



This paper will be considered public

1 Summary

- 1.1 This paper updates on TfL's implemented and forthcoming proposals to improve air quality.
- 1.2 This paper covers the following:
 - (a) **Emission control zones:** Overview of the operation of the T-Charge, the central London Ultra Low Emission Zone (ULEZ) and the proposed changes to the LEZ and ULEZ
 - (b) **Buses:** Update on the improvements to the bus fleet, including the roll out of the Low Emission Bus Zones
 - (c) **Rapid Charging and Taxis:** Update on the rapid charging network and Taxis
 - (d) **Proposals in the Mayor's Transport Strategy (MTS) and London Environment Strategy (LES):** Overview on future proposals set out within the MTS and LES
 - (e) **Asks to Government:** Update on TfL and the GLA's lobbying positions

2 Recommendation

- 2.1 **The panel is asked to note the paper.**

3 Emission Control Zones

T-Charge

- 3.1 The T-Charge was launched on 23 October 2017, as an add-on to the congestion charge. Eligible vehicles need to meet Euro 4 emissions standards or pay an additional £10 on top of any congestion charges.
- 3.2 Discounts and exemptions are the same as those for the Congestion Charge, except that non-compliant 9+ seater vehicles need to pay the T-Charge, and there is an additional exemption for historic vehicles from the T-Charge.
- 3.3 Residents of the Congestion Charging zone receive a 90 per cent discount on the charge.

- 3.4 Since the Mayor confirmed the T-charge on 17 February 2017, there has been an approximately 30 per cent fall in the number of non-compliant vehicles in the Congestion Charging zone, from around 7,500 vehicles per day in February 2017 to around 5,000 today.
- 3.5 Since the launch of the scheme there have been on average nearly 900 fewer non-compliant vehicles entering the Congestion Charging zone every day. Roughly 95 per cent of vehicles now meet the emissions standards.
- 3.6 Approximately 1,600 vehicles per day pay the daily charge. Approximately 230 Penalty Charge Notices (PCNs) per day are issued. This is approximately the same number of PCNs issued to pre-Euro 4 vehicles for non-payment of Congestion Charge prior to the implementation of the T-Charge.

The Ultra Low Emission Zone (ULEZ)

- 3.7 The Mayor has confirmed that the ULEZ will commence in April 2019, initially covering the same area as the Congestion Charging zone.
- 3.8 The ULEZ will apply 24 hours a day every day of the year and will require all vehicles to meet emissions standards or pay a daily charge.
- 3.9 The standards will be:
- (a) Euro 4 for petrol vehicles;
 - (b) Euro 6 for diesel vehicles; and
 - (c) Euro 3 for motorcycles, scooters and similar vehicles.
- 3.10 The charge levels will be
- (a) £12.50 for cars, vans, motorcycles and similar vehicles; and
 - (b) £100 for buses, coaches and Heavy Goods Vehicles.
- 3.11 Discounts and exemptions are highly limited and in line with the Low Emission Zone. They include taxis, plant machinery, military vehicles and historic vehicles.
- 3.12 Residents will not be permanently exempt, but will receive a time limited sunset period, to allow additional time to comply with the scheme.
- 3.13 The ULEZ will supersede the T-Charge when implemented, except for residents, who will continue to pay the charge at a discounted rate until the end of the sunset period.
- 3.14 A compliance checker is currently available on the TfL website, allowing drivers to check whether their vehicle meets the emissions standards.
- 3.15 A campaign to further prepare people for the implementation of the ULEZ will be launched later this year. This will use a variety of print, radio and online media to alert people that the ULEZ is coming, inform them of their options and encourage them to take action to comply with the ULEZ standards. This will be alongside customer and stakeholder communications using our existing customer databases.

Proposed expansion of the ULEZ standards

- 3.16 TfL is currently consulting on changes to the LEZ and ULEZ. The proposals are:
- (a) a strengthening of the LEZ standard so that from October 2020 all Buses, Coaches and HGVs will need to meet the Euro VI standard London-wide or pay a £100 daily charge;
 - (b) an extension the ULEZ for cars, vans and motorcycles out to an area roughly bounded by the North and South Circular Roads from October 2021 so that all these vehicle types will need to meet the ULEZ emission standards or pay a daily charge of £12.50;
 - (c) bringing forward the end of sunset period for residents of the Congestion Charging zone to October 2021, so that all residents of the inner zone are subject to the ULEZ charge; and
 - (d) increasing the PCN for non-payment of the ULEZ for light vehicles from £130 to £160 in line with the PCN for non payment of the Congestion Charge.
- 3.17 The proposals for ULEZ are expected to have the following results:
- (a) in 2020, 19 per cent reduction in road transport NO_x emissions Londonwide;
 - (b) in 2021, 28 per cent reduction in road transport NO_x emissions Londonwide and a 64 per cent reduction in road km exceeding NO₂ limit values; and
 - (c) in 2021 there will be over 100,000 fewer people living in areas exceeding legal NO₂ limits London-wide (77 per cent reduction London-wide, 96 per cent reduction in Outer London). There will be 71 per cent fewer schools in areas exceeding legal limits.
- 3.18 The consultation closes on 28 February 2018. A decision will be made in the summer once the consultation report has been analysed and reported to the Mayor.

4 Buses

- 4.1 We are undertaking an ambitious programme to reduce emissions from the Bus Fleet.

Buses and the ULEZ

- 4.2 The Mayor has decided that all TfL buses – including the New Routemaster bus – should meet the same Euro VI requirement in central London as other heavy vehicles and private buses from April 2019.
- 4.3 Currently 60 per cent of the bus fleet serving central London is ULEZ compliant. All double decker buses serving central London will be Euro VI hybrid from April 2019 and all single decker serving central London will be electric from 2020. This will be achieved through a combination of early replacement of buses and retrofitting.

- 4.4 TfL is also ensuring that the entire bus fleet meet the wider ULEZ and LEZ requirements. This means expanding the ULEZ retrofit programme to up to 4,000 buses outside the central zone by 2020 (up from 800).
- 4.5 Euro VI buses have shown a significant reduction in NO_x in the real world or around 80-90 percent when compared an equivalent Euro V vehicle.

Low Emission Bus Zones

- 4.6 Another initiative to tackle the worst pollution hotspots by prioritising cleaner buses on the dirtiest routes are Low Emission Bus Zones (LEBZs).
- 4.7 There are 12 LEBZ in total, which TfL will deliver to drive down oxides of nitrogen and particulate matter along specific corridors outside the ULEZ.
- 4.8 The zones represent the most extensive network of clean buses of any major world city. These hotspots expose Londoners to some of the highest levels of nitrogen dioxide (NO₂) pollution, and they contain older buses which contribute significantly to road transport emissions.
- 4.9 All buses travelling along these zones will meet Euro VI emissions, either through the introduction of new vehicles on new contracts, or through retrofitting older mid-life buses.
- 4.10 Where appropriate, bus priority will be delivered on these corridors to cut bus emissions and reduce journey time for bus passengers.
- 4.11 Last year, two LEBZ were launched along Putney High Street and between Brixton to Streatham, and since then both areas have seen reductions in harmful emissions and the LEBZ have been received positively.
- 4.12 In Putney initial analysis suggests there has been around a 40 per cent reduction in annual average concentrations at Putney High Street, and reductions in hourly NO₂ exceedances by around 90 per cent between 2016 and 2017.
- 4.13 Monitoring is ongoing along the Brixton to Streatham corridor, but we have already seen NO₂ reductions in Brixton as preparations for the LEBZ and wider improvements in the bus fleet are being rolled out.
- 4.14 In addition, the benefits of operating the greenest buses will be felt across the capital as the buses operate the full length of their routes. The changes are expected to reduce bus emissions across the 12 zones by over 80 per cent.
- 4.15 The remaining 10 LEBZs are:
- (a) Lewisham to Catford from Bromley Road, along Lewisham High Street to Lewisham Road;
 - (b) Warren Road, Gainsborough Road, Cambridge Park Road to Eastern Avenue;
 - (c) A12 Eastern Avenue from Homerton High Street along Homerton Road;
 - (d) Stratford from Mile End Road to Romford Road;

- (e) Haringey from High Road to Green Lanes;
- (f) Camberwell to New Cross from Camberwell New Road, along Peckham High Street to New Cross Road;
- (g) Wandsworth to St John's Hill from Lavender Hill to Wandsworth Road;
- (h) Edgware Road (Kilburn to Maida Vale) from Cricklewood Broadway via Shoot-Up Hill to Kilburn High Road;
- (i) Edmonton to Seven Sisters from Hertford Road High Street via Fore Street to Seven Sisters Road;
- (j) Uxbridge Road to Shepherds Bush from Uxbridge Road via Ealing Broadway, The Vale to Uxbridge Road; and
- (k) Chiswick High Road to Kensington from Chiswick High Road via Hammersmith Broadway to Kensington High Street

4.16 These will be delivered in phases before October 2020.

The future

- 4.17 The Mayor's overall ambition is to transition the bus fleet buses away from fossil fuels altogether and proposes to have a zero emission bus fleet by 2037 at the latest.
- 4.18 TfL continues to progressively introduce zero emission vehicles into the fleet as the technology becomes available to us such as full electric and hydrogen.
- 4.19 Trialling new technologies also enable us to reduce diesel and move to zero-emission where possible.
- 4.20 London already boasts the largest electric bus fleet in Europe with more than 2,900 hybrid electric buses running across the Capital. Currently there are 91 all-electric single deck buses in the fleet and five double deck buses. This year, we will be introducing a further 58 pure electric single deck buses into the fleet which is a significant achievement.
- 4.21 There are also 10 hydrogen fuel cell buses operating in central London.
- 4.22 This year, TfL is looking to procure a further 20 hydrogen fuel cell buses and a fuelling facility, funded from European funding, alongside government and TfL match-funding.

5 Rapid Charging and Taxis

- 5.1 Emissions from taxis are being address through revised licencing requirements rather than subjecting them to ULEZ. Since the start of the year all newly licensed taxis have to meet Zero Emission Capable (ZEC) requirements, meaning that they need to have a minimum electric range of 30 miles (although the new ZEC taxis available now can achieve 70 miles), emit <50g of CO₂ per km and the combustion part of any engine must not be powered by diesel.

- 5.2 To support the uptake of these vehicles, TfL is rolling out a network of rapid charge points. As of 7 February 2018, TfL has supported the installation of 80 rapid charge points in London, with 49 dedicated to taxis. There are a further 24 publicly available rapid charge points funded and operated by third parties, meaning over 100 charge points are available for use in London.
- 5.3 These points have been delivered over a period of six months. Four sites have been delivered on borough land, at private sites and the remainder on TfL land or highway.
- 5.4 We are on course to deliver 100 TfL funded rapid charge points by March 2018, with 61 dedicated to taxis.

6 Proposals in the Mayor's Transport Strategy and London Environment Strategy

- 6.1 The Draft Mayor's Transport Strategy and London Environment Strategy set out the long-term proposals and policies to reduce air pollution emissions.
- 6.2 In addition to providing the framework for the proposals on emissions control zones, buses and taxis mentioned above, the strategies set out additional local actions and a long term trajectory to a zero emission London by 2050. The Mayor has also adopted a target of achieving World Health Organization recommended guidelines by 2030.
- 6.3 A key part of this will be the establishment of zero emission zones in London. TfL will be working with the boroughs to establish where and how these can be delivered.

7 Asks to government

- 7.1 TfL and the GLA have made clear that additional action from central government is needed to solve London's air quality issue as this cannot be done under current Mayoral powers alone. We have four key asks to government:
- (a) introduction of a national vehicle scrappage fund (or government funding for a targeted London fund) to reduce the cost of compliance with ULEZ and encourage greater uptake of cleaner vehicles;
 - (b) reform of diesel taxes such as Vehicle Excise Duty to remove the fiscal incentive to buy diesel cars;
 - (c) new powers to manage emissions from the Thames and construction sites in the capital (devolved from central government); and
 - (d) a comprehensive new 21st Century Clean Air Act, guaranteeing that the legally enforceable protections against breaches in air quality regulations will be in place following Brexit.

7.2 The Government has established a £220m Clean Air Fund, in addition to providing £255m in implementation funding. However, it has indicated that London is not eligible to bid for a share of this. With 40 per cent of the roads in the UK breaching legal limits located in London, London drivers paying VED that can only be spent on roads outside London, and the government revenue grant to TfL being reduced to zero we are lobbying the Government to reconsider this decision.

List of appendices to this report:

None

List of Background Papers:

None

Contact officer: Alex Williams, Director of City Planning
Number: 020 3054 7023
Email: alexwilliams@tfl.gov.uk

