

Transport and Environment Committee

10.00am, Tuesday, 19 March 2013

Improving Air Quality in Edinburgh: Low Emissions Zone (LEZ) Options

Item number	7.8
Report number	
Wards	All

Links

Coalition pledges	P51
Council outcomes	CO10, CO15 and CO22
Single Outcome Agreement	S02

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Executive summary

Improving Air Quality in Edinburgh: Low Emissions Zone (LEZ) Options

Summary

- This report responds to the Transport and Environment Committee's decision of 23 November 2012, following consideration of item 7.14, "Air Quality Progress Report 2012", to receive a report on the options around Low Emissions Zones (LEZs) in the city in up to two meeting cycles.
- The report also expands on options for LEZs in Edinburgh described in the report "Developing a New Local Transport Strategy: Issues for Review", considered by the Committee on 15 January 2013.

Recommendations

- 1 It is recommended that the Transport and Environment Committee:
 - a) noting that most of the costs are likely to be funded by Scottish Government grant, approves the commissioning of appropriate external consultancy support to carry out a full feasibility assessment of Low Emissions Zone / Emissions Management options for the city;
 - b) notes that the recommended assessments should include those options for air quality set out in the Issues for Review component of the "Development of a New Local Transport Strategy" report and consider further the feasibility of options, employing the Government's recently revised Vehicle Emissions Factors (VEFs);
 - c) agrees that feasibility assessments and associated comparison studies commence following publication of the Scottish Government's forthcoming National Framework for Low Emissions Zones.

Measures of success

- The early measure of success will be to develop a business case to enable the Council to make decisions on the feasibility of introducing a vehicle emissions management / LEZ scheme in the city.

- Longer term success will be measurable and sustained improvements in the quality of air in the city, particularly in the city centre; the reduction and eventual removal of one or more of existing Air Quality Management Areas (AQMA) and a reduced risk of future AQMA declarations.

Financial impact

- The report seeks approval for the procurement of consultancy support to take forward a full technical and financial appraisal of LEZ options, including LEZs operating in other urban areas, and to report on their feasibility for Edinburgh. Costs for this consultancy work are estimated as £12,500 - £15,000.
- It is anticipated that between 80% and 100% of the cost for consultancy work can be recovered by the Council through Scottish Government Local Air Quality grant funding. The Department has submitted an application for funding and a response is awaited.
- Costs for the implementation and enforcement of LEZs vary widely, depending on geographical extent, range of vehicle classification(s) groups covered and method(s) of scheme enforcement. Indicative LEZ implementation costs will form part of the consultancy brief and will be included in a fully-developed options report to Committee later this year.

Equalities impact

- This report describes a range of potential Emissions Management / Low Emissions Zone options for the city and seeks approval for the appointment of an appropriate consultant to take forward a full feasibility assessment, including the associated technical, financial and political considerations. As such, the report does not indicate a requirement for a formal Equalities Impact Assessment.

Sustainability impact

- This report does not in itself produce any direct environmental impact.

Consultation and engagement

- The report offers options and seeks authorisation to procure external consultancy to assess a range of Low Emissions Zone (LEZ) options for the City.
- Outcomes of the assessments will require further consideration by the Committee. Review and assessment of LEZ options will be considered as part of the Local Transport Strategy and will necessitate wide stakeholder consultation, including with representative organisations of business and commerce, bus and freight fleet operators, taxi companies, Scottish Government, the Regional

Transport Authority (SESTRAN), Scottish Environment Protection Agency (SEPA), the Scottish Traffic Commissioner and the public.

Background reading / external references

- Scottish Government Local Air Quality Management Guidance: Low Emissions Zones (Scottish Government, 2009)
- Edinburgh Low Emissions Strategy Feasibility Study for City of Edinburgh Council (TTR Ltd., 2007)
- Edinburgh Low Emissions Strategy – Bus Emissions Analysis (TTR Ltd. 2011)
- Developing a New Local Transport Strategy – Issues for Review (Transport & Environment Committee 15 January 2013)
- Air Quality Progress Report 2012 (Transport and Environment Committee 23 November 2012 and 6 December 2012).

Improving Air Quality in Edinburgh: Low Emissions Zone (LEZ) Options

1. Background

- 1.1 As a result of positive initiatives introduced by the Council over the past decade, air quality across the city is generally good. However, further action in certain areas of the city is required to ensure that air quality targets are achieved at these locations.
- 1.2 The most recent air quality monitoring indicates some improvements in air quality, significantly in St John's Road, Corstorphine, which has been the most affected part of the Council's three current Air Quality Management Areas (AQMAs). However, the level of improvement is not consistent across the city, particularly in the City Centre AQMA.
- 1.3 Recent monitoring has also shown new issues emerging elsewhere. The Air Quality Progress Report 2012 (Transport and Environment Committee, 23 November 2012) described the requirement for two additional Air Quality Management Areas: A9 Glasgow Road (Ratho Station / Newbridge) and at Inverleith Row / Ferry Road. Additionally, the City Centre AQMA is being extended due to air quality standards being exceeded at several locations.
- 1.4 In considering additional actions which the Council might take to improve air quality, the Transport and Environment Committee instructed a report within two meeting cycles on Low Emissions Zone (LEZ) options for the city. This report is an initial response and will be followed up with a more detailed assessment, which will be reported to the Committee at a later date.
- 1.5 This report parallels the Air Quality section of the "Developing a New Local Transport Strategy - Issues for Review" report, considered by the Committee on 15 January 2013. The report outlined a number of potential emissions management options, including LEZs, focussed principally on the bus and road freight sectors. Further work requires to be done to ensure the Council has all the necessary information to allow it to take an informed decision.

The Committee approved the "Developing a New Local Transport Strategy - Issues for Review" report for consultation with key stakeholders and the public. The consultation will include emissions management options, including LEZs, intended to have a positive impact on air quality.

- 1.6 A significant factor influencing air quality relates to vehicle emissions. Previously, Governments advised that developments in engine technology would result in reduced emissions from vehicles, which would lead to air quality improvements over time as older vehicles were progressively replaced with new vehicles with lower pollutant-emitting engines. However, recent information from the UK and Scottish Governments suggests that previous assumptions about vehicle emissions performance were incorrect. This has been suspected for a number of years and has contributed to the disappointing performance of a range of actions to deliver improvements. The persistent problems in Edinburgh are not unique and are being experienced by most urban authorities throughout the UK.

2. Main report

- 2.1 A Low Emissions Zone (LEZ) is a geographically defined area where the most polluting vehicles are restricted, deterred or discouraged from access and use, and vehicles of a specified emissions standard can enter freely. Vehicles which do not meet that standard are either excluded or are required to pay a financial penalty, if they wish to enter the zone.
- 2.2 A LEZ can offer similar outcomes to an accelerated fleet turnover, helping to reduce emissions more quickly than would otherwise happen. It is likely that the current and ongoing economic climate is exerting a delaying effect on normal fleet turnover rates across all vehicle sectors.
- 2.3 A LEZ is often introduced as part of a wider emissions reduction strategy, which can include other elements, such as exhaust retrofit schemes, park and ride sites, electric vehicles and electric charging infrastructure, cycling and walking strategies, travel plans, Council and other organisations' fleet upgrades. Consequently, consideration of LEZs will be included as part of the Local Transport Strategy.
- 2.4 Where a local authority in Scotland with declared Air Quality Management Areas (AQMAs) is considering the potential introduction of a LEZ as a component of an Air Quality Action Plan, Scottish Government has issued advisory guidance to assist in the process.
- 2.5 The current Scottish Government guidance describes how the economic rationale for LEZ schemes is linked to the external costs of operating polluting vehicles, which places costs on the community through adverse health impacts and damage to ecosystems and the wider environment. As well as impacting on the health of residents and visitors, elevated levels of air pollutants can adversely affect the built fabric of the city.
- 2.6 A number of local authorities in the UK have introduced, or are considering introducing some form of LEZ to help deliver improvements in local air quality

e.g. London, Oxford, Reading, York, Bath, Norwich. A review of these schemes will be included as part of the assessment of LEZ options for Edinburgh.

- 2.7 The Council's current Air Quality Action Plan (AQAP) contains a range of actions designed to improve air quality at locations where issues exist. The key actions focus on encouraging voluntary emissions reduction in the bus and road freight sectors. To date these actions have been moderately successful, however they are constrained by the ability of operators to fund them. The generally depressed economic climate during recent years has impacted on operators' opportunity to finance accelerated fleet upgrade / renewal programmes. It is likely that this position will not change significantly in the foreseeable future.
- 2.8 The Council's Air Quality Action Plan is being updated during 2013 and the review will take full account of any decision to introduce a LEZ. This would be a major new initiative in terms of air quality management in Edinburgh and will impact substantially on the future shape and direction of the AQAP.
- 2.9 In the Air Quality section of the 'Developing a New Local Transport Strategy – Issues for Review' report considered by the Committee on 15 January 2013, a range of five 'emissions management' options were described. These options focused primarily on bus and lorry emissions, as these produce relatively large amounts of pollution. However, detailed technical analysis of the air quality issues has still to take place.
- 2.10 Emissions management options described in the 'Developing a New Local Transport Strategy - Issues for Review' report, which will form part of the consultation on the report, agreed by the Committee on 15 January 2013 are:
- **Option 1:** Introduction of a 'Statutory Quality Partnership' or use of a 'Traffic Regulation Condition' to impose emissions requirements on most bus operations, with more stringent requirements applying to services having the largest impacts on air quality in Air Quality Management Areas
 - **Option 2:** Introduce a 'Low Emissions Zone' to Edinburgh with entry requirements for buses and goods vehicles based on their emissions. Requirements would be phased in to allow adjustment by operators.
 - **Option 3:** Introduction of a 'Low Emissions Zone' to Edinburgh with operators of goods vehicles and potentially buses with higher emissions charged for entering the zone depending on the levels of emissions from their vehicles. Lowest emissions vehicles would enter free.
 - **Option 4:** This option is a combination of options 1 and 2/3 – to apply a Statutory Quality Partnership to impose emissions requirements on most bus operations and also to apply a Low Emissions Zone, with or without charging, for goods vehicles
 - **Option 5:** Continue with current voluntary efforts to reduce emissions.

2.11 The UK and Scottish Governments have recently released a fully-revised Vehicle Emissions Factors (VEFs) toolkit, in acknowledgement of the substantial gap that exists between predicted and measured ambient levels of vehicle pollution. The gap is the result of an overestimation of the benefits that would accrue from improving Euro engine standards. The revised toolkits will enable more accurate evaluation of vehicle emissions and allow the most appropriate categories of vehicles to be identified. It is essential that the new VEFs are utilised in analysing pollutant sources to inform the Council's decision making process for a LEZ in Edinburgh.

2.12 The Scottish Government, in conjunction with the UK Government expects to publish a National Framework for Low Emissions Zones in May 2013. It is anticipated that the national framework will provide consistent implementation criteria and avoid replication of assessment effort by individual local authorities.

It will also ensure that national fleet operators are subjected to similar LEZ criteria across the country.

2.13 The work involved in carrying out the technical and financial feasibility assessments of LEZ / strategic vehicle emissions management options for Edinburgh is substantial and will require the support of an appropriate external consultant. Committee approval is therefore sought to tender and procure the necessary consultant to take forward the assessments and to provide a full feasibility report. Costs for this work, including a report on the operation and success of LEZs elsewhere, are currently estimated to be around £12,500 - £15,000. Funding from Scottish Government is available to support this work and a bid has been submitted.

It is considered that the suggested feasibility study commences after the Scottish / UK Governments have released the National Framework for Low Emissions Zones, anticipated to be in May 2013.

3. Recommendations

3.1 It is recommended that the Transport and Environment Committee:

- a) noting that most of the costs are likely to be funded by Scottish Government grant, approves the commissioning of appropriate external consultancy support to carry out a full feasibility assessment of Low Emissions Zone / Emissions Management options for the city;
- b) notes that the recommended assessments should include those options for air quality set out in the Issues for Review section of the "Development of a New Local Transport Strategy" report and consider further the feasibility of alternative options, employing the Government's recently revised Vehicle Emissions Factors (VEFs);

- c) agrees that feasibility assessments and associated comparison studies commence following publication of the Scottish Government's forthcoming National Framework for Low Emissions Zones.

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Director of Services for Communities

Links

Coalition pledges	51 – Investigate the possible introduction of low emissions zones
Council outcomes	CO10 – Improved health and reduced inequalities CO15 – The public is protected CO22 – Moving Efficiently – Edinburgh has a transport system that improves connectivity and is green, healthy and accessible
Single Outcome Agreement	SO2 – Edinburgh's citizens experience improved health and wellbeing, with reduced inequalities in health
Appendices	None