

The Greater Manchester Clean Air Zone: A Local Perspective

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06 March 2022

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Introduction

In a [personal statement](#) (18th February 2022) issued by the Mayor of Greater Manchester, Andy Burnham, he acknowledged that communications about the imminent Greater Manchester Clean Air Zone (CAZ) scheme had “not been good enough” and that “people only became aware of it [the scheme] when the cameras and signs began to appear and that has created an understandable shock and loss of trust”.

Even before this, I had begun compiling this report on behalf of High Lane Residents' Association, with the aim of describing the scheme from a local perspective and setting it in context, given its impact on local residents. The report is intended to be as informative and objective as possible, so supporting references to source material (ideally definitive) are included wherever possible to help the reader independently check or investigate further. It is acknowledged that for many, this topic is controversial and that people on all sides may have strongly held opinions.

Background

It is well known that air pollution levels in some areas, particularly those with busy roads where larger vehicles such as HGVs form a significant proportion of the traffic, can frequently reach concentrations that exceed those permitted by [national regulations](#), which are aimed at protecting the environment and human health. For example, sites **along A6 in High Lane**, as part of pre-construction air quality monitoring (for the extended A555 (A6MARR), which opened in [October 2018](#)) were selected for measurement in 2014 for a period of six months. [One of the sites](#) recorded concentrations of nitrogen dioxide that **exceeded** the permitted annual mean. Part of the A6 in High Lane was also predicted (prior to the COVID-19 pandemic) to exceed this permitted level in 2021, as can be seen on the [Greater Manchester Clean Air Zone Map](#). *[This link (and others) has been (temporarily?) removed from the [cleanairqm.com](#) website during the current “pause” of the scheme (see later).]*

*For some relatively brief but important context to Clean Air Zones, please continue reading; otherwise, feel free to skip ahead to **Greater Manchester CAZ: At-a-Glance Details** or **The Greater Manchester Clean Air Zone**.*

Control Zones in London

Of course, such breaches could occur anywhere where there are frequently and persistently high levels of traffic, particularly when it is slow-moving. In London, for example, in [February 2003](#), a **Congestion Charge** was introduced. As the city with the [worst congestion in the UK](#), the main aim of the scheme was to try to reduce the problem of slow-moving traffic causing delays and increased journey times; charging a fee to use roads during the busiest times (daytime and evenings) was a means of encouraging motorists to switch to other modes of transport to facilitate a general shift from private car use to public transport, walking and cycling.

A few years later, a congestion charge was proposed for Manchester (a two-zone scheme, the outer ring of which was bounded by the M60 motorway, with an inner ring for the city centre), but in [December 2008](#), it was overwhelmingly rejected by voters in a public referendum.

Meanwhile, back in London, a new scheme covering a much wider area (most of Greater London) than the original Congestion Charge zone (the city centre) was introduced in [February 2008](#) — the Low Emission Zone (**LEZ**). Given that London at the time, according to [TfL](#), had the worst air pollution in the UK, the scheme was aimed at penalising the most polluting diesel-engined lorries, coaches and buses for travelling in that zone; cars and motorcycles, however, were exempt from the daily charge, along with other vehicles whose engines met the stricter European emission standards. (The Congestion Charge, of course, still existed for vehicles using the inner zone, so there were potentially two daily charges applicable, depending on the vehicle and zone used.)

Later, in [October 2017](#), an air-quality scheme with a wider scope (including cars and petrol-engined vehicles that did not meet particular emission standards) was introduced, called the Toxicity Charge (**T-Charge**), which applied to the central London, i.e. the Congestion Charge zone. In [April 2019](#), the T-Charge was replaced by an Ultra-Low Emission Zone (**ULEZ**) Charge, which — unlike the T-Charge and Congestion Charge — operates 24 hours a day, every day of the year (although [currently](#), Christmas Day is excluded) and also includes motorcycles. In [October 2021](#), the ULEZ area in London expanded to cover a much wider area (“Inner London”) than the Congestion Charge zone, but not as wide as the LEZ that covers most of Greater London.

So, in summary, London currently has three approximately concentric zones, which, from smallest to largest, are: the Congestion zone, the ULEZ and the LEZ. Further details of all charges and boundaries can be found on the [TfL website](#), e.g. £15 per day Congestion Charge 07:00 – 22:00 every day (with a few exceptions), £12.50 per day (operates 24 hours a day) ULEZ Charge for vehicles that do not meet minimum standards, and/or £100 or £300 per day (operates 24 hours a day) LEZ Charge for applicable vehicles.

London also has some streets that are subject to pollution-based traffic restrictions, i.e. streets that prohibit entry to non-compliant vehicles. For example, between [March 2020 and September 2021](#), it ran a trial of the UK's first 24/7 **zero-emission** street. (Signage of this can be seen on [Google Street View](#) (July 2021).) There are also some streets in London boroughs such as [Hackney](#) and [Islington](#) that restrict access during peak periods to Ultra-Low Emission Vehicles (**ULEVs**) only. Example ULEV signage, which also shows the Congestion Zone and ULEZ signs, can be seen in this [Google Street View image](#), dated April 2021.

These signs in this image illustrate the importance of being aware that despite the similarity in names, ULEVs and ULEZs are **completely different** — vehicles that are exempt from the ULEZ charge are not necessarily ULEVs; ULEVs are vehicles in a generally cleaner category with **lower** levels of pollution, [currently](#)^[1] those which emit less than 75 grams of carbon dioxide per kilometre driven, whereas the ULEZ is simply a zone in which vehicles conforming to particular emissions standards are exempt from the ULEZ charge, and those standards are concerned with *other* pollutants (those more harmful to human health), rather than carbon dioxide at relatively low concentrations. Some websites, e.g. [Urban Access Regulations in Europe](#), regard the [ULEV](#) streets in London as Zero Emission Zones (**ZEZs**), whereas they categorise London ULEZs and LEZs together as “LEZs”.

1 This CO₂ threshold may, in future, be reduced to 50 g/km.

Cities with ZEZs Planned this Year (2022)

The first British city to have a Zero Emission Zone was [Oxford](#), where the scheme started on [28th February 2022](#). Zero-emission vehicles are not charged to drive in the zone, whereas all petrol and diesel vehicles (including hybrids) are currently charged between £2 and £10 per day.

Cities with Existing LEZs

Apart from London, some other cities have introduced non-charging LEZs, e.g. [Norwich](#) (July 2008), [Oxford](#) (January 2014), [Brighton](#) (January 2015) and [Glasgow](#) (December 2018, for which the applicability of its LEZ will be extended from local bus services to **all** motor vehicles [unless exempt or unaffected, e.g. motorcycles, mopeds] from June 2023).

LEZs that are “non-charging” are not necessarily free in all circumstances — just as some car parks may be “free”, there could be penalties levied for breaches of the rules, e.g. overstaying the car park's time limit. In the case of the Glasgow LEZ, for example, after June 2023 (or June 2024 for zone residents) when the scheme extends to include more types of vehicles, a penalty charge will be payable by the vehicle's registered keeper if the vehicle doesn't meet the emission requirements but is driven in the LEZ, assuming no exemptions apply. And in the Glasgow example, there is a surcharge proposed whereby the penalty doubles for each subsequent breach, subject to certain limits.

Clean Air Zones (CAZs)

A newer variant of a LEZ is the Clean Air Zone (CAZ), which sets higher minimum standards than the earlier LEZs. This is the type of scheme that was originally planned to be launched in Greater Manchester this year (30th May 2022) but has now [been delayed](#). [Clean Air Zones](#) are very similar to Low Emission Zones in that they are targeted at improving air quality. Like LEZs, CAZs fall into two categories: Non-charging and Charging, where, in the latter, *“vehicle owners are required to pay a charge to enter, or move within, a zone if they are driving a vehicle that does not meet the particular standard for their vehicle type in that zone”*. The [Clean Air Zone Framework](#) sets out four classes that define the emission standards applicable to the CAZ, ranging from Class A (affecting the fewest types of vehicles) to Class D (effectively affecting all types). See Table 1, further down in this report, for more details.

Cities with Existing CAZs (Non-charging)

In January 2019, [York](#) launched a non-charging CAZ aimed at buses. See also under “Cities Decided Against CAZs”.

Cities with Existing CAZs (Charging)

In [March 2021](#), [Bath](#) became first city in the UK to launch a charging CAZ (Class C), i.e. the first to have a chargeable [low emission / clean air] zone of any type outside London. In June 2021, [Birmingham](#) followed with a Class D CAZ, and in [November 2021](#), [Portsmouth](#) launched a Class B CAZ.

Cities with CAZs (or LEZs in Scotland) Planned for 2022

As well as the Class C CAZ in [Manchester](#) (which extends to Greater Manchester — see below) that was due to launch at the end of [May 2022](#) (but is now [deferred](#)), [Bradford](#) delayed their Class C+ (similar to Class C, but modified for some private hire vehicles to help with upgrades to older vehicles) to [spring 2022](#). [Bristol](#) is due to launch a Class D CAZ in summer 2022, [Newcastle](#) is due to launch a Class C CAZ in July 2022 and [Sheffield](#) is due to launch as Class C CAZ in late 2022. [More cities](#) are expected to implement CAZs in the near future. In Scotland, CAZs (which will be called LEZs) are [planned to be introduced in 2022](#) in [Aberdeen](#), [Dundee](#) and [Edinburgh](#). (As previously mentioned, [Glasgow](#) already introduced a limited LEZ in 2018, and this is planned to extend to all motor vehicles (with some exceptions) in 2023.)

Cities Decided Against CAZs

Some cities considered introducing CAZs but decided they were not required. Examples include [Nottingham](#) (in July 2018), [Southampton](#) (in February 2019) and [Leeds](#) (in October 2020).

Payment Portals

- **Clean Air Zones:** <https://www.gov.uk/clean-air-zones>
Already includes: **Bath**, **Birmingham** and **Portsmouth**.
Planned to include: **Bradford** (2022), **Bristol** (late 2022) and **Greater Manchester** (under review)
- **London:** <https://tfl.gov.uk/modes/driving/check-your-vehicle/>
Includes: **Congestion Charge**, **ULEZ** and **LEZ**
- **Zero Emission Zones**
Currently, for **Oxford** only: <https://www.oxfordshire.gov.uk/zez>

CAZ Signage

Appendix 1 of GMCA's [report](#) on cameras and road signs shows examples of the different types of CAZ roadside signs we can expect to see.

The Greater Manchester Clean Air Zone

The Greater Manchester CAZ was originally planned to be a chargeable Class C scheme to be implemented in two phases (originally, phase 1 from 30th May 2022; phase 2 from 1st June 2023). But because the first phase affects fewer types of vehicles, it may seem more like a Class B scheme to begin with. The scheme is currently paused and will **not** start in May 2022.



As a Class C CAZ, **cars** (except taxis and private hire vehicles), **motorcycles** and **mopeds** are **not included** in the zone and so are not affected.

Note that the “C” in this sign does **not** stand for “Clean Air Zone” or “Congestion”; it denotes the **class** of Clean Air Zone, i.e Class C (see below).

The classes for CAZs are defined in Annex A of the Clean Air Zone Framework and summarised here, reproduced in the table below.

Figure 1. Temporary sign on the A6 near the eastbound entrance to High Lane. The start date, shown in the above photograph, **will be delayed**, following the announcement from Defra on 4th February 2022, and confirmed on 22nd February 2022 on the cleanairgm.com website, which explains that the wording for the original starting date of 30th May 2022 will be covered over. The BBC reported on 25th February 2022 that 1,194 of the 1,309 signs installed so far would need “stickers” added to the signs.

Class	Vehicle Type
A	Buses, coaches, taxis, private hire vehicles
B	Buses, coaches, taxis, private hire vehicles, heavy goods vehicles
C	Buses, coaches, taxis, private hire vehicles, heavy goods vehicles, vans, minibuses
D	Buses, coaches, taxis, private hire vehicles, heavy goods vehicles, vans, minibuses, cars. The local authority has the option to include motorcycles

Table 1. Types of Clean Air Zone: CAZ Classes

Euro Standard	Vehicle Type
4	Petrol cars and vans (generally vehicles registered from 2006)
6	Diesel cars and vans (generally vehicles registered from September 2015)
VI	Buses, coaches and HGVs (generally vehicles registered from 2013)

Table 2. Minimum Emission Standards for Compliance with the Originally Proposed GM CAZ (vehicle dates are indicative only), refs. Minimum Emission Standards and Low Emission Zones Scotland

As an example of the Euro emission standards for cars, Table 3 below shows the corresponding limits of pollutants for petrol and diesel cars for compliance with the originally proposed Greater

Manchester CAZ. (Of course, private cars are not affected by a Class C scheme, so this may seem irrelevant, but it may help such drivers to know which Euro standard applies to their vehicle for other CAZs or LEZs.) Looking at the figure of 0.08 g/km for oxides of nitrogen, which is a limit that is common to both Euro 4 petrol-engined cars and Euro 6 diesel-engined cars, helps explain why there is a difference in the Euro numbers — these are the most comparable standards for the different engine types. Had “Euro 6” been chosen as a blanket standard by way of “simplification”, this would have penalised petrol-engined cars more because the Euro 6 standard for these cars is a lower figure of 0.06 g/km.

A car's V5C registration certificate (a.k.a. “log book”) is likely to indicate the emissions standard applicable, although it may not necessarily explicitly state the Euro number; in such cases, the figures on page 2 of the V5C in section V (“Exhaust Emissions”) will be an indication — if they are all lower than or equal to the limits in the corresponding column of the table below, it can be inferred that the relevant Euro standard (or better) shown applies.

		Petrol	Diesel
		Euro 4	Euro 6
V5C Reference Exhaust Emissions		Limit (g/km)	Limit (g/km)
V.1	CO (carbon monoxide)	1.0	0.5
V.2	HC (hydrocarbons)	0.1	-
V.3	NO _x (oxides of nitrogen)	0.08	0.08
V.4	HC + NO _x (total)	-	0.17
V.5	PM (particulate matter)	-	0.005

Table 3. Limits for Exhaust Emissions for Euro 4 (petrol) and Euro 6 (diesel) Cars, ref. [European Emission Standard \(Euro Rating\)](#) (Shropshire Council)

N.B. This table shows a selected pair of categories of emission standards (Euro 4 and Euro 6) to illustrate their comparability for NO_x emissions (petrol cars (from around 2006) versus diesel cars (from around 2015)). It does not show any other categories. Since 1992, new cars in the European Union have been categorised by the emissions they produce, starting with Euro 1 all the way up to the current category, Euro 6.

An alternative way to check a vehicle's specification for emissions is to use a checker on a government website. Before the GM CAZ scheme was paused, the [cleanairgm.com](#) website had one. However, as the Euro standards are also the same as above (at the time of writing) for cars in the London ULEZ, TfL's <https://tfl.gov.uk/modes/driving/check-your-vehicle/> checker can be used instead; it won't tell you the Euro standard for your vehicle, but it will tell you if it's compliant, i.e. “no charge” for ULEZ (ignore any Congestion Charge result for this purpose) means it's designed to meet “at least Euro 4 (petrol) or Euro 6 (diesel)”.

Why is this Scheme being Introduced?

Against a background of ongoing exceedances of the permitted levels of air pollutants in parts of Greater Manchester, the Greater Manchester Combined Authority (GMCA) published an [Air Quality Action Plan](#) in December 2016, and in July 2019, the Secretary of State for Environment, Food and Rural Affairs issued a [Direction](#) to the ten Greater Manchester local authorities to implement a charging CAZ to be implemented as soon as possible and at least in time to achieve compliance by

2024. The [GM Clean Air Final Plan](#) states that “in Greater Manchester, road transport is responsible for approximately 80% of nitrogen dioxide concentrations at roadside, of which diesel vehicles are the largest source”.

However, the above Direction has been superseded by a Government [announcement](#) on 4th February 2022 granting permission to delay implementation.

Are there any other Air Quality Measures in High Lane?

Under the [Clean Air Act \(1993\)](#), Stockport designated a Smoke Control Area (SCA) and [High Lane is included](#) within that SCA. In such areas, it is an offence for householders to allow emissions of smoke from a chimney unless an exempt appliance or authorised or smokeless fuel is used.

Also, part of [High Lane is within](#) an Air Quality Management Area (AQMA). [AQMAs](#) are declared in places a local authority thinks are not likely to achieve [national air quality objectives](#).

Greater Manchester CAZ: At-a-Glance Details

N.B. Some details may change as a result of the [current review](#) (04 Feb 2022), in which Greater Manchester Authorities been granted a delay to implement the Clean Air Zone — they now have until July 2022 to submit revised plans to the government.

*Note that **many of the links** listed here to the [cleanairgm.com](#) site **were removed** soon after the review was announced.*

<p>Area Covered</p>	<p>All of Greater Manchester, except the Strategic Road Network. These exceptions include motorways and some parts of the A555. The A6 is <u>not</u> an exception.</p> <p>See the Clean Air Zone Map for details. Signs will be installed to show when drivers are entering and leaving the CAZ.</p> <p>Note that some sources confusingly mention charges for <i>entering</i> the zone; this is perhaps misleading because charges apply to <i>usage</i>, day-by-day, within the zone — which need not necessarily involve any boundary crossing.</p>
<p>Affected Vehicles*</p>	<p>Any of the following with a Euro V (or earlier) diesel engine:</p> <ul style="list-style-type: none"> • Heavy Goods Vehicles (HGVs) • Buses / Coaches <p>Any of the following with a Euro 5 (or earlier) diesel engine or a Euro 3 (or earlier) petrol engine:</p> <ul style="list-style-type: none"> • Vans / Light Goods Vehicles (LGVs) • Minibuses • Motorcaravans • Taxis / Private Hire Vehicles (PHVs)
<p>Unaffected Vehicles*</p>	<ul style="list-style-type: none"> • Private Cars • Motorcycles • Mopeds <p>+ Any affected vehicle that is compliant, i.e. at least Euro VI for HGVs, Buses / Coaches at least Euro 6 (diesel) or at least Euro 4 (petrol) for Vans, LGVs, Minibuses, Motorcaravans, Taxis or PHVs</p> <p>+ Exempted vehicles (e.g. tractors, cranes, historic vehicles, disabled tax class vehicles, and many others)</p> <p>There are also some temporary exemptions (e.g. driving in a CAZ because of a designated diversion) and discounts (e.g. non-compliant vehicles with a Private HGV tax class)</p>
<p>Hours of Operation</p>	<p>Permanent, i.e. 24 hours a day, 7 days a week, all year.</p>
<p>Chargeable Days</p>	<p>Each chargeable day starts at midnight, lasting for 24 hours.</p> <p>For example, an affected non-compliant vehicle travelling within the Clean Air zone on a journey that starts at 23:59 and finishes at 00:01 would require 2 days' payments because it spans 2 chargeable days. Charges are per vehicle per chargeable day, however much a vehicle is driven. There is no daily charge† for vehicles that remain parked throughout a chargeable day, ref. drop-down item headed How will the Clean Air Zone work?</p>

Payments & Penalties	<p>Payments can be made via the Central Government Payment Portal.</p> <p>It is expected that payments can be made 7 days in advance (including the journey date) or 7 days retrospectively (including the journey date), ref. drop-down item headed How will the Clean Air Zone work?</p> <p>If the daily charge for a non-compliant vehicle isn't paid, there will be a liability to pay a Penalty Charge Notice (PCN) of £120 (reduced to £60 if paid within 14 days) in addition to the daily charge, ref. drop-down headed What are the Clean Air Zone daily charges for non-compliant vehicles?</p>
Enforcement	<p>Like in many car parks currently, enforcement will be done using Automatic Number-Plate Recognition (ANPR) cameras.</p> <p>A network of over 850 ANPR cameras was due to be installed in Greater Manchester before April 2022. Vehicle number plates (registration numbers) detected by the cameras will be recorded on a database, and if a charge is applicable, it will need to be paid within a few days (see above, under “Payments & Penalties”), otherwise a PCN will be issued to the owner or registered keeper, ref. drop-down headed How will the Clean Air Zone work? Locations of over 800 of CAZ ANPR cameras were published on a map by Manchester Evening News in January 2022.</p>
Charges*	<p>There will be no charge for vehicle categories that are deemed “unaffected”, such as private cars, motorcycles or mopeds.</p> <p>Nor will there be any charge for compliant vehicles, i.e. vehicles that meet the required emissions standards — typically at least Euro VI for larger vehicles e.g. HGVs, buses / coaches, or for smaller-engined vehicles, at least Euro 6 for diesel-engined vehicles or at least Euro 4 for petrol-engined vehicles.</p> <p>All other vehicles will be subject to the daily charge when detected driven on roads in Greater Manchester (except for roads in the Strategic Road Network (see above, under “Area Covered”)) unless exempt. The standard daily charges currently range from £7.50 (e.g. for taxis) to £60 (e.g. for HGVs). For details, see the drop-down headed What are the Clean Air Zone daily charges for non-compliant vehicles?</p>

* These are not comprehensive lists. For a definitive answer see [cleanairgm.com](#) or GOV.UK's [Drive in a Clean Air Zone](#) webpage. The [RAC's website](#) provides further information about European emissions standards for vehicle exhaust emissions of new vehicles sold in the EU and the UK since 1992.

† Based on the fact that enforcement is via ANPR cameras and the charges are for driving.

Information on Other LEZ Schemes

The website [urbanaccessregulations.eu](#) is generally a good source of information for low emission zones in Europe (including the UK), although it is not necessarily always completely accurate and up to date. It is therefore recommended to cross-check with local government websites for the area(s) of travel concerned.

For route-planning, it has been [reported](#) that Google Maps, for example, will warn drivers in London and other cities if their route takes them through low-emission zones with fees or fines. However,

at the time of writing, I think this applies only to the app version, rather than via the Internet webpage.

Glossary

Term	Description
ANPR	Automatic Number-Plate Recognition. ANPR cameras use optical character recognition technology to “read” characters from images of vehicles' number plates.
AQMA	Air Quality Management Area
CAZ	Clean Air Zone
Defra	Department for Environment, Food & Rural Affairs
GMCA	Greater Manchester Combined Authority
HGV	Heavy Goods Vehicle
LEZ	Low Emission Zone. A general term (which pre-dates the term “CAZ”) that defines an area in which access by some polluting vehicles is restricted or deterred, with the aim of improving air quality.
LGV	Light Goods Vehicle
PCN	Penalty Charge Notice
PHV	Private Hire Vehicle
SCA	Smoke Control Area
TfGM	Transport for Greater Manchester
TfL	Transport for London
ULEV	Ultra-Low Emission Vehicle. Vehicles that emit less than 75 grams of carbon dioxide per kilometre driven. (The threshold may be lowered in future.)
ULEZ	<p>Ultra-Low Emission Zone. An area in which polluting vehicles that don't meet defined emission standards are charged a fee to be driven. Typically, in the UK, “ULEZ” specifically refers to the scheme in London, where, prior to March 2021 the permitted emission levels of pollutants in the ULEZ were lower than in the LEZ — hence the name. However, from that date onwards, the emission standards for the London LEZ match those of its ULEZ, although the LEZ affects fewer types of vehicle.</p> <p>Occasionally, other councils have used “ULEZ” differently, to indicate a change towards tighter emission standards compared to an existing LEZ. An example is Brighton & Hove City Council, which commissioned a report that misuses the term in section 1.9 to refer a zone to that limits entry to vehicles that are not ultra-low emission. (They don't mean it in the same way that the Vehicle Certification Agency defines ULEVs, which is based on carbon dioxide emissions, rather other emissions such as nitrogen dioxide or particulate matter.)</p>
ZEZ	Zero Emission Zone. An area allowing access (or access free from an air pollution charge) to zero-emission vehicles, which are defined as emitting 0 g/km of CO ₂ . The majority of hybrid vehicles do not meet this standard, so zero-emission vehicles are typically those with fully electric or hydrogen engines.

Revision History

Issue	Date	Details
0.1	28-Feb-2022	Initial draft for comment
1.0	06-Mar-2022	Minor edits from review: <ul style="list-style-type: none">a. Added “a day” to “24 hours” under “Hours of Operation”.b. Added cross-reference hyperlink near beginning of “Background” to provide option to skip ahead to GM CAZ.c. Clarified description of Table 3 to indicate that it contains selected examples, rather than being a comprehensive list of categories.d. Added missing dagger in text for “Chargeable Days”.e. Added link to Oxford City Council announcing their ZEZ had started.f. Added qualification to extension of Glasgow LEZ in 2023.