apse membership resources

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Improving air quality in the UK.

To: All contacts

Key issues
Government initiatives to reduce level of pollution in air from transport
Scheme to address older vehicles in a number of specific urban areas
Plans for Clean Air Zones

1. Introduction

The Department for Environment, Food and Rural Affairs have produced a document titled 'Improving air quality in the UK –Tackling nitrogen dioxide in our towns and cities'. The document can be found here. It provides an overview of the UK plan for improving air quality and contains zone plans as well as setting out how the Government will fulfil its commitment to improve air quality and meet the requirement of the Ambient Air Quality Directive 2008 for nitrogen dioxide in the shortest possible time.

2. Background

The introduction to this document reiterates the Government's commitment to improving the UK's air quality, reducing health impacts whilst fulfilling legal obligations. It notes that air quality has improved significantly – between 2005 and 2013 emissions of nitrogen oxides have fallen by 38% and particulate matter has reduced by more than 16%.

The Government notes that over £2bn has been committed to address emission issues within existing fleet and to develop clean alternative fuels.

In areas where the UK is exceeding air quality limits, around 80% of roadside NO2 concentrations are due to transport.

3. Clean Air Zones

The document notes that clean air is essential for making sure our cities are welcoming places for people to live and work, now and in the future. This means action must be taken and Clean Air Zones (CAZ) are one of the ideas put forward. They will be geographically defined areas allowing action and resources to be targeted to deliver the greatest health benefits. Only the cleanest vehicles are encouraged (through the use of vehicle emission standards) and action is focussed to improve air quality

In order to bring the UK into legal compliance and to reduce concentrations of nitrogen dioxide below 40ug/m3, CAZ will be introduced in five cities. These zones will reduce the pollution in city centres and encourage the replacement of old, polluting vehicles with modern, cleaner vehicles. The document notes that similar zones in Germany and Denmark have been shown to improve air quality.

CAZ are grouped into classes covering different types of vehicles – class A includes buses, coaches and taxis; class B includes buses coaches, taxis and HGVs; class C includes buses, coaches, taxis HGVs and LGVs; class D includes buses coaches, taxis, HGVs, LGVs and cars.

Vehicle owners will be required to pay a charge if they enter a CAZ which has a standard for their type of vehicle which it does not meet. Under this plan no city will be required to charge cars to enter a CAZ. Notification of CAZ will be clearly signposted on access routes and those cities with CAZ other than Class A are likely to use cameras to ensure that those vehicle owners that are required to pay do so.

The five cities in England where CAZ will be implemented are Birmingham, Leeds, Nottingham, Southampton and Derby. London already has plans in place to bring in an Ultra Low Emission Zone (broadly equivalent to Class d above) in 2020. Other local authorities can also adopt CAZ as a way to focus their action to improve air quality. Consultation will take place in 2016 on the details of these proposals.

A number of authorities have already implemented schemes for buses or are considering action to restrict polluting vehicles.

Government will set out a clear Framework for Clean Air Zones including important principles that need to be consistent across cities, for example, which standards to apply.

3.1 Vehicles in Clean Air Zones

To ensure that only the cleanest vehicles are encouraged to enter CAZ, vehicle standards will be based around Euro standards either directly or through using vehicle manufacture dates as a proxy. Vehicles which do not meet these standards will be charged to enter the CAZ in line with the class of zone in place. Future guidance will set out a more complete description of vehicle types as part of the full CAZ design. The Euro standards will be used to ensure emissions reductions are achieved for all pollutants, not just nitrogen dioxide.

Raising the emissions standards of existing vehicles through retrofit and/or alternative fuels is part of our approach to addressing air quality and bring forward compliance so CAZ could support this by providing an additional incentive for conversion. The zones will also allow all ultra low emission vehicles free access again to show support to those vehicle owners as is the proposed approach in London. Incentives might include chargepoints and preferential parking.

The document notes that Government will work with the DVLA and others to ensure that the necessary vehicle databases containing all the information required by local authorities for the operation of a zone are available. Consideration will also be given to exempt emergency vehicles from charges.

3.2 A coherent local approach

The document states that CAZ will bring together action to enhance public transport and accelerate the transition to ultra low emission vehicles to increase local take up and support national ambitions in order to encourage walking and cycling. It goes on to say that actions linked to a CAZ include integrated public transport networks based on low emission vehicles; park and ride schemes; infrastructure for electric charging or other alternative fuels; promotion of electric vehicle use particularly in public sector fleets, public transport and for the last mile of deliveries within city centres; urban traffic management; bus recognition schemes and preferential access for electric vehicles or benefits such as parking spaces or taxi ranks.

3.3 Clean Air Zones and planning

Air quality considerations are noted as an important part of the planning process and the document states that supporting planning guidance to the National Planning Policy Framework will be updated to include reference to the introduction of CAZ. The presence of a CAZ will be a relevant consideration in planning decisions as will a proposed development's impact on the relevant air quality strategy.

3.4 Clean Air Zones operating on a voluntary basis

CAZ may be implemented on a voluntary basis i.e. without charge. Although the intention would be to raise awareness of the issue in a locality the main difference would be that vehicles that did not meet the standards would not be charged. It could be used as a behaviour change mechanism as part of a phased approach to the full implementation of a zone.

3.5 Clean Air Zones outside of London

Birmingham, Leeds, Southampton, Derby and Nottingham will need to take additional action in order to achieve the limit values in the shortest possible time and at the latest by 2020. In order to ensure this action is delivered Government will impose legal requirements on the relevant local authorities in these cities to implement a defined lass of CAZ. Government has allocated funding to help with this and help with the implementation of associated measures. A more detailed local assessment will be made which will identify the class and extent of CAZ needed.

Based on current assessments the expected requirements in Birmingham and Leeds will be a class C zone and additional local action including a combination of improved signage and rerouting, switching to different forms of transport (e.g. use of park and ride), road improvements and infrastructure for alternative fuels (e.g. support for use of compressed natural gas (CNG). Nottingham, Derby and Southampton will be required to implement a class B CAZ.

The document states that the local authorities will have to set charges at levels designed to reduce pollution, rather than to raise revenue (beyond recovering the costs of the scheme).

3.6 Greater London

The Greater London urban area currently has the highest NO2 exceedance in the UK and its size and complexity means it is the most challenging in the country. As such the approach to London is different from elsewhere and actions taken already include the introduction of 1,700 hybrid buses, the world's largest bus retrofit programme and trials of new technologies such as electric and hydrogen buses; an age limit for taxis and a future requirement for taxis to be zero emission capable; air quality neutral requirements in planning provisions and energy retrofit programmes have reduced emissions; and a fund to support boroughs in tackling local hot spots.

3.7 Clean Air Zones in London

As part of the London Air Quality Strategy the London Mayor has committed to an Ultra Low Emissions Zone (ULEZ) in central London to be delivered by September 2020 including new exhaust emissions standards for vehicles driving in central London that are broadly equivalent to a class D CAZ. From September 2020 all cars, motorcycles, vans, minibuses and HGVs travelling within the ULEZ will need to meet strict exhaust emission standards or pay an additional daily charge. There is a commitment from TfL that by 2020 all 3,000 double decker buses operating in central London will be hybrid diesel-electric and all 300 single decks will be zero tailpipe emissions (i.e. hydrogen or pure electric). It also includes new London-wide licensing requirements for taxis being less than15 years old and zero emission capable for new taxis by 2018; and private hire vehicles must be zero emission capable by 2020. London already has in place a low emission zone for larger vehicles such as buses, HGVs and vans.

3.8 Improving air quality in all areas

The document notes that action is required in all areas that currently have air quality problems to ensure they meet the required NO2 levels. It states that as a minimum Government expects all local authorities with areas currently exceeding the required levels to consider putting in place a Low Emission Strategy to set out a range of commitments and actions to tackle pollution.

The document goes on to describe some of the actions taken by Government to improve air quality including financial incentives for ultra low emission vehicles, funding for research and development, Government's own procurement arrangements, investment in the road network to reduce congestion and promote the free movement of traffic, projects to reduce emissions from buildings and industry as well as from other forms of transport.

APSE comment

Improving air quality is a long term job. Pollution may be localised in terms of production but it takes no account of local authority (or any other) boundaries. Both of these facts mean that a UK-wide approach and a formal

strategy are vital and APSE would encourage all local authorities to continue in the work they are currently doing to address the issues raised in this document.

The need for consistency in operation of such restrictions is important for fleet managers in businesses as well as for individuals, so that they are able to enter any CAZ without charge rather than planning for different restrictions.

Although we have known about the existence of air quality issues for many years (references to smog filled industrial cities reflect that) the nature of pollution has changed over time and we must remain vigilant. The links between pollution and damage to health are well known and work continues to address the impacts. Clearly engine developments mean emissions are much lower than in the past but use of older cars remains high whilst recent revelations reflect the fact that not all car producers are as accountable as they should be.

A new study by The Society of Motor Manufacturers and Traders (SMMT) in 2014 found that rising new car registrations and longer lasting cars combined to push up the number of cars to 32 million on the UK roads. The 1.4% rise in the 2013 figure marked the fastest rate of growth for 10 years and saw the number of older cars rise at a pace as ever increasing reliability and economic factors combined. Cars older than 12 years rose 11.3% against 2012. Compared with a decade ago, the average age of a car increased by a full year (to 7.7 years old), as the trend grew longer for cars remaining on the road. The older the car, the more likely it is to produce emissions and this is a trend despite incentives such as scrappage scheme from 2009.

Those cities which have implemented road user charging have all achieved reductions in traffic entering the charging zone in the range of 14% to 23%. This will obviously have an impact on the level of pollutants in the air in the zone as well as an impact on noise levels. However, it may be that the owners who are unwilling to pay a charge and so do not enter the zone, simply drive their vehicles elsewhere and so pollute another area.

The document lists a large number initiatives taken by local authorities in order to tackle the issue of air quality at a local level. In doing so it promotes the case that councils are already making substantial headway in dealing with this problem. Examples quoted include Oxford, Norwich and Brighton implementing low emission zones to ensure the use of cleaner buses; Manchester and surrounding authorities putting in pace measures such as investment in electric vehicle infrastructure and working with freight operators; Middlesbrough installing cycle paths alongside transport corridors; tree planting to absorb pollutants in Neath Port Talbot; and Leicester encouraging cleaner taxis through a 50% reduction in the licence fee for those at Euro 6 standard.

Although there may be a perception that income from charges will be invested in the fabric of the road, in other words as 'new' money, because the charges are set to cover only the operational cost of the scheme no extra funds will be generated. As such expectations of road users must be managed as part of the implementation of zones.

In the wider context, different schemes have had different aims. For example, the current scheme in Stockholm was introduced to address congestion with the funding raised used to invest in road infrastructure around the city and as a result increase the overall road supply. In contrast, the London congestion charge was introduced purely to reduce the number of cars in central London with no impact on the supply of the network.

The issue of supply and demand is of course a significant one. Some would call for an increase in the supply of roads to keep pace with the increase in the number of cars mentioned above. Such an approach is ultimately unsustainable and a move to mass public transport alongside other developments such as home working and better use of ICT so resulting in less commuting appears the logical way forward.

Clearly local authorities have a role to play due to their responsibilities both in terms of air quality and network management.

Phil Brennan
Principal Advisor