

## **DEFRA CONSULTATION ON DRAFT PLANS TO IMPROVE AIR QUALITY – TACKLING NO<sub>2</sub> IN OUR TOWNS AND CITIES**

*Consultation 12<sup>th</sup> September – 6<sup>th</sup> November 2015*

The Citizen Space consultation system does not allow us to express our views in the way we feel is appropriate. However where possible we have provided comments on the specific issues raised in the on-line questionnaire and we have referenced them to the consultation document and point numbers.

Leaving the production of this draft plan so close to the time it must be submitted to the EU, has limited the opportunity for local authorities and others to offer suggestions on how to meet the nitrogen dioxide objective.

This plan is not just a matter of compliance with the objective, but a means to improve public health. It is estimated by King's College London that the effects of nitrogen dioxide and fine particle pollution on mortality are equivalent to 9,416 deaths annually in London alone. This same report identifies that a further 3,537 early deaths are attributable to fine particulate matter which, while not the focus of this report, is a significant public health risk and should be considered in any air quality improvement plans.

Reviewing the detail of the consultation documents we have addressed some of the six questions posed and then set out further detailed responses, focussing on the parts of the consultation that bear directly on London's situation.

### **Responses to consultation questions**

**Unless otherwise noted, all references in this section relate to the UK Overview document**

***Question 1: Do you consider that the proposed plan set out in the overview document strikes the right balance between national and local roles?***

The insistence that 'Local authorities have a central role' (points 19, 47, 64, 100, 154, 225) appears to be shifting responsibility further towards local authorities rather than central government, this is unreasonable bearing in mind local authorities limited powers, increasing constraints on their resources, and that the source of pollution is not completely under their control (e.g. major through roads, Heathrow Airport, etc.).

As the principle emission sources are the same across the UK, the solutions should be tackled by a central body (i.e. the Defra, DfT, etc.) who is in charge of undertaking

the necessary studies, funding the necessary technologies and procuring the solutions. Local authorities where emissions and health impacts are most significant may then facilitate the implementation of these measures by this central body. This would result in a consistent approach which ensures that funding and resources are being directed to where there is the most need.

**Question 2: Are you aware of any other action happening in your area which will improve air quality and should be included in the plan? If yes, please identify as far as you are able: a. What the additional actions are; b. The zone(s) in which they are being taken; and c. What the impact of those actions might be (quantified impacts would be particularly useful).**

No comment

**Question 3: Within the zone plans there are a number of measures where we are unable to quantify the impact. They are included in the tables of measures. Do you have any evidence for the impact of these types of measures? If yes, please provide the name or code of the zone plan and measure codes of the measure you are referring to in the space provided.**

No comment

**Question 4: Do you agree that a consistent framework for Clean Air Zones, outlined in section 4.3.6 of the UK overview document, is necessary? If so, do you think the criteria set out are appropriate?**

Clean Air Zones (CAZs) appear to be a re-branding of LEZs (point 143) the concept may be useful for national consistency, but access criteria must be stringent and local authorities should not bear all the expense of setting them up and any risks involved. It is not clear if they are intended to be developed by London boroughs not included in the ULEZ.

An area of concern across Greater London would be in trying to align CAZs with the ULEZ and possibly with one another. If CAZs were to be developed by London Boroughs in inner and outer London not in the ULEZ this would lead to vehicles travelling through multiple CAZs and having to pay to enter each. Also it would be difficult for local authorities to charge HGVs already subject to the LEZ, and unacceptable to charge buses and taxis under TFL control.

(point 151) It will be important that the values in the table for relevant vehicle standards are sufficiently strict. CAZs established on the basis of Euro standards risk failure if emissions improvements, particularly of diesel vehicles, are not achieved.

Local authorities would be responsible for CAZs, but Government will consider the 'appropriate incentives' is slightly ambiguous guidance (point 154); Defra needs to unequivocally provide support for the areas defined by local authorities.

**Question 5: What do you consider to be the barriers that need to be overcome for local authorities to take up the measures set out in section 4 of the UK**

**overview document? How might these be overcome? Are there alternative measures which avoid these barriers? If so, please set these out.**

The main barriers for local authorities to overcome are the absence of a coordinated central approach, the lack of or delays in legislative backing as well as insufficient resources.

Funding should be prioritised to accelerate improvements in London to meet the 2020 target along with the other zones, particularly considering the number of people these improvement will impact. The Government has provided £10.5m over past ten years to LAs for air quality work (Page 29 point 121) – but this has tailed off recently and this year has been halved to £0.5m. This does not signal support at a time when Council budgets are already under considerable pressure.

**Question 6: Are you aware of any additional action on non-transport sources to improve air quality that should be included in the plans? If so, please set these out.**

The following is a list of Government legislation and programmes that could be brought forward or made to help improve air quality:

- Gas fired combustion plant <50 MW (points 210-211)
  - Clear requirements under planning ensuring neither nitrogen dioxide nor greenhouse gas emissions are compromised.
  - New Medium Combustion Plant Directive is broadly welcome but should be brought forward with clear requirements and emissions standards for existing plant such as Combined Heat and Power units prevalent in residential and commercial developments.
  - A review of the Clean Air Act 1993 is also welcome and it should be updated to control the emissions from Combined Heat and Power plants and small power generation whose thresholds for restrictions are currently set too high.
  
- Funding for reducing emissions from buildings (Pgs 36-37, points 168-172) should be re-instated, strengthened or brought forward with a focus on reducing air pollution. Some recent Government actions on such programmes are discussed below:
  - The Government removed inducements for more energy efficient heating by closing the boiler scrappage and boiler replacement schemes and the Warm Front Scheme as well as removing support for the Green Deal.
  - Retrofit programmes and funding have been cut. For example, the 'Zero Carbon Homes' policy has been scrapped and unless higher standards are sought nationally, could result in fewer low emission homes. In July 2015, the Government announced that it is not proceeding with the Allowable Solutions Carbon Offsetting scheme, or the proposed 2016 increase in on-site energy efficiency standards, but will keep energy efficiency standards under review, recognising that existing measures to increase energy efficiency of new buildings should be allowed time to become established.
  - The third phase of RE-NEW should include funding for retrofitting.

- The Financial Times reported DECCs submission to the Treasury ahead of the Autumn Spending Review including plans to trim back the Renewable Heat Incentive (point 171).
- Renewable energy subsidies have been changed which may remove incentives for domestic users and businesses. These include the review of the Feed in Tariff and removal of the Climate Change Levy exemption for renewable electricity schemes.
- The Energy Company Obligation is difficult to access and unwieldy in practice and will end in 2017. This could be improved or a new more streamlined programme put in place.
- The installation of smart electricity and gas meters to all homes (point 172) programme should be accelerated, current completion by 2020 is too slow.

### **Further comments specific to central London**

#### Assessment of future compliance (modelling)

The PCM AQ model (point 16) is a regional model and therefore low resolution. It should be supplemented by the modelling produced for London by the GLA, which incorporates more detailed emissions information and covers the road network in greater detail and will better reflect actual local conditions.

#### Targeting the problem (electrification)

Electrification of the fleet (point 35) is potentially the most significant action, but we don't believe sufficient momentum is being developed by the current level of national incentives to facilitate the transfer of e.g. taxis and car club fleets. TFL/London Councils have put in a bid to OLEV that would fund charging posts for 1000 car club bays in London, without this financial help, it's unlikely that car clubs will move to electric vehicles on a large scale. Further, the Government need to incentivise the development of battery technology as, in addition to a lack of charging points, limited range is a key reason people are not taking up electric vehicles. The burden on the national grid to provide energy for this uptake needs to be managed so as not to impact on greenhouse gas emissions and crucially, the local charging of electric vehicles should not require fossil fuel generated electricity, particularly in urban areas.

#### National action

Restricting city access for vehicles with higher emissions (point 64) is potentially the most effective short-term action available, but depends on the access criteria and the extent of the restricted area. In London to help meet the NO2 targets, TfL needs to consider the feasibility and benefits of expanding the proposed London ULEZ to parts of central London with serious exceedences of NO2 objective e.g. K&C.

#### International action (Euro standards)

We strongly support the making of a strong case for robust Euro standard test procedures (point 79) and we hope that Defra will make no further attempts to weaken the proposed new standards during negotiations.

### Incentivising ULEVs

Hydrogen fuel cell vehicles have the potential to be part of a long-term solution to the current air pollution problems and we note that 'the UK wants to be at the forefront of ULEV development and use' (point 85) . In order for this to be possible, the development of re-fuelling infrastructure must be significantly accelerated and the current financial incentives from Government to increase the uptake of ULEV should be continued and increased.

In view of the plug-in (electric) re-charging grant fourfold increase in 2014 (Page 24 point 86), we are uncertain about the numbers of vehicles using them, and if as stated the UK has ' the largest publically funded rapid charging network in Europe', there needs to be more publicity with maps of the on- and off-street recharging points made widely available.

### Local action (monitoring)

Technical requirements for assessment (point 100) differ between local and national level. Local authorities, following Defra guidance (TG09), ensure that monitoring sites are representative of exposure and are sited at any outdoor locations where members of the public are likely to be regularly present and likely to be exposed. However, EU requirements specify that traffic-orientated sites at the macro-scale must be representative of air quality for street segments of more than 100m in length and at the micro-scale be at least 25 m from the edge of major junctions; this is not in-line with the Defra guidance and not considered representative of exposure.

Therefore a distinction must be made between what is considered 'relevant exposure' and what is considered acceptable practice for monitoring of limit values for reporting to the EU. This is most important in gaining an accurate assessment of the local pollution conditions.

### Aviation

Heathrow air quality/emissions (point 187) need a higher priority, given the failure to meet the objective and equal consideration needs to be given to the impact of expansion on surface transport links (road and rail) particularly between West London and the airport, e.g. the A4 and feeder roads. (Ref to LBHF Davies Comm. response). There should be no question of developing a third runway while roads associated with the airport continue to exceed the NO<sub>2</sub> objective. On the air-side, we don't regard the airport charges (point 191) with an element related to emissions, to be high enough to 'send a strong signal' to airline operators to replace their fleets more rapidly with cleaner aircraft.

### Rail electrification

Electrification of major diesel hauled routes (Page 40 point 192) is long overdue, but the "pause" in implementing schemes is not encouraging.

### Emissions from other stationary sources

Reviewing air quality legislation, (Red Tape Challenge) Clean Air Act Controls (points 217-218) date back to the time when coal smoke was the major air pollutant, Consequently they are based on smoke control not on NO<sub>2</sub>. Control over what is burned on open hearths is necessary but the entire statutory framework governing air quality needs overhauling to focus on current pollutants.

### Impact of measures (emissions and timescales)

Whilst there is an acknowledgement about 'uncertainties around real world emission performance of vehicles (point 224) the Government needs to consider its position in the light of the VW scandal and seek the EU's assistance in investigating any fraudulent practices that may have occurred elsewhere in the industry. It is essential in future to ensure that Euro VI vehicles in reality do not continue to exceed EU emissions standards. Increasing evidence from a variety of real world drive cycles and on road testing (PEMS and remote sensing) shows that emissions of Euro VI diesel vehicles continue to exceed type approval limits by considerable margins. If vehicles actually achieved the emission levels that were anticipated for any given Euro, some real NO<sub>x</sub> reductions would have materialised.

We cannot be certain about London compliance with the NO<sub>2</sub> objective even by 2025 (point 230) given the uncertainties inherent in the inputs to the predictive modelling. The statement that measures in place are likely to achieve compliance before 2025 for London appears overly optimistic, particularly as both the roadside baseline projections of annual mean NO<sub>2</sub> concentrations included in the draft AQ plan for London and the GLA concentrations maps for 2025 indicate exceedences.

With reference to Fig.4 (point 231) which suggests an emissions reduction between 2000 and 2013 of 43%, this doesn't take into account the levelling off since 2009. We are not persuaded that any actions have been identified that will bring about the necessary step change to meet the objective level. In terms of concentrations, the average annual mean data, Figure 5, from AURN sites does not reflect the overall trend, but a much less significant reduction. Also the data in Figure 5 does not show the increasing divergence in patterns emerging across monitoring sites in London.

### **Further comments relating to the Air Quality Zone Plans - Greater London Urban area**

#### **All references in this section relate to the Greater London Zonal Plan**

This plan is an update of Sept 2011 plan (points 1.1,1.2,1.3) for meeting objectives that should have been complied with by 2010. We cannot be sure that the current plan will meet the objectives in London by 2025. As previously mentioned, in connection with air quality assessment (point 3.2) we cannot rely on modelled results for 2013 actually reflecting the situation measured by local authority monitoring stations. In 2013, the modelling indicates that the hourly mean objective was failed at 2 London monitoring sites (point 3.3) however in our neighbouring borough, RBKC, the hourly mean objective in 2013 was exceeded at three continuous monitoring stations (two roadside and one kerbside location) and just under half of the diffusion tube sites were at risk of exceeding the hourly objective based on annual mean greater than 60 µg/m<sup>3</sup>.

### Vehicle emissions (Mayor of London's measures)

Mayor of London measures since 2008 (point 4.3.1) have not been as effective as envisaged, the new routemaster buses reportedly have had much higher emissions because of alleged battery problems. The action for ten year old taxi renewal has been replaced, in the recent Mayor's consultation the proposals for black cabs will

remain a rolling 15 years old age limit. Since 2012 the Mayor has proposed a ULEZ for central London, but there is continuing debate over whether the scheme should be extended to adjacent areas with hotspots.

If Cleaner Air Zones are to be established on sound data ( point 5.1) the use of the NAEI as referred to in the Draft evidence Annex 'Assessment of the plans to improve air quality in the UK' is less specific than the detailed LAEI. It also includes a number of assumptions for example the assessment assumes that CAZs would be put in place by local authorities.

Also rather than model the ULEZ proposals for the London area, the emissions standards for CAZs have been assumed, however the extent of this is not clear compared to the area covered by the proposed ULEZ. In addition while the assessment assumes CAZ emission standards, it does not take into account that the ULEZ proposals differ for significant parts of the fleet e.g. taxis, buses, coaches and HGVs. It also includes assumptions on the replacement of vehicles every 4 years and that the oldest most polluting will be replaced.

In terms of low emission vehicles, radical solutions such as hydrogen buses show promise, but there will be only 8-10 hydrogen buses operating from 2016-19 (ref also Page 24). At the same time Government grants to encourage uptake of new zero emission capable taxis - £8000 have to be augmented with funding from TfL to cover the replacement cost and yet taxis are responsible for 17.9% of NO2 emissions according to Table 3.

### LEZ

Depending on the eventual form of the ULEZ there may need to be stricter LEZ criteria (Page 26) to deter older vehicles , diesel vans and cars from entering.

### Heathrow Airport

We are very concerned that, although the maps in Figures 4 and 6 show Heathrow as being a separate pollution hotspot now and in 2030, this draft plan does not identify Heathrow Airport as a substantial source of emissions in its own right. This is also contrary to the September 2011 plan which correctly identified the exceedance area around Heathrow as a separate area in the zone. This needs to be reflected in the final plan.

The Airport Commission's report concludes that a new runway should be built at Heathrow, but only when it is clear that it will not delay compliance with EU limits. The Government needs to demonstrably ensure that this would be the case.

## **Conclusions**

The plans to improve air quality include few new or national measures. Much of the draft plan is devoted to a restatement of existing initiatives, and measures that might make a real difference in the short-term such as faster electrification of the vehicle fleet, and a substantial increase in cycling and walking are aspirations rather than definite plans to deliver with milestones and targets. In London a stricter and larger ULEZ scheme could send a strong signal to motorists and speed-up achievement of

the NO2 objective. The proposed Clean Air Zones sound novel, but are largely a standardisation of existing low emission zones.

We agree that buses and rigid HGVs account for 50% of NOx on local roads and together with cars LGVs and taxis are the most important sources on primary roads (Overview Page 20, point 4.2.) and NOx from diesel cars is 4 times that from petrol cars. In view of this, although older taxis and buses in London are being removed, no consideration is given to reviving the older car scrappage scheme to speed up the renewal of the private/to hire car fleet. Given the proportion of total emissions in London from heavy goods vehicles identified in Defra's analysis, the Government should increase its support for research and development of ultra-low emission HGV.

Despite the evidence that diesel vehicles are the major source of NO2 and fine particles and the recent scandal of VW rigging the emissions testing, there is no indication that all government encouragements to buy diesels will be removed. Through changes to Vehicle Excise Duty (VED) we had hoped the Government would in fact endeavour to reverse the growth in the diesel car fleet. VED could be enhanced by basing the charges on emissions of NO2 and particulate matter, as well as CO2.

Most importantly there are strong indications that Defra expects local authorities to implement their plans with little or no extra funding, at a time when local government funding is being reduced. Considering traffic routes cross multiple local authorities and how changes to these routes in one authority may impact negatively on another, this parochial approach may create problems. A more central, high level coordinated approach is needed.

We find it unacceptable that the Government plans to meet EU limit values for NO2 in all other areas by 2020 but not until 2025 in London.

However, as we have noted throughout this consultation, we consider that there are many actions that the Government could take to help London's local and regional governments improve air quality to meet EU limits before 2025 and reduce the health risks that Londoners face.

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