

# The updated air quality assessment

## MAG response to invitation for comments from the interested parties

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This responds to the invitation for comment from interested parties regarding the response to the challenge the Applicant was set in regard to revisiting its assessment of the implications on air quality - and mitigation of the environmental impact - of the proposed Silvertown Tunnel project.

### Background

As a riders' rights body representing the interests of about 200,000 riders in London, the Motorcycle Action Group – known as MAG (1) - limits itself in this submission only to those matters which relate directly to the motorcycling community. We therefore consider four specific sections in the Applicant's response, which appear to underline contradictions in how the Applicant proposes to treat motorcycles in respect of user charging. This is directly relevant to the Applicant's obligations in terms of the air quality targets set for the scheme, and the Applicant's own apparent attempts to mitigate the impact on air quality of the project.

In short, the consequence of the current proposals is that the Applicant's plan to charge powered two wheelers will make it *more* difficult – rather than less difficult - for the project to achieve its environmental targets.

In keeping with MAG's commitment to making clear, specific and data-based observations, we now proceed to explaining our concerns in regard to four elements of the Applicant's response. All of this explicitly highlights how the Applicant's user charging strategy creates problems in the context of protecting air quality.

***Section 3.1.18 mentions targets which, MAG believes, will be made more difficult to achieve if powered two wheelers are subject to a user charge when using the Silvertown Tunnel.***

Section 3.1.18 states:

*The committed actions in London include;*

- *Introduction of Toxicity Charge on top of the existing Congestion Charge;*
- *Launching the Ultra-Low Emission Zone;*
- *Spending more than £300 million on transforming London's bus fleet;*
- *Ensuring TfL no longer issues licences to new diesel taxis;*
- *Introducing five Low Emission Neighbourhoods;*
- *Providing alerts to Londoners during high and very high pollution episodes;*
- *Delivering air quality audits at 50 primary schools;*

• *Reducing emissions from construction and new developments by implementing a Non-Road Mobile Machinery Low Emission Zone and tightening air quality requirements within the forthcoming London Plan;*

• *Reducing building emissions. 3.1.19 The Silvertown Tunnel Scheme would not impact on the delivery of any of these measures.*

*Overall, the Scheme results in an improvement in air quality in areas of highest pollutant concentrations, which is discussed in Chapter 4*

The Motorcycle Action Group has already provided a comprehensive analysis, largely based on TfL's own data, to indicate why the intended goal of reduced air pollution will be harmed by the planned user charging regime. Here, we draw attention to contradictions thrown up by this aspect of the Applicant's response. Let's break down this section into parts.

• ***Launching the Ultra-Low Emission Zone;***

MAG would not have raised ULEZ charges here had the Applicant not done so. But the Applicant has, so must respond.

This emissions charge is being proposed for older motorcycles. Using TfL's own data MAG has repeatedly indicated the fact that motorcycles are net reducers of emissions in the traffic environment. They contribute to a net reduction in congestion, and therefore reduce secondary emissions by other, more polluting vehicles. As such, using the example of the Ultra-Low Emissions Zone charge as a positive move in terms of reducing congestion is an exceedingly poor example, because the imposition of this charge upon older motorcycles is environmentally regressive.

Users of older motorcycles and scooters will experience an increase the cost of commuting of £62.50 for a five-day week. They could, quite logically, thus switch to other means of transport, some of which generate more pollution than the comparatively low powered, small capacity four-stroke machines they were using previously. For example, shifting from a virtually zero emissions *non-exempt* 125cc four-stroke motorcycle to a more modern, *exempt* but much larger capacity is not a change that is in any way environmentally coherent because it increases overall emissions and congestion. TfL have never offered their reasoning for introducing this perverse financial incentive. If they cannot do so, they are facing the stark possibility of a legal challenge on the basis of discrimination, and certainly falling foul of their own claimed intention to take mitigating steps to reduce the impact of emissions. It's impossible to see how charging £12.50 per day for small-engine motorcycles helps this goal at all – and certainly doesn't help with mitigation of the impact of the Silvertown Tunnel project.

Secondly, given the necessary increase in public transport provision - which a shift from powered two wheelers to public transport demands in order to accommodate the extra commuters (unless, implausibly, TfL claims that ALL the shift can be accommodated by existing spare capacity) - this will also result in an increase in congestion, given that TfL's own evidence has previously and conclusively improved the benefit of powered two wheelers in *reducing* congestion, pollution and journey times, especially when permitting access to bus lanes.

MAG has made these points very clearly in our publicly available submissions to the Ultra-Low Emission Zone consultations (2 & 3 & 4), and to date TfL have offered no refutation whatever of our arguments. MAG concluded that we therefore have reasonable grounds to suggest that our arguments about the charging of motorcycles in the ULEZ proposals equally apply to the proposal to charge riders in Silvertown: namely that the move will increase pollution to the detriment of the targets that the Applicant has been instructed to review.

• ***Spending more than £300 million on transforming London's bus fleet;***

Unless the bus fleet is entirely electric, they will produce more emissions than small powered two wheelers. A hybrid bus, such as the Enviro 400 (5), unquestionably generates many orders of magnitude more NOx and PMs and a small capacity motorcycle. It is utterly illogical to charge users of these small machines and try to force them onto much higher polluting vehicles.

Research has been conducted by technical expert Tony Cox, a senior member of the Motorcycle Action Group who is highly experienced in matters relating to catalytic converters, their effectiveness at different temperatures, including in congested environments, and also in the emissions generated by older powered two wheelers. He is able to demonstrate that there is almost no NOx footprint from an older motorcycle engine, due to the burning characteristics of such an engine. (we have not included his details in this submission but can, confidentially, provide his details should the Applicant wish to challenge his findings).

In addition, PMs for motorcycles of any size using the proposed Silvertown crossing are far below those generated by electric vehicles - from their brakes and tyres. As such, by attempting to create a disincentive regarding the use of motorcycles and scooters, and at the same time trying to increase usage of electric vehicles, the Applicant *increases* PM pollution as opposed to decreasing it. MAG notes that the Applicant's response has previously been entirely silent on this demonstrable phenomenon, even though the Applicant has been provided with the scientific evidence regarding PMs on many occasions.

• ***Ensuring TfL no longer issues licences to new diesel taxis;***

Electric taxis generate considerably more PMs than PTWs, due to the simple physics of mass and momentum. Unless some revolutionary new technology which nobody other than TfL has heard about is being introduced to eliminate PM generation by tyres and brakes, PTWs are still much lower polluters per commuter versus an electric taxi, especially when that taxi is carrying a single passenger and the emissions are compared with those generated by a single PTW carrying a commuter. Note also, that there is no allowance here for the global impact of electricity generation and the very large ecological bill associated with building and disposing of an electric car and its batteries – suggesting that TfL's environmental calculations are entirely parochial.

• ***Introducing five Low Emission Neighbourhoods;***

This is fine, but has no bearing on the case for charging powered two wheelers which help to reduce net emissions in all neighbourhoods, and will continue to do so as long as a significant proportion of the road stock is powered by internal combustion engines, and as long as congestion continues to be an undesirable factor in London traffic management.

**• Providing alerts to Londoners during high and very high pollution episodes;**

*and*

**• Delivering air quality audits at 50 primary schools;**

While it is laudable that the Applicant is proposing Low Emission Neighbourhoods and monitoring pollution near schools it is ironic that, at the same time, they intend to charge a mode of transport which, for all the reasons MAG has already outlined, reduces emissions. This again indicates a lack of consistency in TfL's approach.

**• Reducing emissions from construction and new developments by implementing a Non-Road Mobile Machinery Low Emission Zone and tightening air quality requirements within the forthcoming London Plan;**

Again, tightening the targets at the same time as charging powered two wheelers which help to reduce emissions is not a consistent policy.

The section concludes by stating:

***Overall, the Scheme results in an improvement in air quality in areas of highest pollutant concentrations, which is discussed in Chapter 4.***

If it is able to do so, that is despite the glaring contradiction between wishing to reduce pollution whilst increasing the barriers to using a mode of transport which helps to achieve these goals. In this context, we are referring to the charging of all conventionally powered motorcycles and scooters, which is the stated intention of the Applicant in regard to the Silvertown Tunnel proposals.

***Section 5.1.10 makes commitments to employ traffic data and modelling tools regarding user charging, yet at present the Applicant has not embraced the compelling logic of the data in regard to PTWs.***

This section states:

*As discussed in previous submissions, the Applicant has committed to carry out a further air quality assessment before the Silvertown Tunnel opens for public use. This will ensure that the most up-to-date air quality baseline monitoring, traffic data and modelling tools will be taken into account when setting the initial user charges. This obligation is set out in the Monitoring and Mitigation Strategy (REP7-049) which is secured by Requirement 7 of the draft DCO (REP7-026). Specifically, the Monitoring and Mitigation Strategy states that: Prior to the Silvertown Tunnel opening for public use, TfL must refresh its assessment of scheme impacts, in order to:*

- Set the opening user charges;*
- Define the requirement for and form of localised mitigation for residual effects; and*
- Specify the bus network through the Silvertown Tunnel that will operate on opening.*

*For this process TfL will update the relevant transport and environmental models, rerun those models, and develop its proposals for each element in conformity with the commitments, policies and procedures set out in the relevant certified documents and any DCO requirements. (Paragraphs 2.1.1 - 2.1.2)*

If the Applicant applies this 'refreshed' modelling properly, the only possible outcome as far as powered two wheelers is concerned is their exemption from the charging scheme. For reasons made abundantly clear in the previous submissions to the public hearings, and using TfL's own data, to include motorcycles and scooters in the charging scheme would indicate a profound disregard to the realities of a proper modelling methodology. We remind the Applicant that at one point in the public hearings the Applicant admitted that they had treated motorcycles as representing the same unit of transport as a car – a manifestly ludicrous assumption.

If the Applicant were mindful of the large amount of databased evidence provided for their convenience, and for the convenience of the Planning Inspectorate, it would be simply impossible to find any credible justification for the imposition of a user charge on motorcycles, unless of course the Applicant is determined to reduce motorcycle usage even though that would lead to a de facto increase in emissions.

**Section 5.1.8 states:**

*Each of these assessments concluded the Scheme would not lead to a significant impact on air quality, would not impact on the ability of the Greater London Urban Area to achieve compliance with the Air Quality Directive, and would have an overall beneficial impact on air quality.*

The Applicant has not indicated why, if this is its intention, it is willing to introduce a charge on motorcycles which will have the opposite effect.

**Section 5.1.11 states:**

*After the tunnel has opened to traffic, an extensive air quality monitoring and mitigation regime will operate in accordance with requirement 7 of the draft DCO. This regime requires the annual monitoring data to be reviewed by a firm of independent experts and for a scheme of mitigation to be submitted to Silvertown Tunnel EFT8 Air Quality Update Page 23 of 53 the Mayor for approval if the firm of experts conclude that the Scheme has materially worsened air quality.*

This statement would therefore seem to suggest that a mitigation regime would be operational. However, MAG questions the logic of introducing a charge on powered two wheelers which increases the pressure on a mitigation scheme, as a result of the counterproductive effect on emissions which PTW charging will have.

Note also, that since the low wage riding community would rather ride a much greater distance than endure what amounts to an increase in commuting costs of many hundreds of percent, the mitigation scheme is something of a sinecure, given that the Applicant's charge on riding motorcycles will make whatever modest emissions arise from motorcycles greater due to the longer journeys the bikers will make, at the same time as doing nothing to reduce the net emissions from other traffic using the Silvertown tunnel scheme.

Conversely, incentivising a modal shift towards powered two wheelers is a demonstrable way of reducing overall primary emissions as individuals shift from powered four wheelers to powered two wheelers, at the same time as reducing secondary emissions due to the reduced congestion effect of the modal shift from cars to motorbikes – a phenomenon extensively illustrated in MAG's earlier submissions, one example of which was the Leuven Study (6).

## Conclusion

MAG has repeatedly pointed out that charging motorcycles contradicts the aim of reducing the impact of the Silvertown Tunnel project on atmospheric emissions. To date, the Applicant has not provided any evidence to the contrary. MAG therefore suggests that the only rational step to help achieve these emissions targets is the exemption of powered two wheelers from the charging scheme, in line with the precedent set almost universally on Britain's road network for reasons of social mobility, congestion reduction and the reduction of emissions.

MAG is very willing to provide all evidence on which our case is based on request, and to cite the location of all the evidence previously submitted in the context of our proposal to exempt powered two wheelers from the charge in line with environmental common sense.

## *Lembit Öpik*

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## References

Please note that there are dozens of references supporting the position MAG has put forward in our extensive representations regarding the Silvertown Tunnel proposals.

- (1) <http://www.mag-uk.org/>
- (2) [https://wiki.mag-uk.org/images/7/74/ULEZ\\_2017\\_06\\_21.pdf](https://wiki.mag-uk.org/images/7/74/ULEZ_2017_06_21.pdf)
- (3) [https://wiki.mag-uk.org/images/5/5c/Silvertown\\_MAG\\_submission\\_2017\\_04\\_10.pdf](https://wiki.mag-uk.org/images/5/5c/Silvertown_MAG_submission_2017_04_10.pdf)
- (4) [https://wiki.mag-uk.org/images/8/8f/CAZ\\_2017\\_02\\_26.pdf](https://wiki.mag-uk.org/images/8/8f/CAZ_2017_02_26.pdf)
- (5) <https://www.alexander-dennis.com/products/double-deck-2-axle/enviro400/>
- (6) <http://www.tmleuven.be/project/motorcyclesandcommuting/home.htm>