

DEFRA Clean Air Strategy Public Consultation

West Yorkshire Combined Authority Response

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West Yorkshire Combined Authority Summary Response

The West Yorkshire Combined Authority (hereafter referred to as ‘the Combined Authority’) fully supports government activity to reduce levels of harmful emissions and is leading on multiple activities to tackle serious local air quality issues that affect public health and the prosperity of the region’s economy. The Combined Authority is delivering the Leeds City Region Strategic Economic Plan (SEP) that has an ambition for the region to be a ‘globally recognised economy where good growth delivers high levels of prosperity, jobs and quality of life for everyone.’ In response to the government’s national Industrial Strategy, the Combined Authority is also developing a Local Inclusive Industrial Strategy which includes investment priorities of ‘inclusive growth corridors’ and ‘clean energy’ projects that will seek to tackle the region’s grand challenges of improving living standards, reducing stubborn deprivation, boosting clean energy employment and creating healthier environments to live and work.

The Combined Authority is developing strategies to deliver the region’s ambition for inclusive growth including the Clean Energy Strategy which will deliver a ‘zero-carbon regional economy by 2036’. The Combined Authority is currently delivering initial investment through its Better Homes and Warm Homes programmes that are reducing fuel poverty across the region through improved energy efficiency in over 4,000 homes, saving 900 tonnes of carbon emissions in 2016-17. However, these financially constrained programmes have only reached 1% of the regions homes considered in fuel poverty. We call on government to release further funding to ensure the whole region benefits from efficient and lower emission heating systems.

The adopted West Yorkshire Transport Strategy and West Yorkshire Low Emission Strategy support our SEP and seek to significantly reduce transport emissions as part of delivering an integrated transport network that supports inclusive growth, environmental protection and improving health and wellbeing. Recent investment to reduce emissions includes the Clean Bus Technology Fund which will convert ¼ of the West Yorkshire bus fleet to the latest Euro VI standard, removing 52 tonnes of Nitrogen Dioxide from our roads. The Ultra-Low Emission Taxi Scheme is forecast to support 500 diesel taxi and private hire vehicles convert to ultra-low emission plug-in hybrid or pure electric through the installation of up to 88 dedicated charge points. As well as the schemes highlighted above, the Combined Authority is supporting Leeds City Council’s implementation of a Clean Air Zone through West Yorkshire-wide programmes like the EcoStars Fleet Accreditation programme to achieve fleet emission improvements.

In its response to the Clean Air Strategy (CAS) the Combined Authority makes the following key points;

- The Combined Authority welcomes the holistic approach to tackling emissions but the CAS is light on ambition or detail. It fails to state real action on how it will address transport and energy based emissions- especially particulate matter - in the shortest possible time.
- There is little detail on how it supports government cross-departmental actions set out in the Clean Growth Strategy (published October 2017) and 25 Year Environmental Plan (published January 2018)

- The CAS signposts future new primary legislation and powers to support local authorities to act, without explaining what these are, or what funding will be devolved to support local authorities to take action.
- In reviewing the role of and funding for biomass based energy generation, the government must make the distinction between large scale, multi-benefactor schemes compared with individual domestic unit installations.
- Discrepancies and inaccuracies between local and national air quality modelling has created confusion amongst stakeholders over how different local and national strategies are addressing areas of concern. We welcome stronger partnership working and shared resourcing between government and local authorities to deliver an integrated and representative UK wide air quality model and to undertake cohesive action.
- There needs to be greater government support in making the case for green and blue infrastructure investment to enhance and protect the environment, including further research on valuing green and blue infrastructure within future schemes to support cleaner and healthier environments.
- The Combined Authority supports the government's agenda for full-decarbonisation of the domestic heat network – the Leeds City Region Clean Energy Strategy will detail our approach to achieving a 'zero-carbon economy' by 2036. However we wish to see a balanced energy approach to decarbonisation rather than full electrification. We await greater clarity from the government's forthcoming Heating Strategy. In the Leeds City Region, the innovative 'H21' domestic hydrogen network project for Leeds presents a real zero-emission proposal with potential downstream and wider air quality benefits including for the transport sector.
- Current energy efficiency programmes can produce significant air quality improvement and should be considered as important as innovation. The Combined Authority has an excellent track record in delivering industry and domestic energy efficiency programmes to reduce fuel poverty and energy expenditure. Greater devolved funding could expand successful programmes like the Better Homes and Warm Homes programme being delivered across our region and improve upon the 2,000 tonnes of carbon emission per annum saved already.
- The Combined Authority sees electrification of the regional rail network as a key priority in improving journey times, connectivity and air quality and we will continue to press government for this much needed investment.
- More stringent environmental standards are welcome but their impact on business and productivity should be considered. Mechanisms to incentive a low emission future are preferred over taxation mechanisms that have potential to hurt economic growth.

Full Consultation Response

1. Understanding the problem

Q1. What do you think about the actions put forward in the understanding the problem chapter? Please provide evidence in support of your answer if possible.

The Combined Authority supports the government's ambition to improve understanding of harmful emissions, including causes and impacts on health, environment and the economy to influence cross-departmental policy, decision making and future investment at all levels.

In response to the Clean Air Strategy (CAS) proposal to **'improve our modelling, data and analytical tools'** a number of lessons can be learnt from the recent focus on Nitrogen Dioxide (NO₂).

The government's 'UK plan for tackling roadside Nitrogen Dioxide concentrations' (UK Air Quality Plan) published in July 2017 identified local authorities where annual NO₂ emissions exceeded legal limits, mandating many authorities to take appropriate local action to reduce these concentrations. Evidence was based on DEFRA central air quality models and a range of vehicle and traffic condition assumptions.

Within the Leeds City Region all authorities identified current NO₂ exceedances but only Leeds City Council was mandated by DEFRA to deliver actions to tackle NO₂. The model outputs have in some cases contradicted local air quality information e.g. omitting locally designated Air Quality Management Areas or identified road lengths not considered in breach of limits. This contradiction of evidence has led to confusion amongst stakeholders as to what local and UK plans are attempting to address, who is required to take action and questions about why there are discrepancies between Plans.

The DEFRA model also includes fleet age assumptions considered unrepresentative of local conditions. For example, the DEFRA model assumed 48% of the West Yorkshire bus fleet achieved Euro VI standard in 2018 which is considered ambitious, given that local buses operate for up to 15 years on West Yorkshire roads.

A disjointed, poorly resourced and unstructured approach to air quality evidence collation, monitoring and modelling leads to inaccuracies, confusion and a piecemeal approach to air quality rather than a consistent and collaborative approach between government departments and local authorities.

Local authorities have a legal responsibility to monitor air quality through the Environment Act 1995. Significant cuts in local authority revenue funding since 2010 has reduced the ability for local authorities to maintain effective air quality monitoring and reporting. Whilst the CAS proposes new primary legislation to help local authorities to tackle emissions, a lack of dedicated and non-competitive capital funding presents local authorities with the paradox of knowing about local air quality concerns but insufficient resourcing or the tools to monitor or take effective action. The collation of local longitudinal air quality evidence to identify and monitor problem requires long term and continued devolved funding to local authorities to ensure effective emission evidence collation that both benefits local action and can feed into a national model to support validation and accuracy. This is also relevant when macro air quality models are created and use assumptions that are incompatible with local evidence.

In light of the Volkswagen emission scandal, Emissions Analytics has undertaken 'real-world' emissions testing of vehicles and has found that 86% of Euro VI diesel vehicles

(eligible to enter Clean Air Zones) produce emissions above the NO_x standard for Euro VI classification. We urge the government to work closely with organisations like Emissions Analytics and utilise databases like the [EQUA Emissions Index](#) to validate air quality models and develop policy to address the significant 'gap' between real world vs laboratory emissions, ensuring appropriate funding mechanisms are in place to remove polluting vehicles from our roads in the shortest possible time.

The creation of DEFRA Emission Damage Costs for Nitrogen Oxides and Particulate Matter in 2015 has been a significant step forward in quantifying potential air quality impact of major projects and appropriately costed mitigation. This evidence should form a key driver in future policy and input to business case development to help investment decisions and ensure sustainable growth is carried forward and where required, adequate mitigation is proposed.

The [West Yorkshire Low Emission Strategy](#) (WYLES) was developed by Bradford Council and adopted by all West Yorkshire partner councils and the Combined Authority in 2016-17, outlining measures to significantly improve air quality across the region. To support local sustainable development, the WYLES included a West Yorkshire Air Quality and Planning Technical Guide to address the externalities of increased emissions from new development. This uses DEFRA damage costs to recommend appropriate costed mitigation such as installation of electric vehicle charge points— a principle carried forward in the government's new 'Zero to Emission Government Roadmap' announced in July 2018.

Q2. How can we improve the accessibility of evidence on air quality, so that it meets the wide-ranging needs of the public, the science community, and other interested parties?

A single national database, resourced centrally and informed by a highly representative local network of air quality sensors would provide decision makers and stakeholders with effective information to take appropriate action on poor air quality. Current discrepancies between local and national models have led to confusion over the accuracy of data and identification of air quality concerns.

We support the dissemination of non-technical information about emissions to inform a range of audiences about the negative impacts of certain lifestyle choices, industrial practices and how everyone can play their part in improving energy efficiency and reducing emission output. We support the approach for a clearer and transparent database for a range of audiences to understand emission costs and impacts.

In terms of presentation, the [Public Health Outcomes Framework](#) is an effective example of clear comparative information presented on indicators at different spatial levels. Data sources like the EQUA Emissions Index database also help consumers understand the real emissions of new vehicles and should be supported by government.

2. Protecting the nation's health

Q3. What do you think of the package of actions put forward in the health chapter? Please provide evidence in support of your answer if possible.

The CAS majors on reactionary measures to reduce exposure to poor air quality rather than addressing emissions at source. Whilst we support improvements in the provision of public information about air quality and tips to reduce exposure, this must not be undertaken at the expense of activity to reduce emissions at source, for example through changing behaviours and lifestyle choices.

In response to CAS Proposal ***'We will progressively cut public exposure to particulate matter pollution as suggested by the World Health Organisation'***.

The WYLES used Public Health England research that estimated the equivalent of 1 in 20 people or 5.1% of all premature deaths in West Yorkshire are partly attributable due to exposure of particulate air pollution. We welcome the CAS proposal on reducing 'PM 2.5 levels in order to halve the number of people living in locations where concentrations of particulate matter are above 10µg/m³ by 2025' however there is little detail in the CAS on activities to achieve this. If the CAS is to be considered ambitious, it should commit to the World Health Organisation guideline targets within the shortest timeframe possible, backed up by detailed credible fiscal and policy measures.

With 38% of particulate matter (PM) being sourced through domestic wood and coal burning, there needs to be greater activity than simply improving information and awareness of the environmental and health costs of inefficient domestic energy supplies. The Strategy provides little detail on the proposed 'powers' to enable local action and enforcement to reduce this source of pollution, especially in dense urban areas. There must also be greater promotion of alternative and cost effective measures to improve domestic heating and energy efficiency such as the Leeds City Region's Warm Homes and Better Homes Programme which has removed 900 tonnes of CO₂ per year through activities in 2016-17.

Response to CAS Proposal **"helping individuals and organisations understand how they could reduce their contribution to air pollution"**

Whilst the emphasis should be on reducing emissions at source, greater information can be provided to the public on potential 'healthy routes' for travel. Professor James Tate from University of Leeds has reviewed the relative public exposure to PM emissions for different walking routes to a school in Leeds. The research found a 77% exposure reduction to PM₁₀ exposure by using a 'green route' rather than the main road. A similar route based experiment for BBC's Inside Out programme by Professor Tate reviewed relative PM exposure through cycling, walking and inside a car. Results identified emission exposure within vehicles to be higher than that of walking or cycling, validating other studies with similar conclusions.¹ Greater public awareness of personal exposure through different transport modes may instil behaviour change away from car based travel and support wider health benefits.

¹ <https://www.sciencedirect.com/science/article/pii/S004896971400713X>

In West Yorkshire, almost 25% of adults are classed as physically inactive² and 65% of adults are overweight or obese.³ Studies have also identified that active commuting, such as cycling to work has proven to reduce absenteeism from work⁴. The CAS should present a clear opportunity for linking air quality policies and activities with those of public health priorities for promoting active travel to support a healthy, active population.

The £60 million CityConnect Cycling and Walking Programme is an example of multi-policy outcome delivery by investing in high quality sustainable travel infrastructure and behaviour change programmes to deliver healthier lives and cleaner environments in Leeds and Bradford. The CityConnect infrastructure delivery includes the 23km Leeds to Bradford Cycle Superhighway and upgraded canal towpaths, primarily on the Leeds to Liverpool canal. The programme also delivers cycle training, cycle challenges, business and school support and behaviour change campaigns, all with the aim of encouraging walking and cycling, promoting healthier lifestyles and improving sustainable access to employment from deprived communities.

The Combined Authority is also seeking to create 'quality places' in our region as part of delivering Inclusive Growth to support clean urban centres and liveable neighbourhoods that support healthy, liveable streets. Investment programmes such as the £1 billion local growth deal are investing in measures to support non-car based travel across the region such as investment in park and ride and public realm improvement schemes to support our ambition for quality places.

Response to CAS proposal – 'publish updated appraisal tools...to enable the health impacts of air pollution to be considered in every relevant policy decision that is made'

Unsustainable development has potential to create serious localised air quality dis-benefits. We welcome the government's current review of WebTAG appraisal including how potential air quality impact is monetised and valued within scheme appraisal to ensure future growth does not negatively impact on sections of the population. We also welcome the recent consultation on the National Planning Policy Framework and would like to see some of the sustainable development presumptions, including those pertaining to air quality referenced in the CAS.

As previously mentioned, DEFRA 2015 Damage Costs are included in the WYLES Planning Guidance to develop recommendations for emission mitigation at proposed development to ensure sustainable and clean growth in the region and to reduce public exposure to emissions generated from any increases in vehicle trips.

Q4. How can we improve the way we communicate with the public about poor air quality and what people can do?

The government should use social media channels to highlight the impact of poor air quality episodes and advise public of measures to both reduce emissions and exposure to emissions. The Combined Authority's CityConnect web and social media channels have

² Public Health England '2.13ii Percentage of Physically Inactive Adults 2016/17

³ Public Health England '2.12 Percentage of Adults (Aged 18+) classified as overweight or obese 2016/17

⁴ <https://www.sciencedirect.com/science/article/pii/S0091743510001829>

successfully promoted active and sustainable travel to a wide audience of public and businesses.

Early school engagement will teach the next generations about the benefits of healthy living, influence later lifestyle decisions and could help children identify healthier routes to walk to school.

Evidence relating to the high levels of emissions inside cars may create greater awareness of the negative impacts of car travel and reduce the perceived notion that being inside a car is more protected environment from emissions than outside.

Engagement activities require local delivery to effectively target communities and businesses on the ground. There needs to be greater revenue support for local authorities to deliver local activities that influence behavioural choices and support cleaner, greener living.

3. Protecting the environment

Q5. What do you think of the actions put forward in the environment chapter? Please provide evidence in support of your answer if possible.

The protection of the environment and enhancement of biodiversity is important to the Combined Authority as part of delivering the SEP's vision for creating quality places and clean environments. A revised Leeds City Region Green and Blue Infrastructure Strategy is currently being finalised, that aims to create high quality natural / green infrastructure and environments across the City Region including new woodlands, street trees, and open spaces. Green infrastructure is seen as a crucial part of strategy delivery in mitigating the impacts of noise, water and air pollution.

The Green and Blue Infrastructure Strategy has identified a number of key actions which could increase the green infrastructure provision in the Leeds City Region. These programmes including mapping existing green infrastructure provision, natural flood management and peatland recovery to post-Brexit agricultural support. Of particular relevance to the CAS is work to investigate embedding the principles of inclusive growth into regional policy to ensure green infrastructure enhancement is considered in all future capital schemes, to help achieve the target of creating green corridors to support sustainable travel and healthy, active living. A barrier to the implementation of green infrastructure is the lack of flexibility in government appraisal processes e.g. Webtag, which local authorities are required to use in their evaluation of capital projects. At present there is insufficient evidence to support the non-monetised and monetised benefits which green infrastructure can bring to a scheme. We ask the government to commission research - supported by all government departments including HM Treasury - that ensures robust evidence is gathered to incorporate the beneficial value of green infrastructure in future investment business cases.

Cohesive and cross departmental policy should be at the heart of the CAS. There needs to be wider consideration of how this strategy interacts with the 25 Year Environmental Plan. It is noted the CAS makes little reference to the actions outlined in the government's Plan as 'protecting the environment' is a key theme with clear overlap between it and the CAS. What is unclear is the level of additionality provided by the CAS. Given the limited actions outlined in the CAS, it is assumed that the majority of activity is covered by the 25 Year Environment Plan.

While there is specific reference in the CAS to the impacts of nitrogen, ozone and particulates, the proposed actions of 'monitoring environmental impacts' and issuing of 'guidance' are not reflective of the mitigation measures that should be put in place to address air quality impact on the environment.

Regardless of the overlap with the 25 Year Environment Plan there should be a recognition of the role of green infrastructure in the mitigation of pollutants with clear proposal set out. Actions should be included within the chapter which promote the use of green infrastructure interventions e.g. street trees, SUDS, in the mitigation of pollutants. Where actions on green infrastructure are included in the CAS they should be complementary to those included in the 25 Year Environment Plan.

Q6. What further action do you think can be taken to reduce the impact of air pollution on the natural environment? Where possible, please include evidence of the potential effectiveness of suggestions.

No further comment.

4. Securing clean growth and innovation

Q.7. What do you think of the package of actions put forward in the clean growth and innovation chapter? Please provide evidence in support of your answer if possible.

The Combined Authority support proposals to improve investment in clean energy innovation. The Leeds City Region Strategic Economic Plan under Pillar three (Energy and Environmental Resilience) sets out the ambition of becoming 'a resilient, zero carbon energy economy by 2036'. To develop how the Combined Authority and the Leeds City Region could achieve this ambition an Energy Strategy and Delivery Plan (ESDP) has been commissioned with support from the Department for Business, Energy and Industrial Strategy (DBEIS). The ESDP will be published later in 2018 and will document actions that will enable the Leeds City Region to achieve its zero carbon ambition. The proposals set out in CAS that innovation can support our zero carbon future aspiration are welcome and we look forward to future regional investment to support this vision.

Full electrification of the heat network is one of the five scenarios outlined in the government's Clean Growth Strategy. Whilst the Combined Authority fully support a decarbonisation of the heat network, we also see a significant role for alternative fuels such as hydrogen in the future as part of a balanced energy mix that offers value for money. At present there is a question of whether full electrification of domestic heating can be achieved and at what cost for both supplier and end user. A balanced approach incorporating alternative fuels such as compressed natural gas, hydrogen and biomass must be considered within the future energy mix to ensure cost effective energy supplies are maintained that do not place residents in fuel poverty. We welcome greater clarity from government on its heating strategy.

The CAS makes it clear that a move away from coal towards biomass can have significant benefits for carbon reduction if appropriate emission abatement technology is included. Whilst a review of biomass based energy is welcome, there needs to be a separation of the objectives and benefits of large scale biomass energy generation compared with localised domestic use. Policy measures to address PM from smaller sources should not act as a barrier to investment in larger facilities when they are fitted with appropriate abatement technology.

The CAS proposal to review 'excluding biomass from the Renewable Heat Initiative if installed in urban areas which are on the gas grid' potentially misplaces the wider energy requirements for the region and how these schemes could be part of a localised whole-system solutions, especially when fitted with appropriate abatement technology to significantly reduce emissions.

The Leeds City Region is awaiting a clearer national approach to large scale biomass investment. Within the Region, Drax Power plant is a major national energy generator, supplying 6% of UK energy demand and employing over 800 people. Drax has plans for converting one of its remaining coal fired units to biomass, however it requires clarity whether government is committed to longer term support for biomass conversion. The CAS appears to question government commitment to biomass. The consideration of reviewing eligibility of coal to biomass from future round allocations from contracts for difference scheme creates an investment risk for Drax to progress with its planned conversion.

As part of ongoing dialogue with Drax we would also welcome consideration of whole system approaches including how bi-product heat from the plant can be used to support local businesses and residents to further improve emission output.

The Combined Authority has recently been awarded €3.5 million from the European Investment Bank's (EIB) ELENA technical assistance programme (a fund that provides technical assistance for energy efficiency and renewable energy projects) to establish the Energy Accelerator Programme. The purpose of the Energy Accelerator is to support business case development for new local energy supplies incorporating low carbon and low emission technologies.

Energy from Waste Plants are an example of how innovation can lead to cleaner energy when appropriate abatement technology is included. Data in 2016 from the Veolia Leeds Recycling and Energy Recovery Centre shows that the plant is operating significantly below emission limits for particulate matter, NOx and sulphur dioxide⁵ whilst also generating approximately 13MW of energy for the National Grid with potential for thermal energy as part of a local heat network solution.

Q8. In what areas of the air quality industry is there potential for UK leadership?

Innovation is a key driver towards achieving a zero carbon economy by 2036 for the Leeds City Region. Government could signal greater support for localised energy creation, storage and smart grid distribution to reduce pressures on the national grid – especially with the predicted onset of mass electric vehicle take up. Leeds City Council has recently submitted a European funding application to enhance a new proposed park and ride facility with solar PV canopies and energy storage, with the distribution of this green energy into electric buses operating from the site and powering electric vehicles charged at the site. There is also the potential for local residents and businesses to benefit from the surplus energy or to support national grid peak energy demands.

A wider 'whole-system' solution to energy supply and utilisation has potential to significantly improve efficiency and lock in benefits of sustainable energy supply. The government's Industrial Strategy white paper hinted at opportunities for 'whole-system approaches' to decarbonise the network however we are yet to see where real investment and support can be provided to make this happen on the ground. The CAS should provide a clearer steer on how businesses and regions can be supported to develop these solutions. This is a clear example of how we can achieve leadership in whole system sustainable energy solutions.

Northern Gas Network is embarking on the Leeds H21 project that seeks to develop a hydrogen solution to convert domestic gas supplies, using hydrogen cracked from natural gas production in Middlesbrough. This has potential to create a decarbonised energy system with significant air quality improvement for the domestic energy sector and potentially transport sector - removing significant quantities of PMs and NOx emissions.

Q9. In your view, what are the barriers to the take-up of existing technologies which can help tackle air pollution? How can these barriers be overcome?

The Combined Authority welcomes the review of Renewable Heat Incentive Scheme to ensure it is fit for use and supports credible schemes. We believe the current model provides insufficient incentivisation for schemes such as air and ground source heat pump, considered appropriate low/zero-carbon alternatives to coal and other solid fuel sources for off-grid residents and businesses.

⁵ <https://www.veolia.co.uk/leeds/our-proposal/our-proposal/leeds-emissions-air-data>

The government should consider how incentivisation rather than taxation can support new energy efficiency and zero carbon technologies to flourish. The initial government subsidy support for solar PV panels is a good example of how government investment helped generate a commercial basis for solar investment and domestic energy supplies to support the grid. Wider benefits could be accrued if energy storage and smart grid technology could be financially supported by the government.

Q10. In your view, are the priorities identified for innovation funding the right ones?

No further comment.

5. Action to reduce emissions from transport

Q11. What do you think of the package of actions put forward in the transport chapter?
Please provide evidence in support of your answer if possible.

The Combined Authority supports the reduction of all transport generated emissions and has adopted the Transport and Bus Strategies which seek to significantly reduce transport emissions and help deliver a low carbon economy by supporting transport sectors to adapt to zero-emission and clean energy alternatives and delivering infrastructure to support healthy, active travel.

An overall reduction in vehicle trips must be considered the ultimate solution to improving air quality in the short term, especially by supporting alternative modes. The West Yorkshire Transport Strategy targets a 3.5% reduction in car trips by 2027.

Evidence for London Marathon 2018 showed an 89% reduction in Nitrogen Oxide emissions due to restrictions in vehicle use within the locality of the event. If this reduction in vehicle movements was achieved more regularly, this would create a greater improvement in air quality, especially on predicted poor air quality days.

The WYLES was developed by Bradford Council and adopted in 2016-17 by all West Yorkshire partner councils and the Combined Authority. It outlines measures to significantly improve air quality across the region and makes a series of recommendations for planning and new development, vehicle fleet renewal, behaviour change activities and the promotion of active travel to support transports contribution towards delivering cleaner, healthier environments.

The Combined Authority is investing significant funding in low emission transport through programme like the £1.98 million Ultra-Low Emission Taxi Scheme that will see up to 88 dedicated chargepoints installed to support electric taxi and private hire uptake. The £4.2 million Clean Bus Technology Fund will also fund the conversion of ¼ of the West Yorkshire Bus Fleet to the latest Euro VI emission standard and is forecast to remove 52 tonnes of NO₂ from the bus fleet.

Whilst there has been significant recent investment in bus fleets, there is still a significant amount of work to be done for private cars. The WYLES identified that the private car accounts for up to 50% of NO_x emissions on a typical West Yorkshire urban road. The Volkswagen Emissions scandal identified that many cars are emitting over 4 times the emissions stated in official emission certificates⁶. This means that UK emission forecasts could be significantly higher than modelled and real action is required by government to reduce vehicle emissions in the quickest timeframe possible. There must be more direct action by the UK government to remove these high polluting vehicles from our roads through activities like a nationwide car scrappage scheme.

We support the government in its approach to support electric vehicle take up and would urge a more flexible funding approach to helping local authorities support residents without private off-street parking. The limited uptake of the current OLEV 'on-street residential chargepoint scheme' by local authorities is an indication that the current scheme is not considered appropriate.

The HGV and Coach sectors are considered to be significantly lagging behind other vehicle sectors in investment in zero emission and low emission technology. Significant

⁶ <https://www.theicct.org/news/road-tested-sep2017-press-release>

barriers to fleet conversion are being encountered including challenges around alternative-fuel vehicle weight, a lack of alternative fuel refuelling infrastructure, technology risks and difficulties in developing business cases for fleet conversion and infrastructure investment. The lack of readily available vehicles and infrastructure has presented Leeds City Council with challenges during the design phase of their proposed 'Class B' Leeds Clean Air Zone that impacts on HGVs and coaches. These issues cannot be tackled solely at a local level due to the nature of freight, logistic and coach operations. We call on government to work with freight, logistics and coach sectors to provide real support for research and investment in alternative fuel vehicles and to assist in the rollout of nationwide refuelling networks.

Existing rail fleets in the region comprise of a significant proportion of older and higher polluting trains. The Combined Authority welcomes current investment in newer, higher standard of emission trains but would like to see further investment in rolling stock and the network at large. The West Yorkshire Transport Strategy highlights a key priority for the region of pressing rail industry to commit to a rolling programme of electrification and upgrades of the rail network serving the region, building on the Trans-Pennine scheme, with the Calder Valley and Harrogate lines being prioritised. This programme will achieve significant journey time and air quality benefits for the region.

The CAS has missed the opportunity to influence travel behaviour and highlight the role of active and sustainable travel in reducing transport sector emissions including the strong economic case for investment in healthy travel. The £60 million CityConnect walking and cycling programme being delivered by the Combined Authority is creating package of measures to change travel behaviour across the region through installing high quality walking and cycling infrastructure to support healthy active lives and improve access to employment by sustainable modes.

The Combined Authority welcome proposals in the CAS to reduce emissions from the aviation sector in supporting lower carbon air travel that supports regional growth and the health of local residents impacted.

Q12. Do you feel that the approaches proposed for reducing emissions from Non-Road Mobile Machinery are appropriate or not? Why?

The Combined Authority support measures to reduce emissions from Non-Road Mobile Machinery.

6. Action to reduce emissions at home

Q13. What do you think of the package of actions put forward to reduce the impact of domestic combustion? Please provide evidence in support of your answer if possible.

The CAS identifies that domestic coal and wood burning accounts for 38% of local particulate matter emissions from a relatively small proportion of households. This is of significant concern for public health and prohibiting the sale of the most polluting fuels is eminently sensible providing it does not leave residents in fuel poverty. The proposal to ensure only the cleanest stoves are available for sale by 2022 is considered too late given the increased number of stoves installed in urban areas during recent years.

Low emission and more efficient heating systems are already available, especially for off-grid residents, however the lack of uptake and high capital costs hint at a need to review the Renewable Heat Incentive Scheme and its effectiveness.

Existing programme to improve domestic energy efficiency demonstrate high levels of value for money and support significant employment in the installation of efficient resources as well as reducing domestic emissions. The Combined Authority would like to see existing resource efficiency measures strongly supported in the CAS to reduce both carbon and air quality emissions through reduced energy consumption.

The Combined Authority has a strong track record in delivering energy efficiency programmes to reduce carbon and pollutant emissions in the domestic sector. The Leeds City Region Warm Homes Programme is delivering efficient central heating system and gas connections to residents that are currently off-grid and experiencing fuel poverty. The Central Heating Fund has ensured that to date 446 fuel poor households received a gas central heating system. The estimated carbon emission savings are 900 tonnes per annum through removal of solid fuel and national grid energy consumption will achieve air quality savings. The scheme has an ambition of targeting a 2 tonne saving of carbon emissions per annum per property with a forecast saving across over 700 properties.

The City Region Better Homes Programme is also delivering energy efficiency and heating improvements across the City Region's homes. During 2017/18 improvement works were carried out in 627 homes, bringing the total number of homes improved through the Programme to 3,107. As a secondary benefit of reducing domestic energy bills, this programme will also have improved air quality and emissions from domestic heating.

The Combined Authority has ambitious plans for reducing fuel poverty across its estimated 156,000 homes that are in 'fuel poverty' however we are restricted by the level of available funding to deliver retrofit solutions at the scale required to meet the government's Clean Growth Strategy aspirations of attaining Energy Performance Certificate 'C rating' across all 'fuel poverty' properties in the region by 2030. Current funded programmes will see only 1% of those in fuel poverty in the region achieve the C-rating. We call on government for further funding to tackle the issue of fuel poverty and inefficiency.

The government also needs to develop greater action around the consideration of 'whole-system' solutions to reduce energy demand and ensure energy by-products are not wasted but utilised efficiently. These are identified in the government's Clean Growth Strategy, however their air quality impacts warrant reference in the CAS as part of delivering holistic policy.

Q14. Which of the following measures to provide information on a product's non-methane volatile organic compound content would you find most helpful for informing your choice of household and personal care products, and please would you briefly explain your answer?

“A B C” label on product packaging (a categorised product rating for relevant domestic products, similar to other labels such as food traffic light labels)

A traffic-light systems as per food products is considered the most appropriate way of informing the public.

Q15. What further actions do you think can be taken to reduce human exposure from indoor air pollution?

The Combined Authority has no further comment but supports measures to reduce exposure to indoor air pollution.

7. Action to reduce emissions from farming

Q16. What do you think of the package of actions put forward in the farming chapter? Please provide evidence in support of your answer if possible.

The Combined Authority supports proposals to address ammonia exposure, however this should not be considered in isolation and should part of wider policies to ensure best practices of land and water management, and farming practices are seen throughout the UK farming sector to ensure habitats are protected and environments enhanced.

Q17. What are your preferences in relation to the 3 regulatory approaches outlined and the timeframe for their implementation: (1) introduction of nitrogen (or fertiliser) limits; (2) extension of permitting to large dairy farms; (3) rules on specific emissions-reducing practices? Please provide evidence in support of your views if possible.

The Combined Authority has no further comment.

Q18. Should future anaerobic digestion (AD) supported by government schemes be required to use best practice low emissions spreading techniques through certification? If not, what other short-term strategies to reduce ammonia emissions from AD should be implemented? Please provide any evidence you have to support your suggestions.

The Combined Authority has no further comment.

8. Action to reduce emissions from industry

Q19. What do you think of the package of actions put forward in the industry chapter? Please provide evidence in support of your answer if possible.

The Leeds City Region is prioritising activities to deliver a 'zero-carbon economy' by 2036 as part of its vision for inclusive and clean growth. The Combined Authority fully supports a reduction of emissions from industry, but also accepts a phased approach to low-energy conversion must be delivered to ensure economic growth is not destabilised.

The Combined Authority is delivering a Resource Efficiency Programme which is supporting businesses to reduce energy and waste consumption which will have a benefit for air quality through reduced fossil fuel consumption. The programme has supported over 250 small to medium business with an estimated carbon emission reduction of 1,747 tonnes per annum. Research has identified that industries across our region could cut fuel costs by £74 million per annum with further investment in resource efficiency, likely to generate significant emission savings. The current Resource Efficiency programme is due to end in 2019 and the Combined Authority is currently developing a future programme that will incentivise 'circular business models' that will produce a more synergous and systematic approach to resource efficiency that will benefit emissions. We would welcome government support in developing this programme to fund further successes in the region.

A balance needs to be struck between the regulation of industry to prevent emissions and the need to ensure businesses remain competitive and continue to operate, securing jobs and stimulating the local economy. The package of measures should ensure this balance is maintained, but it is unclear from the CAS actions proposed whether this is expected to happen. Incentivisation is preferable to penalisation.

The development of the government's Clean Growth Strategy sector roadmaps should be complementary to the industrial decarbonisation and energy efficiency action plans published alongside the Clean Growth Strategy. The proposed roadmaps should not conflict with the actions outlined in the CAS.

Caution needs to be applied when determining the approach to regulating plants with a thermal input of between 500kW and 1MW. This needs to be proportionate to the impact caused and not act as a barrier to the implementation of such plants, especially where they contribute to achieving carbon reduction targets.

In the Leeds City Region, the Combined Authority is delivering a Resource Efficiency Programme which is supporting businesses to reduce energy and waste consumption which will have a benefit for air quality through reduced fossil fuel consumption. Its delivery of small scale intervention supporting over 100 business has led to a forecasted carbon emission reduction of 1,747 tonnes CO₂ per annum.

Q20. We have committed to applying Best Available Techniques to drive continuous improvement in reducing emissions from industrial sites. What other actions would be effective in promoting industrial emission reductions?

There were a number of programmes announced in the government's Clean Growth Strategy e.g. Industrial Energy Efficiency Programme, which look to engage with businesses in different industrial sectors. Where government or its consultants are engaging with businesses in relation to energy efficiency or other low carbon initiatives there should be a consideration of how emissions from other sources could be reduced using the same funding streams.

Q21. Is there scope to strengthen the current regulatory framework in a proportionate manner for smaller industrial sites to further reduce emissions? If so, how?

No further comment.

Q22. What further action, if any, should government take to tackle emissions from medium plants and generators? Please provide evidence in support of your suggestions where possible.

No further comment.

Q23. How should we tackle emissions from combustion plants in the 500kW-1MW thermal input range? Please provide evidence you might have to support your proposals if possible.

Any actions which come about from the CAS should be complementary to those being pursued in the Clean Growth Strategy and 25 Year Environment Plan. Actions should be proportional to the impact caused and not be overly burdensome on the operators, especially where the plants / generators are low carbon. We re-iterate that incentivisation is preferred to penalisation.

Q24. Do you agree or disagree with the proposal to exempt generators used for research and development from emission controls? Please provide evidence where possible.

The Combined Authority agrees with the proposal, although best available techniques should be used to ensure emissions controls are complied with as far as possible.

9. Leadership at all levels (local to international)

Q25. What do you think of the package of actions put forward in the leadership chapter? Please provide evidence in support of your answer if possible.

The Combined Authority welcomes a tougher stance on air quality emissions and cleaner energy generation, but the strategy is light on detail. The UK departure from the European Union presents risks and uncertainty as to how European environmental legislation will be transposed and enshrined in UK law. We would therefore seek greater clarification on how high environmental standards will be maintained to reassure public, businesses and authorities that protection of the environment and air quality are important.

In light of the disparity of vehicle emissions between real world and test certificate emissions, there needs to be greater action to remove older, polluting vehicles from the road immediately. There is a lack of detail in the CAS on what tools will be brought forward to support local authorities to tackle air quality locally and nationally.

Regions and local authorities require appropriate devolved and continued funding to monitoring air quality, identify problems and undertake real activity to make change. The CAS proposals have not adequately addressed how these requirements will be met or by when.

Q26. What are your views on the England-wide legislative package set out in section 9.2.2? Please explain, with evidence where possible.

The Combined Authority welcomes the arrival of a tougher legislative framework and providing local authorities with the tools to deliver action. This needs to be supported by appropriate devolved funding to deliver local action.

Q27. Are there gaps in the powers available to local government for tackling local air problems? If so, what are they?

Where air quality issues arise due to externalities – e.g. strategic road/rail networks - local authorities are currently powerless to take action and there is limited dialogue with strategic bodies to address local exceedances on these networks. Long term committed funding from national government for local authorities and national bodies to work collaboratively to support local air quality monitoring and emission improvement is essential.

The proposal to create a ‘comprehensive set of new powers designed to enable targeted local action in areas with an air pollution problem’ is welcome, however further detail is required in the CAS to ensure activities protect and improve public health.

Q28. What are the benefits of making changes to the balance of responsibility for clean local air between lower and upper tier authorities? What are the risks?

Any change to responsibility would need to be supported by legislative changes including robust national policy frameworks and adequate devolved funding for real activity to take place in local areas.

Q29. What improvements should be made to the Local Air Quality Management (LAQM) system? How can we minimise the bureaucracy and reporting burdens associated with LAQM?

No further comment.

10. Progress against targets

Q30. What do you think of the package of actions in the strategy as a whole?

The Combined Authority supports a multi-pollutant strategic approach to tackling emissions rather than publication of singular emission strategies - such as the DEFRA 'UK Plan for Tackling Nitrogen Dioxide Concentrations' published in July 2017. This silo approach fails to capture the opportunity for addressing wider emission reductions through holistic activities. Removal of older diesel vehicles – especially private cars - from roads will reduce significant levels of both Nitrogen Oxide and Particulate Matter concurrently. Multi-criteria policy supporting sustainable development and active travel will have economic, health and environment benefits.

The CAS needs to have greater recognition of how clean growth can be achieved through synergous policy on land use planning, major infrastructure, transport and health to significantly improve air quality. The negative externalities of increases in vehicle trips or potential increased demand on UK energy grid is not adequately considered to date. Greater evidence will ensure future major development and infrastructure projects include the forecast and appropriate mitigation of air quality impacts. There should be linkage to the National Planning Policy Framework and its role in supporting cleaner environments through ensuring low carbon/low emission and sustainable development. There is also a lack of cohesion between the CAS and the priorities and actions set out in the 25 Year Environmental Plan.

It has been widely evidenced that a significant number of vehicles are emitting far higher levels of emissions than the certified levels. This presents real concern of underestimating emissions from different vehicle types. Given the recent data provided on emissions from both new and used vehicles, there is little evidence of major national policy change to remove these higher polluting vehicles from the road in the shortest possible time.

There is insufficient detail in many areas on how real change in air quality will be achieved. A significant reduction in PMs requires strong action however there is little justified action put forward in the CAS to demonstrate how real change will be influenced in the shortest possible time, especially around domestic energy and transport PM sources.

The CAS has failed to identify new devolved funding measures to tackle localised air quality concerns or how strategic networks will improve local areas impacted by poor air quality.

Q31. Do you have any specific suggestions for additional or alternative actions that you think should be considered to achieve our objectives? Please outline briefly, providing evidence of potential effectiveness where possible.

A national scrappage or mobility credits scheme for removing older polluting vehicles from the roads should be a priority, especially given the emerging evidence on real vehicle emissions compared with their laboratory test certificates.

There also needs to be real support for the HGV and coach sectors to transform fleets to alternative and zero emission fuel technologies, with government supporting the business case development for nationwide investment in alternative fuel technologies and infrastructure to support UK wide fleet movements.

Q32. If you have any further comments not covered elsewhere, please provide them here. No further comment.

Many thanks for sharing your views with us. We will ensure these have been properly considered before the strategy is published.

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