

Title: Ultra Low Emission Zone

Executive Summary: This Decision Form concerns the Mayor’s proposals for an Ultra Low Emission Zone (ULEZ) in central London to reduce air pollutant and CO2 emissions from road transport, to promote sustainable travel and to stimulate the low emission economy. ULEZ includes proposals for specifying emissions standards for vehicles driven in the Zone from September 2020 (the same area as for congestion charging) and for charging non-compliant vehicles which are implemented by a Variation Order to the current Low Emission Zone Scheme Order. The planned ULEZ also contains wider proposals for TfL buses and for licensing changes in relation to London’s taxi and private hire (PHV) fleets, which are for TfL to determine. These were subject to public and stakeholder consultation (27 October 2014 to 9 January 2015). TfL has analysed responses and presented them in a Report for the Mayor’s consideration, with recommendations. This Mayoral Decision asks the Mayor to decide whether or not to confirm (with or without modifications) the Variation Order. The Mayor has also considered representations made in relation to the TfL bus fleet proposals and proposed licensing changes for taxis and PHVs. During the consultation a number of issues were identified that suggest that although it is intended to proceed with licensing measures to reduce the emissions from London’s taxi and PHV fleets, further consultation and engagement is necessary. TfL will undertake additional consultation and engagement on the issues as soon as practicable before making a final recommendation to the Mayor.

Decision: That the Mayor:

- (1) Having **considered** the responses to the ULEZ consultation proposals, including in particular those relating to the contents of the Variation Order (at Appendix A) and proposed TfL bus operations, taxi and PHV licensing changes (“the ULEZ proposals”); and having regard to and taking into account the following: the Integrated Impact Assessment prepared in relation to the published ULEZ proposals (Appendix B); the Variation Order; and TfL’s Report following consultation with the public and stakeholders, contained at Appendix C, which includes TfL’s consideration of the responses to the consultation, recommendations as to modifications to the Variation Order and in respect of the wider ULEZ proposals; and responses (if any) that were received after TfL completed its report, and which have been provided to the Mayor;
- (2) Having **considered** the content of, and advice given in, this Form in particular regarding the various matters for decision, including whether further information is required before making a decision and whether further consultation, or the holding of any inquiry, public or otherwise, is necessary or appropriate before making a decision; and
- (3) Being satisfied regarding these and other relevant matters:
 - a. **Endorses** TfL’s proposals for the operation of its buses in the ULEZ by 2020;
 - b. **Confirms** the Greater London Low Emission Zone Charging (Variation and Transitional Provisions) Order 2014 with the modifications recommended by TfL in response to representations to the consultation (set out in Section 6 of this Form), by signing and dating this Form and the Instrument of Confirmation (contained at Appendix D); and
 - c. **Requests** TfL as soon as practicable to undertake additional consultation and engagement, including with the taxi and PHV trades and other relevant consulted stakeholders, on the proposed licensing changes for these vehicles before making a final recommendation.

Mayor of London

I confirm that I do not have any disclosable pecuniary interests in the proposed decision, and take the decision in compliance with the Code of Conduct for elected Members of the Authority. The above request has my approval.

Signature:

Date:

PART I - NON-CONFIDENTIAL FACTS AND ADVICE TO THE MAYOR

Decision required – supporting report

1. Introduction and background

- 1.1. To tackle poor air quality and reduce greenhouse gas emissions, proposals for an Ultra Low Emission Zone (ULEZ) in central London have been developed by the Mayor and TfL. The problems facing London in terms of poor air quality and the objectives of the proposed ULEZ are summarised in section 3 of this Form.
- All vehicles, other than taxis, driving in central London would be required to meet new exhaust emissions standards (ULEZ standards). The ULEZ would take effect from 7 September 2020, and apply 24 hours a day, 7 days a week. A vehicle that does not meet the ULEZ standards could still be driven in the Zone but a daily charge would have to have been paid to do so, unless an exemption applied. The proposed ULEZ standards and the daily charges proposed for vehicles which do not comply, are set out in Table 1 below. These proposals are implemented under TfL's road user charging powers, subject to Mayoral confirmation.
 - The second element is for TfL buses operated in the Zone to be low emission (at tailpipe) by 2020 (hybrid double deck and zero emission single deck buses). These proposals are implemented by TfL as part of its operational and procurement programmes.
 - Finally, it was proposed that TfL implement changes to taxi and private hire vehicle (PHV) licensing requirements to so that all new taxis or nearly new¹ PHVs are to be zero-emission capable ("ZEC") from the start of 2018 and that the age limit of non-ZEC taxis is reduced from 15 to 10 years from 2020. These proposals would be implemented by TfL.
- 1.2. These elements form a package of measures for reducing vehicle emission pollutants and CO₂ emissions across central and Greater London in order to help achieve EU legal requirements. The Mayor endorsed this package for public and stakeholder consultation from October 2014. The second and third elements are matters that fall to TfL to implement or determine, as the operator of the London Bus Network and the licensing body for taxis and PHVs in Greater London. As the consultation took place on the entire ULEZ package the Mayor is asked to consider TfL's Report on all elements of the consultation.
- 1.3. The creation of the ULEZ area in central London, establishment of ULEZ Standards and vehicle non-compliance charges, and other aspects of the scheme, involve making changes to the current London Low Emission Zone (LEZ). This is done by way of a variation order to amend the existing Greater London Low Emission Zone Charging Order 2006 ("the LEZ Scheme Order"), under which the LEZ operates. As stated in the Executive summary, this Form asks the Mayor to decide whether or not to confirm the Greater London Low Emission Zone Charging (Variation and Transitional Provisions) Order 2014 ("the Variation Order") with or without modifications. The Variation Order was made by TfL on 22 October 2014 and was subject to statutory public and stakeholder consultation between 27 October 2014 and 9 January 2015, alongside the wider TfL bus, taxi and PHV proposals.

Public and Stakeholder consultation

- 1.4. The ULEZ proposals were the subject of public and stakeholder consultation (27 October 2014 to 9 January 2015). A description of the consultation is provided in Section 5 of this Form below. TfL has analysed the responses and has presented them in a report for the Mayor's consideration (the Report to the Mayor at Appendix C), with recommendations as to whether the published

¹ Newly-manufactured vehicles up to 18 months old

consultation proposals should be modified in light of representations and other current developments.

ULEZ vehicle emission standards proposals

- 1.5. The vehicle emission standards and charging aspects of ULEZ would be implemented by means of TfL using its road user charging powers to make appropriate amendments (variations) to the LEZ Scheme Order. The primary objective of the LEZ is to improve air quality in London. Since its introduction in February 2008 it has been successful in reducing air pollutant emissions from heavy diesel vehicles (vans, lorries and buses and coaches) by requiring them to meet a specified emissions standard in order to drive in the LEZ without a daily charge. The LEZ operates 24 hours per day, 365 days per year and covers the whole of Greater London. To date the LEZ has targeted emissions of Particulate Matter (PM) and has achieved a very high compliance rate (over 95 per cent), removing the oldest and most polluting heavy vehicles from London's roads. The LEZ has been implemented in 4 phases and Phase 5 (which requires TfL buses to meet standards for NOx) is scheduled for introduction by March 2015.
- 1.6. There are a number of similarities between the LEZ and the proposed ULEZ. Like the LEZ, the ULEZ would seek to improve air quality in London by reducing air pollutant emissions from road vehicles and would operate 24 hours per day, 365 days per year in order to achieve the maximum improvement to air quality. Also like the LEZ, the ULEZ would base its emissions standards on 'Euro standards.' These are European standards that define the limits for exhaust emissions for new vehicles sold in EU member states. From specified dates onwards, vehicle manufacturers may only sell new vehicles that comply with these standards (as shown in Table 1 below).
- 1.7. This approach has the advantage of using a system that is well-understood and established in Europe. Unlike the LEZ, which applies London-wide, the ULEZ is proposed to be the same area as the Congestion Charging zone (CCZ) in central London. Central London is the area with the greatest exposure to poor air quality and the area in which road transport emissions may be most effectively tackled. In addition, the area is already understood by drivers as a 'zone' and has the advantage of existing enforcement cameras and road signage, which it is proposed would be used for the ULEZ (modifications to signage would be agreed with the Department for Transport (DfT)). Monitoring of compliance with the ULEZ would be by means of the Automatic Number plate Recognition (ANPR) camera network used for CC and enforcement would (as for CC and LEZ) be by means of Penalty Charge Notices (PCNs) and related enforcement.
- 1.8. The published Variation Order amends the LEZ Scheme Order' by making the following proposed changes in order to implement the road user charging aspects of the ULEZ:
 - 1) Specifying the area of the proposed ULEZ: this is the same as the Congestion Charging (CC) zone;
 - 2) Setting out the classes of vehicle to which the ULEZ emissions standards would apply (see Table 1);
 - 3) Setting out the classes of vehicle to which the ULEZ standards would not apply ('non-chargeable vehicles') - these are taxis and "historic" vehicles (see further below) in addition to the exemptions which already exist for LEZ²;
 - 4) Specifying the vehicle emissions standards (ULEZ Standards) for the different categories or classes of vehicles entering the Zone (i.e. those that are non-chargeable);
 - 5) Stating the proposed daily "non-compliance" charge for vehicles which do not comply with the ULEZ standards (£12.50 for cars, motorcycles, vans and minibuses and £100 for HGVs, buses and coaches);

² The consultation proposed that the following LEZ 'exemptions' (non-chargeable vehicles) be retained for ULEZ: HM Forces vehicles, vehicles being used for military purposes, historic vehicles, non-road going vehicles, showman's vehicles, taxis

- 6) Making changes to the payment methods for the scheme to enable payment of the ULEZ non-compliance charge, including the ability to pay a 'period licence' and to use Auto Pay;
- 7) Stating the proposed level of penalty charges for non-payment of the daily charge where a non-compliant vehicle is driven in the Zone (£130 for cars, motorcycles, vans and minibuses (reduced to £65 if paid within 14 days) and £1,000 for HGVs, buses and coaches (reduced to £500 if paid within 14 days));
- 8) Adding some definitions and clarifications to the scheme to enable the ULEZ; and
- 9) Specifying a transitional 3 year 'sunset' period commencing on 7 September 2020 and ending on 6 September 2023 during which vehicles of residents that are entitled to register with TfL for the 90 per cent residents' discount for the Congestion Charge (CC) on the CC would be treated as non-chargeable for the purposes of the ULEZ charge.

Table 1: Proposed ULEZ standards and daily charge by vehicle category

Vehicle name	Vehicle type approval ³	Description	Proposed emissions standard ⁴	Date when newly sold vehicles must meet the emissions standards ⁵	Charge level if not compliant ⁶
Motorcycle, moped etc.	L	Any motorcycle or moped, (tricycle or quadricycle).	Euro 3	From 1 July 2007	£12.50
Car and small van ⁷	M1 N1 (i)	A passenger vehicle with no more than 8 seats in addition to the driver's seat. A goods vehicle with weight when empty less than 1205 kg.	Euro 4 (petrol)	From 1 January 2006	£12.50
			Euro 6 (diesel)	From 1 September 2015	
Large van and minibus	N1 (ii,iii) M2	Goods vehicle with a gross weight of 3.5 tonnes or less. Passenger vehicle with more than 8 passenger seats & gross vehicle weight of 5 tonnes or less.	Euro 4 (petrol)	From 1 January 2007	£12.50
			Euro 6 (diesel)	From 1 September 2016	
HGV	N2, N3	Lorries and specialist vehicles of more than 3.5 tonnes gross vehicle weight	Euro VI	From 1 January 2014	£100
(1) Non-TfL Bus/coach ⁸	M3	(1) Passenger vehicles with more than 8 passenger seats of more than 5 tonnes gross vehicle weight	Euro VI	From 1 January 2014 (Euro VI)	£100
(2) TfL Buses		(2) All TfL buses to be Euro VI, except where TfL is satisfied that	Euro VI or Euro V	From 1 January 2009 (Euro V)	£100

³ <http://www.dft.gov.uk/vca/vehicletype/definition-of-vehicle-categories.asp>

⁴ Euro standards for heavy-duty diesel engines use Roman numerals and for light-duty vehicle standards use Arabic numerals.

⁵ There will be some vehicles that will be type approved to the required Euro standard prior to their mandated date as manufacturers begin to adopt these standards.

⁶ This is the daily charge for a non-compliant vehicle entering ULEZ between 00:00hr and 23:59hr.

⁷ Car-derived van

⁸ An alternative standard is set for 'New Routemasters', as described in paragraph 1.9.

	NRMs meet specified requirements. ⁹			
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1.9. A number of formal modifications to the published Variation Order, set out in section 6 of this Form and TfL's Report, are also recommended by TfL for the Mayor's consideration. If the Mayor is minded to confirm the VO, the recommended modifications are as follows:

- To put in place a sunset period for vehicles that have a 'disabled' or 'disabled passenger vehicle' tax class ('disabled exemption') until 6 September 2023. This issue is covered by Theme H in Chapter 10 of the RTM.
- To amend the definition of the proposed exemption for historic vehicles, so that it aligns with the Government's Vehicle Excise Duty (VED) tax class. This particular issue is also covered by Theme H in Chapter 10 of the RTM.

ULEZ proposals for TfL bus operations

1.10. TfL operates the buses on the London bus network. In order to reduce emissions generally and meet the ULEZ emission standards, it is proposed that TfL would invest in its bus fleet so that all double deck buses operating in central London would be hybrid and all single deck buses would be zero emission by 2020. It is proposed that all TfL buses operating in central London are hybrid Euro VI or zero emission except for around 300 of TfL's current New Routemaster (NRM) buses, which have type approved Euro V engines. These buses are the cleanest diesel-electric hybrids of their generation with NOx emissions close to meeting the Euro VI standard (the Euro V NRM model provides a reduction of 80 per cent NOx emissions compared to a conventional Euro V model, whilst the Euro VI model gives a reduction of 95 per cent in NOx emissions). Therefore the Variation Order specifies an emissions standard for TfL buses as either Euro V for current NRM models (prior to 2015) meeting specified criteria¹⁰ and, otherwise Euro VI for newer NRM models. All Euro V double deck non-NRM buses used in central London will be fitted with SCR¹¹ systems to achieve Euro VI. The reasons for this approach, and issues raised in consultation responses, are discussed in more detail in the Report to the Mayor in Chapter 10, Theme I.

1.11. No changes to the published proposals are recommended.

ULEZ proposals for taxis and PHVs

1.12. TfL is the statutory licensing body for taxis and PHVs in Greater London. Its licensing regulations¹² allow it to prescribe the requirements or specifications that vehicles must meet before being licensed as taxis or PHVs, including their exhaust emissions and/ or maximum age limit for environmental purposes.

1.13. The ULEZ consultation proposed changes to taxi and PHV licensing requirements.

⁹ These are that the NRM meets all of the following: (1) it uses an electric engine (ie is hybrid); (2) it meets Euro V emissions standards; (3) it emits less than 2.05 g/km of NOx on Millbrook London Transport Bus (MLTB) test cycle MLTB9; and (4) is used to provide a local bus service as defined (ie a TfL bus).

¹⁰ Where TfL is satisfied M3 vehicles that it satisfies with all of the following: it uses an electric engine (ie is hybrid); it meets Euro V emissions standards; it emits less than 2.05 g/km of NOx on; and it is used to provide a local bus service as defined (ie a TfL bus)

¹¹ Selective Catalytic Reduction

¹² Taxis are licensed (cab licences) by TfL under the section 6 of the Metropolitan Public Carriage Act 1869 and Part III of the London Cab Order 1934 (SI 1934/ 1346 as amended). Under article 7 of the 1934 Order TfL must grant a cab licence to a vehicle if (inter alia) it conforms with conditions of fitness as laid down by TfL from time to time. TfL therefore approves Conditions of Fitness from time to time for this purpose. PHVs are licensed by TfL under the Private Hire Vehicles (London) Act 1998 and vehicles are granted a London PHV licence under section 7, and that the vehicles meets (inter alia) prescribed requirements (section 7(2)(c)). These prescribed requirements are contained in Schedule 1 of the Private Hire Vehicles (London PHV Licences) Regulations 2004 (the "Vehicle Regulations", as amended). TfL has powers to amend the prescribed requirements in Schedule 1 of the 2004 Regulations.

- A requirement that all new taxis and all nearly new PHVs¹³ presented to TfL for licensing from 1 January 2018 would need to be zero emission capable (“ZEC”, as defined);
- A reduction in the age limit for all non ZEC taxis from 15 to 10 years (irrespective of date of licensing) from 1 January 2020;

(ZEC taxis would retain the current 15 year maximum taxi age limit and ZEC PHVs would retain the current 10 year maximum PHV age limit.)

1.14. Under the published proposals taxis would be completely exempt from the ULEZ standards and daily non-compliance charges established for other vehicles under the published Variation Order. (They are classed as “non-chargeable vehicles” by the Variation Order.) PHVs, however, would be covered by the Order’s road user charging proposals and are to be subject to the same ULEZ standards and daily non-compliance charge level as private cars and vans, depending on the type of vehicle used (see Table 1 above).

1.15. The Report to the Mayor reports consultation responses on these issues, and other relevant developments and matters. As set out in the ‘Decision’ section of this form, and in Section 7 below, to enable additional time to consult with the taxi trade and consulted stakeholders on the proposals before a final recommendation is made, it is recommended that the Mayor asks TfL to undertake additional consultation and engagement before making a final recommendation to him. Further information is provided at Chapter 11 of the RTM.

2. Impact Assessments

2.1. The making or confirmation of a Variation Order to amend the LEZ Scheme Order, TfL’s proposals for bus operations in the ULEZ and changes proposed to its taxi and PHV licensing regulations, are not plans or programmes within the scope of the Environmental Assessment of Plans and Programmes Regulations 2004 (as amended) and EU Directive 2001/42/EC, nor a project within the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 (as amended) and EU Directive 85/ 337 /EEC (as amended). Nonetheless, it was considered prudent to undertake an Integrated Impact Assessment to ascertain the likely significant environmental, equality, economic and other relevant impacts or effects (if any) arising from measures in the entire ULEZ package (including as recommended to be modified or changed).

2.2. TfL commissioned Jacobs Consulting to undertake an Integrated Impact Assessment (IIA) to understand the impacts of the ULEZ proposals in relation to the environment, health, equality, and economic and business. These were also published in the form of four separate Impact Assessments, as follows:

- Environmental Assessment (EA)
- Health Impact Assessment (HIA)
- Equalities Impact Assessment (EqIA)
- Economic and Business Assessment (EBA)

2.3. The Equalities Impact Assessment undertaken as part of the IIA is consistent with the Mayor’s and TfL’s duties under section 149 of the Equality Act 2010 (the public sector equality duty) to have due regard to the need to eliminate unlawful discrimination, harassment and victimisation, to advance equality of opportunity, and to foster good relations between people who share a protected characteristic and those who do not. The protected characteristics covered by section 149 are: age; disability; gender reassignment; pregnancy and maternity; race; sex; religion or belief; and sexual orientation. Compliance with the duty is iterative and on-going. It includes

¹³ A “nearly new PHV” is newly-manufactured, up to 18 months old.

carrying out a process to identify and actively consider potential detrimental impacts (if any) that may arise for individual protected groups what mitigations (if any) could be implemented to address them at a level proportionate to the decision being taken.

- 2.4. The Impact Assessments considered the proposed changes against the relevant objectives used to appraise the current Mayor’s Transport Strategy (2010) (“MTS”), with adjustments to make the assessment specific to the ULEZ proposals. The IIA objectives by assessment are set out in Table 2 below.

Table 2: Summary of IIA objectives

Assessment	IIA Topic	IIA Objective
Environmental	Air quality	To contribute to a reduction in air pollutant emissions and compliance with EU limit values
	Noise	To reduce disturbance from general traffic noise.
	Climate Change	To reduce CO ₂ emissions and contribute to the mitigation of climate change
	Biodiversity including flora and fauna	To protect and enhance the natural environment, including biodiversity, flora and fauna
	Cultural Heritage	To protect and enhance the historic, archaeological and socio-cultural environment
	Water	To protect and enhance riverscapes and waterways through planning and operations
	Material Assets	To promote more sustainable resource use and waste management
	Townscape/Landscape	To protect and enhance the built environment and streetscape
Health	Health and Well Being	To contribute to enhanced health and wellbeing for all within London
Equalities	Population and Equality	To enhance equality and social inclusion
Economic and Business	London’s economic competitiveness	Provide an environment that is conducive to economic growth
	Small to Medium sized Enterprises (SMEs)	Support the growth and creation of Small and Medium-Sized Enterprises (SMEs),

- 2.5. The assessment used a seven-point scale to indicate the magnitude of the potential impacts (major, moderate and minor) for both positive and negative impacts, with a further category of ‘neutral’. In addition it described whether effects were expected to be long, medium or short-term. The IIA prepared for the ULEZ proposals for public and stakeholder consultation was included as part of the consultation materials. A copy of the consultation version of the IIA can be found at Appendix B. (There is also an Addendum at Appendix B6 relating to the recommended changes to the published ULEZ proposals discussed at paragraph 2.15 below.) The significant or high-level findings of the IIA published for the public and stakeholder consultation are summarised below. It should be noted that the IIA relates to the entire ULEZ package as consulted on, including proposals for taxis and PHVs, and so it follows that the impacts of the proposals as a whole, including those on air quality, will be reduced if any part of the package were not to be implemented.

Environmental impacts

- 2.6. For air quality there are major positive, long term effects from a decrease in NO₂ concentrations and the reduction of the number of residents living in areas of NO₂ exceedance. There would be a minor positive effect from the decrease in PM₁₀ emissions. For noise and biodiversity, there are moderate and minor positive short and medium-term effects, and positive long term effects for cultural heritage. The impact for climate change is minor positive. For landscape and urban realm, however, there is potential for minor negative impact if associated cameras and signage are not mitigated and managed well. A neutral effect on material resources and waste was identified as a result of phasing out of vehicle fleets.

Health impacts

- 2.7. The HIA identified major positive long-term effects for personal health and wellbeing, mainly as a consequence of improved air quality but also due to the potential for increased use of public transport, walking and cycling and a decrease in private car usage. It found a minor positive impact from any noise reduction associated with reductions in road traffic and a neutral impact on crime reduction and community safety. Again it noted the opportunity to enhance the positive impacts of the ULEZ by using other transport and air quality initiatives.

Equalities impacts

- 2.8. The EqIA identified a positive long term effect on school-age children, older people and pregnant women as a consequence of a reduction in air pollution. The positive effect would be major in central London, moderate in inner London and minor in outer London.
- 2.9. It also identified potential minor negative, short to medium term effects as a result of increased costs and/or limited availability of transport services, or vehicle purchase where vehicles do not comply with the ULEZ standards. These include, for example, some groups using coaches to access central London (if the costs of upgrade are passed on); small businesses using vans for servicing and deliveries; and those taxi and PHV drivers who would incur a cost to become ULEZ compliant. The EqIA sets the assessment out in full.

Economic and business impacts

- 2.10. The assessment identified minor positive impacts on London's economic competitiveness arising from improvements to air quality as a result of the proposal. There could be minor negative impacts on the economy as a whole in the short term as a result of compliance costs for vehicle owners including small and medium sized enterprises (SMEs) and other businesses such as taxi owner/drivers. The health benefits from ULEZ would result in an economic benefit associated with reductions in air pollution, quantified as moderate positive long term.

Addendum to the Integrated Impact Assessment

- 2.11. Following TfL's analysis of the consultation responses and as a result of further engagement with stakeholders, a small number of changes to the ULEZ proposals are being recommended. TfL commissioned Jacobs to do a further update to the IIA set out in the Addendum at Appendix B6. The assessed changes, which are described in more detail under paragraph 5.41, are as follows¹⁴:

Change 1: For historic vehicles (which are proposed to be exempt from the ULEZ), to change the definition of the exemption from before 1 January 1973 to refer instead to the 'historic' VED tax class (this changes to 1 January 1975 from April 2015 but will change in the future as/when the Government decides, so that the ULEZ exemption will keep pace with Government changes to the tax class exemption).

Change 2: To introduce a "sunset period" for vehicles specially adapted for disabled people (a 3-year period, meaning that these vehicles are not liable for the daily ULEZ non-compliance charge until September 2023).

¹⁴ Changes 1 and 2 require the Mayor's agreement to approve modifications to the published VO.

2.12. The findings of the further assessment, produced in an Addendum to the IIA, are summarised as follows:

Change 1 would mean that, at most, an additional 0.01 per cent of vehicles would be excluded from complying with the ULEZ requirements and standards. In reality it would be less than this, as some historic vehicles would be scrapped over time. This small percentage increase would not result in any change or removal of the air quality and health benefits mentioned in the IIA.

Change 2 would result in the removal of one identified impact in the IIA¹⁵. It would not make it more difficult for disabled persons to find alternative modes of accessible transport in central London in the short-medium term. Existing policies relating to improving accessibility to London transport for all will help ensure that this is not an impact for the long term. No other impacts identified in the IIA would be removed as a result of this change. This definition would refer to the government's VED tax class 'disabled' and 'disabled passenger vehicle'.

3. Objectives and expected outcomes

3.1. The objectives of the ULEZ are as follows:

- **Reduce air pollutant emissions from road transport;** particularly those with greatest health impacts, to support Mayoral strategies and contribute to achieving compliance with EU limit values (see section 4).
- **Reduce CO₂ emissions from road transport,** to support Mayoral strategies and contribute to a London-wide reduction.
- **Promote sustainable travel and stimulate the low emission vehicle economy,** by increasing the proportion of low emission vehicles in London.

3.2. Significant steps have been taken in recent years to improve air quality and reduce CO₂ emissions in London. Despite this, London is projected to continue to exceed the legal limit for NO₂ beyond 2020. Additional measures are also needed to ensure the Capital is on the right trajectory to meet its ambitious CO₂ reduction target. It is for this reason that in February 2013 the Mayor announced his proposals for an ULEZ for central London by 2020¹⁶. The ULEZ would make a significant contribution to the reduction in transport emissions required to meet legal limit values for air pollution and achieve CO₂ reduction targets.

Emissions from road transport and health

3.3. An equivalent of 4,300 deaths in London can be attributed to air quality related illness. The health impacts of the two pollutants of concern in London are listed below.

- **Nitrogen dioxide (NO₂):** At high concentrations, NO₂ causes inflammation of the airways. Long-term exposure is associated with an increase in symptoms of bronchitis in asthmatic children and reduced lung function growth.
- **Particulate matter (PM):** Long term exposure to particulate matter contributes to the risk of developing cardiovascular and respiratory diseases, as well as of lung cancer. Research shows that particles with a diameter of ten microns and smaller (PM10) are likely to be inhaled deep into the respiratory tract. The health impacts of PM2.5 are especially significant as smaller particles can penetrate even deeper.

¹⁵ This was a short to medium term impact whereby it may be more difficult for disabled persons to find alternative modes of accessible transport to central London.

¹⁶ <https://www.london.gov.uk/media/mayor-press-releases/2013/02/mayor-of-london-announces-game-changer-for-air-quality-in-the>

- 3.4. Emissions from road transport were responsible for 48 per cent of NO_x (which is converted to NO₂, for which the legal limit is set) in 2010, which is predicted to fall to 40 per cent in 2020. Diesel vehicles are the biggest contributor: TfL buses, taxis and diesel cars are projected to contribute 23 per cent, 18 per cent and 18 per cent of all road transport NO_x emissions respectively in 2020. For PM, road transport was responsible for 54 per cent of all emissions in London in 2010, projected to fall to 47 per cent in 2020. Here the contribution is more evenly spread among vehicle types and engines. Overall this suggests that to be effective, an ULEZ would need to encompass all vehicle types.
- 3.5. Earlier in 2014, TfL undertook an online Air Quality in London Survey, to which 1,329 responses were received. Ninety-six per cent of respondents agreed that they were concerned about air quality in London. A similarly high figure (95 per cent) agreed that TfL should do more to limit pollution from road vehicles.
- 3.6. The ULEZ is projected to achieve a significant positive effect in terms of air quality, which will have benefits for human health. As shown in Table 3 below, full implementation of the published ULEZ proposals would also lead to a significant reduction in the number of people living in areas of poor air quality (where levels of NO₂ exceed legal limits) – by 74 per cent in central London, 51 per cent in inner London and 43 per cent in outer London. These positive effects will be especially beneficial to the young, older people and those who have respiratory problems as well as residents of high pollution areas.

Table 3: Population living in areas of NO₂ exceedance in 2020, with and without ULEZ in place
(assumes full implementation of ULEZ as proposed)

Area	Estimated population in 2020	Proportion of population living in areas of NO ₂ exceedance in 2020	
		Without ULEZ	With ULEZ
ULEZ	200,000	63%	16%
Inner London	3,410,000	13%	6%
Outer London	5,520,000	2%	1%
Greater London	9,130,000	7%	3%

- 3.7. The proportion of London where annual average NO₂ concentrations exceed the legal limit is also expected to greatly reduce by 2020. However modelling indicates that, if nothing further is done, concentrations will continue to exceed the limit in central and inner London, in the vicinity of Heathrow airport, construction sites and near major roads in outer London and compliance with legal requirements will not be achieved until after 2030 in London, Birmingham and Leeds, twenty years after the original deadline.
- 3.8. A significant consequence of the ULEZ is that it will result in the acceleration in uptake of low emission vehicles (and the discontinuation of use of more polluting vehicles) in central London and their ownership or use across Greater London. This would lead to reductions in air pollutant emissions from vehicles, as people switch to vehicles which comply with the ULEZ Standards (in order not to pay a daily charge), reconfigure their vehicle usage or decide not to make the trip. However, it should be noted that the majority of vehicles would be expected to be compliant with the ULEZ standards in 2020 anyway (even without the ULEZ). The projected compliance rates are 77 per cent of HGVs, 73 per cent of cars, 67 per cent of coaches and 44 per cent of vans. These vehicles would not need to pay the ULEZ daily charge to drive in the Zone.
- 3.9. Based on current calculations, the implementation of the published ULEZ proposals would deliver a 51 per cent reduction in NO_x emissions, a 64 per cent reduction in PM₁₀ exhaust emissions and

a 15 per cent reduction in CO₂ emissions from road transport in central London in the ULEZ in 2020¹⁷. It should be noted that the benefits will spread beyond central London because most journeys will not start and end exclusively within the ULEZ. These predicted reductions relate to the entire ULEZ proposals as consulted on, including taxis and PHVs. However, it is recommended that the taxi and PHV licensing proposals are not confirmed at this time but are subject to further review and if this is approved, the level of emission reduction achieved would be reduced. Without the taxi age limits in place, for NO_x this would fall to a 42 per cent reduction in emissions in central London, compared to the 51 per cent stated in the consultation materials. Not having the ZEC requirements would have a further impact, albeit negligible in scale. This is shown by area in Table 4 below.

Table 4: Percentage reduction in road transport NO_x emissions, with and without the taxi and PHV proposals consulted on.

Percentage reduction in road transport NO_x emissions by area			
Area	Scheme Order & Bus Procurement	Changes to taxi and PHV licensing	TOTAL (as consulted on)
Central	42%	8%	51%
Inner	14%	3%	17%
Outer	8%	1%	10%
London-wide	12%	2%	14%

3.10. Implementation of the ULEZ would also lead to reductions in CO₂ from road transport. Unlike NO_x, carbon dioxide is not considered harmful to human health. Road transport is responsible for a relatively small proportion of CO₂ emissions in London (compared to NO_x and PM₁₀ apportionment) and so the ULEZ is not considered the best way to tackle CO₂ emissions. Nevertheless, it will contribute towards achieving the Mayor's targets as set out in the Mayor's Climate Change Mitigation and Energy Strategy (CCMES), complementing policies which target the main sources of CO₂ such as domestic and commercial gas.

Impacts outside the proposed ULEZ boundary

3.11. Although the proposed ULEZ would set standards only for vehicles entering or travelling within the central zone, it would be expected both to have an impact on the wider fleet (since some vehicles will be upgraded in order to comply, even for occasional trips) and also to deter some trips, as some drivers will choose not to make a trip anymore. For the latter group, there will also be an impact on areas outside the zone because most of these trips will have a stage which is outside the ULEZ, which may also be deterred.

3.12. Trips diverting around the ULEZ might use the Inner Ring Road. Experience with the Congestion Charge (CC) scheme suggests that 'new' trips diverting onto the Inner Ring Road will be counterbalanced by capacity 'freed up' by otherwise deterred trips. Additionally, given that the CC is already a deterrent, the number of 'through trips' during daytime hours is likely to be small in number.

3.13. It is not expected that the ULEZ will lead to increased traffic around its perimeter. Indeed, as shown in Appendix 10 of the Supplementary Information, it is projected to lead to a very small reduction in vehicle km on the Inner Ring Road and inner London, with no change in outer London.

¹⁷ These are the latest emissions calculations following analysis by King's College London

4. Other considerations

EU limit values

- 4.1. The European Union (EU) Ambient Air Quality Directive (2008/50/EC) and Directive 2004/107/EC (the Air Quality Directives) set limits for concentrations of pollutants in outdoor air, which have been transposed into English law by the Air Quality Standards Regulations 2010 (as amended).
- 4.2. London is currently compliant with all EU limit values except NO₂. However, while formal compliance has been achieved for particulate matter (PM₁₀) there are no “safe” levels, as even low concentrations have an impact on human health and it is important to continue delivering further reductions in PM concentrations.
- 4.3. The UK has 43 zones or agglomerations for assessing air quality, each of which includes more than one local authority. Each zone reports compliance against a number of targets to the EU. ‘The Greater London Area’ is one of these zones.
- 4.4. Although the date for compliance with air quality limits was 1 January 2010, member states were allowed to apply for a time extension of 5 years, if they submitted air quality plans to show what measures were being taken to achieve compliance by that date. In September 2011, Defra and the devolved administrations submitted updated air quality plans for the achievement of the NO₂ limits in the UK as soon as possible. The air quality plan for London took account of past, present and future measures, including those published in the current MAQS (2010).
- 4.5. These air quality plans formed the basis of Defra’s projections for compliance with EU NO₂ limit values, which have recently been updated. These latest projections show that 5 of 43 zones will be compliant by 2015, 15 zones by 2020, 38 by 2025 and 40 out of 43 by 2030. London, Birmingham and Leeds are the three locations that are not expected to be compliant until after 2030, at least twenty years after the EU deadline for compliance (1st January 2010).
- 4.6. These projections do not take account of any possible uncommitted actions, such as the proposed ULEZ. Given enough time, the UK would be expected to become compliant due to the ‘natural’ turnover of the vehicle fleet, as older cars are replaced by newer and cleaner cars, assuming that air pollution from other sources continues to reduce, such as from domestic heating.
- 4.7. The ULEZ is considered to be essential to bringing forward the date of London’s compliance so as to help minimise the public health impacts of high NO₂ and PM levels and as a step change towards ensuring the Capital complies with limit values under the Air Quality Directives as soon and as effectively as possible.
- 4.8. A member state which is in breach of the EU air quality directives can be infringed by the European Commission (EU) resulting to fines ultimately being imposed if effective remedial action is not taken. These fines can be substantial, potentially in the order of hundreds of millions of pounds, although actual figure is not currently known.
- 4.9. The UK’s non-compliance with NO₂ limit values was the subject of a case heard by the Supreme Court in 2013¹⁸. The court concluded in 2013 that the UK was in breach of the Air Quality Directives in relation to NO₂. Although most EU territories are not compliant, the European Commission commenced infraction proceedings against the UK in February 2014 when it issued a Letter of Formal Notice to the UK Government. These legal proceedings are likely to take several years to come to a conclusion. The Government has responded to the Commission and its response is awaited.

¹⁸ R (ClientEarth) v Secretary of State for the Environment, Food and Rural Affairs [2013] UKSC 25

The Mayor's Air Quality Strategy

- 4.10. Under the Greater London Authority Act 1999 (GLA Act, as amended), the Mayor of London has legal responsibility for preparing an Air Quality Strategy for Greater London for the purpose of securing the achievement of air quality standards or objectives (the applicable limit values under the Air Quality Directives), and leads on the implementation of measures in that area to tackle pollution emissions, reduce exposure, raise awareness and integrate air quality and public health. This strategy (MAQS) was published in December 2010. The Mayor and TfL must have regard to the Strategy when exercising their functions.
- 4.11. The Environment Act 1995 requires local authorities (including London boroughs) to designate and develop an action plan for areas where it appears that any air quality standards or objectives are not being achieved. The Mayor has a statutory responsibility to oversee this process, including reviewing Local Authority reports and Action Plans, and has powers to direct them to take necessary action.
- 4.12. The Mayor's Air Quality Strategy (MAQS, 2010) outlines policies to improve air quality in London, alongside future proposals to meet the EU limit values and improve public health in London. The proposals are wide ranging covering 'softer measures', such as education and awareness campaigns to encourage sustainable travel behaviour, and 'harder measures', such as LEZs. Policy 5 of the MAQS gives policy support to the ULEZ and states: "The Mayor will work with boroughs to assess the feasibility and cost effectiveness of a central London LEZ in the Congestion Charging zone."
- 4.13. The 2010 MAQS identifies the scale of air pollution reduction required. The impacts of the measures set out in MAQS were modelled and it was predicted that some locations would still exceed limit values for NO₂ and further action would be required. The MAQS states: "At some locations, however, including kerbsides closest to major roads in central London, limit values will still be exceeded in 2015 to the extent that a further reduction in emissions of 40 to 60 per cent will be needed to meet them."
- 4.14. Emission reductions from implementation of the complete ULEZ proposals as consulted on would take London well towards meeting legal limits for NO₂. Crucially, the number of people living with levels of NO₂ that exceed legal limits will reduce by 74 per cent in central London. There will also be a positive impact on concentrations of PM₁₀ and PM_{2.5}. However, the ULEZ by itself will not ensure that London achieves compliance with the limit values for NO_x.
- 4.15. The Transport Emissions Roadmap (TERM, 2014) proposes several further actions to reduce transport emissions including: tightening the standards for the Londonwide LEZ; introducing a system of pay as you drive road user charging; accelerating the London-wide uptake of low emission vehicles; and introducing Low Emission Neighbourhoods. These proposals are currently unfunded and in need of further development, although work is ongoing to take them forward.
- 4.16. Whilst London can and is taking significant action to reduce emissions, Government and EU action is also required to tackle the issue.

Road user charging

- 4.17. The GLA Act provides that changes or variations to a road user charging scheme must be desirable or expedient for the purpose of directly or indirectly facilitating achievement of proposals in the Mayor's Transport Strategy ("MTS") and must be in conformity with the MTS.
- 4.18. The policy approach to the LEZ is set out in Proposal 95 of the MTS¹⁹, which in addition to setting out that the Mayor will continue to operate the existing LEZ with potential further

¹⁹ Proposal 95 is on page 234 of the MTS

phases, will also '*...d) if necessary, the Mayor will consider introducing minimum requirements for other vehicles or tighter standards in particular locations in London...'*

- 4.19. Also of relevance here are MTS Proposals 92 and 93²⁰ which set out that the Mayor, through TfL and working with London boroughs, transport operators and other stakeholders will introduce measures to reduce emissions from buses, taxis and PHVs, and support the uptake of low emission vehicles. Proposal 94 states that there could also be '*...targeted local measures at poor air quality priority locations to reduce emissions and improve local air quality.'*
- 4.20. In preparing the Variation Order, TfL, in consultation with GLA officers, has had regard to the consistency with other relevant Mayoral strategies, including the Economic Development Strategy, the London Plan, the Mayor's Air Quality Strategy (MAQS) Climate Change Mitigation and Energy Strategy (CCMES). No inconsistencies have been identified. The Mayor is advised that the ULEZ proposals involving road user charging (as set out in the published Variation Order) and TfL's recommended modifications to it, are desirable and/ or expedient for the purposes of directly or indirectly facilitating achievement of the MTS proposals identified above.

Climate Change Mitigation

- 4.21. Another aim of the ULEZ is a reduction of carbon dioxide (CO₂). The Climate Change Act 2008 set the UK's CO₂ emission reduction targets. The relevant legally binding targets are a reduction of at least 80% by 2050 (against the 1990 baseline). The Mayor has a target to reduce annual emissions of CO₂ in London by 60 per cent by 2025 on a 1990 base. All sectors must contribute to the overall reduction but the Mayor's Climate Change Mitigation and Energy Strategy (CCMES) suggested the transport sector contributes to the wider target by making a 48 per cent reduction in transport CO₂ emissions. The Mayor and TfL must have regard to the Strategy when exercising their functions.
- 4.22. Some of the actions of the CCMES cover "driving down emissions from transport", with measures such as: electric vehicle rollout; further use of ultra-low carbon vehicles; and moving to more carbon-efficient modes of transport. The CCMES estimates the carbon reduction that will result from the implementation of the strategy and concludes that further action will be required by the Mayor and central Government if the CO₂ emissions reduction targets are to be met.

Mayor's 2020 Vision

- 4.23. The Mayor's vision for London in 2020 includes meeting existing CO₂ targets and NO₂ and PM₁₀ limit values. In light of the need to achieve these targets, and the high contribution to emissions and concentrations from road transport, the Mayor requested that TfL examine the feasibility of introducing an ULEZ in central London by 2020. This would "restrict central London only to those vehicles that have zero or near-zero tailpipe emissions."

Roads Task Force

- 4.24. In its response to the Mayor's Roads Task Force report (2013), TfL set out how its road management would support a healthier city and reduce emissions from London's road network²¹. This included the ambition for an 'ultra-low emissions environment' in the Central Activities Zone, using tools such as smart charging incentives for low emission vehicles.
- 4.25. The Transport Emissions Road Map (TERM) was published in September 2014, and considers options to reduce emissions from transport in London. It reports on what TfL and the Mayor have already done and sets out a range of possible new measures that the Mayor, TfL, the London boroughs, the Government, EU and other parties should consider to help meet the challenge of

²⁰ Proposals 92 & 93 are on page 231 of the MTS

²¹ www.tfl.gov.uk/corporate/about-tfl/how-we-work/planning-for-the-future/roads-task-force#on-this-page-1

reducing air pollutants and CO₂ emissions in London. The proposed ULEZ is one of the key measures proposed in the TERM²².

5. Consultation

5.1. A combined public and stakeholder consultation on the ULEZ package of proposals ran for just over ten weeks from 27 October 2014 to 9 January 2015. This consultation satisfied the legal requirement in the GLA Act that TfL consult on its proposed changes to the LEZ Scheme Order (as set out in the Variation Order). TfL used a variety of channels to raise awareness of the consultation. These are described in TfL's Report, attached at Appendix C and summarised below.

Public consultation

- 5.2. A press release was issued on 26 October to announce the start of the ULEZ consultation. A further press release was issued on 30 December, reminding people of their opportunity to comment on the proposals. The consultation received media coverage from a number of outlets including: national print coverage in The Times, Metro and Evening Standard; local coverage in the Islington Gazette, Richmond and Twickenham Times and Hackney Gazette; web coverage on ITV News, BBC News, Air Quality News, and various industry specific sites; and broadcast coverage on BBC London, BBC 1, LBC and CNBC.
- 5.3. A marketing campaign was developed to raise awareness of the consultation and encourage customers to have their say. Adverts were featured in a variety of London media titles including Evening Standard, Metro and City AM, trade press and digital channels. A radio advertisement notifying listeners of the ULEZ proposal and directing them to the TfL website was broadcast from the third week of the consultation period until the closing date.
- 5.4. A notice was also published in the London Gazette.
- 5.5. Social media activity included tweets that were sent from the @TfL Twitter feed throughout the consultation period.
- 5.6. Detailed information about the scheme, supporting documents and an online questionnaire was available on TfL's consultation portal website at tfl.gov.uk/ultra-low-emission-zone and this was signposted with banners throughout the TfL website. An information leaflet and questionnaire were available on request by phoning the TfL customer service line.
- 5.7. The following consultation materials were posted on TfL's consultation website (www.tfl.gov.uk/ultra-low-emission-zone):
- Glossary of Terms;
 - Supplementary Information;
 - Integrated Impact Assessment (IIA) Summary Report;
 - IIA Health Assessment;
 - IIA Environmental Assessment;
 - IIA Equalities Assessment;
 - IIA Economic & Business Assessment;
 - Variation Order;
 - Explanatory Schedule of Variations;
 - A consolidated text of the LEZ Scheme Order with ULEZ amendments incorporated; and
 - ULEZ Plan.

²² www.tfl.gov.uk/corporate/about-tfl/corporate-and-social-responsibility/environment

5.8. Emails were sent to 467,511 registered customers (including registered CC customers) early in the consultation and a further 915,280 emails sent at the start of January 2015 (including additional customers), which included a link to the online questionnaire.

Stakeholder consultation

5.9. TfL engaged with stakeholders both in developing the proposals (prior to consultation) and during the consultation itself and will continue to do so until the point the Mayor considers this Form. In addition, stakeholder workshops were held to inform the drafting of the Impact Assessments published for the consultation (details are given within the assessment documents).

5.10. The Mayor first announced his intention to develop the ULEZ in central London on 13 February 2013²³. In November that year, TfL organised the first stakeholder workshop to discuss the level of ambition set out by the Mayor. This event was attended by 30 stakeholder organisations. A further event was held in March 2014 to present the emerging proposals and provide an opportunity for stakeholders to informally discuss them with TfL officers. A stakeholder breakfast briefing was held on 25 November 2014 as part of the consultation and was attended by 63 stakeholder organisations. TfL gave a general overview of the ULEZ proposal and also provided an opportunity to ask questions about the scheme.

5.11. The public consultation was supplemented by further engagement with stakeholder organisations, as set out in the Report to Mayor (see Appendix F and Appendix I of the RTM for details of stakeholder meetings). This was to ensure that stakeholders were well briefed about the potential timetable for the proposed changes, to understand their issues and concerns and to encourage participation in the consultation.

5.12. In addition to the stakeholder engagement outlined above, customised letters were sent to residents of the Congestion Charging zone (irrespective of whether they are currently registered for the CC Residents' Discount).

5.13. Letters were also sent to taxi and PHV owners, drivers and operators using the mailing list maintained by Taxi and Private Hire in TfL. TfL rented the use of a list of motorcyclists and emailed a total of 7,628 people from this list.

5.14. London boroughs were reminded twice by email towards the close of the consultation of their opportunity to respond.

5.15. A full list of stakeholders who responded to the consultation is provided in Appendix B of the TfL Report and a summary of stakeholder responses is provided in Appendix D of the report. The TfL report gives details of the consultation and summarises the public and stakeholder responses received.

Responses to the consultation and stakeholder engagement

5.16. In total, 16,281 responses were received to the consultation from public and businesses. TfL offered a number of ways for respondents to comment on the consultation:

- Online – through the consultation portal
- Email – comments emailed directly to TfL
- Post – by letter or return of hard copy questionnaire

5.17. Of the responses received, 79 per cent (12,823 responses) stated that it was 'important' or 'very important' to tackle poor air quality in central London. 58 per cent (9,544 responses) also stated that they 'supported' or 'strongly supported' the introduction of an Ultra Low Emission Zone in central London (although many of these had specific comments about aspects of the

²³ www.london.gov.uk/media/mayor-press-releases/2013/02/mayor-of-london-announces-game-changer-for-air-quality-in-the

proposals being consulted on). A detailed quantitative analysis of the consultation responses from the public, community groups and businesses is contained in Chapters 7 and 8 of the Report to the Mayor.

- 5.18. TfL received 123 stakeholder responses, of which 13 responses were from taxi and PHV trade organisations. The proposed ULEZ met with strong support from the 112 stakeholders who responded (40 support it as proposed and a further 56 support it but believe it should go further). As detailed in the Report to the Mayor, TfL has considered representations made to the consultation. Responses from the public received up to 12 March 2014 are included in the analysis in the Report. Copies of the responses have been provided to the Mayor. Any responses received after this date will also be provided to the Mayor up until the date he considers this Form.
- 5.19. Chapters 10 and 11 of the Report to the Mayor set out TfL's analysis of the responses received to the consultation by theme and its response to the comments, issues and recommendations contained in those responses. Comments from stakeholders and 'free text' responses from public/business consultation respondents have been attributed to the most pertinent aspect of the proposal. Within each theme, the 'issues raised' during the consultation that go to make up that theme have been identified and are listed at the start of each section, followed by TfL's response and any recommendation. Where issues are similar, these have been grouped together for a single TfL response. Comments that do not relate to a specific proposal have been addressed in 'Other'. Recommendations are addressed to the Mayor and TfL.
- 5.20. Certain elements of the ULEZ were more strongly-supported than others. Most well-supported was the proposal for TfL buses, which overall 82 per cent of public and business respondents supported (Question 20). Support for the introduction of emissions standards for motorcycles was the least well-supported of all the vehicle types that respondents were asked about (Question 15), with only 34 per cent supporting and 42 per cent opposing. Support for both the setting of an emissions standard (Question 15) and the proposed daily charge for non-compliance (Question 18) was generally better-supported for heavier vehicles (HGVs, coaches, buses, vans, minibuses) than for cars and motorcycles, and diesel cars were supported more than petrol cars in this respect. Except for motorcycles, the support for including all vehicle types in the scheme was in each case higher than the opposition.
- 5.21. All vehicles contribute to air pollution and the ULEZ proposals were developed in order to address emissions from all vehicles in the most appropriate way for each vehicle type, with the proposed standard and charge for non-compliance taking into account individual and overall contribution to emissions. In the Air Quality in London survey carried out in 2014, 98 per cent of respondents agreed that road traffic was the primary cause of air pollution in London, and 96 per cent said that more should be done to limit this pollution. Respondents were asked which vehicle types should be addressed (from a list of buses, coaches, taxis, private hire vehicles, cars, motorbikes, HGVs and vans), and all of these types were endorsed by over two-thirds of respondents. The highest percentage was for buses at 96 per cent, with motorbikes the lowest at 68 per cent.
- 5.22. The remainder of this section considers responses to the proposals set out in the Variation Order, ie those related to TfL buses and the ULEZ emission standards, and TfL's recommendations to the VO. Responses concerning the proposals for changes to taxi and PHV licensing are also summarised in this section, however the recommendations for these proposals are set out in Section 7.

Bus proposals

- 5.23. The treatment of two vehicle types in particular attracted considerable comment: TfL's New Route Master (NRM) buses and non-TfL buses and coaches. For the former, it is proposed that Euro V NRMs, of which there will be around 300, are not required to meet the Euro VI standard

for ULEZ given the high costs of replacement and the current lack of a retrofit solution. As stated in detail in Theme I of the RTM, it would cost around £100m of public money to replace Euro V NRMs with Euro VI buses, and this outlay would result in a very small emissions saving, given that Euro V NRMs (as opposed to non-NRM Euro V buses) are already very close to the Euro VI emission for NO_x. Many stakeholders were keen to see improvements to the TfL bus fleet beyond the ULEZ area and money spent on Euro V NRM replacement could, it is believed, be better spent on this. Additionally, TfL will continue to work with manufacturers on a retrofit solution to be ready in time for 2020. These issues are addressed in the Report to the Mayor at Theme I in Chapter 10.

- 5.24. Coach and bus operators were strongly opposed to the Euro VI standard, citing the high cost of vehicles, long replacement cycles and, in some cases, the limited working hours of, for example, sightseeing buses. It is acknowledged that individual businesses may experience a cost impact of a higher proportion than that on the overall London economy (the compliance costs to businesses are less than a tenth of one per cent of the value of the London economy). For this reason it has been important to give sufficient lead-in time for the ULEZ and to specify standards which allow for conventional vehicles which are already available to drive without charge. A diesel coach or bus could be up to 6 years old in 2020, and not incur a charge. A retrofit solution may emerge for wider commercial use in this time, not least due to the development of a solution for TfL's buses, and TfL will provide information about the development of its retro-fit solution to operators if the Variation Order is confirmed. Finally, it should also be stated that although the diesel-electric hybrid Euro V NRMs have emissions lower than a standard Euro V vehicle, and are in fact closer to Euro VI, this is *not* the case for other Euro V buses and coaches. This issue is discussed in more detail in the Report to the Mayor at Theme C.

ULEZ vehicle emission standards and charges

- 5.25. Many stakeholders were keen to see the boundary of the ULEZ extended from the start, or called for a plan for boroughs to opt in to the zone over time. The reasons for consulting on a zone which is the same as the CCZ have been given elsewhere in this report; in summary it focuses the scheme on the area where pollution is highest, and enables the use of a zone which is already well-understood and for which infrastructure is already in place. There is potential, subject to further statutory consultation, for the boundary to be extended at a later date. TfL will continue to work with boroughs on the measures outlined in TERM to improve air quality locally.
- 5.26. However, a preliminary appraisal of an extended boundary is that its adverse economic and social impacts would far outweigh any emissions benefits. As it is, five million cars (to say nothing of other vehicles) enter the proposed zone area in a given year; were the zone to be bigger, this number would be exponentially increased, and the impacts much greater and wider. The LEZ, which is Londonwide and covers heavier diesel vehicles, will remain in place and could also be changed in the future, subject to statutory consultation.
- 5.27. Finally it should be reiterated that although the impacts of the ULEZ will be felt most strongly in central London, its benefits would be spread much more widely, as most journeys do not take place exclusively within the zone. Appendix M shows the projected emissions savings in each London borough on the basis of the complete ULEZ proposals as consulted on. In the central zone the number of people living in areas of NO_x exceedance would be reduced by 74 per cent: in the Inner zone this would be 50 per cent and in the outer zone, 42 per cent. However, the Mayor could direct TfL to undertake further work on extending the boundary at a date in the future, subject to a statutory consultation. The above issues are discussed in more detail in the Report to the Mayor at Theme D (Boundary) and Theme U (Future of the scheme) in Chapter 10.
- 5.28. In order to maximise the impact of ULEZ on emissions, few exemptions (and no discounts other than the 100% discount given to Zone residents) were proposed to the vehicle emissions standards and charging proposals. There were calls for discounts or exemptions from some quarters for disabled people/vehicles used by disabled people, motorcycles, LPG vehicles and

businesses, especially SMEs. In response to this, TfL is recommending to the Mayor that there is a change to the proposed exemption for historic vehicles, to align it with the Government's definition in the VED class. TfL is also recommending the inclusion of a three-year sunset period for vehicles that have a 'disabled' or 'disabled passenger vehicle' tax class. There would be negligible impact on emissions from these discounts. These issues are addressed in the Report to the Mayor in Theme H of Chapter 10.

- 5.29. It is not recommended that any discount or exemption is made for motorcycles. TfL acknowledges that their contribution to NO_x emissions is relatively small but as stated above, it is considered important that all vehicles play an appropriate part. Motorcycles would in some cases be in the historic tax class and those younger than 13 years old in 2020 would in any case comply with the standard set for them. It is not recommended that any change is made for specifically LPG vehicles as they are covered under petrol engine standards. With regard to business or SME discounts, the impacts on London's economy were assessed in the EcBIA, which acknowledged that there would be costs to individual businesses, albeit in the scale of the overall economy these are very small. Even if it were desirable to do so, defining a 'small business discount' would be practically very difficult and would lead to calls for discounts from other quarters. It is important to maintain the air quality impacts of the ULEZ and discounts and exemptions would, in sufficient quantity, serve to undermine these. These issues are addressed in the Report to the Mayor in Theme H of Chapter 10.
- 5.30. There was some concern about the different standards proposed for petrol and diesel vehicles, which are Euro 4 and Euro 6 respectively. The regulation for NO_x emissions from a Euro 6 diesel engine and a Euro 4 petrol engine are the same (0.08g/km), although of course a Euro 6 petrol engine is even lower (0.06g/km). The proposal maintains a technology-neutral approach because it achieves consistency between petrol and diesel engines, which means it is fair and alleviates the total compliance costs for the owners of these vehicles. These issues are addressed in the Report to the Mayor in Theme C of Chapter 10.
- 5.31. Related to this is a view that the ULEZ might achieve a greater reduction in CO₂ emissions if the proposal specified a Euro 6 standard for both petrol and diesel engines. While this is unlikely, the main objective of the proposal is NO_x reduction, albeit there are also considerable CO₂ reductions with the proposal as it stands (-15 per cent in central London). Other measures are in place to reduce CO₂ emissions, and in any case, focussing on CO₂ emission levels from conventional vehicles on this scale is not the most effective way to do this, given that road transport is responsible for only four per cent of total CO₂ emissions across London. These issues are addressed in the Report to the Mayor at Theme C and Theme O of Chapter 10.
- 5.32. There was some opposition to the proposed sunset period (until 2013) for residents of the ULEZ: 40 per cent overall did not support this compared to 35 per cent who did. It is interesting to note that while support for it was stronger among respondents who lived in the zone than those outside it, a third of these residents stated their opposition. There was an even balance of support from stakeholders. No change to the proposed sunset period is recommended. These issues are addressed in the Report to the Mayor in Theme H of Chapter 10.
- 5.33. Several stakeholders were concerned about the real-world emissions of Euro 6/VI vehicles, following the disappointing performance of Euro V. In response to this, and to inform the development of the ULEZ proposal, TfL commissioned its own research using its own suite of London drive cycles, applied to a range of vehicle types and weights. The results are described in Chapter 3 and Appendix N. In summary, these tests demonstrate the worthwhile emissions savings from Euro 6/VI and should provide assurance to the Mayor in his consideration of the ULEZ decision. These issues are addressed in the Report to the Mayor in Chapter 3 and in Appendix N.
- 5.34. Prior to the consultation starting, TfL commissioned an IIA of the impacts; this and the component Economic and Business, Equalities, Environmental and Health Impact Assessments

were available during the consultation. A further update to the IIA (at Appendix K of the Report) was produced to assess the effects of the recommended changes to the proposal.

5.35. Comments related to the impact of the proposals focussed on the negative impacts in terms of costs to individuals and, especially businesses. The IIA identified a short to medium-term economic impact to businesses of between £120-250 million, which amounts to less than <0.1% of London's economy which would diminish over time. Even without the ULEZ, most vehicles (73% of cars and 44% of vans) using the zone would meet its emissions standards in 2020 and would be unaffected. The EcBIA also assessed the monetised health benefits from the health benefits of ULEZ - £101m in 2020 (£32m in 2025). This includes better health leading to more productivity and a reduction in the costs of ill health to the economy.

Taxi and PHV proposals

5.36. With regard to the taxi and PHV proposals, views diverged between the trade organisations on the one hand and the public and other stakeholders on the other. In general, there was support for the proposals for taxis and PHV from stakeholders including the London boroughs, but the response from trade organisations was, in the main, not supportive.

5.37. It was proposed that the age limit of non-ZEC taxis is reduced from 15 to 10 years from 7 September 2020. Representatives from the trade and industry were also concerned that a reduction in the age limit from 15 years to 10 years for Euro 6 diesel taxis would impact the volume of taxis sold prior to the ZEC requirement taking effect from January 2018. Owing to taxis being a volatile and niche vehicle market, a fall in sales of new vehicles prior to 2018 would adversely impact manufacturers and in turn, the production of ZEC taxis. Among trade respondents, the reduction in the taxi age limit was supported by only six per cent of respondents (87 per cent oppose or strongly oppose).

5.38. The proposed reduction in the taxi age limit was however supported by all the London boroughs (and many other stakeholders) who responded to the consultation. Respondents commented on the significant contribution made by taxis to NOx emissions in London. One manufacturer (LTC) responded to the consultation and stated that it is currently investing around £10m in the development of a new engine to comply with Euro 6 and it would be difficult to see any meaningful return on that investment if drivers and fleet operators postpone to buy ZEC taxis instead, which would have a 15 year age limit, as opposed to the proposed 10 year age limit for all non-ZEC taxis.

5.39. The ZEC requirement for taxis from 2018 (Question 21a) was supported/strongly-supported by 73 per cent of public and business respondents. A similar number (72 per cent) supported this proposal for PHVs (Question 21b). With regard to the date of introduction of the ZEC requirement, the responses from the group of all respondents were similar, with 32 per cent saying it was 'about right' for taxis, and 31 per cent for PHVs.

5.40. In the responses, there was concern from the taxi trade that no ZEC taxi was currently available to buy and that it would have a high purchase cost for which the level of financial assistance available was uncertain. From the PHV trade the concern was about the range and affordability of vehicle models which meet ZEC criteria, particularly those with larger seating capacity and luxury models. Again there was more support from stakeholders not in the PHV or taxi trades. Both taxi and PHV trade organisations were concerned about the need to have a sufficient level of charging infrastructure in place to support the operation of ZEC vehicles.

5.41. Some of the issues raised in relation to the ULEZ proposal resulted in the recommended amendments to the ULEZ proposal, as highlighted by paragraph 2.11 above. The Report to the Mayor contains a detailed discussion of these at Chapter 10 in relation to the Variation Order and Chapter 11 as concerns taxis and PHVs, as well as all other issues that were raised during the consultation alongside the TfL response to each issue. The issues raised during the consultation

that resulted in TfL recommending modifications or changes to the published Variation Order proposals are summarised below and involved additional impact assessment as reflected in the Addendum to the original IIA.

Historic Vehicles (Mayoral VO modification)

- 5.42. Several respondents asked for an extension of the proposed exemption to cover vehicles which did not meet the pre-1973 criteria proposed, for example for specific classic-vehicle events.
- 5.43. The LEZ currently exempts all vehicles constructed prior to 1 January 1973 because this is the date from when vehicles were manufactured to standardised emission regulations and therefore suitable for retrofit solutions. At the time of the implementation of the LEZ, it was also the date the Government used to exempt vehicles from vehicle tax for historic reasons. The ULEZ would be introduced as a variation to the LEZ Scheme Order, and the consultation proposed that the same exemption would apply.
- 5.44. With effect from 1 April 2015, the Government will change the definition of an historic vehicle to include vehicles constructed before 1 January 1975, as announced in the Budget 2014, with the intention that this would be rolling year-on-year. It would therefore be logical to include these vehicles in the ULEZ exemption: this would be clearer to vehicle owners and align with the Government's latest position on historic vehicles. This would mean any vehicle with the 'Historic' vehicle tax class would be exempt from the ULEZ standards. This tax class does not include vehicles used for hire or reward (ie commercial vehicles). Historic vehicles account for less than one per cent of traffic in central London, meaning that the impact on air quality of this exemption would be negligible. There is no additional cost to TfL if this proposed change is approved by the Mayor. This issue is discussed in more detail in the Report to the Mayor in Theme H of Chapter 10.
- 5.45. This proposed change has been assessed in the IIA update Addendum. It was found to have no change to the impacts of ULEZ.

Owners of vehicles specially-constructed or adapted vehicles for disabled people (Mayoral VO modification)

- 5.46. Two stakeholders made reference to the fact that disabled owners of specially-constructed or adapted vehicles would not be exempt from the scheme and could face financial hardship as a result. Disabled Motoring UK called for an exemption for minibuses which carry disabled people.
- 5.47. In developing the proposal, TfL commissioned an Equalities Impact Assessment (EqIA) which considered the potential impact of the scheme on equalities groups including disabled people. The assessment analysed data on Blue Badge holders from the CC scheme (Blue Badge holders receive a 100 per cent discount from the CC). It noted the infrequency with which these users enter the zone but that there could be relatively high non-compliance of diesel vehicles (if the current fleet profile remained in 2020) and the fact that some vehicles will be specially-adapted. However it stated that the majority of wheelchair users will be eligible for the Motability scheme, which leases new vehicles (which would be compliant).
- 5.48. The EqIA identified a minor adverse short to medium-term impact on this group that would not be disproportionate but that it may be more difficult for disabled persons to find alternative means of accessing central London.
- 5.49. Subsequently, during the consultation, TfL has undertaken further analysis on this issue, informed both by consultation responses and changes to legislation around Motability eligibility. Given that the proportion of leased Motability vehicles is likely to fall in the coming years, the impact on owners of specially-adapted vehicles could be greater. There is also likely to be increased cost to local authorities in upgrading community transport vehicles in order to comply with ULEZ.

- 5.50. Unlike LEZ (for which no disabled exemption is available), there is no retrofit option to achieve Euro VI, and the ULEZ affects all vehicles, in particular cars. TfL has analysed data of observed vehicles entering the zone, to ascertain the proportion of vehicles adapted for disabled people and their likely compliance in 2020. There are two tax classes that identify these vehicles: 'vehicle used by a disabled person' and 'disabled passenger vehicle.' Among the former, compliance is expected to be relatively high, while among the latter (which is a much smaller number of vehicles), it is expected to be relatively low.
- 5.51. In this context it is proposed to put in place a 3-year sunset period for vehicles in the 'disabled' taxation class. Linking the eligibility to an existing tax class provides a clear and consistent definition. This would pertain both to vehicles with a 'disabled' and 'disabled passenger vehicle' taxation class. Owing to the profile of these vehicles (compliance and number of vehicles) set out above, the impact on emissions would be minor.
- 5.52. This time-limited exemption would apply to vehicles adapted for a disabled person who is also exempt for VED on this basis, and would apply for three years; from 7 September 2023 owners of non-compliant vehicles in this class would need to pay the charge. As it is an exemption, there would be no need to register for it and TfL would identify the vehicles using the tax class of the vehicles as recorded by the DVLA. However it is not considered appropriate to provide an indefinite exemption to this group. The EqIA found that there would be a short to medium term impact and, with the addition of the sunset period, this group would have more time to find a compliance option, including through vehicle replacement cycle.
- 5.53. The exemption would include passenger transport vehicles as well as individuals' vehicles. While TfL's own Dial-a-Ride fleet is included in the tax exemption, it is not proposed to provide it with an exemption for the ULEZ. It is proposed that the varied LEZ Scheme Order explicitly exclude the DaR fleet, on the basis that it is important for TfL to lead the way on this issue and that money has been made available to ensure compliance.
- 5.54. The identification of the issue and the proposed mitigation are consistent with the Mayor's and TfL's obligations under the public sector equality duty. This proposed change has been assessed in the IIA Update and results in the removal of one identified adverse impact (that disabled people could find it more difficult to find alternative modes of accessible transport in central London) as a result of the ULEZ.

6. TfL's recommended modifications to the Variation Order

- 6.1. As noted above, TfL recommends that the following modifications are made to the published Variation Order to:
- Amend the definition of the proposed exemption for historic vehicles, so that it aligns with the Government's VED tax class; and
 - Put in place a sunset period until September 2023 for vehicles that have a 'disabled' or 'disabled passenger vehicle' tax class ('disabled exemption').
- The above modifications are incorporated in the Instrument of Confirmation for the Variation Order contained at Appendix D, which the Mayor is asked to sign.
- 6.2. No changes to the Variation Order are suggested in respect of taxis and PHVs. This means that taxis would be exempt from the Scheme, and PHVs will continue be included, as per the original proposal.
- 6.3. If the Mayor decides to confirm the Variation Order (with the proposed modifications), the changes would come into effect as follows:
- From 7 September 2020, all vehicles in central London would be required to meet the ULEZ standards in order to drive in the ULEZ without paying a daily charge;

- By September 2020, all double deck buses operating in central London will be hybrid and all single deck buses will be zero emission (at tailpipe);
- On 7 September 2023, the Residents Discount for the ULEZ would end;
- On 7 September 2023, the disabled exemption for the ULEZ would end.

6.4. TfL would run a large-scale publicity campaign with operators / vehicle owners to make them aware of the requirements of the scheme. This would include the use of broadcast media, print, websites and European trade press in advance of the proposed go-live date. These activities would form part of a programme of work to ensure that, as far as practically possible, vehicle operators were aware of the daily charge and were given the opportunity to take any necessary action to ensure their vehicles were compliant ahead of the proposed introduction of the scheme.

6.5. Vehicle owners will be given the opportunity to register any compliant or exempt vehicles in advance of the possible introduction of the ULEZ (including residents of the zone). Those that already receive a discount or exemption as part of the LEZ would be automatically registered. If the ULEZ became operational on 7 September 2020, it is planned that people would be able to register their vehicles well in advance.

7. Further engagement on published taxi and PHV proposals

7.1. During the consultation a number of issues have been identified that suggest that although it is the intention to proceed with licensing measures to reduce the emissions from London's taxi and PHV fleets, further consultation and engagement, including with the taxi and PHV trades and other consulted stakeholders, is required before any conclusive decision is taken on the particular measures proposed for taxis and PHVs. However, there remains a clear recognition that taxis are a particularly significant source of emissions in London and that further action will be required to tackle this as part of the ULEZ package. The Mayor remains committed to doing this and he will finalise his proposals as soon as practicable after engagement with relevant stakeholders.

7.2. The taxi trade are concerned there are uncertainties about the required funding and approach to take with regard to financial assistance towards mitigating the impact of the reduced taxi age limit. There is also a need to provide further clarity with regard to the funding available to assist with the purchase of ZEC taxis and PHVs. Of particular concern for the PHV industry is the range of vehicle models which will satisfy the ZEC requirement and the needs of different operators. Finally, for both taxis and PHVs there is uncertainty about the availability of appropriate rapid-charging infrastructure for ZEC vehicles.

7.3. It is therefore recommended that the Mayor asks TfL to undertake further consultation and engagement with the taxi and PHV trades and other relevant consulted stakeholders on the published taxi and PHV proposals as soon as practicable. These issues are set out in more detail below and in Chapter 11 of the Report to the Mayor.

7.4. This engagement would comprise further analysis by TfL and its consultants, and continued consultation including with vehicle manufacturers, representatives of London's taxi and PHV owners and operators, the Office of Low Emission Vehicles (OLEV) and Government.

Cost implications of taxi age limit reduction

7.5. It is recognised that, as stated by taxi trade respondents, that there will be cost to drivers/owners associated with a reduction in the age limit to ten years and a need to provide assurance about the financial assistance towards loss of residual value. TfL has £40m in its Business Plan. This, linked with financial support from the OLEV, would help to alleviate the impact on the trade and smooth the transition towards zero emission capability.

- 7.6. TfL has appointed an external economic and financial policy advisory firm to work with the trade and manufacturers to undertake an independent economic and finance review of the taxi vehicle market in London and to consider the best use of this funding. TfL's original £40m estimate may change in light of this work. This is in part due to consideration of the taxi trade's consultation response where it was argued that all vehicles affected by the age limit should receive compensation, not just those that will be removed from the fleet in the first year. Further analysis is required to understand the buying patterns and potential compensation packages for different scenarios. Additionally it will be important to understand the impact on uptake of Euro 6 taxis which will be available later in 2015 and have significant NOx emissions savings compared to earlier models and consider whether any further changes to the proposals may be needed to ensure the uptake of these taxis prior to ZEC models becoming widely available.
- 7.7. An age limit has already been successful in removing 6,000 of the oldest and most polluting taxis from London since 2012, and there is strong support from the London boroughs and other stakeholders for the 10-year age limit. However, it is acknowledged that there is still uncertainty around the extent of any additional funding available and there is also concern about the continuation of the existing OLEV plug-in grant for taxis and PHVs.

ZEC taxi requirement

- 7.8. While there are prototype ZEC taxis on trial in London currently, no model is currently available to buy and it is acknowledged that there will be a purchase premium on these vehicles, albeit offset to some extent by lower running costs. TfL is also in discussion with OLEV about providing further funding to help drivers purchase ZEC taxis, from its £20m taxi scheme and potentially other sources.

Range and availability of ZEC PHV models

- 7.9. The PHV trade has identified concerns about the range of models available which meet the ZEC criteria, noting particularly a lack of luxury and 7-seater vehicles which are used by some operators. It is expected that the range of vehicles will expand between now and 2018 (OLEV has indicated that another 40 models are likely to be available over the next three years²⁴). There is also a purchase premium on these vehicles and while TfL expects the plug-in car grant to be continued, further confirmation from OLEV about their future plans is required.
- 7.10. During the consultation, OLEV published an update to the criteria for its plug-in car grant, which would increase the range of eligible models; TfL would proceed on the basis of using this updated criteria for its own proposals. The ultra low emission vehicle market is continuing to evolve and it is essential TfL monitors its development in order to support the introduction of ZEC PHVs. Additionally it is proposed that TfL would also consider the matter of potential exemptions to age limit and ZEC criteria such as are already in place for the existing age limits for taxis and PHVs as well as reflect the likely availability of ZEC PHV vehicles in 2018.

Electric charging point infrastructure

- 7.11. For both ZEC taxis and PHVs, TfL recognises that the charging infrastructure currently in place in London will not be sufficient by itself for meeting the demands of this industry. TfL has secured £10 million from the National Infrastructure Plan to deliver rapid charging infrastructure in London. In addition, TfL will be bidding for funding for a rapid charging network through OLEV's £32m fund for the installation of new charging infrastructure across the UK. TfL will publish a Delivery Plan for Ultra Low Emission Vehicles in summer 2015 which will outline a deployment strategy for rapid charging in London. As well as public sector sources of funding, consideration will be given to attracting investment in charging infrastructure from the private sector.

²⁴ www.gov.uk/government/news/take-up-of-plug-in-car-grant-continues-to-rise

8. Risk management

- 8.1. GLA officers consider that TfL has adopted sound project management techniques in making ULEZ proposals (including those in the Variation Order) and that risks have been appropriately mitigated. Officers have taken the following steps to mitigate the risk:
- i) The ULEZ proposals as a whole, including making of the Variation Order and the consultation on it which was encompassed in the public and stakeholder consultation on the wider ULEZ package, was conducted in accordance with relevant standards and the guidance issued by the Mayor as relevant (please see TfL's Report and Section 11 below);
 - ii) TfL prepared an impact assessment which considered the impacts of the whole package of ULEZ proposals, and the proposed modifications to the Variation Order on targeted groups (see Section 4 above);
 - iii) TfL considered the consultation responses and as a result suggested modifications to the Variation Order as outlined in section 6 ;
 - iv) TfL officers sought legal advice throughout the development and implementation of the ULEZ proposals
 - v) The engagement and consultation that TfL will undertake in connection with proposals for taxi and PHV licensing changes, as detailed in Section 7 above, is designed to mitigate the risks identified in that section.

9. Financial comments

- 9.1. There are no direct financial consequences for the GLA arising from this report as the funding for the project will come from TfL.
- 9.2. Any changes to this proposal will be subject to further approval via the Authority's decision-making process as necessary.
- 9.3. The Air Quality Unit part of the Environment Team within the Development, Enterprise & Environment Directorate with TfL will be responsible for managing this project.

Implementation and operational costs

- 9.4. The net cost to TfL of the project up to and including the 2023/24 financial year (which is a 10 year period covering design development, implementation and the first four years of operation) is estimated at £343m which also includes a risk provision and is net of the income generated.
- 9.5. This includes a range of costs to TfL: development and implementation of the scheme; compliance costs for TfL's bus fleet, Dial-a-Ride and support fleets; and operational costs. The expected revenue from ULEZ has also been considered in this estimate.
- 9.6. The cost associated with taxi financial assistance and rapid charging infrastructure are under review and will be updated before changes to taxi and PHV licencing requirements are made.
- 9.7. TfL estimates that it would cost around £30m to develop and implement the ULEZ. TfL estimates that the annual average operating costs will be around £12m per year.
- 9.8. There is expected to be a reduction in Congestion Charging revenue as a result of vehicles not compliant with the ULEZ standards not entering the Congestion Charging Zone, estimated at £4m in the first year and diminishing over time as compliance rates increase.
- 9.9. The ULEZ is not designed to raise revenue and has been formulated to ensure a very high rate of compliance. However, revenue in the region of £12m is expected in the first year of operation from charges for non-compliant vehicles. Again, this will diminish over time and is expected to be

minimal after 2025. Any income generated will be used to partly offset the costs of the project or used to the further the objectives of the Mayor's Transport Strategy.

Funding

- 9.10. Funding of £327m has been allocated in the 2014 TfL Business Plan. £40m of this is reserved for financial assistance for taxi operators/ owners, which means £287m is available to cover the implementation and operational costs associated with the Scheme Order. TfL is confident that the funding gap of £56m will be met securing OLEV funding and additional funding as opportunities arise.
- 9.11. An additional £10m was included in the Government's National Infrastructure Plan, announced in the Autumn Statement, to support the implementation of ULEZ. This is additional to information provided in consultation materials and is new in winter 2014. This could be put toward the funding gap, highlighted above, or be used to help fund the implementation of rapid charging infrastructure, although this is not yet decided.

Office for Low Emission Vehicles (OLEV) funding

- 9.12. In the Autumn Statement 2014, the Chancellor announced Government support for the uptake of low and ultra low emission vehicles (ULEVs) in the UK, including a national pot of £500m to drive the uptake of Ultra Low Emission Vehicles (ULEVs), which will be administered by the Government's OLEV. This is in addition to £10m to specifically support ULEZ. TfL and the GLA continue to lobby OLEV for funding to be allocated directly to London to support ULEZ. However, TfL and the GLA will also work with relevant stakeholders to bid for funding from the various pots that the £500m is divided into, which are listed below:
- **£20m taxis** (including PHVs. For infrastructure and top-up to plug-in grant for drivers)
 - **£35m city schemes** (eg cost of implementing a LEZ)
 - **£30m buses** (eg electric buses)
 - **£32m rapid charging**
 - £31m vans
 - £4m HGV gas infrastructure
 - £200m plug-in vehicle grant (operated by OLEV to directly reduce premiums if ULEVs)
 - £100m research and development
 - **£48m unallocated**
- 9.13. The pots that could help support ULEZ, either directly or indirectly are highlighted in bold above, including £48m which is yet to be allocated by OLEV. These funds are UK wide and TfL, in partnership with the relevant stakeholders, must bid against the rest of the UK, and this bidding process is taking place during 2015.

10. Legal comments

General comments

- 10.1. In order to make a lawful decision on whether to confirm the Variation Order, and if so whether or not to approve modifications to it, the Mayor must comply with statutory procedural requirements and make a rational decision, after having taken into account all relevant considerations and discounting irrelevant ones. The same considerations apply concerning his endorsement of the wider ULEZ proposals concerning bus operations, taxis and PHV licensing. This section covers the remaining legal issues not addressed elsewhere in this Form or the Report to the Mayor.

Requirements of Schedule 23 GLA Act regarding the Variation Order

- 10.2. Paragraph 38 of Schedule 23 provides that the power to make a charging scheme includes the power to vary such a scheme. Therefore under paragraph 4(1) of Schedule 23 a variation order must be made by TfL and confirmed, with or without modifications, by the Mayor. The powers and duties of the Mayor in relation to the confirmation of this Variation Order are as set out in Schedule 23 of the GLA Act. Paragraph 38 of that Schedule gives TfL a power to vary or revoke a charging scheme.
- 10.3. The power is exercisable in the same manner and subject to the same limitations and conditions as the making of a scheme order. As a result the making, approval and possible modification of the Variation Order are subject to the same Schedule 23 requirements for the making of a charging scheme.
- 10.4. Paragraph 4(3) of Schedule 23 provides that the Mayor acting on behalf of the Greater London Authority may –
- consult, or require an authority making a charging scheme to consult, other persons;
 - require such an authority to publish its proposals for the scheme and to consider objections to the proposals;
 - hold an inquiry, or cause an inquiry to be held, for the purposes of any order containing a charging scheme;
 - appoint the person or persons by whom any such inquiry is to be held;
 - make modifications to any such order, whether in consequence of any objections or otherwise, before such order takes effect;
 - require the authority by whom any such order is made to publish notice of the order and of its effect;
 - require the authority by whom any such order is made to place and maintain, or cause to be placed and maintained, such traffic signs in connection with that order as the Mayor may require.
- 10.5. Paragraph 4(3) applies to the making, confirmation and modification of this Variation Order.
- 10.6. Paragraph 34 of Schedule 23 provides for the Mayor to issue guidance to TfL or any London borough councils in relation to the discharge of their functions under Schedule 23. Paragraph 34(2) requires TfL to have regard to any guidance issued by the Mayor when exercising its functions under Schedule 23. The previous Mayor published guidance to TfL on charging schemes pursuant to Schedule 23 of the GLA Act (“the Mayor’s Guidance”) on 16 February 2007. The measures included in this Variation Order are considered to be a major variation under Section 4.1 of the Mayor’s Guidance. TfL had regard to the Mayor’s Guidance in relation to the making of the Variation Order and conducted the consultation in compliance with the requirements specified under Section 4 of the same. Consultation on the Variation Order was encompassed in the public and stakeholder consultation on the ULEZ package as a whole.

Climate change duties

- 10.7. The Mayor’s attention is drawn to his duties under Section 361A of the GLA Act to address climate change, so far as relating to Greater London. In the case of the Mayor, this duty consists of each of the following:
- to take action with a view to the mitigation of, or adaptation to, climate change;
 - in exercising any of his functions under this Act or any other Act (whenever passed), to take into account any policies announced by Her Majesty’s Government with respect to climate change or the consequences of climate change; and

- to have regard to any guidance, and comply with any directions, issued to the Authority by the Secretary of State with respect to the means by which, or manner in which, the Mayor is to perform the duties imposed on him as above.

10.8. No specific guidance under the third bullet point above has been issued by the Government with regard to the confirmation or modification of charging scheme variation orders.

Considerations under the Human Rights Act 1988

10.9. Under Section 6 of the Human Rights Act 1998 (“the Human Rights Act”), it is unlawful for a public authority to act in a way which is incompatible with the European Convention on Human Rights. The Mayor and TfL are therefore obliged to consider possible impacts upon people's convention rights before taking any actions. Few of the rights protected by the Convention are absolute. The majority of Convention rights which are potentially capable of being the subject of interference from the actions of public bodies, most notably the right to privacy and family life and the right to the peaceful enjoyment of possessions, are subject to express limitations which permit restrictions of the rights for certain specified purposes. In assessing whether any established interference with a convention right falls lawfully within a permitted category of restriction, the public body must demonstrate the level of interference is proportionate to the public benefit to be derived from the action.

10.10. In the view of GLA officers confirmation of the Variation Order, including as modified, would not raise any particular Human Rights Act considerations.

Best Value

10.11. The GLA, in so far as it exercises its functions through the Mayor, is a “best value authority” under the provisions of Section 1 of the Local Government Act 1999 (“the 1999 Act”). TfL is also a best value authority under that Act. Under Section 5 of the 1999 Act, the GLA and TfL must conduct best value reviews of their functions in accordance with the provisions of any order made by the Secretary of State under that section.

10.12. Any review which includes a review of the implementation of the measures contained in this Variation Order must be in accordance with the Local Government (Best Value) Performance Review Order 1999, as amended. In conducting such a review, the two bodies are under a duty to aim to improve the way in which its functions are exercised, having regard to a combination of economy, efficiency and effectiveness, and must have regard to any guidance issued by the Secretary of State under Section 5 of the 1999 Act.

10.13. In the view of GLA officers, no negative cost / benefit concerns arise in relation to the measures contained in this Variation Order or the wider ULEZ proposals for buses, taxis and PHVs.

Power to hold a public inquiry

10.14. The GLA Act provides that the Mayor may ‘hold an inquiry, or cause an inquiry to be held, for the purposes of any order containing a charging scheme’. Whether an inquiry should be held to consider the implementation of the measures contained in this Variation Order is a matter for the Mayor to decide.

10.15. TfL advise that no specific request for a public inquiry into the published ULEZ proposals themselves to be held was received during the consultation²⁵.

10.16. GLA officers doubt that much further quantitative evidence beyond that already supplied by TfL and GLA officers would emerge in an inquiry that would assist the Mayor’s decisions. GLA

²⁵ The Campaign for Air Pollution Public Inquiry called for an independent investigation into the taxi age limit, into the Mayor of London and TfL, the LTDA. This call was repeated in the response of the United Cabbies Group.

officers note that an inquiry would delay the confirmation of the Variation Order. GLA Officers do not consider that there are any issues which point strongly to the holding of an inquiry and do not recommend that an inquiry be held.

Further consultation on proposed Variation Order modifications

10.17. TfL has stated that the modifications to the Variation Order proposed by TfL (detailed in Section 7 above) are minor in nature and do not require a further round of consultation. Indeed the modifications to its provisions described in Section 6 of this Form were made as a direct result of the consultation response of the stakeholder group directly affected by those provisions. .

10.18. Whether any further consultation or information is needed on this or other issues is a matter for the Mayor to decide, however, in GLA Officer's view further consultation would not be likely to raise significant new issues.

TfL's role as licensing body

10.19. As the statutory body responsible for taxi and PHV vehicle licensing it will fall to TfL to implement any changes to vehicle licensing requirements resulting from the ULEZ proposals, including as modified as result of the proposed additional engagement and consultation that the Mayor has asked TfL to undertake.

11. Investment and Performance Board

11.1. The proposals were discussed at the GLA's Investment & Performance Board in February 2015 and no recommendations were made.

Appendices and supporting papers:

Appendix A – The Greater London (Central Zone) Congestion Charging (Variation and Transitional Provisions) Order 2014

Appendix B – Impact Assessment including:

- B1:** Integrated Impact Assessment (IIA)
- B2:** Environmental Assessment (EA)
- B3:** Health Impact Assessment (HIA)
- B4:** Equality Impact Assessment (EqIA)
- B5:** Economic and Business Impact Assessment (EBIA)
- B6:** Addendum to the Integrated Impact Assessment

Appendix C – TfL's Report to the Mayor following consultation with the public and stakeholders on a Variation Order making changes to the Congestion Charging scheme

Appendix D – Instrument of Confirmation

Public access to information

Information in this form (Part 1) is subject to the Freedom of Information Act 2000 (FOI Act) and will be made available on the GLA website within one working day of approval.

If immediate publication risks compromising the implementation of the decision (for example, to complete a procurement process), it can be deferred until a specific date. Deferral periods should be kept to the shortest length strictly necessary. **Note:** This form (Part 1) will either be published within one working day after approval or on the defer date.

Part 1 Deferral:**Is the publication of Part 1 of this approval to be deferred? YES**

If YES, for what reason:

Following confirmation there will be a formal press announcement in the subsequent days. Publication should be withheld until this announcement is made to enable the Mayor's decision to be clearly and effectively communicated in a coordinated and planned way.

Until what date: an announcement will be made before the commencement of the pre-election period on 30 March 2015, after which this Mayoral Decision may be published.

Part 2 Confidentiality: Only the facts or advice considered to be exempt from disclosure under the FOI Act should be in the separate Part 2 form, together with the legal rationale for non-publication.

Is there a part 2 form – NO

ORIGINATING OFFICER DECLARATION:

Drafting officer to confirm the following (✓)

Drafting officer:

Elliot Treharne has drafted this report in accordance with GLA procedures and confirms the following have been consulted on the final decision.

✓

Director/Head of Service:

Patrick Feehily, has reviewed the documentation and is satisfied for it to be referred to the Sponsoring Director for approval.

✓

Sponsoring Director:

Fiona Feltcher-Smith, has reviewed the request and is satisfied it is correct and consistent with the Mayor's plans and priorities.

✓

Mayoral Adviser:

Isabel Dedring, Deputy Mayor for Transport and Matthew Pencharz, Mayor Senior Advisor for Environment and Energy have been consulted about the proposal and agrees the recommendations.

✓

Advice:

The Finance and Legal teams have commented on this proposal.

✓

EXECUTIVE DIRECTOR, RESOURCES:

I confirm that financial and legal implications have been appropriately considered in the preparation of this report.

Signature

Date

CHIEF OF STAFF:

I am satisfied that this is an appropriate request to be submitted to the Mayor

Signature

Date