshops and seminars have been organised by Transport Scotland on Low Emission Zones, with the most recent workshop having been held in Glasgow in February to launch the Bus Emission Abatement Retrofit Programme Phase 1.

- 3.2 In order to engage further with industry stakeholders - such as fleet operators - as well as the broader business community, an LEZ Delivery Forum has been established. A positive meeting with more than 50 stakeholders was hosted in February 2018 and further meetings are planned going forward. This is very much the start of a journey with all stakeholders that will be used to refine and focus the LEZ delivery phases in such a way as to ensure that the positive aspects of this work are promoted and any potential adverse impacts addressed.
- 3.3 Further individual meetings with industry trade bodies and representative groups have been held in relation to the second phase of the LEZ, with a view to listening to and where appropriate accommodating feedback from businesses. Links to equality groups are also being planned as part of early citizen engagement for the second phase of the LEZ, which will also form part of a broader national conversation led by Transport Scotland on the establishment of LEZs in other cities.
- 3.4 The Council is represented on a number of groups to ensure consistency between the four LEZ cities in Scotland and the other local authorities likely to be interested in the introduction of an LEZ. They include:
  - Four Cities LEZ Consistency Group (led by Transport Scotland).
  - Cleaner Air For Scotland Strategy Governance Group (led by the Scottish Government).
  - The national LEZ Leadership Group (led by Scottish Ministers).
  - The Central and West Pollution Liaison Group.

#### **4. Funding**

- 4.1 Transport Scotland has indicated that funding will be available during 2018/19 for LEZ implementation and to support the undertaking of bus retrofit programmes. It is understood that a total budget of £10.8m has been allocated by the Scottish Government to LEZ delivery, with these funds being available on a national basis and not ring fenced for Glasgow or local bus operators. It has also been advised that the Council and other stakeholders will be required to apply for funding, although the bidding process is still to be confirmed. The Council's contribution is currently under review and will be quantified at a later date.
- 4.2 £1.6m has also been provided by the Scottish Government in 2017/18 to deliver the Bus Emission Abatement Retrofit Programme Phase 1.

4.3 Future Scottish Government funding provision for LEZs beyond 2018 is yet to be established. Council Officers are in dialogue with Transport Scotland to establish the level and timing of future funding provision.

## **5. Proposed operational area of LEZ**

5.1 In September 2017, the City Administration Committee was advised that the initial proposal on the geographical area for the LEZ should be aligned to the existing City Centre Air Quality Management Area (see figure 1 overleaf).

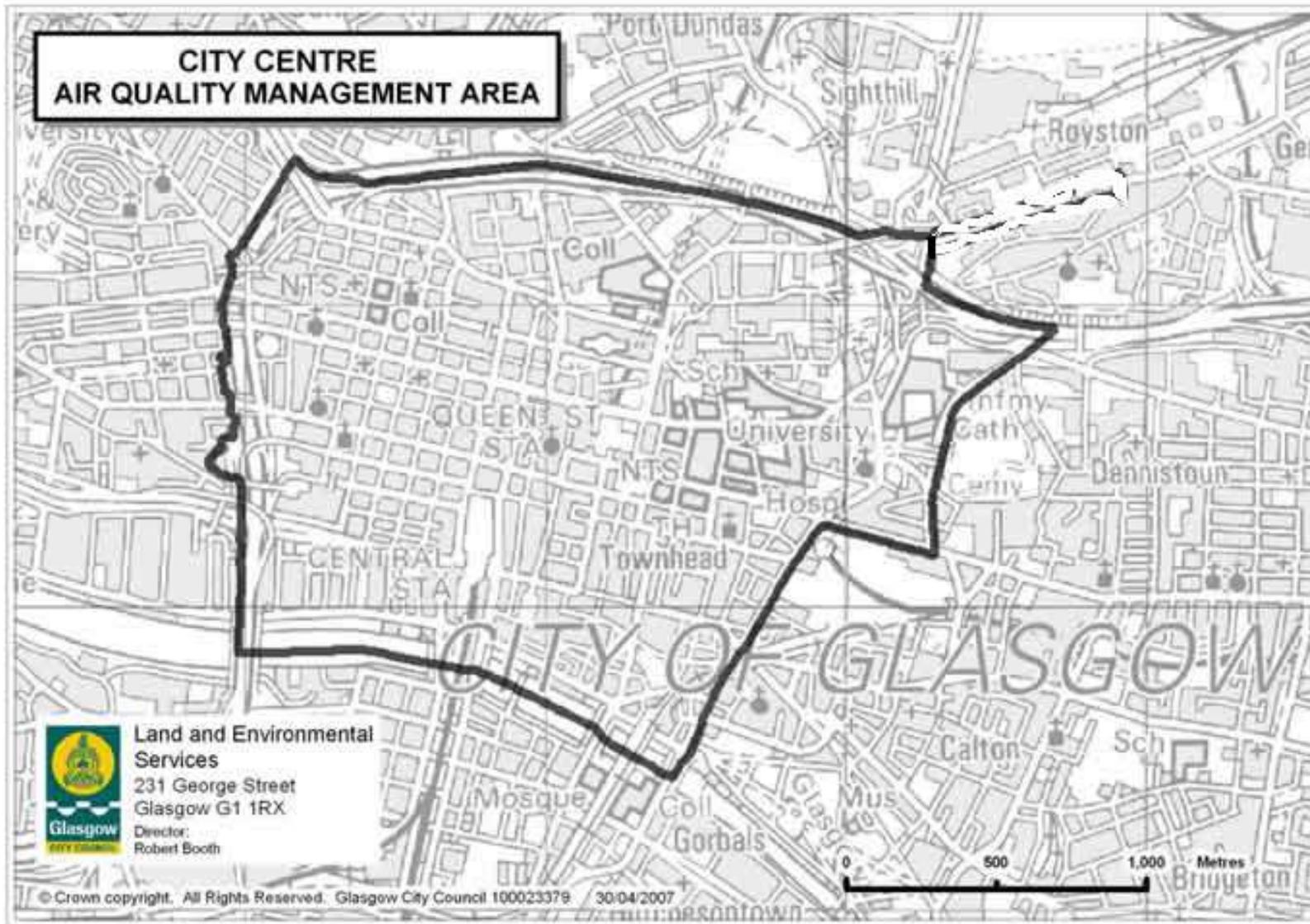


Figure 1

5.2 Following stakeholder engagement and feedback, the geographical area for Phase 1 of the LEZ has been revised (see figure 2 below). This revision accommodates bus services that do not service the city centre and maintains access to key transport interchanges including Buchanan Bus Station. It will be subject to review at the end of the first phase of the LEZ's introduction.

the LEZ

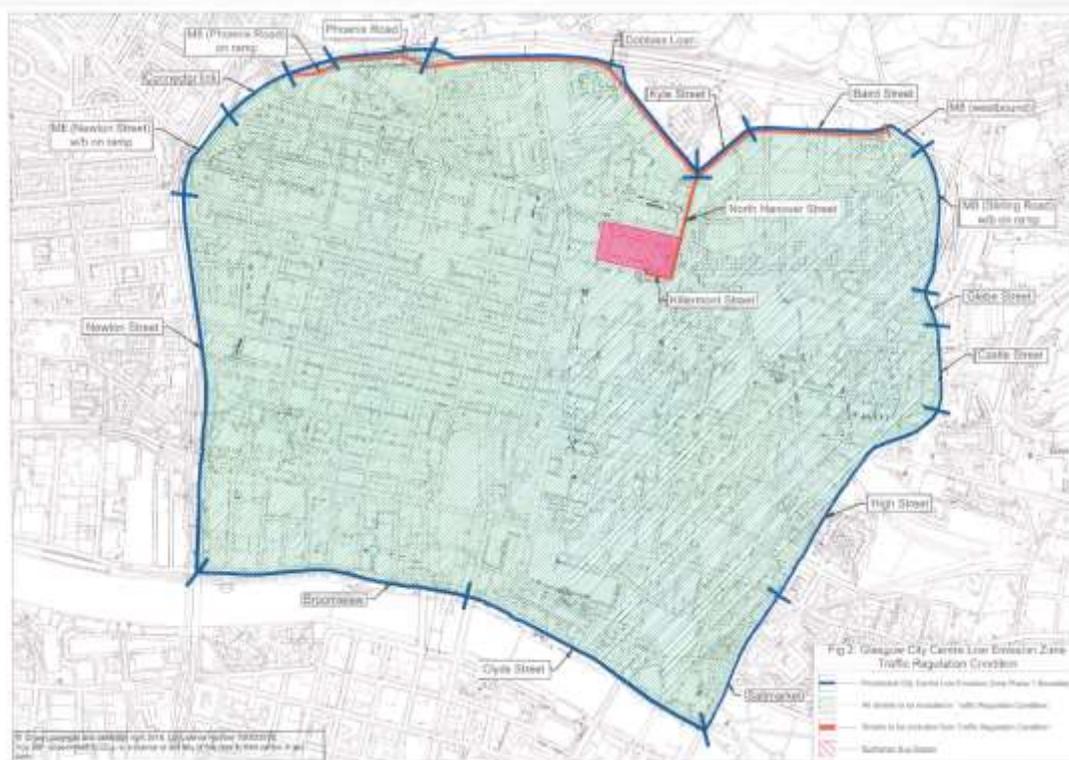


Figure 2 – Phase 1 of

## **6. Legislation**

- 6.1 The first phase of Glasgow's LEZ addresses buses only from 31 December 2018. The Council will therefore be submitting an application under section 7 of the Transport Act 1985, to ask the Traffic Commissioner for Scotland to impose a Traffic Regulation Condition (TRC) controlling emissions from buses.
- 6.2 The Council has been preparing this submission. It provides supporting information required by the Traffic Commissioner, which covers bus emissions and controls, as well as measures to improve bus access and journey times through the city centre. Following further engagement with bus operators, it will be submitted before the end of March 2018. The next step shall be for the Traffic Commissioner to undertake a Regulatory Impact Assessment to establish if a TRC is appropriate for Glasgow city centre and to determine its resultant impact upon bus operators and passengers currently travelling within Glasgow. It is anticipated that this process will take a minimum of 6 months, with the Traffic Commissioner presenting the decision at its conclusion.
- 6.3 Transport Scotland is in the process of drafting a new Transport Bill for introduction to the Scottish Parliament this summer. The timing for the Transport Bill is yet to be confirmed, although it is anticipated that the Bill will be enacted during 2019. It is expected that the new Bill shall support the Council for the development, promotion and implementation of any future Traffic Regulation Orders (TROs) for the second phase of the LEZ, which shall apply to all other non-bus vehicle types.

## **7. Improvements to city centre transport**

- 7.1 Delivering an LEZ is part of a wider strategy to improve the environment within the city centre, as outlined in the Council's City Centre Transport Strategy 2014 – 2024. Two of the key objectives of the strategy are to improve the health of Glaswegians by increasing the modal share of trips by sustainable transport and reducing harmful traffic emissions.
- 7.2 Working with SPT and a range of bus operators, the Council has implemented, and continues to implement, a wide range of measures to improve the experience for bus passengers. These include high access kerbs to assist access, upgraded bus shelters and real time passenger information. Various bus priority measures have also been implemented to assist in improving bus journey time reliability. These include the introduction of a bus gate at Nelson Mandela Place and traffic management measures and public realm improvements in the Union Street area to improve the movement of buses and enhance the passenger environment. Initial analysis of the Union Street measures indicates that congestion on the main southbound bus route down Renfield and Union Street has been greatly improved, with average bus journey times reducing by around 17%.

- 7.3 It is acknowledged that improving the emissions standards of vehicles is not in itself sufficient to deal with poor air quality in towns and cities. Slow running and idling vehicles do not permit the exhaust treatment systems to operate at optimal performance. In addition to the measures noted above it will be necessary to engage with all stakeholders to reduce bus journey times and improve bus speeds which can be seriously curtailed in congested areas. Additional bus priority measures will be required to deliver improved journey times. A further potential benefit is a reduction in the number of buses required to carry the same, if not increased, number of passengers with significantly improved reliability.
- 7.4 In addition to the physical bus priority measures, recent improvements to on-board tracking equipment will be able to use GPS technology to interface to Glasgow's existing traffic management signalling control system which will enable around 120 sets of signals to give late running buses priority at junctions, enabling exhaust treatment systems to work far more efficiently with improved running speeds.
- 7.5 A Statutory Quality Partnerships is currently in place with SPT and the bus operators which covers the city centre. The SQP covering the city centre commenced on 1st April 2012 and ends on 31st March 2019. Under the terms of this partnership, the Council has a requirement to provide and maintain specified facilities (such as bus lanes and bus stops/shelters) over the duration of the scheme and in return any bus services are required to meet prescribed quality standards (such as lower emissions and low floor buses) in order to use the facilities provided.
- 7.6 In terms of encouraging a modal shift to cycling, the highly successful Mass Cycle Hire Scheme (MACH) now has 500 bikes available at 53 stations. 18 of these stations - including 7 out of the top 10 most popular – are within the city centre. Building on this success a new seven year contract has just commenced, which will see the scheme expand to 1,000 bikes at 100 stations. There has also been major investment in cycling infrastructure, with several high quality segregated cycle routes implemented on the main radial routes into the city centre and around 700 cycle parking racks installed within the city centre.
- 7.7 A car club operates within the city operated by Community Interest Company 'Co Wheels' who operate in 36 locations around the City with 10 locations in the city centre. All cars are low emission vehicles under 100g/km and include 12 Hybrids and 3 Electric Vehicles with plans to expand the scheme over the next few years. For each car club vehicle, it is calculated that 12 cars are either taken off the road or not purchased.
- 7.8 In September 2017, as part of the Scottish Government's Programme for Government, the First Minister, announced that all petrol and diesel vehicles would be phased out in Scotland by 2032. With electric vehicles (EVs) widely expected to be the primary solution to meeting the demand for personal and fleet vehicles, the underlying vision is that a significant reduction in greenhouse gas emissions will be accompanied by marked improvements in

local air quality, noise pollution and public health. In line with the requirements of the Scottish Government document 'Switched on Scotland 2: An Action Plan for Growth' Glasgow is developing an Electric Vehicle (EV) strategy to deliver the infrastructure required to meet this rising demand.

- 7.9 The above actions have resulted in a reduction in traffic within the city centre of around 4% in 5 years, a growth in cycling of 86% since 2009 and an increase in walking of 13% in 8 years.
- 7.10 The Council is committed to continuing to implement measures which will assist in reducing congestion and promoting sustainable travel within the city centre. The strategy includes the consideration of further traffic restraining and bus priority measures, including bus gates on Renfield Street and Hope Street and the 'Avenues' Project, which aims to reduce the dominance of the private car and make key streets more pedestrian friendly. The Avenues will also facilitate the implementation of further segregated cycle routes and cycle parking within the city centre.
- 7.11 The actions noted above fully complement the introduction of Glasgow's LEZ by helping to reduce congestion within the city centre and ensuring that it is a healthier and more attractive place for residents, visitors and businesses.

## **8. Traffic and air quality modelling**

- 8.1 The Council currently uses a transport model to evaluate traffic focused policy interventions and to predict their impacts on the flow of traffic throughout the city centre. This model is continually refined to ensure it reflects an accurate record of traffic flows and road layouts, is representative of the evolving city centre landscape and shall be used to undertake transport modelling of the future phases of the LEZ as well as incorporate other changes occurring in parallel, such as the Avenues Project and aspects of the City Centre Transport Strategy.
- 8.2 As the initial phase of the LEZ will focus on changes to the bus fleet, it does not require detailed transport modelling output at this stage. City centre enhancements will be incorporated within the model going forward.
- 8.3 Air pollution dispersion modelling work undertaken by SEPA as part of the National Modelling Framework (NMF) continues to develop, with the model being further refined. Additional traffic counts have been undertaken as part of the update for the Transport Model and these refreshed counts will be incorporated into the NMF model. The model will also be updated to reflect the most recent information in terms of emissions from the various vehicle types.
- 8.4 SEPA has produced a Glasgow Low Emission Zone Modelling Report, which serves as the evidence base for the submission to the Traffic Commissioner for the initial phase of the LEZ. The conclusions of the modelling are similar to those detailed in the previous report to the City Administration Committee.

They identify the relative vehicle pollution sources within the LEZ and detail the likely outcomes in respect of air quality of the various LEZ scenarios.

- 8.5 For future phases of the LEZ the NMF model will integrate with the updated Transport Model and will therefore be better placed to reflect all traffic focused interventions taking place within this area.

## 9. Programme and Phasing

- 9.1 Glasgow's LEZ will commence at 23.59hrs on the 31st December 2018, and thereafter will be introduced on a phased basis over a four year period with the target date for full implementation being 31st December 2022.

- 9.2 The first phase will address local service buses through Traffic Regulation Conditions (TRC's) set by the Traffic Commissioner. All local service buses are expected to meet a Euro VI (or suitable retrofit) emission standard within four years of the LEZ being introduced. It would be a significant operational and logistical challenge to have approximately 1000 non-compliant buses currently operating in Glasgow brought up to such a standard for the end of 2018. The current level of Euro VI compliance in Glasgow City Centre is between 10% and 12%. With financial support from the Scottish Government, bus operators will bring their fleet up to Euro VI emission standard over a five year period as defined within the table below:

| <b><u>Phase 1</u></b> | <b>Bus journeys into, out of and through LEZ</b> |      |
|-----------------------|--|------|
| Year 1                | December 2018                                    | 20%  |
| Year 2                | December 2019                                    | 40%  |
| Year 3                | December 2020                                    | 60%  |
| Year 4                | December 2021                                    | 80%  |
| Year 5                | December 2022                                    | 100% |

- 9.3 The subsequent phasing of the LEZ will apply to all vehicle types, unless exempted. Transport Scotland is currently identifying the agreed exemptions to LEZ compliance in order to ensure that there is national consistency in this matter and that no Scottish city suffers a competitive disadvantage in relation to the others. In addition, there may be a need for a sunset period for local residents and businesses, located within the LEZ area. This group will be given a longer period of time for compliance as unlike other groups who may avoid entry to the LEZ, this option is not available to those based within the zone.
- 9.4 For all other vehicles (apart from exemptions/sunset periods) LEZ enforcement (penalty notices) will commence within four years of the LEZ being introduced. This will consist of fixed penalty notices through the use of Automatic Number Plate Recognition (ANPR) cameras or alternative which are linked to the national DVLA database. Enforcement may be rolled out across those streets within the LEZ in stages by prioritising the most polluted

streets first. This would allow for a more targeted and focused approach on the main problem streets, thereby delivering the biggest improvements where it is needed most and then increasing to include the whole of the LEZ geographical area. Phase 2 will be consulted on with stakeholders over the next 12 months in order that the process is proportionate and shall be supported by an economic appraisal. Glasgow's LEZ, the first of its kind in Scotland, will apply to all vehicles entering the zone (subject to certain exemptions, as stated above)

## **10. National developments**

- 10.1 The Scottish Government intends to introduce LEZs in Scotland's four principal cities (subject to appraisal) by 2020. Glasgow has been agreed as the first city to introduce an LEZ, with the date set for its initial phase at the end of 2018, as stated above.
- 10.2 The Council connects to other peer cities in the UK on air quality issues through its participation in the Core Cities group. Within Scotland, national arrangements are being put in place through Transport Scotland so that the four main cities can learn from one another and in particular to ensure that there is consistency across them in applying each LEZ.

## **11. Equality Impact Assessment**

- 11.1 A screening Equality Impact Assessment (EQIA) has been undertaken for the proposed first phase of Glasgow's LEZ. It shows clearly that all population groups will benefit from cleaner air, with some of the most vulnerable members of the community being more likely to be protected from the harmful effects of poor air quality. People with long-term limiting conditions – particularly those related to respiratory illness, including asthma – are differentially susceptible to such effects and therefore likely to benefit the most from improvements in urban air quality. Cleaner buses going through the city centre LEZ will also be travelling elsewhere throughout the city's neighbourhoods, with consequent benefits across Glasgow.
- 11.2 The EQIA identified an unintended but potentially adverse impact of the first phase of the LEZ proposals. This would occur in the event that bus services were cut or fares raised to accommodate the requirements of the LEZ. Glasgow is a city with traditionally low car ownership and therefore has a reliance for income-deprived households on local bus services. This consideration especially relates to the forthcoming inclusion of the socio-economic duty on the public sector under equality legislation. The mitigation action for this is already identified above in terms of the availability of national funding for a bus retrofit programme and the phased introduction of fleet improvements for bus operators coming in to the Glasgow LEZ. It should ensure that a cleaner bus fleet benefits Glaswegians, whilst not imposing unreasonable demands on operators.
- 11.3 Members will wish to note that the EQIA aspects of the subsequent phasing of the LEZ to all other vehicle types will need to be addressed as part of a

national conversation. This will ensure that exemptions to ensure access to one city - for instance, for disabled drivers - can be provided as part of access for all across the nation. It will mean that Glasgow's work can inform national policy and, in turn, reflect the needs of equality groups who visit the city as well as those who are residents.

## 12. Next Steps

- 12.1 The next step for the city will be to respond to any requests from the Traffic Commissioner for additional information in relation to the application to impose a TRC. As noted earlier, the Traffic Commissioner will conduct a Regulatory Impact Assessment to establish if a TRC is appropriate for Glasgow city centre. It is anticipated that the decision from the Traffic Commissioner will take a minimum of 6 months.
- 12.2 Members will be provided with further updates on these developments at future meetings of the Policy Committee.
- 12.3 Glasgow is now forging a national path towards cleaner air. Indeed, the introduction of Glasgow's LEZ is in line with a developing urban policy agenda throughout Europe. Cities which take action to improve air quality are recognized as good places for business investment and good places for people. Glasgow's LEZ is therefore good news for the city and for Scotland.

## 13. Policy and Resource Implications

### **Resource Implications:**

*Financial:* Costs associated with the LEZ will be met from national funds. The Council's contribution is currently under review and will be quantified at a later date.

*Legal:* There are a number of legislative issues in relation to an LEZ for all vehicle types.

*Personnel:* No direct personnel issues at present. This will however, be reviewed to establish personnel requirements for the operational phase of the LEZ.

*Procurement:* None at present

**Council Strategic Plan:** The introduction of an LEZ is a specific commitment made in the Council Strategic Plan.

### **Equality Impacts:**

*EQIA carried out:* A screening EQIA of the Low Emission Zone proposal for the first phase has been undertaken.  
<https://www.glasgow.gov.uk/CHttpHandler.ashx?id=40655&p=0>

*Outcome:* Better air quality will protect and improve health for vulnerable residents, particularly those with long-term limiting illnesses.

### **Sustainability Impacts:**

*Environmental :* Action to improve air quality supports the Council Plan's key objectives to create a cleaner, more sustainable city and to improve health and well being in Glasgow.

*Social:* Better air quality will contribute to population health improvement and particularly help vulnerable residents with prior respiratory illnesses.

*Economic:* A city with cleaner air quality provides a positive business offer for local companies and inward investment.

## **14. Recommendations**

14.1 The committee is asked to:

- (1) note the progress being made towards introducing Scotland's first Low Emission Zone in Glasgow city centre;
- (2) agree to receive a further update report on the extension of the Low Emission Zone to all vehicle types at a future meeting;
- (3) refer the report to the City Administration Committee (as agreed at its meeting on 28 September 2017).