Department for Environment Food & Rural Affairs

Department for Transport

# Draft Clean Air Zone Framework

**October 2016**

This publication is available at www.gov.uk/government/publications

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# 1. Introduction

1. Clean air is essential for making sure our cities are welcoming and healthy places for people to live and work, now and in the future.

2. By improving air quality we can reduce the impacts on people's health of pollutants such as nitrogen dioxide ($NO_2$) and particulate matter and create great places for living in, as well as great places to make a living.

3. Our ambition is for the UK to have some of the very best air quality in the world - reducing the damage to public health, water quality, biodiversity, wildlife and crops. We want to have clean vibrant cities, which attract the best talent, and for Britain to lead the world in the use of new technologies. Clean Air Zones are designed to help deliver this ambition. Our vision for Clean Air Zones is:

   "Clean Air Zones improve the urban environment to support public health and the local economy, making cities more attractive places to live, work, do business and spend leisure time. They support cities to grow and transition to a low emission economy thus ensuring these benefits are sustainable for the long term."

4. The development of this Clean Air Zone framework is an important step in our integrated and ambitious environmental agenda, including reducing carbon, improving our air and water, reducing flood and drought risk and supporting our precious wildlife.

5. The national air quality plan for nitrogen dioxide[1] set out that the Government will be requiring the implementation of Clean Air Zones in five cities. These cities are Birmingham, Leeds, Nottingham, Derby and Southampton. Zones in these cities will cover older buses, coaches, taxis and lorries. Birmingham and Leeds will also discourage old polluting diesel vans and implement other measures. Newer vehicles that meet the latest emissions standards will not need to pay. Under the $NO_2$ Plan Government is **not** requiring any of these five cities to implement a charging Clean Air Zone that includes private cars, motorcycles or mopeds.

## 1.1. What is a Clean Air Zone?

6. A Clean Air Zone defines an area where targeted action is taken to improve air quality and resources are prioritised and coordinated in order to shape the urban environment in a way that delivers improved health benefits and supports economic growth.

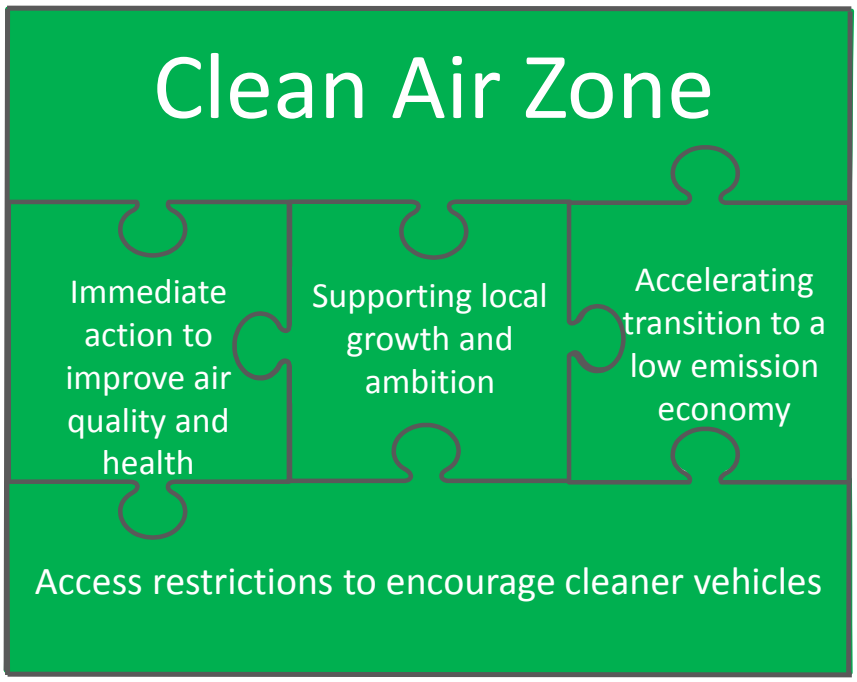
7. Clean Air Zones aim to address all sources of pollution, including nitrogen dioxide and particulate matter, and reduce public exposure to them using a range of measures tailored to the particular location.

8. Within a Clean Air Zone there is also a particular focus on measures to accelerate the transition to a low carbon, low emission economy. This will ensure improvements are ongoing and sustainable, support future development and decouple local growth from both air pollution and carbon emissions. Delivering

[1] DEFRA, Improving air quality in the UK – tackling nitrogen dioxide in our towns and cities, December 2015

Clean Air Zones will also help the UK to meet its legally binding carbon targets as set out in the Climate Change Act.

9. Clean Air Zones bring together **immediate action** to improve air quality with **support for cities to grow** while delivering sustained reductions in pollution and a **transition to a low emission economy**. Where there are the most persistent pollution problems this is supported by access restrictions to encourage only the cleanest vehicles to operate in the city. This is summarised in the diagram below.




10. Clean Air Zones fall into two categories:

- **Non-charging Clean Air Zones** – These are defined geographic areas used as a focus for action to improve air quality. This action can take a range of forms including, but not limited to, those set out in Section 2 but does not include the use of charge based access restrictions.
- **Charging Clean Air Zones** – These are zones where, in addition to the above, vehicle owners are required to pay a charge to enter if they are driving a vehicle that does not meet the particular standard for their vehicle in that zone.

## 1.2. What is this framework?

11. This framework sets out the principles for operation of Clean Air Zones in England. It provides the expected approach to be taken by local authorities when implementing and operating a Clean Air Zone.

12. A Clean Air Zone designed in line with the principles in this framework will give an additional advantage to an authority bidding for competitive central government funding where air quality is one of the stated assessment criteria for that fund.

13. All Clean Air Zones need to provide businesses and individuals with the same clear signals on what needs to change to improve air quality, while offering them a range of choices on the action they could take in response.

14. A consistent approach enables everyone to make straightforward economic and operational decisions, for example about the vehicles they buy and how they use them, knowing they will be acceptable in all zones. Maintaining an outcome focus ensures that local authorities have a choice of actions to deliver the desired outcome, and likewise gives businesses and individuals choices on how to act. This means they can select the action which best suits their need, for example whether to buy a new diesel vehicle, go electric, take public transport or cycle/walk, or adopt a different way of working that eliminates the journey.

15. This framework identifies the outcomes Clean Air Zones are expected to deliver aligned with three themes:

- supporting local growth and ambition (decoupling growth and pollution).
- accelerating the transition to a low emission economy.
- immediate action to improve air quality and health.

16. Local authorities can use the actions set out under these themes, and/or their own alternatives, to deliver the Clean Air Zone outcomes and to ensure businesses and members of the public have a clear expectation of what a zone is, an understanding of how they will be affected and a range of choices they can take in response to how it affects them.

17. This document is split into two sections:

- Section 2: General approach to Clean Air Zones – this section applies to all Clean Air Zones, both charging and non-charging.
- Section 3: Access restrictions – this section sets out the additional requirements for Charging Clean Air Zones.

18. Local authorities should aim to address each of the three themes set out in Section 2 although specific actions may vary depending on local need. Where access restrictions are required these should be implemented in line with Section 3.

# 2. General approach to Clean Air Zones

19. The desired outcomes and action to support each of the three themes set out in paragraph 15 are identified in this section. It highlights potential measures that could be taken. The list of measures is not exhaustive and there may be other measures that could fulfil these aims. The final approach taken beyond minimum requirements will depend on local need.

20. Government is keen to progress air quality commitments as part of devolution deals. Devolved areas that prioritise air quality in deals will be encouraged to meet the minimum requirements set out in section 2.2 as part of local measures to implement Clean Air Zones. These requirements on local authorities will not place new financial burdens on councils.

## 2.1. Emission standards

21. Clean Air Zones should aim to deliver the cleanest possible fleet. The minimum emission standards required for entry into a charging zone without paying a charge are explained in Section 3.4 and detailed in Annex A. Clean Air Zones are about

much more than these access restrictions. These minimum standards represent a good starting point but should not limit ambition, and can be complemented by further measures such as: bus partnerships, public procurement, business recognition, infrastructure and planning etc.

22. The Government has set a clear long term ambition for all new cars and vans to be zero emission by 2040, and for nearly every car and van to be zero emission by 2050. Local authorities and others should aim to deliver the best possible long term outcomes, which could include setting ambitions for schemes that reflect the very best environmental performance rather than just the minimum emission standards.

23. For the charging element of any zone the minimum standards set out in Section 3.4 and detailed in Annex A must be applied to ensure consistency across all zones. These minimum standards will be periodically updated to reflect the long term ambition in line with the process set out in Section 3.5.

## 2.2. Minimum requirements

24. To give certainty that a zone will deliver improvements in air quality, and maintain these, there are a number of minimum requirements that all zones should meet across the three themes.

25. As a minimum any Clean Air Zone is expected to:

- be in response to a clearly defined air quality problem and ensure this is understood locally;
- have in place signs along major access routes to clearly delineate the zone;
- be identified in local strategies including (but not limited to) local plans and policies and local transport plan at the earliest opportunity to ensure consistency with local ambition;
- provide active support for ultra-low emission vehicle take up through facilitating their use;
- include a programme of awareness raising and data sharing;
- include local authorities taking a lead in terms of their own and contractor vehicle operations and procurement in line with this framework;
- ensure bus, taxi and private hire vehicle emission standards are improved to meet Clean Air Zone standards using licensing, franchising or partnership approaches as appropriate; and
- support healthy, active travel.

## 2.3. Supporting local growth and ambition

26. A Clean Air Zone is a positive attractive asset for a city, and the businesses based there. The zone integrates with, and supports, wider plans and ambitions for growth.

## 2.3.1. Raising awareness and understanding

27. Clean Air Zones engage and inform the community ensuring they understand the importance of good air quality, the choices available to them, the impacts they make and how these contribute to a successful zone.

**Engaging local communities**

28. People are more likely to become engaged with, and supportive of initiatives, if they have first-hand experience of the problem and if action to address it is highly visible.

29. Raising awareness and understanding of air quality issues, their impact and the need for action is therefore an important part of delivering a successful Clean Air Zone, as is visibility of both the zone itself and the solutions on offer.

30. When introducing a Clean Air Zone it is important to raise awareness of both the impacts of poor air quality and the action that can be taken to address them. It is important to do these two things together to ensure people feel empowered to take action rather than anxious. This will be an important part of publicity around a charging or non-charging zone to enlist the support of people and communities.

31. Demonstrating progress and maintaining engagement is also important. Air pollution can be substantially improved if decisive action is taken on emission sources. If pollution sources are removed air quality will improve, and will stay that way so long as the emission sources do not return.

32. There are a range of forms that such activity might take, making use of social, local, and other media, and scope for innovative ways of engaging the public and business.

33. Campaigns should help highlight the health and environmental benefits, and stimulate action by demonstrating alternatives and ways people can reduce and avoid pollution. Examples of activity might include:

- communications campaigns and ‘Clean Air’ days.
- interactive websites, using real time pollution monitoring.
- education activities using schools, community groups, health centres and doctors surgeries.
- working with local businesses to help raise awareness among employees.
- open data and sharing of information.

34. Campaigns should also seek to offer, for example, ways to reduce pollution including public transport alternatives, advice about cycling and walking, local walking maps and apps to find alternative routes.

35. Previous research produced in collaboration with the Department of Health, Defra, Department for Transport, Public Health England, the Local Government Association and the Healthy Air Campaign recognised the critical role local authorities have to play in tackling local air pollution and considered how best to

realise the potential for Directors of Public Health (and others within local authorities) to act as local champions on air quality improvement[2].

36. This research report included a resource toolkit for Directors of Public Health and public health teams on:

- evidence: it describes the latest evidence, the role of public health and techniques to get a better understanding of local issues.
- communicating with the public: it describes a set of principles for communicating with the public to develop their understanding of the nature, causes, and consequences of air pollution and engaging them on action.
- engaging local decision-makers: it identifies the key stakeholders Directors of Public Health may need to engage, their potential roles and how to encourage action.
- understanding air pollution in your area: it sets out simple steps required to understand the local health impacts of air pollution and a briefing for elected members.
- air pollution and emerging public health issues: it outlines the latest evidence on the causes and impacts of air pollution and the type of action members and local authorities might take.

37. The guides within the toolkit are designed to help Directors of Public Health to fulfil their responsibilities under the Public Health Outcomes Framework[3] for assessing priority health issues for their local communities. They will also assist local authorities in addressing air quality issues under the Local Air Quality Management system.

**Publicising the zone**

38. One of the most powerful routes to publicise the Clean Air Zone is to make it physically exist on the ground. As a minimum requirement there must be traffic signing strategies in place along major access routes and at entry points to clearly delineate the zone, and alternative routes for those who wish to divert around it. This will be essential for charging zones but applies equally to non-charging zones in terms of awareness raising. Any traffic sign designs will need to be consistent across the country, and approved by the Department for Transport.

39. One of the key elements of the zone is giving people and businesses choices on how to act. It is important that they are given sufficient time to make these choices and put them into action. The details of a zone should be announced as far in advance as possible and publicised widely. As zones have a strong focus on transport those who need to be aware of the zone may be based a long way from it and this should be taken into account in planning communications.

[2] Developing communication methods for localised air quality and health impact information - AQ1010 http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=18580
[3] http://www.phoutcomes.info/

## 2.3.2. Delivering local ambition

40. A Clean Air Zone supports local plans for growth. The zone will become part of, and fit with, local strategies, plans and policies and transport plans. There will be clear leadership in delivering the goals of the zone including local authorities and other public bodies 'leading by example' across the different themes.

**Making the best use of the local authority role in land use planning**

41. Where a Clean Air Zone is introduced it should be identified in the local plans and policies and local transport plan at the earliest opportunity to ensure it is consistent with wider ambition.

42. How and where building and other developments are planned and built can have an effect on air quality. Approaches to planning in Clean Air Zones can help support a range of themes in this framework and encourage more sustainable behaviour, for example in the way people use electric vehicles and by making cycling and walking easier and more attractive. There are also opportunities to make strong links to approaches to other environmental behaviours including nature conservation, waste minimisation and energy efficiency.

43. The purpose of the planning system is to support sustainable development by performing an economic, social and environmental role. This is outlined in the National Planning Policy Framework[4] which sets out national planning policies and principles for England and how these are expected to be applied. It outlines land-use planning principles which should underpin plan-making and decision-taking, which includes minimising pollution, and provides a framework within which local people and their accountable councils produce their own distinctive local and neighbourhood plans which reflect the needs and priorities of their communities.

44. To support the National Planning Policy Framework, Planning Practice Guidance on air quality[5] provides guiding principles on how planning decisions should take account of the impact of new development on air quality. This guidance will be updated to include reference to the UK plan for nitrogen dioxide and to reflect the introduction of Clean Air Zones.

45. In granting planning permission appropriate mitigation should be considered as set out in the Planning Practice Guidance, including the use of planning conditions and obligations. Options might include steps to support Ultra Low Emission Vehicles (ULEV) in developments in Clean Air Zones; requirements to support parking and recharging of Clean Air Zone compliant vehicles; and design and support for public transport, walking and cycling accessibility.

46. Permitted development rights are a national grant of planning permission which allow certain building works and changes of use to be carried out without having to make a planning application. Permitted development rights are subject to conditions and limitations where necessary to control impact and to protect local amenity. This might include consideration by the local planning authority of matters for prior approval such as transport and highways etc. The local planning authority can attach conditions to the permission only in regard to such matters for prior approval.

[4] National Planning Policy Framework: https://www.gov.uk/government/publications/national-planning-policy-framework--2

[5] Planning Practice Guidance on Air Quality http://planningguidance.communities.gov.uk/blog/guidance/air-quality/

### Optimising traffic management

47. Appropriate approaches to traffic management in Clean Air Zones can help reduce pollution both by helping to reduce stop/start motoring, and by encouraging more active travel and supporting alternative ways of travel, such as cycling, walking and public transport. Options may include:

- improving road layouts and junctions to improve traffic flow.
- improved traffic signing strategies to highlight pollution levels and alternative routes.
- public realm improvements to create town centre environments that are attractive to cyclists and walkers.
- optimising traffic light operations to reduce unnecessary traffic queues, and the associated emissions.
- creating safe, continuous and convenient cycling and walking networks.
- developing connected vehicle and smart infrastructure strategies which improve traffic conditions and support sustainable urban mobility.
- using real-time information to better inform travellers of their choices and to manage demand for transport (reducing the need for travel in peak conditions).

### Local authority leadership in fleet procurement and operations

48. Local authorities and other public bodies can demonstrate leadership both to business and their local community in the way they act and operate. This can be particularly true in the vehicles they buy, the way they operate and the requirements placed on contractors.

49. Local authorities and other public bodies operating within a Clean Air Zone should ensure the fleet they operate, or is operated on their behalf, in a Clean Air Zone, and ideally in the wider authority, meets the standards for the zone. There is also an opportunity to demonstrate how new technologies and approaches can go further than the standards. The use of Ultra Low Emission Vehicles (ULEVs), alternative fuels and approaches to 'grey fleet' can all demonstrate a lead. This might include working with their staff on engagement and incentive schemes to reduce vehicle use, such as car clubs and car sharing schemes, cycling incentives and facilities, or flexible working practices.

50. In procuring vehicles and services operating in a Clean Air Zone, local authorities should:

- ensure vehicles related to local authority use conform to the Clean Air Zone standards.
- set minimum supplier requirements related to air quality in procurement award criteria and for contract operations.
- develop approaches to incentivise and encourage employees to address air quality impacts.
- develop approaches to minimise the air quality impact of their day to day operations.
- local authorities should also seek to publicise their approaches to demonstrate and encourage others to follow their lead.

51. All central government departments and their related organisations must ensure that they meet Government Buying Standards[6] when buying goods and services for those product groups covered. The transport standards set out minimum and best practice award and operation criteria for various vehicles. The use of the standards in procurement is mandatory for central government departments and their related organisations, and encouraged for the wider public sector. The Government Buying Standards are in the process of being revised. When finalised, the standards will be in line with Clean Air Zone requirements. Once the standards are updated it is recommended that local authorities use these criteria as the starting point for fleet procurement and operations.

### Joining up Clean Air Zones and Local Air Quality Management

52. Through the Local Air Quality Management system local authorities are required to assess air quality in their area and if national pollutant objectives are exceeded, or likely to be exceeded, designate Air Quality Management Areas if improvements are necessary. Where an Air Quality Management Area is designated, local authorities are required to produce an air quality Action Plan setting out the measures they will put in place to ensure national pollutant objectives are met.

53. Local Air Quality Management Policy Guidance (PG16)[7] sets out more details of these requirements, and actions that authorities may consider. The guidance has been designed to maximise the public health benefits of local authority action, in particular on priority pollutants such as $NO_2$ and Particulate Matter ($PM_{10}$/$PM_{2.5}$). Local authorities should consider the advice in this guidance alongside this framework.

54. Declaring an Air Quality Management Area is a statutory obligation under the Environment Act 1995. The designation of an Air Quality Management Area does not mean that a Clean Air Zone also needs to be put in place; it may however be an indicator that the local authority should consider whether implementing a Clean Air Zone is an appropriate measure to address the air quality problem. The particular circumstances and the nature of the pollutant(s) the Air Quality Management Area is seeking to address will need to be taken into account when decisions are made about measures to put in place to tackle air pollution in the Air Quality Management Area, and a Clean Air Zone may be just one of the solutions to improving air quality in that area.

### Improving collaboration and joining up approaches

55. It is important for local authorities to work closely with others with an interest in the area concerned to ensure a joined up approach. Actions on a range of agendas other than air quality contribute to achieving clean air. For example, carbon reduction and climate change mitigation; supporting active travel and other approaches to health improvements, traffic congestion reduction and noise abatement; and improvements to the natural environment. Local authorities should therefore consider the range of stakeholders they may need to engage with both in and beyond their immediate locality. At a local level, this may include local firms and business groups, schools, community groups, charities, and local Health and

[6] https://www.gov.uk/government/collections/sustainable-procurement-the-government-buying-standards-gbs
[7] http://laqm.defra.gov.uk/documents/LAQM-PG16-April-16-v1.pdf

Wellbeing Boards. At a national level, this may include Highways England, the Environment Agency, Natural England, Public Health England, and neighbouring authorities including their Directors of Public Health.

56. Where the most practical boundary for a Clean Air Zone crosses local authority boundaries or responsibilities, authorities should work together from the earliest opportunity on the development and implementation of the zone. Administrative boundaries should not become an artificial constraint on the area of a zone where this would deliver a poorer outcome or risk negative impacts that could otherwise be mitigated.

### 2.3.3. Improving the business environment

57. Clean Air Zones help businesses to grow sustainably, making cities attractive, healthy places for their employees and customers where improving air quality can also help improve profitability.

**Working with businesses to recognise and incentivise action**

58. Businesses can play an important role in improving air quality through both how they operate and through influencing their employees' behaviour. Improving air quality should be considered an important part of corporate responsibility and sustainability. Businesses which make improvements should be supported and rewarded for their action creating a virtuous circle where the city becomes an attractive place for businesses and their customers.

59. Local authorities should work with local businesses to explain the aims of a zone and encourage the uptake of programmes to address air quality. Authorities should encourage businesses to take a lead and work with their local communities. This may include:

- engaging business participation in environmental sustainability programmes, for example to improve driver behaviour, and campaigns to raise employee awareness.
- encouraging businesses to commit to use only their cleanest vehicles in a Clean Air Zone.
- encouraging business to commit, when buying new vehicles, to purchase those in line with or higher than Clean Air Zone standards.
- encouraging business to adopt approaches to operations that can support a Clean Air Zone.
- encouraging large taxi or private hire users, such as universities and hospitals, to require ultra low emission vehicles within their contracts and promote travel planning to minimise use.
- encouraging the uptake of business recognition schemes such as Go Ultra Low Company[8] status and ECO stars.[9]
- developing delivery service plans with local businesses.

[8] https://www.goultralow.com/company-cars-and-fleet-vehicles/go-ultra-low-companies/#
[9] http://www.ecostars-uk.com/

60. There may be opportunities to develop focused local business initiatives. Working with local fora such as Chambers of Commerce. Clean air neighbourhood schemes can bring large companies, SMEs and local communities together to undertake measures to support the aims of the Clean Air Zone. Developing forums for local business sectors such as freight companies can allow the sharing of best practice and develop action.

61. Local authorities should also consider the role of incentive schemes to provide an opportunity to reward business. These may range from 'High Street' or local award schemes to recognise Clean Air Zone friendly businesses, through to preferential business rates if they can demonstrate strong commitment and action in support of the ambitions of a Clean Air Zone.

**Supporting efficient operation**

62. Eliminating unnecessary journeys will improve air quality but can also improve the efficiency of business operations and reduce costs. There are a range of actions which could be taken, examples might include:

- working with other businesses to reduce vehicle kilometres by consolidating deliveries.
- using technology to reduce the need for business travel.
- flexible working for staff.

## 2.4. Accelerating transition to a low emission economy

63. A Clean Air Zone provides for sustainable long term improvements in air quality that can be maintained as cities grow and develop. Increasing use of ultra low emission vehicles (ULEVs)[10] or, where these are not practical, alternative low emission fuels will ensure that improvements in air quality are sustained. They support innovation and facilitate the wider use of successful solutions.

### 2.4.1. Accelerating ultra low emission vehicle take up

64. Clean Air Zones make it easier and more worthwhile for individuals and business to switch to ultra low emission vehicles (ULEVs).

**Actively supporting and facilitating the use of ULEVs**

65. Clear policies to facilitate use of ULEVs in Clean Air Zones together with active support and incentives can help more people to move to these types of vehicles.

66. Local authorities should ensure their relevant strategies and policies are consistent with, and support the use of, ULEVs in Clean Air Zones. For example, transport plans; in preparing local plans and policies, local planning authorities should take into account the National Planning Policy Framework. They should ensure plans

[10] The Office for Low Emission Vehicles has considered ultra low emission vehicles to be new cars or vans that emit less than 75 grams of $CO_2$ from the tailpipe per kilometre driven. They will typically include an electric powertrain.

and policies are consistent with the principles and policies set out in the Framework. This includes the Framework's policies on air pollution, greenhouse gas emissions and sustainable transport – such as facilitating planning developments to incorporate facilities for charging plug-in and other ultra-low emission vehicles where practical.

67. Promotion and demonstration schemes both to the public and to particular sectors or business groups likely to be affected by Clean Air Zones, such as taxi drivers, can showcase technologies and allow people to become more familiar with ULEVs. This might include demonstration and test drives; together with advice on use, the business case, and the financial incentives available.

**Providing incentives and benefits for the use of ULEVs**

68. Ensuring that Clean Air Zones provide 'in use' incentives for ULEVs should also help incentivise drivers affected by Clean Air Zones to choose ULEVs in any decisions about buying a new vehicle. This may take the form of priority access or benefits for ULEV use, including:

- providing preferential parking bays or access for ULEVs.
- lower parking fees for ULEVs.
- preferential delivery bays or access for ULEVs.
- preferential taxi rank use for ULEVs .
- dedicated taxi only city centre and strategic charging hubs.
- allowing access to bus lanes, exemptions from other restrictions such as one-way systems, and priority at traffic lights for ULEVs.

69. As the use of ULEVs rises over the longer term, local authorities will need to review these type of priority access measures regularly. It will be important to ensure that, as the use of ULEVs increases, these type of measures continue to be appropriate and do not have congestion impacts and take account of the differing needs of all road users.

70. E-bikes can also provide a zero emission alternative for some journeys. Local authorities should also seek to support an increase in the relative share of e-bikes.

71. Where compatible with other requirements such as noise and safety, local authorities could consider giving other exemptions to vehicles operating on electric power within the zone, such as allowing night-time delivery or delivery access to pedestrian areas.

## 2.4.2. Improving services and infrastructure

72. Clean Air Zones provide opportunities to use a transition to ULEVs as a driver for improving or introducing new services and to focus the provision of supporting infrastructure.

**Ensuring local services complement Clean Air Zone standards**

73. Consistent with setting a lead in procurement of vehicles and operations, local authorities should ensure that the local services they provide that operate in a

Clean Air Zone are consistent with and, where possible, go beyond the standards for a zone. This may include:

- working with bus operators through any of the new mechanisms proposed in the Bus Services Bill, including partnership working.
- developing low emission park and ride schemes potentially in partnership with local businesses.
- seeking to harmonise strong, low emission, standards in taxi licenses with neighbouring authorities.

74. Local authorities should also work in their local communities to encourage innovative approaches to reducing vehicle use in Clean Air Zones and increase cooperation between local businesses. This may include:

- bringing together local SMEs to consolidate deliveries within a Clean Air Zone and, for example, enable the 'last mile' to be provided by an ULEV.
- hubs outside of zones where e-cargo bikes can pick up and deliver goods
- support for car and van clubs, and ULEVs in car and van clubs.

**Ensuring infrastructure supports Clean Air Zone standards**

75. Local authorities in Clean Air Zones should also ensure the provision of suitable infrastructure in support of ULEV use within Clean Air Zones, either directly through policy approaches or engaging with local businesses. At the same time they should highlight this provision to users. This may include ensuring provision of:

- plug in vehicle charging networks.
- residential on-street electric charging.
- rapid chargepoints and rapid hubs.
- charging at 'destination' points such as transport hubs, shopping centres and leisure facilities.
- plug-in charging at workplaces and business parks.
- charge points in ULEV priority access or delivery bays.

76. Local authorities could also consider the provision of suitable infrastructure as part of evaluating alternative fuels (for example Liquefied Petroleum Gas, Liquefied and Compressed Natural Gas or hydrogen) and if proven to deliver air quality benefits to support their wider use.

## 2.4.3. Supporting innovation

77. A Clean Air Zone is at the forefront of innovation providing an opportunity to help business and academia to evaluate new technologies and, once proven, support their wider use.

**Developing and evaluating new approaches**

78. Local authorities can use the provision of Clean Air Zones to support academia and business in trialling innovative approaches to improving air quality. New

technologies and innovation can provide growth opportunities for the UK and for local businesses. It is important that such approaches are evidence based, focused on evaluating the impacts (costs and benefits) of the innovation and support the aims of the Clean Air Zone.

79. Local authorities can facilitate the exploring of new air quality solutions and help in the evaluation of their potential future benefits once further product development has been undertaken. This may include working with business and academia to:

- support demonstration trials of new technologies.
- trial the role of geofencing for larger polluting vehicles to operate on electric mode within Clean Air Zones.
- develop the use of telematics for vehicles within zones to help guide and influence driver behaviour.
- improve understanding of the benefits and future role of alternative energy sources.
- trial innovative new rail freight models and new technologies to provide for reliable, flexible and rapid delivery services that reduce the use of road freight within cities.
- evaluate how changing the physical built environment can improve air quality e.g. air quality barriers and building design.
- evaluate potential solutions that improving the natural environment can provide. For example, planting of additional trees and vegetation where carefully chosen, located and maintained, may help reduce pollution.

80. Where local authorities are uncertain of the potential applicability of new technologies or approaches to delivering Clean Air Zone aims, the Joint Air Quality Unit can assist them in assessing suitability[11].

### Transport energy sources

81. There is a broadening spectrum of UK transport energy sources, and innovations are likely to continue in coming years. Several alternative energy sources (such as electric/Compressed Natural Gas/Liquefied Natural Gas/Liquefied Petroleum Gas/hydrogen fuel cells) have been identified as having the potential to reduce pollutant emissions and as such could be considered for evaluation by local authorities as part of their Clean Air Zone planning.

82. Local authorities considering evaluation and use of alternative energy sources should look for evidence of significant air quality improvements whilst ensuring no negative environmental impacts (such as increases in greenhouse gas emissions). As emission benefits from alternative energy sources can vary depending on the type of vehicle, the use to which they will be put and their operating conditions, local authorities should look for evidence of air quality improvements from comparable situations. Depending on the nature of solution being proposed some of this

[11] Queries should be addressed to: air.quality@defra.gsi.gov.uk

evaluation may be readily available or local authorities could partner with business and academia to help evaluate the technology.

83. The level of support for alternative fuels will depend on the individual business case and might take into account elements such as: opportunities for alternative emission reduction mechanisms; current fleet and how it is used; existing infrastructure; etc. Some alternative energy sources are likely to have the greatest benefit in adapting older, more polluting vehicles.

84. Many of these alternative energy sources will have benefits beyond air quality. If a local authority chooses to support alternative energy sources as part of its Clean Air Zone, it would be beneficial to gather evidence on the wider environmental impact, including both air quality and greenhouse gas emissions. Other benefits such as changes to noise or the driver/passenger experience could also be recorded. This can then be used to aid future decision making both locally and more widely.

85. The action local authorities could consider if wishing to support alternative energy sources could include (but is not limited too) consideration of fuels used in local authority fleets, facilitating refuelling infrastructure through the planning process and gathering evidence of environmental benefits.

86. Where local authorities have conducted evaluation of alternative fuels they should aim to disseminate their findings to other authorities. The Joint Air Quality Unit can assist in this[12].

## 2.5. Immediate action to improve air quality and health

87. A Clean Air Zone has immediate impacts on levels of pollutants such as nitrogen dioxide and particulate matter. A zone can bring health benefits from the outset, which increase over time with the sustained focus a zone will bring.

### 2.5.1. Reducing local emissions

88. A Clean Air Zone results in direct actions to reduce emissions within the zone. These can be focussed on particular locations such as bus depots, behaviours such as idling, sites with particular emission problems and through working with specific local businesses.

**Engine idling**

89. Unnecessary engine idling can contribute to emissions. Local authorities may consider using their existing powers to tackle issues of excessive engine idling on public roads within Clean Air Zones.

90. The Traffic Commissioner has powers to issue Traffic Regulation Conditions at the request of local authorities. Local authorities may consider requesting the use of these powers to restrict idling at specific locations for buses. The Traffic Commissioner can also place anti-idling conditions on operating centres for freight vehicles in certain circumstances.

[12] Queries should be addressed to: air.quality@defra.gsi.gov.uk

### Non-Road mobile Machinery

91. Non-road mobile machinery comprises mobile equipment not directly related to the transportation of passengers or goods, such as excavators, bulldozers and cranes used in construction. The engines in this type of machinery can emit significant pollutants, depending on their age and the emission standard. This may be particularly relevant to machinery being used on construction sites.

92. In assessing the need to introduce a Clean Air Zone a local authority will need to assess the contribution of emissions from such machinery. Should a local authority consider there is a significant impact from this type of machinery, it should seek to work with local businesses to address the associated emissions, for example by encouraging them to deploy newer, cleaner equipment in the zone. A local authority may further consider using the land use planning system to address emissions in Clean Air Zones from such machinery via the development of Supplementary Planning Guidance and planning conditions relating to the construction phase of the development.

### Ports

93. Where a Clean Air Zone is close to a port there may be emissions associated with its direct operation and the traffic to and from the location. How to address these types of emissions will depend on the particular circumstances. Local authorities should look to work closely with port operators, as well as continuing to tackle other significant sources of emissions in the development of a zone. This may include:

- Encouraging the consideration of connecting ships to an onshore electricity supply.
- Developing time tabled delivery for vehicles.
- Encouraging vehicles used to be of the latest Euro standards and the exploration of retrofitting options for specialist machinery.
- Consolidated delivery centres to reduce vehicle mileage.

### Generators

94. Some generators have very high $NO_x$ emission rates (particularly diesel generators, but also some gas generators) and their use is increasing in response to energy market incentives. Emissions can be sufficiently high that they lead to breaches of legal limits for $NO_2$. Within Clean Air Zones, local authorities should consider the air quality impact of plants of this nature that are subject to planning permission and set conditions that safeguard local air quality; businesses requiring back-up power supplies should be encouraged to source plant with low emissions whenever possible, and testing hours should be restricted to the minimum required to ensure the safe running of the back-up generator. Businesses and air quality officers in local authorities should work together to identify appropriate times to test generators to reduce the risk of high local $NO_2$ concentrations. Defra is planning to consult this autumn on proposals to regulate emissions from this source.

### Low $NO_x$ boilers

95. Clean Air Zones can also provide the opportunity to encourage the use of low $NO_x$ boilers in domestic and business premises within the area. Through engagement with local communities, local authorities can seek to raise awareness of the energy efficiency and air quality benefits of newer equipment. Local authorities can encourage business and others, when considering upgrading or replacing such equipment, to explore newer or alternative technologies, and to encourage their efficient use.

## 2.5.2. Encouraging healthy and active travel

96. A Clean Air Zone encourages active travel improving people's health while removing polluting journeys.

### Raising awareness of the options

97. This theme also strongly links to awareness raising and gaining acceptance of the zone. There are a range of opportunities that will also provide a link across a number of the themes in this framework. This may include:

- developing school travel planning to tackle emissions from the 'school run' via walk to school initiatives.
- communications activity around the potential health benefits of active travel and air quality.
- working with business, local communities and schools to encourage the provision of attractive and secure facilities such as cycle racks and changing facilities.

98. The National Propensity to Cycle Tool[13] is a new resource that will help transport planners identify routes with the greatest commuter cycling potential. It will enable anyone to visualise the results, based on open data, on a publicly available online mapping interface.

### Making active travel safer and easier

99. Barriers to greater active travel, including concerns regarding safety, need to be addressed to improve uptake. Potential action includes :

- the provision of safe, convenient, attractive and continuous cycling and walking facilities and routes, particularly to schools, businesses and local amenities.
- the provision of safe, convenient and continuous cycle and walking networks linking public transport hubs such as rail stations within Clean Air Zones to employment and education.
- improving traffic signing, with walking/cycling distance/times to encourage take-up.

[13] http://pct.bike/

- the provision of route planning apps and maps to highlight the ease of alternatives.
- optimising traffic management (as in section 2.3.2) to support safe cycling.
- encouraging cycle hire schemes and the provision of cycling training advice.

## 2.5.3. Encouraging cleaner vehicles

100. Clean Air Zones encourage the cleanest vehicles to operate within the zone, changing the overall fleet mix to be less polluting with knock on benefits outside the zone.

**Access restrictions (non-charging)**

101. As part of the introduction of a non-charging zone local authorities should consider using existing powers to raise the standard of buses and taxis within their area. In particular they, together with relevant transport and licensing authorities, should consider:

- introducing emission requirements for taxis and private hire vehicles using existing licensing powers. These requirements should be in line with the relevant vehicle standards set out at section 3.4 and detailed in Annex A. Local licensing authorities may also wish to consider further requirements, including setting age limits for taxis and PHVs, and encouraging the use of alternative fuels such as LPG.
- working with bus operators and quality partnership schemes to support cleaner vehicles by introducing emissions standards in line with those set out in this framework. The Buses Bill will provide for Enhanced Partnership and Advanced Quality partnerships with bus operators, to provide further options for local authorities to seek improvements.

102. This approach has already been used, for example, in cities such as Oxford, Norwich and Brighton who have introduced the equivalent of a non-charging zone for buses. Several licensing authorities have set emissions limits for taxis.

103. Operating a Clean Air Zone in this way would provide a route for local authorities to deliver benefits by supporting behaviour change without imposing direct financial burdens. As such it could also be linked to a range of actions, such as those set out in section 2, and encourage individuals and businesses across all vehicle types to think about the modes of transport they use and what type of vehicles they purchase.

**Access restrictions (charging)**

104. Charge based access restrictions also support the aim of encouraging cleaner vehicles. Details of this approach are set out in section 3.

**Improving existing vehicles**

105. As well as encouraging uptake of new cleaner vehicles, local authorities can also consider incentives to support improvements in existing vehicles. This can particularly be targeted towards those vehicles that it might otherwise be costly to upgrade such as specialist vehicles. Examples include:

- the retro-fit of additional emissions abatement equipment to existing vehicles.
- encouraging the upgrade of refrigeration units on cold chain vehicles to the least polluting options.

# 3. Additional access restrictions for charging zones – operational standards and requirements

106. This section sets out the vehicle standards and other requirements to be followed when setting up a charging Clean Air Zone. These will be in addition to the potential actions set out in section 2. It is expected that any local authority putting in place a charging zone will follow these requirements.

## 3.1. Preparing and planning for a charging zone

107. Decisions about whether to introduce a charge based Clean Air Zone will need to take account of a wide range of issues both in the zone and in neighbouring areas. These will include the:

- reduction in emissions and concentrations of $NO_2$, and other pollutants, required;
- type of vehicles that need to be addressed;
- scope and boundary of the zone; and
- social, economic and health benefits from the introduction of a zone.

108. The introduction of the zone will need engagement with local communities and businesses to explain the aims, the potential health and economic benefits and to understand their concerns.

109. Air pollution impacts on people's health but the costs of this, for example, in terms of sick days, reduced quality of life and healthcare costs are not necessarily met by those causing the pollution and therefore do not factor in their decision making. A charging Clean Air Zone works by directly applying a cost to polluting vehicles so, rather than being hidden, the costs of pollution become a factor in the purchasing and operation of polluting vehicles. This should in turn make less polluting alternatives more cost effective and encourage switching to them.

110. In developing a zone it is important to recognise that the longer businesses and individuals have to make these changes the easier it will be for them to do so, and therefore more likely they will, but this needs to be balanced by the ongoing health impacts of pollution. Early engagement in the planning of a zone will help raise awareness of the potential for implementation. It will allow individuals and

businesses to prepare for the zone's introduction and to understand the impacts on their personal circumstances.

111. Time will need to be allowed between formally announcing the details of a zone and it beginning to operate to allow businesses and individuals to adjust.

## 3.2. The legal basis for introducing a charging Clean Air Zone

112. The ability for charging authorities to introduce a Clean Air Zone is set out in the Transport Act 2000. Part III of the Act empowers local authorities (as "charging authorities") to make a local charging scheme in respect of the use or keeping of motor vehicles on roads.

113. Matters to be dealt with in charging schemes by charging authorities include:

- designating the roads and classes of vehicles subject to a charge;
- the charges imposed;
- the manner in which charges are to be made, collected, recorded and paid;
- the period for which a scheme is in force;
- exemptions and reduced rates from charges; and
- enforcement regimes and penalties for non-payment of charges.

## 3.3. Classes of charging Clean Air Zone

114. Central to the introduction of a Clean Air Zone is consistency in the type of vehicles that will be allowed free entry. The class of Clean Air Zone chosen should be sufficient to enable the zone to meet clear and ambitious air quality aims that will deliver associated health benefits.

115. In general vehicles, such as lorries and buses, or high frequency users such as taxis emit higher levels of pollution within the zone on a per vehicle basis. Clean Air Zones have been grouped into classes covering different vehicle types as set out in Annex A. The types of vehicles covered by a zone broaden from class to class.

116. When setting up a Clean Air Zone, local authorities will need to consider the sources of vehicle pollution. They should consider each class of zone in order and select the most appropriate one to meet the air quality challenge in the zone.

117. Before introducing a Class A zone a local authority should explore reducing emissions from buses, taxis and Private Hire Vehicles (PHVs) through existing non charging routes, for example using licensing or working with bus operators through any of the new mechanisms proposed in the Bus Services Bill to raise the emission standards of vehicles entering the area. This may be part of a non-charging zone as set out in section 2.

118. To ensure a consistent approach on vehicles which frequently operate within the zone, taxis and private hire vehicles will be treated on an equivalent basis**.** Any local authority zone bringing in charging or licensing requirements for non-compliant taxis should also place similar requirements on non-compliant private hire vehicles.

119. For a given class of zone all vehicle types identified as in that class should be subject to the restrictions. A local authority should not select individual vehicle types

within a class, or 'mix and match' vehicles across classes. (For example a zone could not charge only coaches and LGVs - a zone covering all vehicles up to LGVs would have to be introduced).

## 3.4. Vehicle standards for entering a charging Clean Air Zone

120. To ensure that only the cleanest vehicles are encouraged to enter a charging Clean Air Zone, common standards need to be set for their entry. Vehicles that conform to more recent euro standards[14] should emit less pollution than older vehicles in their class. Annex A sets the minimum euro standard for vehicles of that type which will be allowed free entry into the zone. Other vehicles should be subject to a charge unless they are covered by an exemption, a discount on the charge, or other acceptable vehicle requirements set out in this framework, such as meeting retrofitting or ultra low emission requirements.

### 3.4.1. Ultra low emission vehicles

121. Fully electric or hydrogen fuel cell vehicles will not be charged for entering or moving through a Clean Air Zone.

122. Other vehicles which meet the definition of ultra low emission vehicles and minimum emissions requirements set out in Annex A may apply for an exemption from the charge. These could include:

- hybrid vehicles that otherwise to do not meet the euro standard/age requirements for their type.
- hybrid vehicles which are geo-fenced to operate in electric only mode within the zone.

### 3.4.2. Retrofitted vehicles and accreditation

123. Retrofitting a vehicle can provide an alternative to buying a new vehicle to meet the standards for a Clean Air Zone. There are a range of existing and emerging retrofitting options for vehicles and it can be difficult for purchasers and local authorities to know whether a particular technology is credible. This is particularly important for the operation of buses in Clean Air Zones where retrofitting may be an alternative option to purchasing newer vehicles.

124. Retrofitted vehicles which meet the requirements of a Clean Air Zone approved accreditation scheme can apply to be exempt from the charge.

125. Schemes that are accredited for this purpose are set out in Annex B.

[14] Successive emissions standards have been set by the European Commission for certain types of vehicle. There are separate standards for light vehicles (cars and vans) and heavy vehicles (HGVs, buses etc.). The standards for light vehicles are indicated with a number e.g. Euro 6, while those for heavy vehicles are indicated with a roman numeral e.g. Euro VI. The most recent standards are Euro 6 for light-duty vehicles and Euro VI for heavy-duty vehicles. See: http://ec.europa.eu/growth/sectors/automotive/environment-protection/emissions/index_en.htm and http://europa.eu/rapid/press-release_MEMO-15-5705_en.htm

126. An accredited scheme will need to reproducibly demonstrate that vehicles at least meet minimum requirements and will need to be approved by the Joint air Quality Unit.

## 3.5. Future standards

127. The UK has a long term ambition for all new cars and vans to be zero emission by 2040, and for nearly every car and van to be zero emission by 2050. This means over the next few decades the number of electric and ultra low emission vehicles on UK roads will significantly increase. It is one of the aims of Clean Air Zones to support this transition and they will always favour those vehicles with the very best environmental performance.

128. Historically vehicle standards have evolved over time to take account of both technological advances and changes in the evidence on things like the impact of emissions. The ambitions of cities will likewise increase.

129. To meet these needs the minimum vehicle standards in Annex A of this framework will be periodically updated. This progression of standards should be considered in setting the ambition for Clean Air Zones and driving the early adoption of the best technologies. However, it is recognised that businesses and others need sufficient certainty in order to plan and make the most economic decisions in response to Clean Air Zones, therefore:

- it is intended that the current standards set out above will remain in place until at least 2025, and for cars and vans ULEV will always be the most favourable category.
- a full process and timetable for the long term updating and tightening of the standards will be consulted on and in place by the end of 2018.

## 3.6. Vehicle detection - automatic number plate recognition

130. Automatic number plate recognition (ANPR) will be used for the operation of charging Clean Air Zones. Cameras will capture all vehicles on the monitored road(s), regardless of whether it is their final destination or they are passing through the zone.

131. The number and distribution of fixed and/or mobile cameras required will be determined by the relevant local authority in order to deliver the objectives of their Clean Air Zone.

132. Arrangements are being explored with the Driver Vehicle and Licensing Agency around database use for vehicles to be identified as compliant with the Clean Air Zone standards set out in this framework.

## 3.7. Hours of operation

133. Charging Clean Air Zones operate for twenty four hours a day, seven days a week. Evidence shows that pollution can build up and persist for long periods, depending on metrological conditions, and exposure is harmful whatever time it is produced.

134. A Clean Air Zone is addressing the type and overall emissions of vehicles entering a zone and not the number of vehicles. Twenty four hour operation maximises the health benefits, ensures that polluting vehicles do not just shift their times of operation and ensures a consistent approach in all cities.

## 3.8. Exemptions and discounts

135. There is a general presumption that the requirements for charging Clean Air Zones will apply to all vehicles according to the relevant zone class.

136. There will be certain circumstances where exemptions and discounts from a charge will be appropriate. This may be because of: a person's particular circumstances; the type of vehicle concerned may be difficult or uneconomic to adapt to comply with a zone's requirements; or the operation a vehicle is engaged in is particularly unique or novel.

137. The discounts and exemptions set out below are, in general, based on the principal that;

- specialist vehicles that can never be compliant should qualify for an exemption from a charge;
- a sunset period should be allowed for specialist or more novel vehicles that can become compliant in a suitable time to allow for them to be changed.

138. While exemptions should be kept to the minimum necessary in order to maximise the benefits of a zone, local authorities may also consider additional exemptions or discounts based on particular local circumstances. This section sets out where national exemptions should apply, and the circumstances in which local exemptions or discounts may be appropriate. Additional exemptions should not be applied where doing so would negate the overall benefits of the zone.

### 3.8.1. Historic and specialist vehicles

139. A small number of vehicles will be exempt from paying a charge to enter a Clean Air Zone due to their age and/or their unsuitability for retrofitting or purchasing a replacement vehicle. This will include:

- vehicles with a 'historic' vehicle tax class.
- certain types of non-road going vehicles which are allowed to drive on the highway such as agricultural machines; digging machines; and mobile cranes. These will be defined further in the final framework.

140. Military vehicles are exempt from charges by virtue of Section 349 of the Armed Forces Act 2006.

### 3.8.2. Emergency service vehicles

141. The final version of this framework will set out the position on exemptions for emergency service vehicles.

### 3.8.3. Blue Badge holders and vehicles used by a disabled person exempt from Vehicle Excise Duty

142. Vehicles within the disabled passenger vehicle tax class will be exempt from paying a charge in a Clean Air Zone.

143. Holders of a Blue Badge should not generally be exempt from a charge in a Clean Air Zone whether driving a vehicle, or as a passenger. However, a local authority may choose to give a discount or exemption should, after analysis, local circumstances warrant such an approach.

### 3.8.4. Community transport vehicles

144. Community transport, such as minibuses, provided by small operators and local groups can provide an important access to employment, education and training for people who may otherwise be isolated**.** Local authorities may choose whether to give a discount or exemption to such services based on their assessment of local circumstances.

### 3.8.5. Residents who live within a Clean Air Zone

145. It is important that local authorities consider the impact of a Zone on local residents. By the simple virtue of their location they will not have the choice open to others of avoiding a zone when in a vehicle.

146. Local authorities may choose whether to allow residents who live within a charging Clean Air Zone additional time to comply with vehicle restriction requirements by providing for a discount on charges where these are included. Discounts may be set at a local authority's discretion at up to 100% of a charge.

147. In assessing the need for a grace period, and the length of time one may be necessary for, local authorities should take account of the change needed in vehicle mix to meet a zone's air quality aims, as well as the social, economic and health impacts of a zone's introduction.

148. Should a local authority decide to give residents who live in a Clean Air Zone additional time to comply, it is recommended that a sunset period of a minimum of three years from a zone's introduction be allowed during which the discount applies. This should allow residents sufficient time to change their vehicles. Local authorities should ensure discounts are only available while residents live within a zone.

149. While residents within a charging Clean Air Zone will be directly affected, it is also important that the impact on residents in neighbouring areas are considered. A local authority may also consider whether a discount for residents in designated areas next to the zone should be provided for in line with the requirements set out in this section. Care will need to be taken that this does not undermine the aims of a zone, and these types of discount are expected to be kept to a minimum.

## 3.9. Levels of charge

150. Local authorities should set the level of charge for vehicles entering a zone appropriate to their local circumstances. The level of charge must be within upper and lower bands which will be set out below in this framework.

[The level of charge table will be completed following the consultation on this framework].

151. In setting the level of charge within these bands local authorities should consider the behaviour change needed to deliver the ambitions for the zone; the local economic and social factors of the zone and surrounding areas; and the operational costs of running a scheme. Local authorities should not set the level of charge as a revenue raising measure. The Transport Act 2000 requires any excess revenue that may arise from charges above the costs of operation to be re-invested to facilitate the achievement of local transport policies and these should aim to improve air quality and support the delivery of the ambitions of the zone, while ensuring this does not displace existing funding.

152. Local authorities will be able to impose penalty charges for the non-payment of Clean Air Zone charges. They will be able to provide discounts on these penalties for prompt payment and there will be a fair procedure for making an appeal.

# 4. Annex A - Clean Air Zone classes and standards

153. This Annex sets out the classes and standards for Clean Air Zones required to implement the national air quality plan for nitrogen dioxide. It will be updated in line with any revisions to that plan and/or in line with changes in standards as set out in section 3.5 above.

154. Local authorities implementing a charging Clean Air Zone should ensure they are using the most recent version.

**Class A - Buses, coaches, taxis and private hire vehicles (PHVs)**

| Vehicle type | Euro Category[15] | Euro standard[16] [17] |
|---|---|---|
| Bus | M3 (GVW over 5000 kg and more than 8 seats in addition to the driver)<br>M2 (GVW not exceeding 5000 kg, ref mass exceeding 2610 kg and more than 8 seats in addition to the driver) | Euro VI |
| Coach | | Euro VI |
| Taxi and private hire | Minibus - M2 (GVW not exceeding 5000 kg, ref. mass not exceeding 2840 kg and more than 8 seats in addition to the driver)<br>Passenger vehicle with up to 8 seats in addition to the driver | Euro 6 (diesel)<br>Euro 4 (petrol) |
| Ultra low emission vehicles with significant zero emission range will never be charged for entering or moving through a Clean Air Zone | | |

**Class B - Buses, coaches, taxis, PHVs and heavy goods vehicles (HGVs)**

| Vehicle type | Euro Category[15] | Euro standard[16,17] |
|---|---|---|
| Bus | M3 (GVW over 5000 kg and more than 8 seats in addition to the driver)<br>M2 (GVW not exceeding 5000 kg, ref mass exceeding | Euro VI |
| Coach | | Euro VI |

[15] There are overlaps in the application of Euro VI and Euro 6 permitting manufacturers in limited cases to choose whether to approve to Euro VI or Euro 6 or both.
[16] GVW – Gross Vehicle Weight
[17] Ref. mass is defined in the Euro standards as mass in running order plus 25 kg. This broadly equates to the unladen mass of the vehicle with a driver and an additional 25 kg mass. It will be specified by the vehicle manufacturer

| | | |
|---|---|---|
| | 2610 kg and more than 8 seats in addition to the driver) | |
| HGV | N2 (GVW over 3500 kg and ref. mass over 2610 kg)<br>N3 (GVW over 5000kg) | Euro VI |
| taxi and private hire | Minibus - M2 (GVW not exceeding 5000 kg, ref. mass not exceeding 2840 kg and more than 8 seats in addition to the driver)<br>Passenger vehicle with up to 8 seats in addition to the driver | Euro 6 (diesel)<br>Euro 4 (petrol) |
| Ultra low emission vehicles with significant zero emission range will never be charged for entering or moving through a Clean Air Zone | | |

### Class C - Buses, coaches, taxis, PHVs, HGVs and light goods vehicles (LGVs)

| Vehicle type | Euro Category[18] | Euro standard[19] [20] |
|---|---|---|
| Bus | M3 (GVW over 5000 kg and more than 8 seats in addition to the driver)<br>M2 (GVW not exceeding 5000 kg, ref mass exceeding 2610 kg and more than 8 seats in addition to the driver) | Euro VI |
| Coach | | Euro VI |
| HGV | N2 (GVW over 3500 kg and ref. mass over 2610 kg)<br>N3 (GVW over 5000kg) | Euro VI |
| Large van | N1 (GVW not exceeding 3500 kg and ref. mass over 1305 kg but not exceeding 2840 kg)<br>N2 (GVW over 3500 kg and ref. mass not exceeding 2840 kg) | Euro 6 (diesel)<br>Euro 4 (petrol) |
| Minibus | M2 (GVW not exceeding 5000 kg, ref. mass not exceeding 2840 kg and more than 8 seats in addition | Euro 6 (diesel)<br>Euro 4 (petrol) |

[18] There are overlaps in the application of Euro VI and Euro 6 permitting manufacturers in limited cases to choose whether to approve to Euro VI or Euro 6 or both.
[19] GVW – Gross Vehicle Weight
[20] Ref. mass is defined in the Euro standards as mass in running order plus 25 kg. This broadly equates to the unladen mass of the vehicle with a driver and an additional 25 kg mass. It will be specified by the vehicle manufacturer

| | | |
|---|---|---|
| | to the driver) | |
| Small van/light commercial | N1 (GVW not exceeding 3500 kg and ref. mass not exceeding 1305 kg) | Euro 6 (diesel)<br>Euro 4 (petrol) |
| taxi and private hire | Minibus - M2 (GVW not exceeding 5000 kg, ref. mass not exceeding 2840 kg and more than 8 seats in addition to the driver)<br>Passenger vehicle with up to 8 seats in addition to the driver | Euro 6 (diesel)<br>Euro 4 (petrol) |
| Ultra low emission vehicles with significant zero emission range will never be charged for entering or moving through a Clean Air Zone | | |

**Notes**

i. Buses operating on scheduled service routes would be expected to meet clean air zone requirements through licensing, franchising or partnership approaches with local authorities as appropriate rather than pay a daily charge.

ii. Under the national air quality plan for nitrogen dioxide, the Government is not requiring cities to implement a charging Clean Air Zone that includes private cars, motorcycles or mopeds.

iii. If a local authority were to choose voluntarily to implement a Clean Air Zone that extended to cars (Class D), it should be done on a consistent basis in line with this framework. This means only cars which as a minimum meet Euro 6 standard (if diesel) or Euro 4 standard (if petrol) should be allowed free entry. Motorcycle and mopeds which meet Euro 3 should be allowed free entry, if the local authority decided such vehicles should be in scope. Consideration should be given to exemptions or discounts for residents as outlined above.

# 5. Annex B – approved retrofit schemes

[Approved retrofit schemes will be included this framework following the consultation].