

## CLEAN AIR DAY 2019 – USING THE AIR INDEX TO BOOST THE IMPACT OF CITY CLEAN AIR ZONES

London, 20 June 2019 – Clean Air Day 2019 is a timely call to cities across Europe to turn policy ambition into action, following London's lead in reducing harmful vehicle emissions through its clean air zone. The good news is that all cities can take rapid, fair and effective action that will enable us all to breathe more easily.

Allow Independent Road-testing (**AIR**) welcomed London's pioneering approach as one of the first cities in the world to introduce an Ultra-Low Emission Zone (ULEZ) in April 2019 with the aim of bringing air quality into compliance with European air quality standards<sup>1</sup>.

Now that the first results following London's launch are available, and as other cities across the UK and Europe plan their own ULEZ policies to control vehicle access, AIR believes that an adjustment is needed in order to meet the goal of reducing vehicle-related urban air pollution which is tantalisingly close. For example, by adopting findings from the AIR Index, London's ULEZ could be three times more effective than it is already.

The existing ULEZ policy in London is based on Euro emissions standards (minimum Euro 6 for diesel and Euro 4 for petrol) for penalty-free access, but unfortunately independent emissions testing reveals that up to half of Euro 6 diesel cars produce much higher levels of NO<sub>x</sub> from the tailpipe during city driving than during homologation laboratory tests. This means that the ULEZ policy is inadvertently allowing in over-emitting vehicles which are contributing to the problem of poor air quality.

**AIR** proposes that ULEZ policy makers in London and other cities developing their own solutions should use the independent **AIR Index** emissions rating for vehicles, in conjunction with Euro standards to provide the most effective reduction of harmful vehicle emissions.

*“Clean Air Day 2019 is a great opportunity to focus on the benefits of ULEZ policies to improve urban air quality and we can make it even better and deliver results even faster with a few adjustments to keep out over-emitting vehicles,” said AIR Index Co-Founder, Nick Molden. “Should London choose the 270 mg/km of NO<sub>x</sub> tailpipe emissions used in Germany – which is an **AIR Index** rating of ‘C’ - as the basis, NO<sub>x</sub> reduction from road transport would be up to three times more effective than its current system.”*

The **AIR Index** also provides ULEZ policy makers with a fair way to control access for vehicles of all ages, because it is based on the actual emissions produced, meaning that an older, lower emitting vehicle could travel charge-free in the zone, whilst a newer more polluting vehicle may be charged. This ensures that access to towns and cities does not unfairly penalise people unable to afford newer, and typically more expensive vehicles.

**Massimo Fedeli, AIR Index Co-Founder** said *“Policy makers developing ULEZ regulations need to improve local air quality based on rules which also have the political support of local people who travel in towns and cities. When the **AIR Index** is used as the basis for policy this ensures that access is based on actual emissions and does not punish drivers unable to afford the newest vehicles.”*

The **AIR Index** rates vehicles tested in urban conditions to the same standardised methodology providing comparable NO<sub>x</sub> emissions levels that more accurately reflect the contribution to urban air quality than existing tests performed in a laboratory.

It has been created to inform and empower car buyers and city policy makers with the real facts about vehicle emissions when making choices about car purchase and usage. A simple A-E colour-coded rating, shows the difference between clean and dirty vehicles based on how much NO<sub>x</sub> comes out of a car's tailpipe in urban driving.

## ENDS

### Media contacts

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A full suite of media assets can be downloaded from this link:

[https://www.dropbox.com/sh/4079uzjm63nshiy/AACxkFdMQZ70Q6LO\\_a6-VLmfa?dl=0](https://www.dropbox.com/sh/4079uzjm63nshiy/AACxkFdMQZ70Q6LO_a6-VLmfa?dl=0)

### About the AIR Index

Cars rated for the **AIR Index** are tested according to the CWA 17379 standardised methodology which ensures that the results are independent, comparable and can be used as the basis for a legal framework for vehicle policies.

The testing is carried out on at least two cars, sourced independently from vehicle manufacturers with portable emissions testing units (PEMS) recording actual on-road driving in towns and cities. For a result to be considered acceptable for rating in the **AIR Index** there must be at least five, 10 km trips completed during three separate journeys on at least two matching vehicles in line with the CEN standard.

The results of the tests provide the basis to rate the vehicle according to the A-E, colour-coded scale.

The **AIR Index** website includes more than 200 results of the first tests conducted with ratings A-E, but also provides a facility to check other vehicles on the road to see if they would be allowed access (or not) to the 14 German cities which have set a NO<sub>x</sub> limit of 270 mg/km under the Federal Emissions Control Act.



Other cities across Europe are considering a similar threshold to control access and allow only the cleanest cars to enter. Car buyers should consider carefully the implication for a vehicle's residual value, and their own mobility requirements, if it is unable to enter a town or city where emissions are controlled.

## About AIR

**AIR (Allow Independent Road-testing)** is an independent alliance of public and private organisations, which promotes the voluntary uptake of independent on-road emissions testing.

The alliance's key objective is to contribute to delivering a cost-effective and timely reduction in harmful vehicle emissions in urban areas, while ensuring the lowest CO<sub>2</sub> emissions from the global vehicle fleet.

**AIR** seeks to empower citizens, industry and public authorities to take informed decisions on their mobility practices and policies by promoting full transparency on vehicle emission levels.

## Scientific Advisory Committee

The development of the AIR Index has been led by the world's leading academics in the fields of emissions and air quality and they make up AIR's Scientific Advisory Committee (SAC).

- Professor Helen ApSimon, Professor of Air Pollution Studies, Imperial College London.
- Dr Adam Boies, Reader in the Energy Division, Department of Engineering, University of Cambridge.
- Dan Carder, Director for Alternative Fuels, Engines and Emissions, West Virginia University.
- Dr Claire Holman, Chair, Institute of Air Quality Management.
- Dr Guido Lanzani, Head of Air Quality Unit, Regional Environmental Agency, Lombardy Region.
- Dr Norbert Ligterink, Senior Research Scientist, TNO.
- Martin Lutz, Head of Sector Air Quality Management, Berlin Senate Department for Environment, Transport and Climate Protection.
- Dr Xavier Querol, Institute of Environmental Assessment and Water Research, Spanish Council for Scientific Research.
- Dr Marc Stettler, Lecturer in Transport and the Environment, Centre for Transport Studies, Imperial College London.
- Dr Martin Williams, Professor of Air Quality Research, Kings College London.

**AIR's** full mission statement can be found [here](#).

## Notes on European Air Quality

The European Environment Agency provides independent information on the environment for those involved in developing, adopting, implementing and evaluating environmental policy and the general public. In its latest report, published in April 2018, updated in November 2018, the European Environment Agency stated that for particles and nitrogen dioxide, because of the widespread exceedance levels in urban areas, it is unlikely that the air quality standards for these pollutants will be met by 2020 across the EU.

<sup>1</sup> see <https://www.eea.europa.eu/airs/2018/environment-and-health/outdoor-air-quality-urban-areas>

## Background to the AIR Index testing process

Emissions Analytics (EA), founded by Nick Molden (Co-founder of AIR), was a pioneer in methodologies to test on-road emissions using Portable Emissions Systems (PEMS)

equipment. The experience and insight gained from more than 2,000 tests conducted by EA informed the development of the CWA 17379 protocol on which the **AIR Index** rating is based.

Emissions Analytics has licensed the use of its data including the EQUA Index within the **AIR Index** database, enabling insight for car buyers and policy makers as to whether vehicles are allowed access (or not) to enter cities which have set a NO<sub>x</sub> limit of 270 mg/km.

Further information about Allow Independent Road-testing (AIR) can be found at [www.allowair.org](http://www.allowair.org)

### Potential improvement in ULEZ air quality using the AIR Index as the access framework

The Mayor of London's office [released the first data](#) on usage of the London ULEZ in May 2019 which revealed that 35% of non-compliant, non-exempt cars have stopped entering the zone.

Analysis by Emissions Analytics for AIR suggests that the absence of these non-compliant, non-exempt vehicles corresponds to a 27% reduction in NO<sub>x</sub> emissions. This is based on an estimate of the likely model mix of these vehicles and hence their expected emissions.

If London were to choose the 270 mg/km of NO<sub>x</sub> tailpipe emissions used in Germany – which is an AIR Index rating of 'C' - as the framework for access, this would exclude vehicles rated as 'D' or 'E'. When this is applied to the likely model mix in the ULEZ, this would lead to a NO<sub>x</sub> reduction estimated at 89%, based on the actual emissions of the vehicles, nearly three times better than the current framework.