Ultra Low Emission Zone proposal

Public consultation overview

November 2014
Policy context

- London Plan (The Mayor’s Spatial Strategy)
- UK
- Europe

Transport Emissions Roadmap (TERM)

- Mayor’s Transport Strategy
- Climate Change Mitigation and Energy Strategy (CCMES)
- Mayor’s Air Quality Strategy (MAQS)

Measures in TERM eg Ultra Low Emission Zone
Why an Ultra Low Emission Zone (ULEZ)?

Meeting London’s challenges

Addressing the NO₂ problem

Contributing to climate change mitigation

Improving public health

Reducing air pollutants from road transport

Reduce CO₂ emissions from road transport

Increasing the proportion of low emission vehicles

Promote sustainable travel

Stimulate low emission vehicle market

Supporting walking, cycling and zero emission deliveries

Non-transport sources of emissions
ULEZ - key policy development questions

- What area will the zone cover?
- What time will it operate?
- What is Ultra Low / Near Zero?
- Encouraging the uptake of ‘Near Zero’ emission vehicles

Congestion Charging Zone

‘Ultra Low’ for NO\textsubscript{x} (Euro 6/VI)
What area will the zone cover?
NO$_x$ emissions from road transport in central London in 2020

- **Taxi**: 18%
- **TfL bus**: 23%
- **Van / Minibus**: 14%
- **Diesel car**: 18%
- **Petrol car**: 3%
- **HGV**: 11%
- Coach & non-TfL bus: 9%
- **Private Hire Vehicles**: 4%
- Motorcycle: <1%

NB: chart will not add to 100% owing to rounding
• Euro VI/6 introduced from 2014 starting with heavy vehicles – significant improvement for NO$_x$ from diesel vehicles

• Euro 4 petrol vehicles have an equivalent NO$_x$ standard

• On a typical day, 73% of cars in central London in 2020 will be either Euro 6 diesel or Euro 4 petrol without the ULEZ proposal
ULEZ proposal – new standards in central London

• The ULEZ will require all vehicles driving in central London to meet new exhaust emissions standards (ULEZ standards) – set to reflect vehicle size, fuel, availability and contribution to emissions on an individual basis

• The ULEZ standards would take effect from 7 September, 2020 and operate 24 hours a day, seven days a week

• A vehicle that does not meet the ULEZ standards would still be able to be driven in the ULEZ but a daily charge must be paid to do so

• The ULEZ standards would be in addition to the LEZ standards currently in place for heavy vehicles. The same exemptions currently in place for the LEZ would also apply.

• Additional requirements for TfL buses, taxis and PHVs...
ULEZ proposal – new standards in central London

Upgrade or switch to a compliant vehicle by 2020

Euro VI
(<6 years old in 2020)

Euro 6 (diesel)
(<4-5 years old in 2020) or
Euro 4 (petrol)
(<13-14 years old in 2020)

Euro 3 (<13 years old in 2020)

Stay and pay a ULEZ charge

£100 daily charge

£12.50 daily charge

Adapt journey

A proportion of drivers will instead change route or destination, change mode or reduce the amount they travel.
Additional requirements for TfL services

• TfL is working to reduce emissions from its buses, taxis and PHVs and to increase the number of zero emission capable vehicles.

• This will create demonstrator fleets in London, boost industry sales and lead the transition towards this technology.
ULEZ proposal – TfL buses

All double deck TfL buses operating in central London will need to be hybrid and Euro VI (or very close for some New Routemasters). Subject to further feasibility, these vehicles will then operate zero emission in some specific focus areas.

All single deck TfL buses operating in central London will operate zero emission at all times (eg electric).
ULEZ proposal - Taxis

A new requirement will be introduced for taxis new to licensing in London from 1 January 2018.

All taxis will need to be zero emission capable (50g/km CO₂ + min zero range 30 miles).

The maximum age of a non zero emission capable taxi will be reduced to 10 years old from 2020 (irrespective of date of licensing) to reduce the oldest, most polluting vehicles. Zero emission capable taxis will retain a 15 year age limit.
ULEZ proposal - Private Hire Vehicles (PHVs)

A new requirement will be introduced for private hire vehicles (PHVs) new to licensing in London from 1 January 2018.

All newly manufactured PHVs will need to be zero emission capable (50g/km CO$_2$ + min zero range 30 miles). If they are not new and never been licensed in London before, then they need to be ULEZ compliant (Euro 6 diesel / Euro 4 petrol).

PHVs will be liable for the ULEZ charge like any other car or van (ie if entering the zone then comply or stay and pay). The 10 year age limit will remain the same.
Impact on vehicle emissions in 2020

- The ULEZ proposal is projected to reduce total vehicle NO\(_x\) by 51%, PM\(_{10}\) / PM\(_{2.5}\) 64% and CO\(_2\) by 15% in central London.
- Breakdown of NO\(_x\) savings according to vehicle type:

<table>
<thead>
<tr>
<th></th>
<th>ULEZ</th>
<th>Inner London</th>
<th>Outer London</th>
</tr>
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<tbody>
<tr>
<td>CO(_2)</td>
<td>-15%</td>
<td>-3%</td>
<td>-1%</td>
</tr>
<tr>
<td>NO(_2)</td>
<td>-50%</td>
<td>-18%</td>
<td>-10%</td>
</tr>
<tr>
<td>NO(_x)</td>
<td>-51%</td>
<td>-16%</td>
<td>-10%</td>
</tr>
<tr>
<td>PM(_{10}) (exhaust)</td>
<td>-64%</td>
<td>-19%</td>
<td>-4%</td>
</tr>
<tr>
<td>PM(_{2.5}) (exhaust)</td>
<td>-64%</td>
<td>-19%</td>
<td>-4%</td>
</tr>
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Impact on NO$_2$ compliance in 2020

Without ULEZ:
- 47% compliance in the central area

With ULEZ:
- 83% compliance in the central area

EU limit value
Population Weighted Annual Mean NO$_2$ Concentration (µg/m$^3$)
Impact on proportion of borough population living in areas of NO$_2$ exceedance in 2020

With ULEZ

Without ULEZ

Percentage of population living in areas of NO2 exceedence
- 50 to 60
- 30 to 50
- 10 to 30
- 5 to 10
- 1 to 5
- 0 to 1
- 0
Impact on air quality in 2020

- The ULEZ will have **positive impacts on air quality across London** as many journeys start and end outside the zone.

- Over half of all care homes, hospitals and schools **across London** will be taken out of areas of NO₂ exceedance (central London shown below).

![Diagram showing impact of ULEZ on air quality across London](image-url)
Government support

• Earlier this year the Government announced the main elements of a £500m package of measures to support the development and use of ultra low emission vehicles.

• TfL is currently in discussion with the Office of Low Emission Vehicles (OLEV) to ensure London benefits from this funding.

• This is likely to include grant funding for the new zero emissions capable taxis / PHVs and financing rapid charging infrastructure.

• We expect more detail to be announced by the OLEV later this year, coinciding with the consultation period.
Next steps

- Ten week public consultation started 27 October 2014 until 9 January 2015
  
  www.tfl.gov.uk/ultra-low-emission-zone

- Report to the Mayor in the spring and subject to confirmation, we hope to have legislation and policies confirmed by 2015.

- This provides a substantial notice period before changes come into effect and allows time to finalise implementation of supporting measures, such as funding and infrastructure.
Future standards and expansion

• The ULEZ proposal does not preclude taking things further in the future – we welcome thoughts on this

• Our analysis concluded that a ‘zero emission capable’ ULEZ standard is unlikely to be workable for all vehicles in 2020 and this might be more appropriate at a later date (eg 2025)

• New requirements for TfL services are paving the way and creating demonstrator fleets, including opportunities for geofencing

• It is feasible in principle for the zone to be extended in the future. This would entail extensive social and economic effects and needs to be carefully evaluated, alongside another consultation
Indicative timeline for the ULEZ proposal

- **2014**: Public consultation
- **2015**: Legislation finalised
- **2016**
- **2017**
- **2018**
- **2019**
- **2020**
- **2025**

**TfL bus procurement**
- Double-deck hybrid roll out in central London to 2020
- Single-deck zero emission roll out in central London to 2020

**Taxi & PHV licensing**
- All newly licensed taxis / PHVs zero emission capable from 2018
- Reduce age limit for conventional diesel taxis to 10 years from 2020

**ULEZ charge**
- Euro VI: £100
- Euro 4 (petrol): £12.50
- Euro 6 (diesel): £12.50
- Euro 3: £12.50

Potential future strengthening of ULEZ standards