



Department  
for Environment  
Food & Rural Affairs



Department  
for Transport

# Tackling nitrogen dioxide in our towns and cities

## A consultation

May 2017



Scottish Government  
Riaghaltas na h-Alba  
gov.scot



Department of  
**Agriculture, Environment  
and Rural Affairs**  
[www.daera-ni.gov.uk](http://www.daera-ni.gov.uk)



Llywodraeth Cymru  
Welsh Government



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# 1. Purpose of this consultation

1. This consultation sets out steps the UK Government, the Scottish Government, the Welsh Government and the Department of Agriculture, Environment and Rural Affairs in Northern Ireland propose to take to improve air quality in our towns and cities. Clean air is one of the most basic requirements of a healthy environment for us all to live, work and bring up families. Air quality has improved significantly over recent decades through action taken by successive governments and newer technologies but levels of pollution, particularly in urban centres, are still too high, and we need to take action now to bring them down more quickly.
2. Local authorities already have the powers to implement Clean Air Zones. This consultation proposes that, where the evidence shows persistent air quality exceedances, local authorities must develop plans to achieve compliance within the shortest time possible. Government will sign off these plans, ensuring that they are effective, fair and deliver air quality compliance. We expect that implementation of Clean Air Zones will take up to three years, but Government will ensure the plans achieve compliance within the shortest time possible.
3. Air pollution can come from a range of different sources and activities. Many everyday activities such as industrial processes, farming, transport, generating energy and heating homes can have a detrimental effect on air quality. All of these need action but this consultation relates specifically to nitrogen dioxide (NO<sub>2</sub>) pollution which is exceeding legal limits along specific roads in a number of urban areas. Diesel road vehicles are the main source, so the measures set out in this consultation largely relate to how we can reduce the impact of diesel vehicles and accelerate the move to cleaner transport options in a way that protects the economy of our high streets and town centres, and supports local businesses and residents.
4. The Government has already taken action to improve air quality by delivering a stronger economy. In 2016, the Government announced a new National Productivity Investment Fund which includes an additional £1.1 billion to relieve road congestion and deliver upgrades on local roads and public transport networks, an additional £220 million to tackle key pinch points on the strategic road network, and an additional £290 million for reducing transport emissions. The Government also committed an additional £4.7 billion for research and development to support its industrial strategy and deliver clean growth. This includes a new Industrial Strategy Challenge Fund to develop innovative technologies, such as electric vehicle batteries, that have the potential to make the UK a world leader and transform the UK economy. This consultation considers further retrofitting measures, as well as targeted scrappage schemes. Such measures would need to provide value for money to the taxpayer and target support where it is most needed.
5. The link between improving air quality and reducing carbon emissions is particularly important. The Government will continue to seek solutions that are compatible with

reducing air pollution while delivering clean growth. Creating a cleaner transport system is central to these objectives i.e. supporting the uptake of ultra low emission vehicles (ULEVs) and rolling out charging infrastructure for electric vehicles.

6. This consultation applies to England, Scotland, Wales and Northern Ireland.

## 2. Relevant documents

7. This consultation comprises:

- a. This consultation document.
- b. The draft UK Air Quality Plan for tackling nitrogen dioxide<sup>1</sup> ('Improving air quality in the UK: tackling nitrogen dioxide in our towns and cities')
- c. Technical Report, including details of the modelling techniques and assumptions used in the draft UK Air Quality Plan for tackling nitrogen dioxide.

8. You can access the draft documents at <https://consult.defra.gov.uk/airquality/air-quality-plan-for-tackling-nitrogen-dioxide>

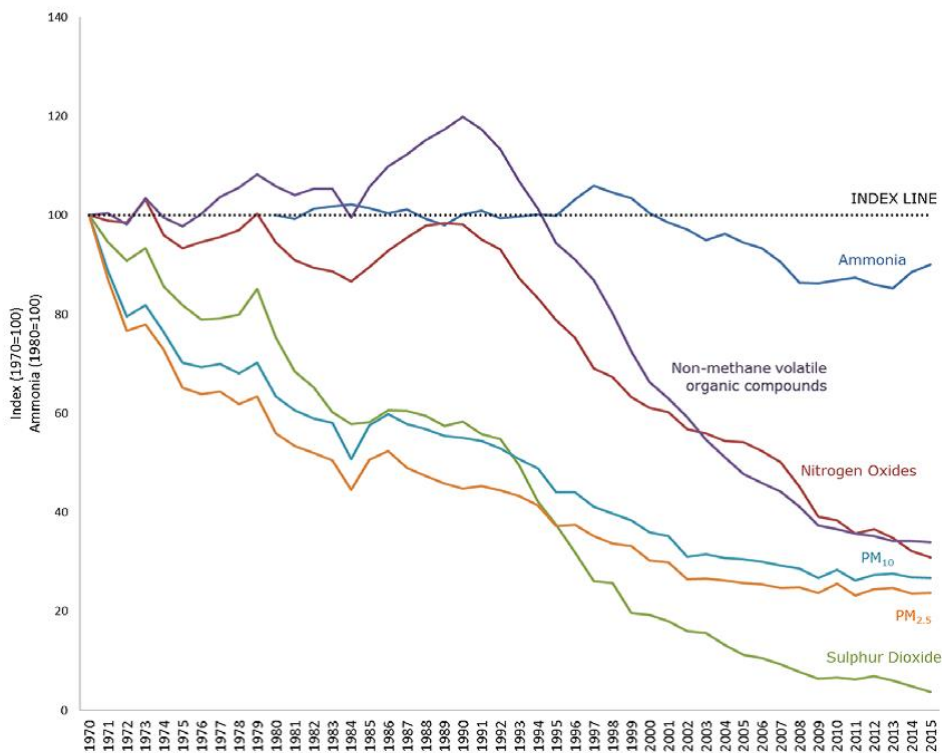
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<sup>1</sup> As required by the Air Quality Standards Regulations 2010; the Air Quality Standards (Scotland) Regulations 2010; the Air Quality Standards Regulations (Northern Ireland) 2010; and the Air Quality Standards (Wales) Regulations 2010

### 3. Air quality in towns and cities – what is the problem?

9. Throughout the 19th and 20th centuries, built-up areas suffered the effects of air pollution, largely from the burning of coal and wood in houses, and from factories and other industrial sites. Greater awareness of the harmful health effects from pollution led to the Clean Air Act (1956) and other controls on emissions. From the 1970s onwards, regulatory controls, and the development of cleaner technologies, have seen significant reductions in the main air pollutants, and national emissions of nitrogen oxides (NO<sub>x</sub>) reduced by over 19% between 2010 and 2015 (Figure 1).

**Figure 1 Trends in UK emissions of sulphur dioxide, nitrogen oxides, non-methane volatile organic compounds, ammonia and particulate matter (PM<sub>10</sub>, PM<sub>2.5</sub>) 1970 - 2015**



10. Even though air quality is better now than it has been for decades, there are still significant health impacts attributable to air pollution:

- Poor air quality is the largest environmental risk to public health in the UK, with high NO<sub>2</sub> levels exacerbating the impact of pre-existing health conditions, especially for the elderly and children.
- Studies have suggested that the most deprived areas bear a disproportionate share of poor air quality.

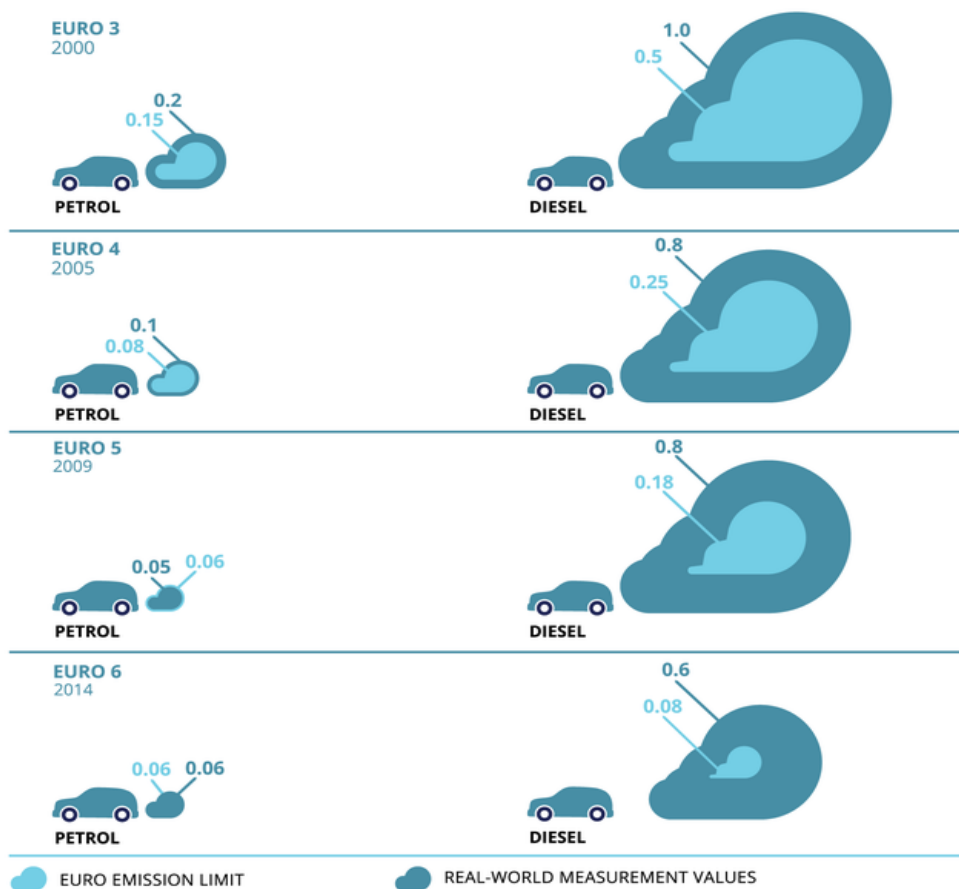
11. There is therefore a compelling need to tackle poor air quality to ensure cleaner, healthier air for all. We want to be flexible in our approach to this new plan, in order that we are able to take account of new information on air quality as it becomes available.

## How Did We Get Here?

12. Steps to reduce air pollution have included measures specifically targeted at cutting emissions from transport. This included, for instance, the shift to unleaded petrol in the 1980s and 90s.

13. More recently, standards on vehicle engines (known as “Euro Standards”) have been put in place at EU level to deliver reduced emissions both of greenhouse gases and of harmful pollutants. These Euro Standards should have led to major reductions in emissions of NO<sub>2</sub> from vehicles. However, this has proved not to be the case, particularly for diesel vehicles, whose “real world” emissions have proven to be many times higher than lab tests (Figure 2). Diesel vehicles on our roads are causing harmful emissions far above what was assumed and contributing to pollution levels that continue to be damaging to public health. Additionally, the Volkswagen scandal showed that deliberate cheating of the emissions tests was built into some vehicles.

**Figure 2 - Comparison of nitrogen oxides emissions for different car Euro standards, by emission limit and real-world performance (grams/kilometre)**



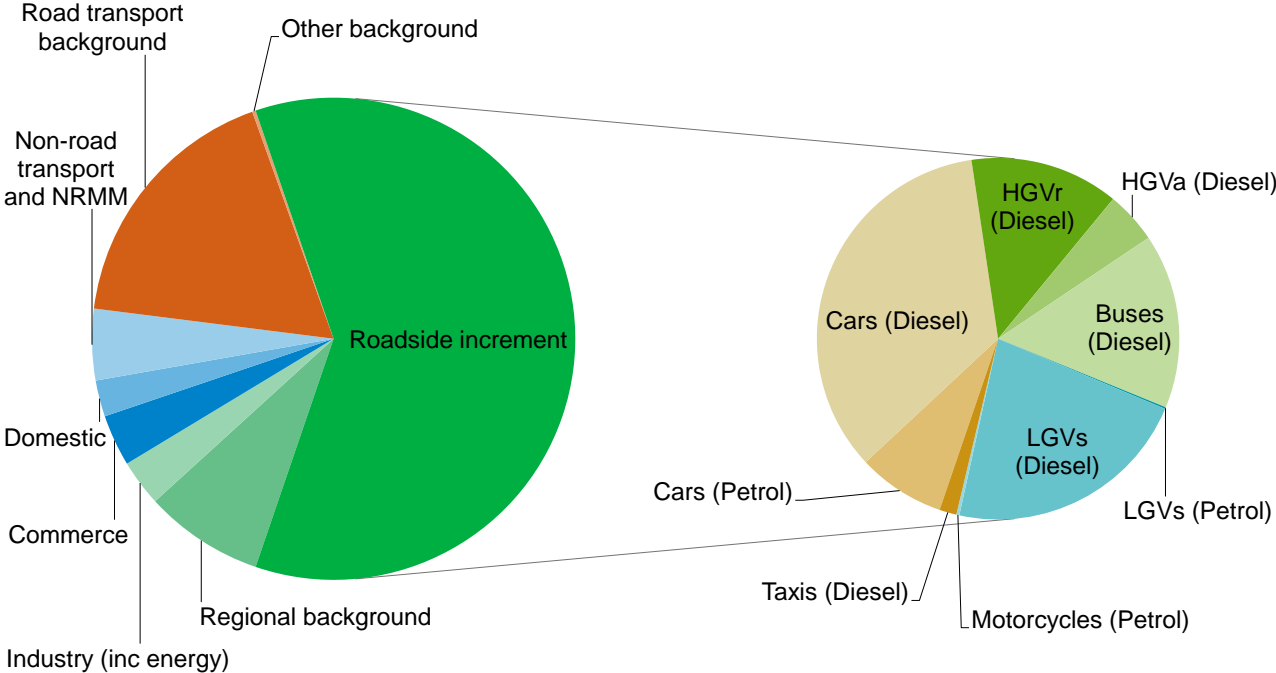


14. In the UK, this failure of the Euro testing regime has come together with increased use of diesels. Following tax incentives in the early 2000s, the number of diesel cars in Great Britain grew from 3.2 million in 2000 to 8.2 million in 2010 and the number of diesel vans grew from 1.8 million to 3 million over the same period. This growth follows tax changes made by previous governments, which focussed on fuel economy and carbon dioxide (CO<sub>2</sub>) emissions. None of this is the fault of those who chose to buy diesel vehicles and as we tackle the problem, these same people should not be penalised for decisions they made in good faith.
15. But we must take action now to clean up the existing vehicle fleet. This means setting new policies and incentives to promote new technology and innovation, speeding up the move to and capturing the economic opportunities of, cleaner vehicles thereby both supporting the objectives of our industrial strategy and delivering the cleaner air we need for our towns and cities. It also means taking the opportunities that improving air quality in our urban areas bring, for example making city centres more attractive places to live, work and do business in with good public transport links.

## **Where to Target Action**

16. Unlike greenhouse gases, the risk from NO<sub>2</sub> is focused in particular places: it is the build-up of pollution in a particular area that increases the concentration in the air and the associated risks. So the action needs to be targeted to problem areas, which are specific roads located mostly in cities and towns.
17. The actions to reduce NO<sub>2</sub> also need to be targeted on the sources that make the biggest contribution to the problem. The charts below show that the dominant source of NO<sub>2</sub> at the roadside is diesel vehicles (Figure 3) and that different types of vehicles contribute different amounts on average per vehicle (Figure 4). The total emission from vehicles depends on a combination of both average emission per vehicle and the number of vehicles.

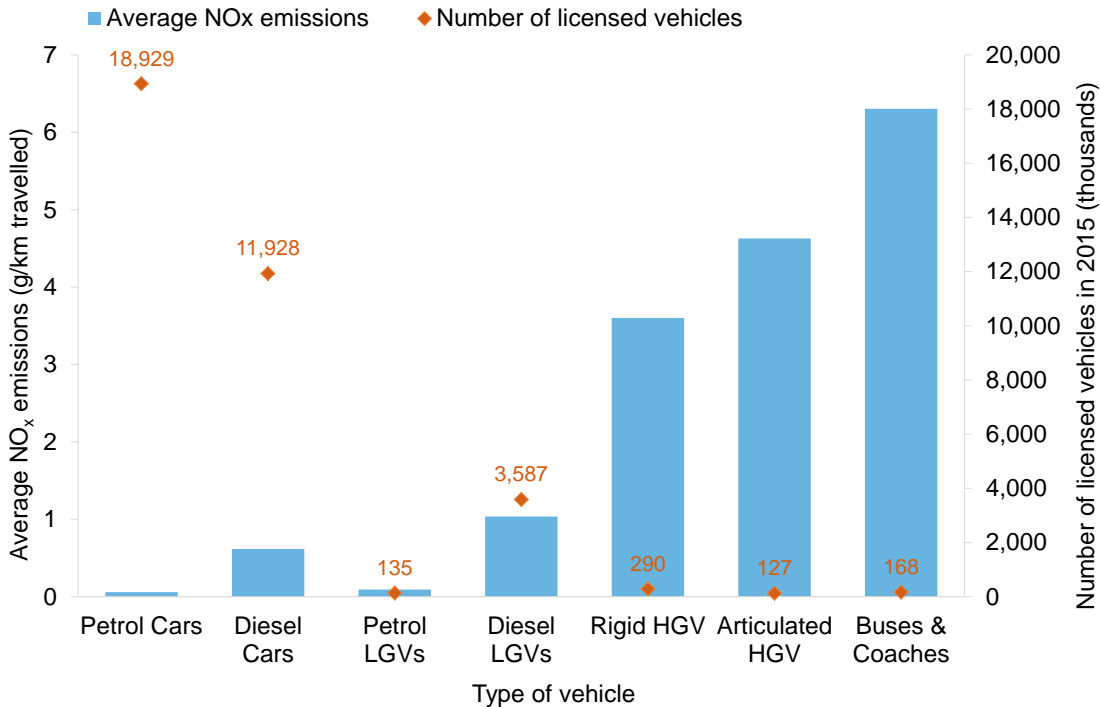
**Figure 3 - Breakdown of UK national average roadside concentration of nitrogen oxides<sup>2</sup> into sources, 2015<sup>3</sup>**



<sup>2</sup> Nitrogen oxides includes primary nitrogen dioxide and nitric oxide, which is converted to secondary nitrogen dioxide in the atmosphere

<sup>3</sup> The 'Roadside Increment' in the large pie chart is the estimate of the proportion of roadside concentrations contributed by local traffic, which is shown in greater detail in the smaller pie chart. NRMM = Non-Road Mobile Machinery; LGV = Light Goods Vehicles; HGVR = Rigid Heavy Goods Vehicles; HGVA = Articulated Heavy Goods Vehicles.

**Figure 4 - Average nitrogen oxides emissions by vehicle type (grams/kilometre) and number of licensed vehicles in 2015**



## 4. This Consultation

18. This consultation document sets out in response to the challenges above our proposed UK plan for tackling nitrogen dioxide. The draft UK Air Quality Plan for tackling nitrogen dioxide and technical report (see Section 2) give fuller details of our approach. The Government will finalise the UK Air Quality Plan for tackling nitrogen dioxide, following consultation, by 31 July 2017.

### 4.1. Action to be taken in England

19. The Government is determined to improve air quality in a way that supports local areas and helps them deliver a stronger economy. A Clean Air Zone defines an area where targeted action is taken to improve air quality and resources are prioritised and coordinated in a way that delivers improved health benefits and supports economic growth. Each Clean Air Zone is the responsibility of a local authority (or more than one working together) and allows a range of actions to be taken to improve air quality.
20. Clean Air Zones result in direct actions to reduce emissions within the zone. These can be focussed on particular locations such as bus depots, behaviours such as engine idling, sites with particular emission problems and through working with specific local businesses. Clean Air Zones will be at the forefront of innovation, providing an opportunity to help business and academia to evaluate new technologies and, once proven, support their wider use.
21. The steps set out in our proposed UK Air Quality Plan for tackling nitrogen dioxide rely on the development of comprehensive Clean Air Zone plans by the local authorities in each of the English towns and cities where action is needed.
22. These local authorities will be given clear legal duties to develop and implement these plans in a way that works for their local area. This will include responding to local needs and the views of local people, as well as considering innovative measures that ensure the legal limits on pollution are achieved as quickly as possible. The Government will support those efforts through national measures, setting the framework for local action, and monitoring progress so that every area delivers the improvements needed. To avoid delay, we are pressing ahead during the consultation period and engaging with local authorities to help them start the process of getting their Clean Air Zone proposals up and running, providing appropriate funding support where necessary.
23. The Government has published a national framework for Clean Air Zones, which sets out the aim for Clean Air Zones to *“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”*.

24. It will be the responsibility of local authorities to develop innovative proposals for their local area that will bring pollution levels within the legal limits within the shortest time possible. Local authorities should consider a wide range of options, exploring new technologies (e.g. retrofitting technologies, alternative fuels, low emission vehicles) and seeking to support the Government's industrial strategy so that they can deliver in a way that best meets the needs of their communities and local businesses. As set out in the Clean Air Zone Framework this could include measures such as the following:
- a. Exploring innovative retrofitting technologies and new fuels;
  - b. Buying ULEVs and encouraging local transport operators to do the same;
  - c. Encouraging private uptake of ULEVs via ensuring adequate chargepoints;
  - d. Encouraging use of public transport, cycling, walking, park and ride schemes, and car sharing;
  - e. Improving road layouts and junctions to optimise traffic flow, for example by considering removal of road humps;
  - f. Working with local businesses and neighbouring authorities to ensure a consistent approach; and
  - g. Charging certain types of vehicles to enter or move within the zone.
25. Clean Air Zone proposals are not required to include a charging zone. The Government believes that charging zones should only be used where local authorities fail to identify equally effective alternatives. If local authorities do conclude that charging is the only way to achieve compliance in the shortest possible time, they will be required to set out the detail of where and when charges would apply, and the vehicle types to which they would apply. They will also be required to engage with local people and fully assess the impact of such an approach and how it could be mitigated. In all cases, charging zones would apply only to older, higher-polluting models of the vehicle types, so as to have a targeted impact on pollution. Any revenues collected by local authorities will be reinvested to support local transport policies, which could cover public health projects or better town and city planning, promoting cleaner air.
26. It is for local authorities to develop local proposals likely to achieve the air quality limits within the shortest time possible. Given the potential impacts on individuals and businesses, when considering between equally effective alternatives to deliver compliance, the Government believes that if a local authority can identify measures other than charging zones that are at least as effective at reducing NO<sub>2</sub>, those measures should be preferred. This includes considering all equally effective alternatives to charging zones. A proposed Clean Air Zone plan will only be approved by Government, and thus be considered for appropriate funding support, if it can show that:

- a. It is likely to cause NO<sub>2</sub> levels in the area to reach legal compliance within the shortest time possible;
- b. The effects and impacts on local residents and businesses have been assessed, including on disadvantaged groups, and there are no unintended consequences; and
- c. Proposals that request central Government funding support demonstrate value for money.

27. Once measures have been implemented, the Government expects local authorities to undertake appropriate monitoring and assessment of air quality levels to evaluate the effectiveness of the action taken. The Government will ensure that information about successful approaches will be shared widely, accelerating broader progress.

### Improving air quality in a fair way

28. This Government is committed to improving air quality in our towns and cities. We believe that doing so will have a positive impact on economic growth and make our towns and cities more attractive places to live and work. We must deliver our legal obligations on air quality as quickly as possible. We are clear, however, that this must not be done in a way that unfairly penalises ordinary working families who bought diesel vehicles in good faith as a direct result of tax changes made by previous governments that focused on fuel economy and CO<sub>2</sub> emissions.

29. The Government is therefore continuing to explore how best to support local authorities to mitigate the impact of certain measures on local businesses, residents and those travelling into towns and cities to work. The Framework published alongside this consultation gives local authorities flexibility to develop schemes that work for their local areas. There is a requirement on them to consider the impact of any scheme and to engage in extensive local consultation prior to implementation. We have also been clear that local authorities need to fully consider appropriate local mitigation measures if their air quality scheme is to be approved.

30. A number of measures that could be taken to mitigate the impact of action to improve air quality have already been put forward. These focus on measures to offer choices to motorists, in particular private car drivers, who might be impacted by a local air quality scheme. Other options include targeted investment to deliver swift improvements in air quality at a local level. Examples of measures that could be taken are described in the following paragraphs. All would need to be considered in the context of the overall air quality solution and represent value for money.

31. **Targeted infrastructure investments:** Additional local measures could be taken forward through a central government fund to invest in local infrastructure and help change behaviour in order to improve air quality. These might include interventions such as: the redesign of local roads to improve traffic flow and reduce idling traffic; the creation of park and ride services; the promotion of infrastructure for electric vehicles;

bus and rail improvement measures; the promotion of car clubs; and infrastructure improvements for cycling and walking. Such investment could reduce the need for local authorities to take forward more onerous measures by giving local residents and businesses more alternative travel options.

32. **Support for retrofitting initiatives:** Further support could be provided to local authorities who wished to run schemes such as retrofitting to cut air pollution from local bus, taxi or HGV fleets. This would directly benefit those who use public transport in cities implementing local air quality schemes. At the Autumn Statement 2016, the Government announced that additional funding would be provided from the National Productivity Investment Fund for bus retrofitting and work to promote the development of new, innovative technologies.
33. **Targeted scrappage scheme for vans or cars:** Some have suggested that a targeted scrappage scheme for older, more polluting vans or cars could be developed to contribute to the cost of purchasing a cleaner vehicle. Such a scheme would have to be targeted at those most in need of support and be limited in scope. In devising mitigation measures, it will be important to consider the viability of any scheme and its overall cost. If, following this consultation, scrappage is identified as an appropriate mitigation measure, any scheme would need to provide value for money, target support where it was most needed, be deliverable at local authority level and minimise the scope for fraud.
34. When considering additional measures the Government will need to ensure that any action did not lead to a delay in achieving the legal limits in the shortest possible time. Policies included in the final UK Air Quality Plan for tackling nitrogen dioxide will have to be funded, and so it is important that any mitigation measures adopted represent value for money for the taxpayer, clearly reflect a local need and provide support to those who most need it. These issues would feature as criteria for any competitive support fund.
35. Poor air quality persists in certain areas of the country as a direct result of the failure of the European regulatory system to deliver expected improvements in vehicle emissions. During the consultation period the Government will engage with vehicle manufacturers on what role they might play in helping to improve air quality. This could include participation in specific schemes, such as those outlined above. We will also continue to press car manufacturers to develop options for recalling existing vehicles to improve their real world emissions performance.
36. The Government is clear that we must maintain discipline on public spending and consideration will therefore need to be given to how measures to improve air quality are funded
37. As announced at the Spring Budget 2017, the Government will continue to explore the appropriate tax treatment for diesel vehicles, and will engage with stakeholders ahead of making any tax changes.

## Where is action required?

38. The projections set out in the draft UK Air Quality Plan for tackling nitrogen dioxide and the Technical Report show that around forty local authorities in England have one or more roads projected to remain in breach of air quality limits for some years ahead unless action is taken. As the accompanying Technical Report sets out, a larger number of towns and cities than set out in the UK Air Quality Plan for tackling nitrogen dioxide published in December 2015 may need to implement a Clean Air Zone as we have updated our model with the most recent evidence on real world vehicle emissions following the diesel emissions scandal. Discussions with local authorities have already started, and will continue through the period of this consultation, and the Government is undertaking further modelling. The final UK Air Quality Plan for tackling nitrogen dioxide, published in July 2017, will confirm the local authorities which will formally and legally be required to develop and implement comprehensive Clean Air Zone plans.
39. The locations described above include parts of the local road network outside cities and towns where NO<sub>2</sub> levels exceed legal limits. The measures to clean up vehicle emissions will help tackle pollution on local roads. The Government will also work with local authorities responsible for these roads to identify specific local solutions, ensuring they are delivered within the shortest possible time and considering the appropriate incentives to deliver this.
40. The Government will also identify and implement targeted measures that may be needed to address the less than 1% of the strategic road network (motorways and major A-roads) managed by Highways England, where NO<sub>2</sub> levels are projected persistently to exceed legal limits. Highways England will continue to develop ways to improve air quality on the strategic road network, for example through charging infrastructure for electric vehicles and developing local solutions in partnership with local stakeholders.
41. Table 1 provides details of English local authorities with one or more roads forecast persistently to exceed NO<sub>2</sub> legal limits based on initial modelling and assuming no additional measures. **This is not a list of local authorities that will have to implement a Clean Air Zone.** Further information is supplied in the draft UK Air Quality Plan for tackling nitrogen dioxide (Section 7.4 and Annex L). The Government is undertaking further modelling and this list may reduce pending publication of the final UK Air Quality Plan.



**Table 1 – English local authorities with one or more roads forecast persistently to exceed NO<sub>2</sub> legal limits based on initial modelling (subject to change) and assuming no additional measures<sup>4</sup>**

Basildon District Council	Leeds City Council	Salford Metropolitan Borough Council
Birmingham City Council	Leicester City Council	Sheffield City Council
Bolton Metropolitan Borough Council	Liverpool City Council	South Tyneside Metropolitan Borough Council
Bournemouth Borough Council	Manchester City Council	Southampton City Council
Bradford City Council	Middlesbrough Borough Council	Stockport Metropolitan Borough Council
Bristol City Council	New Forest District Council	Surrey Heath District Council
Bury Metropolitan Borough Council	Newcastle City Council	Tameside Metropolitan Borough Council
Derby City Council	Nottingham City Council	Trafford Metropolitan Borough Council
Doncaster Metropolitan Borough Council	Plymouth City Council	Wakefield Metropolitan District Council
Fareham Borough Council	Portsmouth City Council	Walsall Metropolitan Borough Council
Gateshead Metropolitan Borough Council	Reading Borough Council	Wigan Metropolitan Borough Council
Greater London Authority	Rochford District Council	Wolverhampton City Council
Guildford Borough Council	Rotherham Metropolitan Borough Council	

<sup>4</sup> Early indications from the further modelling to be completed during the consultation suggest that Coventry City Council may still have roads that require an intervention

**Table 1 – English local authorities with one or more roads forecast persistently to exceed NO<sub>2</sub> legal limits based on initial modelling (subject to change) and assuming no additional measures<sup>4</sup>**

Halton Borough Council	Rushmoor Borough Council	
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## Next Steps

42. Actions to put in place Clean Air Zones as soon as possible in the five cities named in the UK Air Quality Plan for tackling nitrogen dioxide published in December 2015 – Birmingham, Leeds, Nottingham, Derby and Southampton – are well advanced. Additionally local authorities in Greater Manchester and in Bristol and South Gloucestershire have secured Air Quality Grant funding to develop Clean Air Zone proposals.

43. The Government has engaged early with the local authorities which may need to take further action, working with them to identify the most appropriate local solutions. Discussions with other local authorities have already started with a view to them developing innovative proposals for their local area that will bring pollution levels within the legal limits within the shortest time possible. These discussions will continue through the period of this consultation and the development of the final UK Air Quality Plan for tackling nitrogen dioxide. This will ensure that swift action is taken locally to make progress on addressing air quality exceedances.

44. The Government will work closely with local authorities with a view to them finalising detailed proposals covering all of the points set out at paragraph 25 above within 18 months. We expect that for most local authorities that need to do so, introducing a charging scheme would take until the end of 2020 (or 2019 for the five local authorities named in the UK Air Quality Plan for tackling nitrogen dioxide published in December 2015) although local authorities would need to deliver sooner if they could.

## 4.2. Providing support for local action in England

45. Local authorities have air quality obligations under the Environment Act 1995 and powers to tackle local air pollution via the Road Traffic (Vehicle Emissions) (Fixed Penalty) (England) Regulations 2002 and via the Clean Air Act 1993. Any local authority can introduce a Clean Air Zone and use their powers under the Transport Act 2000 to implement a charging zone.

46. In addition to ongoing funding to support uptake of ULEVs across the UK and the development of battery design, Government-funded support for local actions has included the Air Quality Grant; the Bus Service Operators Grant and the Green Bus Fund; the Clean Bus Technology Fund and the Clean Vehicle Technology Fund; the

Low Emission Bus Scheme; the Access Fund and the Cycling and Walking to Work Fund.

47. Additionally the Government committed an additional £1.1 billion in the Autumn Statement 2016 to relieve congestion and deliver much-needed upgrades on local roads and public transport networks alongside investment to tackle key pinch points on the strategic road network. The Spring Budget 2017 provided further detail of how these funds will be invested.
48. As set out in the Clean Air Zone Framework, local authorities which adopt a Clean Air Zone in line with the Framework will have an additional advantage when bidding for competitive central government funding where air quality is one of the stated assessment criteria for that fund.

### **Supporting innovation through retrofitting programmes**

49. There is a small but successful retrofit industry in the UK which mainly focuses on upgrading larger vehicles, like buses, to cleaner engines. Our plan to tackle air quality provides an opportunity for the industry to grow, identifying innovative new technologies to tackle emissions from a range of vehicles. The Government has already recognised this, with the November 2016 Autumn Statement committing an additional £150 million in support for low emission buses and taxis, which includes support for retrofitting more vehicles to cleaner engines.
50. The Government will continue to provide support to the industry through the development of a new accreditation scheme to help vehicle owners to know which technologies are compatible with their vehicle type and are proven to deliver expected pollutant emissions reductions. The Clean Vehicle Retrofit Accreditation Scheme will launch later in 2017 and will help to share information on innovative solutions to emissions from vehicles. The scheme will provide independent evidence that retrofit technology will deliver the expected benefits. This will ensure that successful retrofit innovation in the UK is recognised and the sector is able to grow. The Government will use the scheme to ensure that grant payments are focused on proven technologies. The scheme will also provide a robust process for validation of equipment for use in Clean Air Zones.
51. The Government expects local authorities to consider scope to retrofit vehicles as part of development of their proposals for Clean Air Zones. The Government will consider how to maximise the impact of grant funding from the above commitment and expects local authorities and vehicle owners to consider how they can self-finance retrofit equipment as the market grows and develops.
52. The Government will continue to work with local authorities and technology manufacturers to share information on retrofit technologies. In particular, it will provide clear advice to companies on retrofit monitoring standards to ensure that technology continues to act as expected after installation. The Government will continue to explore the approach to enforcement as part of the implementation of Clean Air Zones to

ensure that retrofitted vehicles can be recognised in enforcement and that any retrofit equipment is fitted and working appropriately.

### 4.3. Government and public sector vehicle fleets in England

53. Central Government is determined to lead by example and is thus taking action to ensure its operations and purchasing power support reductions in NO<sub>2</sub> and other pollutants. The Government Buying Standards for vehicles set down minimum mandatory and best practice standards requirements for cars, vans, buses and trucks. All central Government departments and their related organisations must ensure that they meet the minimum mandatory Government Buying Standards.
54. The current Government Buying Standards is focused primarily on reducing carbon emissions but later this year the Government will publish revised standards with the intention of encouraging the purchase of ULEVs where appropriate. The Government is also updating the standard for cars and vans. The information note accompanying the revised standards will have a statement that central Government must play its part in reducing emissions of harmful pollutants, contributing to statutory limit values. This will drive buying choices in favour of low NO<sub>2</sub>, as well as low carbon, for around 3,000 new cars procured each year by central government.
55. The Government will work with the Energy Savings Trust and with local authorities to promote the use of Government Buying Standards throughout local government, the wider public sector and beyond in order to avoid purchasing diesel vehicles wherever possible.

### 4.4. National measures to support the plan

56. As the problems of NO<sub>2</sub> are specific to local areas it is right that the key actions need to be developed and implemented locally, but the Government will take steps at national level to enable and support progress. This includes the following measures:

#### **Supporting uptake of ultra low emission vehicles across the UK**

57. The Government recognises the opportunity offered by ULEVs to support an innovative sector of our economy whilst tackling poor air quality and greenhouse gas emissions. Technology continues to improve, with battery prices falling and their range extending. The UK is currently among the frontrunners in Europe in terms of electric vehicle manufacture and its offer to turn its fleet electric: in 2016, UK-manufactured Nissan Leafs accounted for almost 20% of battery electric car sales across Europe and the UK saw the highest number of ULEVs registered of any country in the EU.
58. The Government is committed to cementing this position and has committed more than £600 million between 2015-20, supplemented by an additional £270 million in the 2016

Autumn Statement to position the UK at the global forefront of ULEV development, manufacture and use.

59. The Plug-in Grant schemes offer up to £4,500 towards the cost of a new ULEV car; up to £8,000 towards the cost of a new ULEV van; and up to £1,500 towards the cost of a new ULEV motorcycle. In March 2017, the Office of Low Emission Vehicles launched a new £50 million Plug-in Grant scheme for taxis which offers up to £7,500 of the cost of a new vehicle. This is accompanied by £14 million government investment in dedicated chargepoints infrastructure for electric taxis in ten council areas.
60. Government grant support and tax incentives for charging infrastructure are also available.
61. In September 2016, the Government announced up to £24 million of competition funding for business projects to develop new vehicle technologies that deliver low emissions. The successful applicants will be announced in 2017.
62. In the Spring Budget 2017, the Government announced that the first wave of challenges funded from the new Industrial Strategy Challenge Fund will include leading the world in the development, design and manufacture of batteries that will power the next generation of electric vehicles, helping to tackle air pollution.
63. In March 2017, the Government announced a new £23 million fund to accelerate the uptake of hydrogen vehicles and roll out more cutting-edge infrastructure. This announcement builds on the launch of the industrial strategy Green Paper in January 2017. Hydrogen fuel providers will be able to bid for funding in partnership with organisations that produce hydrogen vehicles to help build high-tech infrastructure, including fuel stations. The funding will boost the creation of hydrogen fuel infrastructure and uptake of hydrogen-powered vehicles. A competition will be launched in Summer 2017, and will invite proposals from public organisations, businesses and hydrogen operators. The UK Government will provide match funding for successful bidders as part of its plans to cut carbon emissions, improve air quality and deliver economic opportunities for the UK.

## **Tighter vehicle emissions standards across the UK**

64. Alongside supporting the uptake of ULEVs, the Government continues to press for innovative solutions to help reduce emissions from diesel vehicles. The failings of the vehicle testing system have been the key reason why NO<sub>2</sub> emissions have not reduced as they should have. The UK has led the way in pushing for tougher emissions tests for vehicles, and from later this year new testing requirements focussed on “real-world driving emissions” will come into force. This will improve consumer confidence in manufacturers and deliver real improvements for air quality.

## **Supporting public information and buying choices across the UK**

65. People should have access to reliable information on emissions when they are choosing a car. There are requirements already for carbon emissions, but not for NO<sub>2</sub>. The Government is conducting a review of vehicle labelling supported by the Low Carbon Vehicle Partnership, to consider the most appropriate way to give consumers the information that they need. This work should be completed within a year and the results will be fed into the UK Air Quality Plan for tackling nitrogen dioxide.

### **Supporting uptake of alternatively fuelled vans across the UK**

66. The Government will also consult separately on regulatory changes to support the uptake of alternatively fuelled (non-diesel) vans. Vans spend much of their time driving around our towns and cities and over 96% of them are diesel powered so there is a pressing need to support innovative new solutions. One way of achieving this is to encourage the uptake of cleaner fuels in our delivery vehicle fleet. Proposals include (i) increasing the weight limit of alternatively-fuelled vans that can be driven on a category B driving licence in the UK; (ii) exempting certain alternatively-fuelled vans from goods vehicle operator licensing requirements in Great Britain; and (iii) roadworthiness testing for electric vans in Great Britain.

### **Exploring the appropriate tax treatment for diesel vehicles**

67. Alongside this consultation, the Government will continue to explore the appropriate tax treatment for diesel vehicles and will engage with stakeholders ahead of making any tax changes at Autumn Budget 2017.

### **Call for evidence on updating the existing HGV Road User Levy**

68. The Government will launch a call for evidence on updating the existing HGV Road User Levy in due course. The Government will work with industry to update the Levy so that it rewards hauliers that plan their routes efficiently, to incentivise the efficient use of roads and improve air quality.

### **Call for evidence on use of red diesel**

69. The Government has launched a call for evidence on the use of red diesel in order to improve understanding of eligible industries and current use, particularly in urban areas.

### **Tougher emissions standards for diesel generators and machinery across the UK**

70. While the dominant source of NO<sub>2</sub> levels at the roadside is road vehicles, particularly diesels, the Government is also taking steps to tighten emission controls on medium combustion plants and diesel generators to support innovative solutions which reduce emissions. It consulted on proposals in 2016, and plans to introduce tighter controls from the end of 2018.

71. Similarly, tighter emission standards for non-road mobile machinery, which includes machinery such as bulldozers and cranes used on construction sites, will start coming into force from 2019.

## 4.5. Additional actions in the Devolved Administrations

72. Governments in Scotland, Wales and Northern Ireland will put in place measures under their devolved responsibilities.

### Scotland

73. The Scottish Government's Programme for Government, published in September 2016, commits to establishing Scotland's first Low Emission Zone by 2018. Plans for delivering this will proceed along with the development of Scotland's National Low Emission Framework.

### Wales

74. The Welsh Government is firmly committed to improving air quality across Wales and it is clear Wales still faces a significant challenge in meeting NO<sub>2</sub> limits in some urban areas. Within the next twelve months, the Welsh Government will consult on the detail of a proposal for a Clean Air Zone Framework for Wales. Where the evidence demonstrates that Clean Air Zones would best bring about compliance within the shortest possible time, it will set out how it proposes to ensure their effective implementation.

### Northern Ireland

75. The Northern Ireland Executive will improve air quality and increase sustainable transport through revising Northern Ireland's air quality policy and legislation and devise an Air Quality Action Plan with a range of actions.

## 4.6 London

76. Greater London has the highest NO<sub>2</sub> levels in the UK. The Mayor of London already has powers and is using them with funding already provided to take forward a package of measures to bring levels within legal limits within the shortest possible time. This includes:

- a. The introduction of an Emissions Surcharge ('T-Charge') from 23 October 2017, which will help discourage older (pre-Euro 4) polluting vehicles from central London;

- b. Launching an Ultra Low Emission Zone (ULEZ) in April 2019, subject to consultation, and extending it London-wide for heavy vehicles (HGVs, buses and coaches) and to the North and South Circular roads for all vehicles;
- c. Twelve low emission bus zones deploying the greenest buses on the most polluted routes;
- d. For buses, phasing out pure diesel buses, retrofitting 5000 older buses, and a commitment to purchase only hybrid or zero-emission double decker buses from 2018;
- e. For taxis (black cabs) no new diesel taxis will be licensed from 1 January 2018, with an expectation of 9,000 zero emission capable taxis by 2020;
- f. Introducing five low emission neighbourhoods spanning eight boroughs;
- g. Issuing alerts for very high and high pollution alerts at 2,500 bus countdown signs, 140 road side variable message signs, and at all Tube stations. Messages (for high alerts) include encouraging people to walk, cycle and use public transport and to switch their car engine off when stationary;
- h. Putting a significant shift towards walking, cycling and public transport use at the heart of the forthcoming Mayor's Transport Strategy;
- i. Public realm improvements to reduce traffic on Oxford Street and across the West End; and
- j. Setting emission requirements for non-road mobile machinery through the planning system and developing tighter air quality planning requirements for Opportunity Area Planning Frameworks and Housing Zones.



## 5. How you can have your say

### Who can respond

77. This is a public consultation which is open to anyone with an interest in providing comments. It is likely to be of particular interest to local authorities, environmental groups, the transport and public health sectors, and other organisations with an interest in air quality.

### How to respond

78. This consultation will run for six weeks from 5 May 2017 to 23:59 on 15 June 2017.

79. When considering the proposals set out above, please consider the following questions, which form the basis of this consultation:

#### Questions for consultation

**1. How satisfied are you that the proposed measures set out in this consultation will address the problem of nitrogen dioxide as quickly as possible?**

**2. What do you consider to be the most appropriate way for local authorities in England to determine the arrangements for a Clean Air Zone, and the measures that should apply within it?**

**What factors should local authorities consider when assessing impacts on businesses?**

**3. How can Government best target any funding to support local communities to cut air pollution? What options should the Government consider further, and what criteria should it use to assess them?**

**Are there other measures which could be implemented at a local level, represent value for money, and that could have a direct and rapid impact on air quality? Examples could include targeted investment in local infrastructure projects.**

**How can Government best target any funding to mitigate the impact of certain measures to improve air quality, on local businesses, residents and those travelling into towns and cities to work? Examples could include targeted scrappage schemes, for both cars and vans, as well as support for retrofitting initiatives.**

**How could mitigation schemes be designed in order to maximise value for**

**money, target support where it is most needed, reduce complexity and minimise scope for fraud?**

**4. How best can governments work with local communities to monitor local interventions and evaluate their impact?**

The Government and the devolved administrations are committed to an evidence-based approach to policy delivery and will closely monitor the implementation of the plan and evaluate the progress on delivering its objective.

**5. Which vehicles should be prioritised for government-funded retrofit schemes?**

We welcome views from stakeholders as to how a future scheme could support new technologies and innovative solutions for other vehicle types, and would welcome evidence from stakeholders on emerging technologies. We currently anticipate that this funding could support modifications to buses, coaches, HGVs, vans and black cabs.

**6. What type of environmental and other information should be made available to help consumers choose which cars to buy?**

**7. How could the Government further support innovative technological solutions and localised measures to improve air quality?**

**8. Do you have any other comments on the draft UK Air Quality Plan for tackling nitrogen dioxide?**

80. Please respond to this consultation using the Citizen Space consultation system:  
<https://consult.defra.gov.uk/airquality/air-quality-plan-for-tackling-nitrogen-dioxide>

81. You are encouraged to provide full answers that explain your opinions fully.

82. The Government will publish a summary of responses by 31 July 2017 alongside a final UK Air Quality Plan for tackling nitrogen dioxide.

83. The Government is also updating the individual zone plans published in December 2015 and will publish these alongside the final UK Air Quality Plan for tackling nitrogen dioxide.

## 6. Consultation and data protection

84. A summary of responses to this consultation will be published on the Government website at: [www.gov.uk/defra](http://www.gov.uk/defra). The summary will include a list of organisations that responded but not personal names, addresses or other contact details.
85. Information provided in response to this consultation, including personal information, may be made available to the public on request, in accordance with the requirements of the Freedom of Information Act 2000 (FOIA) and the Environmental Information Regulations 2004 (EIRs). Defra may also publish the responses to the FOIA/EIR requests at: [www.gov.uk/defra](http://www.gov.uk/defra).
86. If you want your response, including personal information such as your name, that you provide to be treated as confidential, please explain clearly in writing when you provide your response to the consultation why you need to keep these details confidential. If we receive a request for the information under the FOIA or the EIRs we will take full account of your explanation, but we cannot guarantee that confidentiality can be maintained in all circumstances. However, Defra will not permit any unwarranted breach of confidentiality nor will we act in contravention of our obligations under the Data Protection Act 1998 (DPA). An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as a confidentiality request.
87. Defra will share information provided in response to the consultation, including personal data, with the devolved administrations for the purposes of response analyses and provision of reports. Defra may share information provided in response to the consultation, including personal data, with a third party of contracted external analysts for the purposes of response analysis and provision of a report.
88. Defra is the data controller in respect of any personal data that you provide, and Defra's Personal Information Charter, which gives details of your rights in respect of the handling of your personal data, can be found at: [www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/about/personal-information-charter](http://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/about/personal-information-charter).
89. This consultation is being conducted in line with the "Consultation Principles" as set out in the Better Regulation Executive guidance which can be found at: [www.gov.uk/government/publications/consultation-principles-guidance](http://www.gov.uk/government/publications/consultation-principles-guidance).
90. If you have any comments or complaints about the consultation process, please address them to: Defra Consultation Coordinator, Area 8A, Nobel House 17 Smith Square, London, SW1P 3JR; or email: [consultation.coordinator@defra.gsi.gov.uk](mailto:consultation.coordinator@defra.gsi.gov.uk)