



House of Commons

Environment, Food and Rural
Affairs Committee

**Air quality: Government
response to the
Committee's Fourth
Report of Session
2015–16**

**Third Special Report of Session
2016–17**

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The Environment, Food and Rural Affairs Committee

The Environment, Food and Rural Affairs Committee is appointed by the House of Commons to examine the expenditure, administration, and policy of the Department of Environment, Food and Rural Affairs and associated public bodies.

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Publication

Committee reports are published on the Committee's website at www.parliament.uk/efracom and in print by Order of the House.

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Committee staff

The current staff of the Committee are David Weir (Clerk), Danielle Nash (Second Clerk), Sarah Coe (Senior Committee Specialist), Anwen Rees (Committee Specialist), Ellen Bloss (Senior Committee Assistant), Henry Ayi-Hyde, (Committee Assistant) and Nick Davies (Media Officer).

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Third Special Report

The Environment, Food and Rural Affairs Committee reported to the House on Air quality in its Fourth Report of Session 2015–16, published on 27 April 2016, as HC 479.

The Government's response to the Report was received by the Committee on 7 September 2016, and is appended below.

The Recommendations contained in the Committee's original report are numbered and highlighted in bold. The plain text is the Government's response on each point.

Appendix: Government response

Introduction

Improving air quality is a priority for this Government. The Government's ambition is for the UK to have the best natural environment anywhere and improving air quality is an essential part of that. We have made considerable progress on reducing emissions of key air pollutants. For example, between 2010 and 2014 emissions of nitrogen oxides (NOx) fell by 17 per cent in the UK.

In December last year, the Government published the National Air Quality Plan for nitrogen dioxide¹ which will ensure we fulfil our environmental responsibilities and make our cities better places to live and work. This is an ambitious plan combining national and local measures. It is focused on targeted interventions that form part of a wider approach exploiting new, cleaner technologies, such as electric and ultra-low emission vehicles.

The Government has committed over £2 billion since 2011 to help bus operators upgrade their fleets, reduce pollution from a range of vehicles and promote the development of clean alternative fuels. We have also been at the forefront of action at EU level to introduce real-world driving emissions testing in 2017, so that diesel vehicles deliver the expected emission reductions on the road as well as in the laboratory.

The Government welcomes the Environment Food and Rural Affairs Committee's interest in Air Quality. Clean air is vital for people's health and the environment, essential for making sure UK cities are welcoming places for people to live and work now and in the future. This requires concerted action across a number of government departments to tackle pollutants emitted from many sectors including transport, industry and the energy and agricultural sectors.

We welcome the Committee's acceptance of the Clean Air Zones model as an appropriate approach to addressing air pollution in cities. We will consult on a proposed framework for Clean Air Zones later this year.

1 Improving air quality in the UK: Tackling nitrogen dioxide in our towns and cities https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/486636/air-quality-plan-2015-overview-document.pdf

Joining up government action

1. Despite mounting evidence of the costly health and environmental impacts of air pollution, we see little evidence of a cohesive cross-government plan to tackle emissions. The Cabinet Office must establish clearly with all government departments their duty to consider air quality in developing policies. Furthermore, Ministers must tell the public more clearly how it is co-ordinating action since the work of the inter-ministerial Clean Growth Group is opaque; we recommend that the Cabinet Office report to Parliament before 21 July 2016 on the actions it plans over the coming year to join up effective action across government. (Paragraph 9)

We recognise that improving air quality is a government-wide issue and that while Defra is the lead Department for air quality policy, ownership of many of the measures that can deliver improvements in air quality primarily rests with other Departments. That is why there has been engagement at all levels across Whitehall, from officials to Ministers, on both evidence and policy, including through the development of the National Air Quality Plan and the 2015 Spending Review. For example, officials in Defra and DECC sit on the Office of Low Emission Vehicles programme board, helping incorporate air quality evidence and policy direction into broader policy areas.

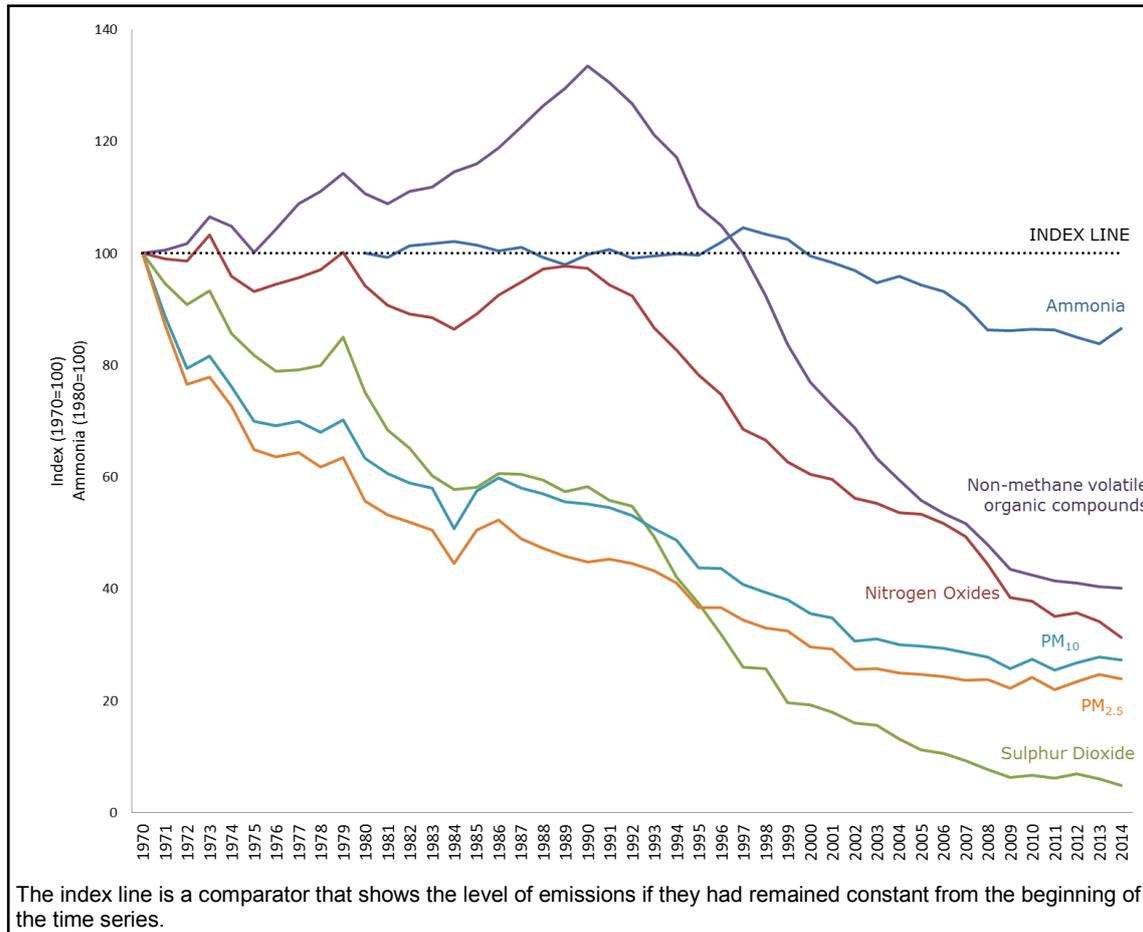
Recognising the importance of effective cross-government work on Air Quality, Defra and DfT officials have recently been brought together to form a new Joint Air Quality Unit (JAQU) to lead the implementation of the National Air Quality Plan. The Unit will ensure a coordinated approach across Whitehall, reporting to a board comprising representatives from the key departments.

The Clean Growth IMG has met regularly and helped to coordinate and drive forward government policy, including on air quality. The membership and timing of these meetings has been deliberately kept flexible to allow the group to quickly respond to changing priorities and circumstances, and to ensure that the right Ministers and officials have been able to attend each meeting. Specific actions have been developed over the course of these meetings, in conjunction with Departmental priorities. Close joint working will continue across government in future.

Defra's air quality strategy

2. Defra's plans focus too narrowly on nitrogen dioxide pollution, principally from traffic. If the full health and environmental benefits of cleaner air are to be achieved, Defra must set out plans to cut emissions of all air pollutants and from all sources, including from the transport, industry, energy and farming sectors. Plans must aim to clean up indoor as well as outdoor air. (Paragraph 13)

Figure 1: Trends in UK sulphur dioxide, nitrogen oxides, non-methane volatile organic compounds, ammonia and particulate matter (PM₁₀–PM_{2.5}) emissions 1970–2014



Defra National Statistics Release: Emissions of air pollutants in the UK, 1970 to 2014

Air quality is key to a high quality rural and urban environment. We are committed to improving air quality across England. We published our national air quality plan for nitrogen dioxide last December which sets out a comprehensive approach to meet the EU 40mg nitrogen dioxide limit by 2020 through a new programme of Clean Air Zones. These Zones will tackle the most polluting vehicles—old diesel buses and lorries—in the cities where we have the greatest air quality problems (Birmingham, Leeds, Southampton, Nottingham and Derby).

Alongside this, the previous Mayor of London set out a plan to tackle air pollution in London including the introduction of the Ultra Low Emission Zone (ULEZ) by 2020, retro-fitting of buses and licensing new taxis only if they are zero emission capable from 2018. The new Mayor has recently announced a number of further proposals to improve air quality in the capital. The proposals include extending the ULEZ to beyond the congestion zone to the North and South Circular roads, bringing forward its introduction earlier than 2020 and introducing an extra “T” charge on the most polluting vehicles entering central London.

Our national air quality plan for nitrogen dioxide will deliver multiple benefits for air quality, reducing nitrogen dioxide and helping reduce other pollutants. For example,

encouraging the use of cleaner vehicles within the Clean Air Zones will also help reduce levels of particulate matter (PM) as the later Euro standards have tighter PM emission standards.

Air pollution does not stop at national boundaries and coordinated action is therefore needed to reduce air pollution effectively. It is estimated that at times up to 50% of UK concentrations of fine PM are due to emissions from other European countries. The UK supported the agreement on the revised National Emission Ceilings Directive (NECD) which will set emission limits across the EU for key air pollutants including NO_x, fine PM and ammonia in 2020 and 2030. The European Parliament is expected to officially approve the Directive in the autumn.

3. We recommend that the Department publish by the end of 2016 a comprehensive strategy for improving air quality and report annually to Parliament on progress in delivering its objectives. (Paragraph 14)

The national air quality plan for nitrogen dioxide already sets out a comprehensive plan for reducing nitrogen dioxide levels across the UK. The plan sets out how the Government will legislate to require the implementation of Clean Air Zones in Birmingham, Leeds, Southampton, Nottingham and Derby. This forms part of a wider approach exploiting new, cleaner technologies, such as electric and ultra-low emission vehicles.

Additionally we will be consulting on a Framework for Clean Air Zones later this year which will include the important principles that need to be consistent from city to city to help ensure Clean Air Zones are implemented in the same way by local authorities across England.

There are many drivers of poor air quality and these vary according to local circumstances and pressures. We want to stay responsive to local communities and will do this by moving to a more integrated approach where we operate to clear shared goals. Defra is already taking steps to work towards better integration at the local level. From July 2016, the Environment Agency and Natural England will be transitioning to using 14 Area boundaries with a view to harnessing strong local leadership to drive effective and efficient place-based decision making which has local communities at its heart. We want to design an effective approach to driving environmental improvement, tailored to the needs of our country that has a powerful and permanent impact—making England a cleaner, greener and healthier place to live and work; not just today, but for the generations to come. To help shape our long term approach to the environment, we will run four pilot projects known as Pioneers which will trial and test new ways of working for local environmental benefits in four local areas. This will include a rural landscape, urban setting, catchment planning, and a marine focussed setting.

Access to data and information is essential to enabling informed choices to be made on the best approaches to tackling the sources of, and reducing exposure to, pollution. Air quality monitoring data and Met Office air quality forecasts are already routinely reported to the public in near real time, alongside appropriate health advice. The Government will work towards opening up our data further so that people, businesses and the public sector are able to use it to develop new tools for taking better decisions. This will empower and help the public to understand what this information means, both in terms of the effects of air pollution on their health; and actions which they may take to mitigate those effects.

Cost benefit analysis

4. Defra’s policies aim to cut air pollution to achieve legal limits yet threats to health and the environment remain even at lower levels. Defra must calculate whether cost-effective means can be developed for meeting tougher targets. This calculation must be based on robust evidence about the benefits of cleaner air against the costs of policies needed to achieve it, such as constraints on new development. (Paragraph 17)

Defra’s Strategy² makes a clear commitment to improving air quality. The Government’s national air quality plan for nitrogen dioxide, published in December 2015, sets out a comprehensive approach for meeting air quality challenges on nitrogen dioxide concentrations. The Plan combines targeted local and national measures to ensure that UK air will be cleaner than ever before, forming part of a wider approach that exploits new and clean technologies such as electric and ultra-low emission vehicles.

Defra routinely carries out cost-benefit analysis when developing and implementing policies and the national air quality plan for nitrogen dioxide was developed through an extensive process of evidence gathering, option analysis and consultation with stakeholders, both in central and local government and beyond. This process identified that in general policy terms the most cost effective and efficient way to improve air quality and protect public health was to control the emissions from the oldest vehicles in areas of high population density. A number of potential policy measures were considered in detail during the evidence gathering process, and Clean Air Zones were established as the most appropriate means of reducing the health impacts of nitrogen dioxide and meeting our legal obligations. The Plan requires the implementation of Clean Air Zones to deliver improvements in the most polluted areas and help achieve compliance with the Ambient Air Quality Directive in the shortest possible time. These geographically defined Zones allow a range of actions and resources to be targeted to deliver the greatest health benefits. They will also deliver a range of wider societal benefits including improved traffic flow and reductions in greenhouse gas emissions.

In addition to the above measures, we will introduce new, tougher targets which will drive down air pollution from all sources, reducing transboundary pollution and significantly reducing the number of premature deaths across the EU caused by poor air quality. Defra is looking carefully at cost-effective measures that could be taken to meet these targets once agreed, and will publish an impact assessment in due course.

5. Better information is needed; we welcome the Natural Capital Committee’s work to identify and place a value on the contribution of clean air to society. Defra must develop, as soon as possible after the Natural Capital Committee produces its findings, practical tools for policy-makers to use in evaluating the costs and benefits of air quality proposals and ensure that the reasoning base for these tools is made publicly available. (Paragraph 18)

2 Creating a great place for living: Defra’s strategy to 2020 <https://www.gov.uk/government/publications/defras-strategy-to-2020-creating-a-great-place-for-living>

We agree with the Committee's recommendation that practical tools are needed for policy makers to assess costs and benefits. Tools are already available, both through Defra guidance³ and in the HM Treasury Green Book.⁴

The new Environment Analysis Unit in Defra has been established in part to drive this agenda forwards. However, practical tools shouldn't be limited to policy makers or just to air quality needs.

6. Defra's policies must provide incentives for voluntary action as a first option before additional regulation is considered. Voluntary approaches can lower pollution in the most cost-effective ways since industry can focus its efforts on actions that work best for specific activities rather than on demonstrating compliance with rules. (Paragraph 20)

Voluntary approaches are always considered as part of developing new policies on air quality, and the national air quality plan for nitrogen dioxide sets out a number of such approaches and incentives being taken by government, local authorities and industry, e.g. the funding provided by the Office of Low Emission Vehicles and the Local Sustainable Transport Fund.

As part of the preparation of the national air quality plan for nitrogen dioxide we considered incentivising voluntary action within our consultation, in particular for the introduction of Clean Air Zones. However, following further analysis it was concluded that a regulatory approach provides greater certainty to measures being implemented to meet the legal limit values in the shortest possible time. This approach is also supported by responses to the consultation where many asked for central government to provide stronger direction. The Government believes the published plan sets out appropriate action across a range of voluntary, fiscal and regulatory measures that will help us to deliver our air quality ambitions as well as meeting our legal and environmental obligations.

Reinvigorating government policy

7. The Government must accord poor air quality a priority commensurate with the toll on the nation's health and environment. Emission reduction targets must be based on scientific evidence and strategies for pollution reduction based on effective cost-benefit analyses. Ministers must set out with absolute clarity the actions required across government if the public is to be reassured that the Government is committed to improving air quality quickly and substantially. (Paragraph 21)

Public health and improving air quality are cross-government responsibilities and Defra's role is to work across departments and with the devolved governments to drive action to ensure air quality outcomes are mainstreamed across policy, from transport to energy to public health.

We are committed to improving the UK's air quality, reducing health impacts, and fulfilling our legal obligations. The national air quality plan for nitrogen dioxide sets out a comprehensive approach for meeting these goals for nitrogen dioxide, and alongside this we continue to take steps to address other pollutants.

³ <https://www.gov.uk/guidance/air-quality-economic-analysis>

⁴ <https://www.gov.uk/government/publications/green-book-supplementary-guidance-air-quality>

The Government is making a significant investment in a number of initiatives, which will help reduce pollution emissions from transport, including an ambitious programme for increasing the uptake of ultra-low emission vehicles. £2 billion has been committed since 2011 to increase the uptake of ultra-low emission vehicles, support green transport initiatives and support local authorities to take action. These measures will address both particulate matter and nitrogen dioxide, but there is more we can do.

Responding to the urgency of this matter Defra and DfT officials have recently been brought together to form the Joint Air Quality Unit (JAQU). The JAQU will work with local government to deliver an ambitious programme of bespoke measures across cities as set out in the national air quality plan for nitrogen dioxide. It will also ensure a coordinated approach across Whitehall in delivering the plans reporting to a board containing representatives of key departments. The JAQU is supported by a comprehensive range of scientific, economic, commercial, and procurement expertise from both departments.

Defra's nitrogen dioxide plans

8. Defra's plans for Clean Air Zones will impose a 'one size fits all' model on cities from Southampton to Leeds. The Department must give local authorities greater flexibility in order that they can tailor measures to best meet their local circumstances. For example, cities may find it more effective to limit vehicle access at certain times of day or to target specific bus routes rather than adopt blanket access proposals. (Paragraph 33)

There will be no 'one size fits all' approach and local authorities will lead on the implementation of Clean Air Zones as they understand their area and are best placed to develop solutions.

The proposals for Clean Air Zones in the five cities where we are requiring their introduction will allow measures to be tailored according to local circumstances. The class and extent of the zones ultimately required will depend upon the outcome of a more detailed local assessment. The combination of measures required, along with details of individual Zones, is being determined through feasibility studies led by local authorities funded by central Government. We are working closely with the local authorities on these studies.

However, it is important Clean Air Zones are co-ordinated from a national perspective. Industry and local authorities have made clear to us that different approaches in different cities can make it difficult for businesses and individuals that travel across a number of cities to make straightforward, economic and operational decisions about the vehicles they buy. Therefore some degree of consistency in approach as to how a Zone is adopted and operates is crucial to their success. We will consult on a Framework for Clean Air Zones later this year which will include the important principles that need to be consistent from city to city to help ensure that Clean Air Zones are implemented in the same way by local authorities across England.

9. Charging powers are planned for only the five cities with the worst pollution yet dozens of areas breach EU limits: we recommend that Defra extends these powers to other councils in its Clean Air Zone legislation so that communities which wish to do so can tackle pollution hot-spots in this way. (Paragraph 34)

Cities already have the required powers to introduce and charge for entry into a Clean Air Zone,⁵ as well as other air quality schemes. Local authorities can take action as and when necessary to improve air quality and we encourage them to do so.

Under our plan we are requiring Clean Air Zones in five cities, which will focus on air quality hotspots where pollution is most serious and will target the most polluting vehicles like old buses, taxis, coaches and lorries.

10. We further recommend that Defra consults interested parties including local authorities and publishes revised proposals by 21 July 2016 which address concerns raised in this report. Alongside these, the Government must publish proposals to make it easier for local authorities to use powers over traffic movement and new development to tackle air pollution as and when the need arises, whether inside or outside Clean Air Zones. (Paragraph 35)

The national air quality plan for nitrogen dioxide sets out a comprehensive approach to reducing nitrogen dioxide levels. Our focus is now on implementing this plan, alongside the steps we are taking to address other pollutants. We are working closely with the five local authorities where we will be requiring Clean Air Zones, and with the Mayor of London and the Greater London Authority to help ensure nitrogen dioxide levels are reduced in the shortest possible time.

As set out above, other local authorities can adopt Clean Air Zones as a way to focus their action to improve air quality using existing powers, and we are engaging with local authorities who are interested in doing this on a voluntary basis. We will be consulting on a framework for Clean Air Zones later this year.

Although we will continue to work with local authorities to consider what further powers they might need, local authorities already have a range of powers they can use to improve air quality, including those set out in the local air quality management system; planning; smoke control areas; transport and traffic powers.

Funding for local action

11. Since Defra's plans rely on local action to cut pollution, councils must be given support to implement programmes to encourage people to drive less and use public transport and cycle and walk more. Defra must ensure that councils are recompensed for any costs of implementing new Clean Air Zones which they are not able to recoup from reasonable charges on drivers. Defra and the Department for Communities and Local Government must also preserve funding for wider programmes, such as those supported by the Local Sustainable Transport Fund, which can demonstrate they deliver benefits in a cost-effective manner. (Paragraph 40)

The UK is investing heavily in transport measures to reduce emissions. £2 billion has been committed since 2011 to increase the uptake of ultra-low emission vehicles, support green transport initiatives and support local authorities to take action. These measures will address both particulate matter and nitrogen dioxide. Examples include:

- Over £1,000 million committed between 2010–2020 to put the UK at the global forefront of ultra-low emission vehicle development, manufacture and use,

5 Transport Act 2000

including £600 million announced in the 2015 autumn statement, to support the early market for ultra-low emission vehicles between 2015 and 2020. In 2015 more ULEVs were registered in the UK than in the previous four years combined, keeping us well on track for almost every car and van to be zero emission by 2050.

- £600 million invested during 2011–15 to deliver 96 projects across 77 local authorities through the Local Sustainable Transport Fund. With match funding this amounted to over £1bn of investment.
- £374m invested by the Government in cycling (including £151m through the Local Sustainable Transport Fund).
- A further £580 million has been committed for a new 'Access' fund for sustainable travel over 2015 to 2020, building on the legacy of the Local Sustainable Transport Fund and supporting growth in cycling and walking.

As set out in the national air quality plan for nitrogen dioxide, the Government has allocated funding to help local authorities in Birmingham, Leeds, Nottingham, Derby and Southampton implement Clean Air Zones and meet new burdens associated with implementing the Zones. The scoping studies supported by Government funding will assess the optimum balance of additional measures. Where additional measures are required Government will keep the delivery of such measures under review, and will take further action if progress is insufficient.

Measures in London are supported by the 2015 Spending Review Settlement for Transport for London.

In addition, Defra's Air Quality Grant Scheme supports local authority action on air pollution, with £11 million being allocated since 2010. This includes supporting 15 schemes investigating the feasibility of Low Emission Zones. The Government has also streamlined the Local Air Quality Management framework to enable local authorities to take action more quickly by focusing resources to take local action to tackle local air quality hotspots.

EU emissions tests

12. Although it has taken far too long to agree, we welcome the adoption of a new EU real-world vehicle testing regime since current laboratory tests have routinely and significantly under-estimated emission levels. However, the new limits allow a generous leeway for measurement error and are set above current levels. (Paragraph 45)

13. The UK Government must in future negotiations argue robustly for lower EU limits which will deliver reductions on the road equal to, or better than, current laboratory limits. Tougher limits are needed to drive urgent action by the automotive industry to both improve monitoring and to reduce emissions as fast as technically possible. (Paragraph 46)

The Government has been at the forefront of action at EU level to introduce real driving emissions testing from 2017, driving improvements in real-world emissions. This is essential for improving air quality in our towns and cities.

The recent agreement to introduce real driving emissions testing will reduce emissions to just over twice the limit for new vehicles from 2017 and bring them into full compliance from 2020, with an additional margin for measurement uncertainties.

The Step 2 conformity factor is set to 1.5 (the Euro 6 limit plus 0.5 margin for measurement uncertainty). However the Commission Regulation includes a requirement for the Commission to review this annually and the clear aim is for this margin to be reduced in light of technological progress. The Commission has expressed its intention to make use of this revision clause to move towards a conformity factor of 1.

Some manufacturers have announced that they intend to make changes to vehicles already in use to improve emissions, and will offer this to customers on a voluntary basis. We welcome this and encourage action from other manufacturers ahead of the implementation dates across the EU for RDE testing.

Impact of EU test inaccuracies on Defra plans

14. We note that Defra models are based on cautious assumptions about the extent to which the new EU vehicle testing regime would deliver NO₂ reductions on the road. However, a history of failure to translate theoretical standards into cleaner air in practice means that Defra must keep its assumptions under review. (Paragraph 48)

15. We recommend that Defra publishes: first, by the end of 2016 an analysis of the impact on UK air quality of Euro 6 vehicle emissions standards; and secondly, by the end of 2018, an analysis of the impact of new real-world driving emissions tests being introduced from 2017. Should either of these reports show that EU standards are in practice failing to have the impact assumed under current plans, Defra must issue revised plans including stronger measures to tackle vehicle emissions. (Paragraph 49)

The Government's comprehensive national air quality plan for nitrogen dioxide published in December last year is based on the best available evidence and uses the latest COPERT (Computer Programme to Calculate Emissions from Road Transport) (4v11) factors to calculate emissions from diesel cars.

In May the Government presented the results of its vehicle testing programme to European Research for Mobile Emission Sources (ERMES), the international expert body responsible for collating the vehicle emission data which underpins COPERT. We expect updated COPERT emission factors to be released later this year and will work with ERMES to ensure that EU-wide emission factors more accurately reflect the difference between real world driving and laboratory test conditions.

If COPERT factors are significantly revised, we will update our modelling and, if necessary, our national air quality plan for nitrogen dioxide.

RDE will apply to new type approvals from September 2017, and existing models from 2019. As such we expect the biggest step change improvement from RDE to occur in 2019, and it would therefore be more appropriate to assess the impact of RDE on UK air quality in 2020.

Dieseldate: Volkswagen 'defeat devices'

16. Volkswagen's use of illegal devices has rightly caused consumers to be sceptical about its claims on vehicle performance. The company's different treatment of UK and US customers is also unlikely to be seen as fair. Volkswagen's evidence did not persuade us that the company had fully learnt lessons about the need to be completely transparent if it is to regain customers' trust in its products. (Paragraph 52)

17. The Government must assess whether systems are sufficiently rigorous to give customers confidence that a claim about a vehicle's performance is true. Where proven to have misled customers, the company should pay appropriate compensation. The Government must act on the findings of the EU's review of emissions testing and the outcome of Volkswagen's review of its use of defeat devices to remedy any deficiencies in consumer protection regulation. The Government must also seek at a European level a review of the penalties applicable if deliberately cheating the emissions testing system, and work to ensure that these penalties are robust enough to provide a meaningful deterrent for manufacturers. (Paragraph 53)

The Government takes the unacceptable actions of Volkswagen extremely seriously. Following the revelations that Volkswagen had been using software in their cars which caused the engines to behave differently during emissions tests, we established an Emissions Testing Programme to investigate whether other manufacturers were using equivalent prohibited devices and more broadly to better understand why emissions results in the real world were significantly different from those tested under laboratory conditions. The tests did not detect evidence of test cycle manipulation strategies, as used by the Volkswagen Group, from other manufacturers. However, our tests found higher levels of NO_x emissions in test track and real world driving conditions than in the laboratory for all vehicles, with results varying significantly between different makes and models. We are pleased that a range of other countries have also responded decisively and retested vehicles to check for prohibited software and measure real world emissions. We engaged with the European Commission and other Member States during our testing programme to ensure a consistent approach in the testing and to maximise the value for the respective activities.

For air quality emissions, the introduction of Real Driving Emissions testing from next year will mean consumers across the EU can be confident that a new vehicle will comply with emissions limits within a specified 'conformity factor' during typical normal use. The introduction of the new Worldwide harmonized Light vehicles Test Procedure (WLTP), expected in 2017, will ensure consumers can compare vehicle CO₂ emissions and fuel consumption using figures that will be more representative of those achieved under normal driving than those measured using the current New EU Driving Cycle (NEDC) test procedure.

The Competition and Markets Authority has recently acquired the power to seek civil redress for consumers. However this only exists in relation to conduct that occurred after 1 October 2015 so is not applicable to the Volkswagen case. Regarding compensation for Volkswagen customers, where there is a clear case that drivers in the UK have suffered a detriment, we would expect Volkswagen to provide compensation.

Pursuant to Regulation 33(4) of the Road Vehicles (Approval) Regulations 2009 it is an offence for a person to knowingly or recklessly make a false statement for the purpose of obtaining vehicle type approval. The penalty on conviction is an unlimited fine.

In February this year the European Commission published a proposal to update the current vehicle type approval framework and this contains a number of measures to strengthen the system across member states. These include a new power for the Commission to impose a penalty of €30,000 per non-compliant vehicle, where a national approval authority has not taken action. The Government shares the overall objectives of the proposal, but is still considering the policy implications of the individual measures contained within it.

New road transport technologies

18. At the current rate of change it will be many years before ultra-low emissions vehicles replace all the types of vehicles currently causing pollution. Faster progress could be made if further measures were introduced to encourage people to buy newer, unfamiliar, and in many cases more costly, technologies. (Paragraph 59)

19. We recommend that the Government launches a diesel scrappage scheme giving grants to cut the cost of a low-emission vehicle for an owner scrapping their diesel car or van. We think it sensible to target vehicles more than 10 years old because of their high pollution levels but HM Treasury should undertake in the next six months a study to establish the details of the scheme. The study must establish in time for measures to be brought forward in the next Budget: first, the emissions levels of vehicles eligible to be bought or scrapped so the scheme achieves sufficient air quality improvements, and secondly, the level of grant necessary to incentivise sufficient take-up at the lowest cost to the public purse. (Paragraph 60)

The move to ultra low emissions vehicles is under way. The Government has set an ambitious goal that all new cars and vans should be zero emission by 2040, which is ahead of international commitments such as the International Zero Emission Vehicle Alliance's 2050 commitment, agreed at the COP21 climate change conference in Paris.

The Government established the Office for Low Emission Vehicles (OLEV) in 2009 to drive the uptake of ultra low emission vehicles. OLEV secured over £600 million at the 2015 Spending Review and will continue to offer one of the most comprehensive packages of measures in the world to help overcome consumer barriers, accelerate uptake and support UK industry. This includes at least £400 million for the Plug-in Car Grant, which reduces the price to motorists of eligible ULEVs, support for recharging and hydrogen refuelling infrastructure, and a joint industry-government communications campaign to raise awareness of ULEVs, promote their many benefits, and challenge negative pre-conceptions.

The motoring tax regime includes strong incentives for cleaner vehicles, such as Company Car Tax and Vehicle Excise Duty. Schemes are also underway to assist local authorities in moving to lower emission and zero emission buses and taxis, which can be some of the worst contributors to air pollution in urban areas.

This package of measures and clear long term signals that it sends have established the UK as a global leader in ultra low emission vehicles. We are one of the largest and fastest growing markets in Europe and last year around one in five battery electric cars sold in the UK was built in the UK.

We have considered the use of scrappage schemes both linked to the purchase of ultra low emission vehicles and more generally and have concluded that this may not be an appropriate and proportionate response to the challenges we face, as air quality exceedances are often localised and can be managed in other ways.

The benefits of introducing a scrappage scheme in terms of improved air quality would need to be weighed against its effectiveness, the additional Exchequer cost and wider economic impacts, to ensure value for money for the taxpayer. A high-level cost estimate was carried out, looking at offering grants for scrappage of the dirtiest vehicles and this determined that there is no proportionate way to appropriately target such a measure to the areas where it would be most needed; and as such, it would not be an effective use of significant resources. The use of Clean Air Zones is a more targeted and proportionate approach to tackle the emissions.

20. We endorse the Government’s support for a wide range of technologies, including the provision of fiscal incentives such as lower fuel duty rates for a variety of cleaner fuels. Different technologies, such as gas-powered or hybrid vehicles on the one hand or fully electric vehicles on the other, will offer the optimum solution for different transport needs. However, the Government should not allow the need to maintain technologically neutral approaches to inhibit policy support for the research, development and implementation of low-emission technologies, particularly where there is a strong scientific case for such support. (Paragraph 62)

The Government recognises that the need to resolve the challenge of poor air quality will not be met by any one solution and will instead require a portfolio of solutions, which can be selected and adjusted according to differing needs and situations. The Government therefore encourages innovation and does not seek to ‘pick winners’ from amongst emerging technologies. Instead we will support activities that are informed by evidence and backed by industry consensus, allowing the market to determine ultimately which technologies win through. We therefore expect that a portfolio of solutions will be required to decarbonise road transport.

For cars and vans it is increasingly clear that full electrification—through batteries and/or fuel cells—is achievable and desirable. For other road vehicles, with differing requirements, other low emission solutions may work best. When developing policies we ensure that the guidelines include appropriately technology neutral performance criteria, to avoid excluding emerging technologies.

21. Defra’s policies must support technological developments to reduce particulates generated by the wear of vehicle brakes and tyres; the Government must commission by 21 July 2016 an assessment of any policy or research gaps on the level of emissions from these causes and methods for reducing them. The Department must ensure that EU and UK regulations reflect emerging scientific evidence on pollution from wear and tear of vehicle operation. (Paragraph 64)

Defra is aware of the importance of brake and tyre wear as a source of particulate emissions having commissioned our own independent research on PM_{2.5}, which was published in 2012 and 2015 by the Air Quality Expert Group (AQEG).^{6 7 8}

The relative contribution of a range of sources, including non-exhaust particulates, is estimated annually through the National Emissions Inventory⁹ (NAEI). The NAEI is reviewed and updated annually and is alive to changes in methods and understanding of brake and tyre wear, which are incorporated into the updated emission factors developed under this program. The latest Informative Inventory Report explains, in section 3.3.3.7 (p.146), how non-exhaust emissions of particulates from tyres, brake linings and the road surface are estimated when producing the UK emission inventory.¹⁰

The NAEI was cited in a comprehensive review by the Joint Research Committee (JRC) in 2014¹¹ on brake and tyre wear, which showed that the estimated emissions published in the NAEI were in agreement with the latest scientific research and other EU emissions inventories.

The JRC review showed that non exhaust PM accounts for approximately half of transport derived PM (the other half being from the exhaust) and that this proportion has been stable for many years. However, it also highlighted the likely changes that may emerge as exhaust emissions are cut due to abatement technologies. This may lead to brake and tyre wear becoming a more dominant source of particulates than tail pipe emissions.

Defra is working closely with both the Natural Environment Research Council (NERC) and DfT to shape potential funding streams for practically relevant research and technological enhancements where they are the commissioning bodies. An example of this close and active communication was the recent Defra/National Centre for Atmospheric Science¹² (NCAS) workshop, which brought together the NERC air quality research community and Defra data analysts and policy leads. This event, at which the increasing importance of non-exhaust emissions was discussed, enabled Defra to take account of the very latest published and emerging research.

Defra continues to maintain a live interest on this and many other developing areas through its interactions with AQEG and the Committee on the Medical Effects of Air Pollution¹³ (COMEAP). These groups provide Defra with evidence from experts within both the air quality and health fields and ensure that we maintain oversight on emerging issues.

6 <https://uk-air.defra.gov.uk/library/aqeg/>

7 https://uk-air.defra.gov.uk/assets/documents/reports/cat11/1508060903_DEF-PB14161_Mitigation_of_UK_PM25.pdf

8 https://uk-air.defra.gov.uk/assets/documents/reports/cat11/1212141150_AQEG_Fine_Partuculate_Matter_in_the_UK.pdf

9 <http://naei.defra.gov.uk/>

10 https://uk-air.defra.gov.uk/assets/documents/reports/cat07/1603150959_GB_IIR_2016_Final.pdf

11 <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/non-exhaust-traffic-related-emissions-brake-and-tyre-wear-pm>

12 <https://www.ncas.ac.uk/index.php/en/>

13 <https://www.gov.uk/government/groups/committee-on-the-medical-effects-of-air-pollutants-comeap>

Shipping emissions

22. Shipping is responsible for producing only a small proportion of emissions, but in pollution hot-spots such as London action is needed to tackle emissions from all sources. Local authorities must calculate the additional impact on air quality of all new development; planning permissions for new shipping facilities must require appropriate mitigation measures from developers. This should include, where practicable, a requirement to provide infrastructure to supply electricity to ships at berth. (Paragraph 67)

The Government recognises, through the National Policy Statement (NPS) for Ports, that local air pollution may be abated through the provision of shore-side fixed electrical power to replace ships' generators while in port. The NPS encourages developers including ports and shipping companies to examine the opportunities available for shore-side electricity connection, particularly in areas identified as having poor air quality.

All proposals should either include reasonable advance provisions to allow the possibility of future provision of appropriate infrastructure, or give reasons as to why it would not be economically and environmentally worthwhile to make such provision.

The Government has implemented the international and EU requirements which control emissions from ships. These require that ships in an emission control area (the North Sea, including the English Channel) must either use fuel with a sulphur content which does not exceed 0.1% or use an equally effective alternative compliance method. Ships that are berthed in an EU port for at least two hours are not allowed to use fuel with a sulphur content which exceeds 0.1%.

The Government has also been helping industry comply with these limits. In 2014, we successfully secured over €29 million of EU grants to help UK ports and ferry companies to install new technology. This included projects to help install exhaust gas cleaning systems on some ferries and to develop bunkering facilities in ports, to enable them to provide alternative fuels such as liquefied natural gas.

Tackling agricultural emissions

23. The agricultural sector must step up action to reduce its contribution to national air pollution. At a time of financial pressure, support for farmers to adopt improved farming methods will be more effective than additional regulation. Decreased emissions are a win-win for the environment and for farmers, who can cut their bills by minimising nitrogen losses. (Paragraph 77)

UK farmers have made good progress in reducing their emissions. In recent years trends in the uptake of good practice, such as slurry injection techniques and improvements in nitrogen use efficiency, have been going in the right direction, leading to decreased ammonia and methane emissions.

The Government will continue to support research and development, use of data and the take-up of new technologies and farming methods which improve on-farm efficiency and reduce ammonia, nitrous oxide and methane emissions. We are investing £160m through the UK Agri-Tech Strategy to help take our world class agricultural research onto the farm—helping farmers to enhance efficiency and reduce emissions and costs.

The Agricultural Engineering Precision Innovation Centre is a new £17.7 million government investment in precision agriculture to help develop advanced technologies that will increase productivity and sustainability in UK agriculture; for example, through improved slurry application techniques and more precise use of fertilisers.

24. We recommend that Defra surveys by the end of 2016, and in partnership with the National Farmers' Union, the extent to which the most effective air pollution approaches are being used on English farms. The Department should publish the data and report to this Committee on how it will use the information to better target, and if necessary increase, best practice support for farmers. This research will also facilitate constructive dialogue between the NFU and Defra on the technical feasibility of the current EU National Emissions Ceiling Directive targets for ammonia reduction. (Paragraph 78)

Defra has been monitoring air quality for many years and has over 300 million records for a whole range of pollutants measured across the UK. This data has been openly available for a number of years. In November 2015 we published our Air Quality Open Data Roadmap which explains how end users—the general public, farmers and app makers—can access our data. We have recently introduced the ability to perform a bulk download for all locations and all pollutants between 1973 and 2014.

We also publish monitored daily air pollution levels alongside forecasts from the Met Office to enable the public to take appropriate action during air pollution episodes.

The value of our monitoring and modelling data was recently reviewed by the Air Quality Expert Group. In addition to underpinning policy assessment, air quality data supports a diverse range of research, with hundreds of quantifiable outputs as papers, and supports business and growth through consulting and planning processes. Although not specifically acknowledged, we have seen examples of third party apps which appear to have used our GIS background maps to provide information on air pollution where you live. As part of our future work to consider development of an air quality data hub, we will consider including a Defra kite mark to identify where our data is being utilised.

We supported the agreement on the revised NECD which will set emission limits for key pollutants, including ammonia. We will continue to work closely with the National Farmers Union (NFU) and other farming industry stakeholders to reduce ammonia emissions and will consider the need for a specific survey on the use of effective air pollution approaches on-farm as part of this work.

25. Relatively low-cost interventions can reduce emissions. With finances tight, farmers are more likely to take action if Defra can provide incentives for action. The Department must publish plans by September 2016 for using CAP funds more effectively to achieve air pollution objectives. In developing this plan, Defra should identify any EU constraints on directing funds in the optimum way and, where necessary, argue in Brussels for the removal of such barriers under the next CAP reforms. (Paragraph 80)

The Government has used the Common Agricultural Policy to help achieve our air quality objectives. For example, the Countryside Productivity Scheme includes measures to tackle ammonia emissions and improve resource efficiency, providing grants for equipment and the development of new skills.

We now have an unparalleled opportunity to make sure all of our policies are delivering for Britain and to grow our world-leading food and farming industry. The Secretary of State is clear that the Government will look carefully at future agricultural policy options to develop new proposals that support our agricultural industry as we leave the EU.

As set out above, we will consider carefully what further steps may be necessary to deliver the revised 2030 emissions ceilings under the revised NECD.

Greenhouse gas emissions

26. The farming sector must step up action to cut methane emissions. The livestock sector in particular must do more if it wishes to resist arguments that reducing meat consumption is necessary to protect the environment. Whether through improved feed to cut methane emitted by cows or better manure spreading techniques, all farmers need to minimise their impact on climate change. Defra, learning from successful international approaches, should roll out by the end of 2016 a programme to support the spread of best practice to all farmers. (Paragraph 84)

The Government is committed to meeting its target of reducing greenhouse gas emissions by at least 80% by 2050. Since 1990, total emissions have fallen by 30% and emissions from agriculture have fallen by approximately 20%.

Progress to reduce emissions from agriculture is already being made through industry initiatives and voluntary schemes, such as the Greenhouse Gas Action Plan and the UK Dairy Roadmap. The Greenhouse Gas Action Plan encourages the adoption of on-farm mitigation methods to reduce agricultural emissions of greenhouse gases by 3 megatonnes of CO₂ equivalent (3Mt CO₂e) by 2022. The UK Dairy Roadmap is an industry-led initiative which includes a target for 2025 that “90% of dairy farmers implement technologies/practices to reduce emissions from agriculture”.