

8 April 2019

Ultra Low Emission Zone (ULEZ) is another important step on the path to banning diesel

The ULEZ is being implemented almost exactly 10 years after ‘Clean Air in London’ (CAL) called for such a ‘Berlin-style’ inner low emission zone in London.

Air pollution monitor in the Strand has reported 18/18 exceedances of nitrogen dioxide (NO_2) hourly limit value. Brixton Road monitor has reported 15/18 (having been offline until 12 March). Legal limit for the whole of 2019 is likely to be breached soon. Widespread breaches of World Health Organisation guideline and legal limit for NO_2 annual mean in London.

Clean Air in London (CAL) urges Mayor Khan to make the ULEZ bigger, stronger and smarter

Air pollution is the world’s largest environmental health risk, killing about seven million people every year.

The Ultra Low Emission Zone (ULEZ) pollution charge is another important step therefore on the path to banning diesel and transforming London into a healthier, quieter and more wonderful city. The steps being taken are the modern equivalent of banning coal and wood burning so successfully after the Clean Air Act 1956 to tackle the visible smog of the 1950s.

Pre-Euro 6 diesel vehicles and others, up to and including 3.5 tonnes, will be required to pay £12.50 per day (24/7), on top of the £11.50 congestion charge (7am to 6pm Monday to Friday), to enter the Central London Congestion Charging Zone from Monday 8 April 2019. Lorries (over 3.5 tonnes) and buses/coaches (over 5 tonnes) will have to pay £100. The ULEZ replaces the T-Charge which has used a Euro 4 standard for diesel and petrol cars. It is in addition to the Low Emission Zone charge or ban (24/7). Full details at <https://tfl.gov.uk/modes/driving/ultra-low-emission-zone>.

Boris Johnson announced the ULEZ scheme on 26 March 2015 with an implementation date of 7 September 2020. On 3 November 2017, Sadiq Khan announced that it would be brought forward by 17 months to 8 April 2019. It was necessary to bring forward the ULEZ: to protect public health and comply with legal limits; because it had already been weakened and delayed by Boris Johnson; in response to increasing evidence of the health impacts of air pollution; and following the revelations in September 2015 and subsequently of vehicle manufacturers cheating on diesel emission standards.

The ULEZ targets diesel vehicles which are responsible for some 95% of emissions of oxides of nitrogen (NO_x) from road transport exhaust in Central London. NO_x emissions are the main source of nitrogen dioxide (NO_2), a toxic gas, which is subject to World Health Organisation (WHO) guidelines to protect public health.

NO_2 annual mean concentrations exceed the WHO guideline and legal limit in many parts of London and are more than twice that level in places. These legal limits have been in place since 1999 to be complied with by 1 January 2010. NO_2 hourly concentrations in the Strand and Brixton Road have recently reached 18/18 and 15/18 exceedances respectively allowed for the whole of 2019. A legal breach is expected soon.

The ULEZ will expand to the inner London area, bounded by the north and south circular roads, on 25 October 2021. As an emission measure it targets pollution and has a second order benefit of reducing congestion and complements congestion charging which does the opposite.

Important ULEZ statistics for 2019 (from GLA documents)

- NOx exhaust emissions from road transport reduced by around 45% in Central London.
- Proportion of Central London road kilometres exceeding NO₂ limit values at roadside reduced from 82% to 70% i.e. 15% reduction (and 11% London-wide).
- Proportion of population living in Central exceeding NO₂ limits reduced from 35% to 20%.
- 4% reduction in population-weighted NO₂ annual mean concentrations in Central London.
- Number of sensitive locations in Central London exceeding NO₂ limit value reduced from 78 to 54.
- Diesel vehicles responsible for about 95% of NOx emissions from road transport in Central London.

Quotes

Simon Birkett, Founder and Director of Clean Air in London (CAL), said:

“London has been famous for having some of the highest concentrations of nitrogen dioxide (NO₂) in the world due to diesel emissions.

“The ULEZ is another important step on the path to banning diesel vehicles in London as we banned coal and wood burning so successfully in 1956.

“It is one of the most significant vehicle emission measures announced and implemented in London since Ken Livingstone confirmed Phases 3 and 4 of the London-wide Low Emission Zone on 9 May 2007. By coincidence, the ULEZ is being implemented almost exactly 10 years after ‘Clean Air in London’ (CAL) called formally for such a ‘Berlin-style’ inner low emission zone in London in a presentation to King’s College London’s annual conference on air quality.

“The ULEZ is valuable in its own right for public health but it will surely have played a significant role, alongside the ‘Dieselgate’ revelations, in triggering the collapse of sales of diesel cars and increase in sales of electric vehicles.

“It is fair to say that the Mayor is introducing the world’s first ‘Ultra Low Emission Zone’ because London’s scheme: applies the Euro 6 standard for diesel emissions across a significant area; includes most vehicle types; operates 24/7; includes a charge; and uses cameras to achieve high compliance levels.

“CAL urges the Mayor to make the ULEZ bigger, stronger and smarter. He should make the ULEZ:

- **Bigger** by extending it in further waves or phases in central, inner and outer London;
- **Stronger** by requiring: Euro 6 vehicles to demonstrate full on-road compliance with the latest test standard for ‘Real Driving Emissions’; electric vehicles; and then diesel bans and zero emission zones by January 2024; and
- **Smarter** by replacing the ‘blunt’ LEZ, ULEZ, congestion charge and other schemes by ‘Emissions Based Road Charging’ which would be simpler, smarter and fairer.

“The Mayor must also do more to stop cheating by vehicle operators, businesses and others of emission standards. This should be done by real-world monitoring along busy roads and providing a phone number or app for people to report smoky and idling vehicles.

“All these efforts to tackle carcinogenic diesel emissions should be complemented by investment in public transport and active travel e.g. walking and cycling. The Mayor also needs to address the other main sources of pollution in London which include energy emissions from buildings and wood burning.

“Sadiq Khan should be applauded for making the fight against air pollution one of his top priorities. His actions contrast sharply with Boris Johnson who spent eight years taking backward steps or delaying action on air pollution. But Sadiq must do more to deliver on his election manifesto mandate to ‘restore London’s air quality to legal and safe levels’.

“We also need a London that will take a lead by:

- helping to enshrine the human right to clean air in UK and international law so we do not have to wait another 10 years for a similar pollution scheme;
- achieving United Nations Sustainable Development Goals including their indicators and targets e.g. By 2020, halve the number of global deaths and injuries from road traffic [collisions] (3.7);
- fulfilling the commitments made to the World Health Organisation’s #BreatheLife campaign; and
- stopping relying on the Government to decarbonise energy grids to deliver 45% of the emissions reductions needed for London to become zero carbon by 2050.

“Looking further ahead, with carbon dioxide concentrations already well over 400 parts per million and following the publication of the IPCC’s special report on ‘Global Warming of 1.5°C’, all the signs point a ban on all fossil fuel burning in London by 2030 or soon thereafter.

“These steps will transform London and make it a world leader in sustainability.”

ENDS

Notes

1. Timeline

24 April 2009	Clean Air in London calls formally for a Berlin-style inner low emission zone for London in a presentation at King’s College London’s annual conference https://www.londonair.org.uk/london/asp/LAQNSeminar/pdf/april2009/Simon_Birkett_Inner_Low_Emission_Zone_for_London.pdf
26 March 2015	Mayor Johnson approves Ultra Low Emission Zone for September 2020 https://www.london.gov.uk/press-releases/mayoral/ultra-low-emission-zone
17 February 2017	Mayor Khan confirms T-Charge from 23 October 2017 https://www.london.gov.uk/press-releases/mayoral/mayor-introduces-10-toxicity-charge

23 October 2017	T-Charge commences ('Emissions Surcharge') - Euro 4/IV for petrol and diesel - Euro 3 for motorised tricycles and quadricycles
3 November 2017	Mayor Khan confirms ULEZ will start earlier from 8 April 2019 https://tfl.gov.uk/info-for/media/press-releases/2017/november/gla---ultra-low-emission-zone-will-start-in-2019
8 June 2018	Mayor Khan confirms extension of ULEZ to north/south circular from 25 October 2021 https://www.london.gov.uk/press-releases/mayoral/ultra-low-emission-zone
8 April 2019	ULEZ starts in central London (24/7/365) – Euro 6/VI diesel - £12.50 cars, vans and motorcycles up to and including 3.5 tonnes - £100 including lorries over 3.5 tonnes and buses/coaches over 5 tonnes
7 May 2020	London Mayoral election
26 October 2020	Emission standards for the LEZ will change – Euro VI for buses and coaches over 5 tonnes and lorries over 3.5 tonnes https://tfl.gov.uk/modes/driving/low-emission-zone/changes-to-the-lez
26 October 2021	ULEZ extends to north/south circular

2. ULEZ resources

Mayor's media release

<https://www.london.gov.uk/what-we-do/environment/pollution-and-air-quality/mayors-ultra-low-emission-zone-london>

Evidence

<https://tfl.gov.uk/corporate/publications-and-reports/ultra-low-emission-zone>
<https://consultations.tfl.gov.uk/environment/air-quality-consultation-phase-3a/>

Maps

<https://tfl.gov.uk/modes/driving/ultra-low-emission-zone/ulez-where-and-when?intcmp=54312>

Scrapage scheme (£3,500 or £6,000)

<https://tfl.gov.uk/modes/driving/ultra-low-emission-zone/scrapage-scheme>

London Atmospheric Emissions Inventory 2016

<https://data.london.gov.uk/dataset/london-atmospheric-emissions-inventory--laii--2016>

3. Benefits

- NOx exhaust emissions from road transport reduced by around 45% in Central London.

- Proportion of Central London road kilometres exceeding NO₂ limit values at roadside reduced from 82% to 70% i.e. 15% reduction (and 11% London-wide).
- Proportion of population living in Central exceeding NO₂ limits reduced from 35% to 20%.
- 4% reduction in population-weighted NO₂ annual mean concentrations in Central London.

4. Other schemes

Congestion charge	£11.50 per day (0700/1800 Monday to Friday) https://tfl.gov.uk/modes/driving/congestion-charge
Low Emission Zone	Euro 4/IV (PM) for buses, coaches and lorries and Euro 3 (PM) for vans/minibuses https://tfl.gov.uk/modes/driving/low-emission-zone?intcmp=2261
PHVs	Lose exemption from paying the congestion charge (but some Euro 6 hybrid PHV's will be eligible for the Cleaner Vehicle Discount until October 2021) https://tfl.gov.uk/info-for/taxis-and-private-hire/phvs-and-the-congestion-charge
Taxis	Zero emission capable and age limits https://consultations.tfl.gov.uk/tph/taxi-age-limits/
T-charge	Replaced by ULEZ on 8 April 2019 https://tfl.gov.uk/modes/driving/emissions-surcharge
Other measures	https://www.london.gov.uk/what-we-do/environment/pollution-and-air-quality/mayors-ultra-low-emission-zone-london

5. Health

World Health Organisation guidelines for ambient air quality
[https://www.who.int/en/news-room/fact-sheets/detail/ambient-\(outdoor\)-air-quality-and-health](https://www.who.int/en/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health)

<http://www.euro.who.int/en/health-topics/environment-and-health/air-quality/news/news/2019/3/noncommunicable-diseases-and-air-pollution>

<https://www.london.gov.uk/press-releases/mayoral/poor-air-quality-aggravates-london-asthmatics#>

https://www.iarc.fr/wp-content/uploads/2018/07/pr213_E.pdf

<https://www.unenvironment.org/resources/global-environment-outlook-6>

6. Air pollution levels

Exceedances of annual mean concentrations for nitrogen dioxide (NO₂) so far in 2019
<https://www.londonair.org.uk/london/asp/publicstats.asp>

Exceedances of annual mean concentrations for nitrogen dioxide (NO₂) so far in 2019
<https://www.londonair.org.uk/london/asp/publicstats.asp>

Marylebone Road – 72 µg/m³ as at 5 April 2019

https://www.londonair.org.uk/london/asp/publicstats.asp?mapview=all&statyear=2019&MapType=Google®ion=0&site=MY1&postcode=&la_id=&objective=All&zoom=9&lat=51.475&lon=-0.1198239999999416&VenueCode=

Oxford Street East – 65 µg/m³ as at 5 April 2019

https://www.londonair.org.uk/london/asp/publicstats.asp?mapview=all&statyear=2019&MapType=Google®ion=0&site=WMB&postcode=&la_id=&objective=All&zoom=11&lat=51.5381500629835&lon=0629835&lon=-0.1198239999999283&VenueCode=

Strand (Northbank BID) – 87 µg/m³ and 18/18 NO₂ hourly exceedances as at 5 April 2019

https://www.londonair.org.uk/london/asp/publicstats.asp?region=0&site=NB1&Maptype=Google&mapview=all&statyear=2019&la_id=&zoom=11&lat=51.5381500629835&lon=-0.1198239999999416&laEdge=

Walbrook Wharf – 79 µg/m³ as at 5 April 2019

https://www.londonair.org.uk/london/asp/publicstats.asp?region=0&site=CT6&Maptype=Google&mapview=all&statyear=2019&la_id=&zoom=9&lat=51.475&lon=-0.1198239999999416&laEdge=

Lambeth – Brixton Road – 96 µg/m³ and 15/18 NO₂ hourly exceedances as at 5 April 2019

https://www.londonair.org.uk/london/asp/publicstats.asp?region=0&site=LB4&Maptype=Google&mapview=all&statyear=2019&la_id=&zoom=9&lat=51.475&lon=-0.1198239999999416&laEdge=

Putney High Street – 75 µg/m³ as at 5 April 2019

https://www.londonair.org.uk/london/asp/publicstats.asp?region=0&site=WA7&Maptype=Google&mapview=all&statyear=2019&la_id=&zoom=9&lat=51.475&lon=-0.1198239999999416&laEdge=

Air Quality England

https://www.airqualityengland.co.uk/local-authority/?la_id=999

Oxford Street – highest NO₂ concentrations in the World?

<https://www.londonair.org.uk/london/asp/news.asp?NewsId=OxfordStHighNO2>

7. Clean Air in London research

Emissions Based Road Charging (15 June 2015)

<https://cleanair.london/sources/emissions-based-road-charging-by-2018-and-paid-to-walk-or-cycle-by-2020/>

Boris takes backwards steps on his own ULEZ (29 July 2014)

<https://cleanair.london/sources/boris-takes-backward-steps-on-his-own-ulez/>

Sadiq Khan's manifesto 2016

Low emission zones in Europe

<http://urbanaccessregulations.eu>

Berlin Low Emission Zone (by 31/3SPrin/19 issue and order for Euro 6 diesel in June 2019)

<http://urbanaccessregulations.eu/countries-mainmenu-147/germany-mainmenu-61/berlin>

https://www.londonair.org.uk/london/asp/LAQNSeminar/pdf/July2015/Martin_Lutz_Dealing_with_notorious_NO2_problem_in%20Germany.pdf

What is a Berlin-type Clean Air Zone? (27 June 2011)

<https://cleanair.london/solutions/what-is-a-berlin-type-clean-air-zone/>

8. Ongoing failures of diesel emission standards

Cars with engines: Can they ever be clean? (Transport and Environment, September 2018)

<https://www.transportenvironment.org/publications/cars-engines-can-they-ever-be-clean>

'Allow Independent Road-testing'

<https://www.allowair.org/2019/04/04/ulez-press-release-190408/>

<https://www.allowair.org>

Euro 6 engine emission standards

<http://urbanaccessregulations.eu/low-emission-zones-main/what-emissions-standard-is-my-vehicle>

Emission standards (note different Euro 6 standards)

<https://dieselnet.com/standards/eu/ld.php>

Retrofit and other schemes in Germany

<https://europe.autonews.com/article/20181002/ANE/181009912/german-diesel-deal-gives-drivers-choice-of-retrofit-or-trade-in>

<https://autovistagroup.com/news-and-insights/german-government-agrees-trade-and-retrofit-deal-avoid-diesel-bans>

<https://www.thelocal.de/20181227/government-calls-upon-diesel-manufacturers-to-up-their-game-in-2019-or-face-consequences>

<https://uk.reuters.com/article/uk-germany-emissions/german-diesel-owners-should-get-choice-between-retrofits-and-trade-ins-document-idUKKCN1MC0PO>

Cheating standards

<https://www.driving.co.uk/news/british-lorry-operators-found-cheating-diesel-emissions/>

<https://www.dailypost.co.uk/news/motoring/new-mot-test-rule-changes-14222700>

9. Diesel sales

<https://www.smmt.co.uk/vehicle-data/>

<https://www.theguardian.com/business/2019/mar/05/uk-car-sales-petrol-diesel>

10. IPCC special report: Global warming of 1.5°C

<https://www.ipcc.ch/sr15/>

<https://www.bbc.co.uk/news/science-environment-45775309>

Caroline Russell's Mayor Question on London Plan and carbon reduction targets (18 January 2018)

<https://www.london.gov.uk/questions/2018/0107>

11. Diesel bans in other cities

Amsterdam wants to only allow emissions-free vehicles by 2030

Athens joined pledge to ban diesel cars by 2025

Brussels hopes to ban all diesel vehicles by 2030

Copenhagen discourages driving – Danish ban on sale of new petrol and diesel from 2030

Numerous German restrictions e.g. Berlin, Frankfurt etc

Madrid banned older cars from its city centre in December 2018

Milan is rolling out a series of bans. Goal is diesel free by 2030

Oslo's city centre is on its way to becoming car-free

Rome has pledged to ban diesel from its city centre by 2024

<https://www.businessinsider.com/cities-going-car-free-ban-2018-12?r=US&IR=T#rome-could-help-preserve-its-monuments-by-banning-diesel-cars-10>

<https://www.eea.europa.eu/highlights/challenges-for-achieving-clean-air>



12. Wood burning and Combined Heat and Power

<https://www.londonair.org.uk/LondonAir/guide/WoodBurning.aspx>

https://www.london.gov.uk/sites/default/files/pilot_study_on_the_air_quality_impacts_from_combined_heat_and_power_in_london.pdf