GREATER**LONDON**AUTHORITY

[redacted]
(By email)

Our Ref: MGLA111119-6711

25 November 2019

Dear [redacted]

Thank you for your further request for information which the Greater London Authority (GLA) received on 8 November 2019. Your request has been dealt with under the Environmental Information Regulations (EIR) 2004.

You asked for:

> *Can you release all of the available information such as transcripts, minutes, slide show presentation etc of the Mayor's meeting 'Future plans for ultra low emission buses in London' which was held on 25th February 2015.*

Our response to your request is as follows:

Please find attached information within scope of your request. Please note that some names of external third parties are exempt from disclosure under s.40 (Personal information) of the Freedom of Information Act. This information could potentially identify specific employees and as such constitutes as personal data which is defined by Article 4(1) of the General Data Protection Regulation (GDPR) to mean any information relating to an identified or identifiable living individual. It is considered that disclosure of this information would contravene the first data protection principle under Article 5(1) of GDPR which states that Personal data must be processed lawfully, fairly and in a transparent manner in relation to the data subject

If you have any further questions relating to this matter, please contact me, quoting the reference at the top of this letter.

Yours sincerely

[redacted]
Information Governance Officer

If you are unhappy with the way the GLA has handled your request, you may complain using the GLA's FOI complaints and internal review procedure, available at:

https://www.london.gov.uk/about-us/governance-and-spending/sharing-our-information/freedom-information

Mayoral meeting with London bus manufacturers

25 February 2015

GLA Attendees:	**Boris Johnson**	Mayor of London
	Isabel Dedring	Deputy Mayor for Transport
	[redacted]	Air Quality Manager
TfL Attendees:	**Sir Peter Hendy**	Commissioner, TfL
	Leon Daniels	Managing Director, Surface Transport, TfL
External Attendees:	[redacted]	Managing Director, Wrightbus
		Chief Executive, Alexander Dennis Ltd
		Chief Executive Officer, Optare
		Managing Director, Volvo UK
		Managing Director, Scania UK
		CEO & Managing Director, Mercedes
		Business Development Director, BAe
		Head of Business Development for Rolling Stock, Siemens
	[redacted]	BYD Europe
	Kevin Austin	Director of Initiatives, Regions & Events, C40

Agenda

1. Introductions

2. Future vision for London's bus fleet – increasing the number of ultra-low emission buses

    - Tackling the hybrid capital premium
    - Supporting the London and UK economy

3. The C40 Global Declaration on Clean Buses and London Summit

4. Improving the design of buses and incorporating the New Routemaster 'DNA' into the bus fleet

BRIEFING FOR THE MAYOR OF LONDON

SUBJECT: BUS MANUFACTURERS MEETING ON 25th FEBRUARY 2015

DATE: 11 FEBRUARY 2015

1. PURPOSE

1.1. You are meeting with the major bus manufacturers serving the London market on 25th February 2015. This paper sets out the background to the meeting and the key issues which need to be discussed, including a new Global Declaration on Clean Buses which London has coordinated through the C40 Cities Climate Leadership Group.

1.2. There is also a separate briefing for the meeting itself including an agenda and lines to take.

2. BACKGROUND TO THE MEETING

2.1. The purpose of the meeting is to discuss your future ambitions for London's bus fleet, including how to continue to accelerate the introduction of new ultra-low-emission buses like hybrid, all-electric and hydrogen.

2.2. You want to quickly reach the point where all buses entering the TfL bus fleet are ultra-low emission but this switch will only occur in the volumes required if more cost-effective and sustainable options become available – an acceleration point which has proved frustratingly elusive to reach to date.

2.3. For this reason you agreed to meet with the Chief Executives or Managing Directors of the major bus manufacturers serving the London market, including the manufacturers of hybrid systems like BAe and Siemens, to personally set out your future objectives and priorities in relation to reducing emissions from London's buses.

3. KEY MESSAGES

a) Increasing the number of hybrid and electric buses

3.1. The number of hybrid buses in the London bus fleet will now grow steeply to 3,300 to help the bus fleet become cleaner ahead of introduction of the Ultra Low Emission Zone (ULEZ) in 2020. The number of zero-emission single-deck vehicles will also rise sharply to at least 300 to comply with ULEZ requirements by that time.

3.2. However, you want to quickly reach the point where all new buses entering the TfL bus fleet are ultra-low emission. In reality this is dependent on manufactures of ultra-low-emission buses addressing the existing capital premiums they continue to charge for their buses. Our key message is that there is a significant market opportunity for manufacturers of ultra-low-emission buses in London – but only if the price is sustainable.

3.3. We also want to flag our support for development of more types of all-electric buses (e.g. double deck electric) and wider-scale introduction across the capital because of the zero-tailpipe emission benefits they deliver.

3.4. We should play manufacturers and technology types (e.g. hybrid vs electric) off each other to boost competition and tackle manufacturer complacency about existing pricing structures.

b) Tackling the hybrid capital premium

3.5. TfL has identified that the single biggest cost factor is the initial capital premium of hybrid buses (together with the associated costs of finance), followed by the costs associated with the risk of life and replacement cost of the battery packs.

3.6. Addressing the hybrid capital premium is the main priority for your discussion with the manufacturers.

3.7. Current premiums for double deck hybrid buses are in the region of £85,000 - £105,000 per bus. This has reduced but now appears to have stalled at these levels when it might be assumed that with greater volumes sold development costs would have been covered.

3.8. It would be helpful if the manufactures and supply chain could indicate what volume of orders would lead to a step change in the capital premium, or what technology developments they can deliver within the current price (eg range extended).

3.9. Operators and vehicle financiers are now increasingly comfortable with hybrid vehicles and availability of finance is not considered to be an issue. The cost of finance is also now reducing and residual value assumptions are improving However an assurance that all of the components buses are designed for a full 14 year plus life would assist, as some financiers are concerned that critical and expensive units such as motors may not last that long.

3.10. After taking into account the projected lifetime costs of operating the vehicles, including fuel savings, battery replacement costs, residual value and maintenance savings, the remaining lifetime premium is expected to be around £55,000 per hybrid bus. This assumes depreciation and operating costs over an average 12 year economic life in London, with optimistic battery life costs.

3.11. The limitation of pure electric single deck buses is their range between charges, so whilst they are attractive on a 1 for 1 basis against diesels, the costs for additional buses to enable charging are a barrier.

c) Improving the design of buses and incorporating New Routemaster 'DNA'

3.12. The design cues from New Routemaster are being incorporated into designs from the other manufacturers. Many of these features are directly for passenger benefit involving detail issues such as seating, accessibility, and lighting and information provision.

3.13. The low overall demand for new buses each year does mean that economic manufacturing volumes compel there only to be a small number of manufacturers making generic products suitable for many markets. It is unrealistic for competing companies to share too much of their plans for the future but there is evidence of them working to compete in styling terms to ensure the product is as exciting to see as New Routemaster.

3.14. We do not favour New Routemaster lookalikes as these would almost certainly spoil the reputation of the true product but we do want to encourage all manufacturers to replicate its 'DNA' across its fleet delivering a high quality passenger experience in an exciting design.

d) Supporting the London and UK economy

3.15. Clearly we would like the economic benefits of London's commitment to cleaner vehicles to be felt particularly strongly among manufacturing and component assembly companies in the UK as has been the case with orders for 800 New Routemasters and the continuing upgrade of up to 1,800 Euro III buses with selective catalytic reduction equipment to cut NOx emissions. The step-change in emission reduction on buses mirrors mayoral policy requirements for all newly-licenced taxis to be zero-emission-capable from 2018, having secured a £200m investment and 500 jobs from Geely to build a new factory in Coventry

4. THE C40 GLOBAL DECLARATION ON CLEAN BUSES AND LONDON SUMMIT

4.1. Other world cities have similar environmental aspirations as London and share our concerns about current capital premiums for ultra-low emission buses. Increasingly, all major world cities expect ultra-low emission buses to become the standard vehicle for all fleets in the long-term.

4.2. Cities are already sharing data on real-world performance for electric buses through C40. However, to unlock the true potential of these new technologies we need to work together to break down the barriers to their adoption. This includes addressing the premium for hybrid and electric buses.

4.3. Working through C40, world cities are signing up to a new Global Declaration on Clean Buses that will be announced at an event in Buenos Aires in March. The declaration commits the signatory cities to rapidly accelerating the uptake of low and ultra-low emission bus technologies.

4.4. Following this, the current proposal is that you will host a London summit this summer to discuss the relevant issues with manufacturers, leasing companies, public transport operators, multi-lateral development banks and other funding agencies. This event may be held jointly with Michael Bloomberg (former Mayor of New York and now President of C40), but arrangements are still being confirmed.

4.5. Kevin Austin, the Director Initiatives, Regions and Events at C40 will provide a short briefing after you have met with the manufacturers to set this out in more detail and explain the next steps for the London summit.

5. ACHIEVEMENTS TO DATE

5.1. London's bus fleet is at the forefront of environmental change to maintain its position as one of the cleanest in the world. It has already cut overall particulate emissions from 200 tonnes in 1997 to around 20 tonnes today.

5.2. A further 800 buses are to be fitted with selective catalytic reduction (SCR) equipment to bring the planned total upgrade of Euro III generation buses to 1,800 by the end of 2015. TfL has already fitted 1,019 to date, including those funded by the Olympic Delivery Authority and is starting the next phase of the programme. This will leave the number of unmodified Euro III buses in the

fleet at around 1,000 by March 2015 as part of plans to reduce this to zero by the end of 2015. The SCR kit developed for London cuts individual vehicle exhaust NOx by up to 88 per cent. Remaining un-retrofitted Euro III buses in the fleet will be replaced with the new ultra-low emission buses fitted with the Euro VI engine or better which will cut individual vehicle exhaust NOx by up to 95 per cent compared to a standard Euro III vehicle. The two measures will deliver a 20 per cent cut (equivalent to 1,000 tonnes) of NOx a year from the bus fleet by 2015 compared to 2012 levels.

5.3. As part of wider emission reduction, particularly for CO2, TfL is increasing the number of hybrid diesel-electric vehicles from the current 1,200 to more than 1,700 by 2016. Of this total in two years' time, 800 will be New Routemasters with Euro V and Euro VI engines. The Euro V vehicles, however, are the cleanest Euro V hybrids in the fleet, emitting 80 per cent less NOx than the fleet average hybrid Euro V.

5.4. London has led the way with Euro VI, with more than 300 buses now operation in London and more than two thirds of these are hybrid diesel-electric double-deck buses.

5.5. There are currently 16 zero-emission vehicles in the fleet: eight hydrogen fuel-cell vehicles on route RV1 and eight all-electric vehicles on routes 507, 521, H98 and 312. TfL has just awarded a new contract for route 312 which will raise the number of all-electric vehicles operating between Norwood Junction and South Croydon from two to nine buses.

5.6. TfL is also to trial rapid-induction charging on new range-extended hybrid buses on route 69 between Canning Town and Walthamstow bus stations from autumn of this year. This will help assess the hybrid buses' ability to operate in zero-emission all-electric mode against a target of 80 per cent of passenger service. This will reduce emissions in specific areas where the vehicles can switch from diesel to electric when the battery is fully charged.

6. FUTURE PRODUCTION OF THE NEW ROUTEMASTER

6.1. Another key issue which you are keen to resolve is the future production of the New Routemaster bus. The current contract is limited to 1,000 buses and a further procurement would be required beyond that. However the current order for 800 buses is likely to be a sensible limit for the three-door version of the bus as London's constrained road layout restricts their use on some key corridors.

6.2. Both Wrightbus and Alexander Dennis are working on designs for their next-generation two-door one-staircase double-deck buses which will incorporate some key design features of the New Routemasters. While not identical, this development will allow some benefits of the New Routemasters to be rolled out across the remaining central and suburban double-deck fleet.

7. NEXT STEPS

7.1. Sir Peter Hendy and Leon Daniels will brief you on the meeting and agree key lines with you at the Mayor/TfL meeting on 19th February.

7.2. The outcome of these discussions will be included in your briefing which you will receive in good time before the meeting with bus manufacturers on the 25th February 2015.

APPENDIX A – LIST OF ATTENDEES

APPENDIX B – C40 GLOBAL DECLARATION ON CLEAN BUSES

APPENDIX A – ATTENDEES

GLA	Isabel Dedring, Matthew Pencharz, Elliot Treharne
TfL	Peter Hendy, Leon Daniels
Wrightbus	[redacted], Managing Director (tbc)
ADL	[redacted], Chief Executive
Optare	[redacted], Chief Executive Officer
Volvo UK	[redacted], City Mobility Manager and Corporate Spokesman (tbc)
Scania UK	[redacted], Managing Director
Mercedes	[redacted], EvoBus (UK) Ltd, CEO & Managing Director
BAe	[redacted], Business Development Director
Siemens	[redacted], Head of the Mobility Division
BYD	[redacted], Managing Director, BYD Europe
C40	Kevin Austin, Director of Initiatives, Regions, and Events

APPENDIX B – C40 GLOBAL DECLARATION ON CLEAN BUSES

We, the undersigned cities that make up the C40, are committed to reducing emissions from the transport sector and improving air quality through introduction of low and ultimately zero-tailpipe-emission buses in our fleets.

Our strategies are already leading to deployment of cleaner vehicles, development of emerging clean bus technologies, and understanding real-world performance through the C40.

We are committing to accelerating the rapid uptake of low and ultra-low tailpipe emission bus technologies, and urgently seek support from global manufacturers, public transport operators, leasing companies, multilateral development banks and other funding agencies to step up and aid us in this process.

Mayors signing this declaration represent some of the largest cities in the world with a total fleet of xxxx [Note: C40 to populate final number based on inputs from all signing cities] buses. This represents a significant market opportunity for manufacturers who are developing suitable vehicles at an affordable price. [1]

Substantial progress has been made in recent years in the availability and performance of low and ultra-low tailpipe emission buses. Procuring these in volumes that would cut exhaust emissions dramatically depends on more sustainable and cost-effective options being available to municipalities and private bus operators, and for options to be flexible to meet the specific needs of each individual city.

Bus manufacturers and city governments can work together to de-carbonise urban transport and deliver a zero-tailpipe-emission future. This declaration is the first step in the journey, inviting manufacturers and other key partners to work with some of the biggest bus fleets and key cities around the world to increase availability, meet emission requirements and reduce current cost premiums. Leasing companies, multi-lateral development banks and other funding agencies will also need to play a critical role in developing these solutions, and we invite them to be a part of this process.

Signed:

Mayor of _____

[1] For further details on individual city volumes and replacement targets, please see the Annex of this Declaration.

Low emission bus targets and goals from all signing cities

- London aims to have 20% of the city bus fleet converted to clean technologies by 2016 and 40% of the bus fleet by 2020. The size of the overall fleet is 8,700, so the clean bus opportunity represents around 3,500 buses by 2020. This will entail a combination of -diesel-electric hybrids, all- electric (including single and – if available – double-deck buses) and hydrogen fuel-cell powered technologies.

Similar to the London example above, signing cities will need to provide the following information:

City name:	**London**
Total number of buses in city fleet:	8,765 as of March 31, 2014
Overall number of new buses to be procured between now and 2020:	Approx 3,600 (8,765 * 5 years/12 years average age)
Clean bus targets by 2020, if any (expressed as number of buses, or as a percentage of fleet size):	3,500
Clean bus technologies being considered (e.g. electric, hybrid, hydrogen etc.):	Our proposed ULEZ is the focus of the period to 2020, leading to approximately 3,300 hybrid double-deck buses and up to 300 zero-emission single-deck buses. We would continue to use our eight hydrogen fuel-cell buses.
Other clean bus targets beyond 2020, if any:	TC
If clean bus target is not yet identified, please share any plans to test clean buses between now and 2017:	Our aim is to continue to introduce the latest low-emission technology as it becomes viable operationally and economically. Depending on developments and costs, our vision is to increase the range and number of range extended hybrid buses and the fleet of all-electric buses
Please feel free to include disclaimers or additional notes for clean bus purchasing plans already in process:	See above.

BRIEFING FOR THE MAYOR OF LONDON

SUBJECT: BUS MANUFACTURERS MEETING ON 25th FEBRUARY 2015

DATE: 11 FEBRUARY 2015

1. PURPOSE

1.1. You are meeting with the major bus manufacturers serving the London market on 25th February 2015.

1.2. The purpose of the meeting is to:

- discuss your **future ambitions for London's bus fleet**, including how to continue to accelerate the introduction of new ultra-low-emission buses like hybrid, all-electric and hydrogen
- set out the need to **tackle the current hybrid capital premium**, partly by flagging the increasing global demand for these vehicles.
- ensure that as much as possible of the **economic benefit** of the design, production and assembly of ultra low emission buses benefits London and the UK.
- raise concerns you have about poor bus design and encourage the creation of a **'family' of buses incorporating New Routemaster 'DNA'.**

1.3. You want to quickly reach the point where all buses entering the TfL bus fleet are ultra-low emission but this switch will only occur in the volumes required if more cost-effective and sustainable options become available – an acceleration point which has proved frustratingly elusive to reach to date.

2. APPROACH

2.1. Tackling issues like the hybrid capital premium won't be resolved in a single meeting. It is unlikely that the bus manufacturers will discuss sensitive issues like price or contracts in front of their competitors.

2.2. Instead we are proposing a three-staged approach to bring some of these issues to a head:

a. Meeting with the Mayor to set out the challenge (25th February)
b. Bilateral engagement with all the manufacturers (March – June)
c. C40 London Summit in the summer to finalise agreements and announce outcomes (29th June)

2.3. The 25th February meeting will be critical in assessing what progress can realistically be made and whether this approach is viable.

2.4. In terms of tactics, we need to play manufacturers and technology types (e.g. hybrid vs electric) off each other to boost competition and tackle manufacturer complacency about existing pricing structures. Otherwise there is a danger that they will see the current prices as the ones we will pay regardless of the volume of new ultra low emission buses we are buying.

ATTENDEES

GLA	Isabel Dedring, Matthew Pencharz, Elliot Treharne
TfL	Peter Hendy, Leon Daniels
Wrightbus	[redacted], Managing Director (tbc)
ADL	[redacted], Chief Executive
Optare	[redacted], Chief Executive Officer
Volvo UK	[redacted], City Mobility Manager and Corporate Spokesman (tbc)
Scania UK	[redacted], Managing Director
Mercedes	[redacted], EvoBus (UK) Ltd, CEO & Managing Director
BAe	[redacted], Business Development Director
Siemens	[redacted], Head of the Mobility Division
BYD	[redacted] Managing Director, BYD Europe
C40	[redacted], Director of Initiatives, Regions, and Events

AGENDA

1. Introductions

2. Future vision for London's bus fleet – increasing the number of ultra-low emission buses
    i. Tackling the hybrid capital premium
    ii. Supporting the London and UK economy

3. The C40 Global Declaration on Clean Buses and London Summit

4. Improving the design of buses and incorporating New Routemaster 'DNA' into the bus fleet

2. Future vision for London's bus fleet – increasing the number of ultra-low emission buses

Purpose

To drive down capital premiums in order to enable the delivery of our ULEZ bus commitments and to support more ambitious proposals in the future.

Lines to take

- I have set out my proposals for an Ultra Low Emission Zone – the London bus fleet will now grow steeply to include 3,300 double-deck hybrid buses. There will also be 300 zero-emission single-deck vehicles.
- However I want to go further – I want to quickly reach the point where all new buses entering the TfL bus fleet are ultra-low emission.
- Future Mayors are likely to share my ambition – many boroughs want to see ULEZ expanded to their part of London (e.g. Hackney, Camden, Islington).
- I also want to see the development of more types of all-electric buses (e.g. double deck electric) and wider-scale introduction across the capital because of the zero-tailpipe emission benefits they deliver.
- Clearly this is a significant market opportunity for manufacturers of ultra-low-emission buses in London – but only if the price is sustainable.
- Over the coming months my team will be talking to you one-on-one to understand how increases in potential sales volumes will impact the current capital premium for hybrid buses.
- There are also simple things that bus manufacturers can do now to help, for example an assurance that all of the components buses are designed for a full 14 year plus life would assist, as some financiers are concerned that critical and expensive units such as motors may not last that long.
- Finally, I want to ensure that as much as possible of the economic benefit of the design, production and assembly of ultra low emission buses benefits London and the UK.

Background

Increasing the number of hybrid and electric buses

- The number of hybrid buses in the London bus fleet will now grow steeply to 3,300 to help the bus fleet become cleaner ahead of introduction of the Ultra Low Emission Zone (ULEZ) in 2020. The number of zero-emission single-deck vehicles will also rise sharply to at least 300 to comply with ULEZ requirements by that time.
- However, you want to quickly reach the point where all new buses entering the TfL bus fleet are ultra-low emission. In reality this is dependent on manufactures of ultra-low-emission buses addressing the existing capital premiums they continue to charge for their buses. Our key message is that there is a significant market opportunity for manufacturers of ultra-low-emission buses in London – but only if the price is sustainable.

- We also want to flag our support for development of more types of all-electric buses (e.g. double deck electric) and wider-scale introduction across the capital because of the zero-tailpipe emission benefits they deliver.
- We should play manufacturers and technology types (e.g. hybrid vs electric) off each other to boost competition and tackle manufacturer complacency about existing pricing structures.

Tackling the hybrid capital premium

- Addressing the hybrid capital premium is the main priority for your discussion with the manufacturers.
- Current premiums for double deck hybrid buses are in the region of £85,000 - £105,000 per bus. This has reduced but now appears to have stalled at these levels when it might be assumed that with greater volumes sold development costs would have been covered.
- Operators and vehicle financiers are now increasingly comfortable with hybrid vehicles and availability of finance is not considered to be an issue. The cost of finance is also now reducing and residual value assumptions are improving However an assurance that all of the components buses are designed for a full 14 year plus life would assist, as some financiers are concerned that critical and expensive units such as motors may not last that long.
- After taking into account the projected lifetime costs of operating the vehicles, including fuel savings, battery replacement costs, residual value and maintenance savings, the remaining lifetime premium is expected to be around £55,000 per hybrid bus. This assumes depreciation and operating costs over an average 12 year economic life in London, with optimistic battery life costs.
- The limitation of pure electric single deck buses is their range between charges, so whilst they are attractive on a 1 for 1 basis against diesels, the costs for additional buses to enable charging are a barrier.

What we've already achieved

- London's bus fleet is at the forefront of environmental change to maintain its position as one of the cleanest in the world. It has already cut overall particulate emissions from 200 tonnes in 1997 to around 20 tonnes today and by the end of this year will have reduced nitrogen oxides emissions by 20% compared to 2012 levels by fitting selective catalytic reduction equipment to 1,800 Euro III buses and replacing other vehicles of same generation with new ultra-low emission Euro VI engine buses.
- As part of wider emission reduction, particularly for CO2, TfL is increasing the number of hybrid diesel-electric vehicles from the current 1,200 to more than 1,700 by 2016. Of this total in two years' time, 800 will be New Routemasters with Euro V and Euro VI engines. The Euro V vehicles, however, are the cleanest Euro V hybrids in the fleet, emitting 80 per cent less NOx than the fleet average hybrid Euro V.

- London has led the way with Euro VI, with more than 300 buses now operation in London and more than two thirds of these are hybrid diesel-electric double-deck buses.
- There are currently 16 zero-emission vehicles in the fleet: eight hydrogen fuel-cell vehicles on route RV1 and eight all-electric vehicles on routes 507, 521, H98 and 312. TfL has just awarded a new contract for route 312 which will raise the number of all-electric vehicles operating between Norwood Junction and South Croydon from two to nine buses.
- TfL is also to trial rapid-induction charging on new range-extended hybrid buses on route 69 between Canning Town and Walthamstow bus stations from autumn of this year. This will help assess the hybrid buses' ability to operate in zero-emission all-electric mode against a target of 80 per cent of passenger service. This will reduce emissions in specific areas where the vehicles can switch from diesel to electric when the battery is fully charged.

3. The C40 Global Declaration on Clean Buses and London Summit

(Please see appendix for a copy of the declaration)

Purpose

To secure the bus manufacturers' participation in the London Summit and make them aware of the C40 Global Declaration on Clean Buses.

Lines to take

- Other world cities have similar environmental aspirations as London and share my concerns about the current capital premiums for ultra-low emission buses.
- Increasingly, all major world cities expect ultra-low emission buses to become the standard vehicle for all fleets in the long-term. This represents a significant opportunity for bus manufacturers.
- A new Global Declaration on Clean Buses will be announced in March. This will be followed up by a summit in London in the summer (29th June).
- I would like to invite you to participate.
- Kevin Austin from C40 will be hosting a separate briefing on the declaration and the London summit immediately after this meeting and I would be grateful if you could stay and attend.

Background

- Cities are already sharing data on real-world performance for electric buses through C40. However, to unlock the true potential of these new technologies we need to work together to break down the barriers to their adoption. This includes addressing the premium for hybrid and electric buses.
- Working through C40, world cities are signing up to a new Global Declaration on Clean Buses that will be announced at an event in Buenos Aires in March. The declaration commits the signatory cities to rapidly accelerating the uptake of low and ultra-low emission bus technologies.
- Following this, the current proposal is that you will host a London summit this summer to discuss the relevant issues with manufacturers, leasing companies, public transport operators, multi-lateral development banks and other funding agencies. This event may be held jointly with Michael Bloomberg (former Mayor of New York and now President of C40), but arrangements are still being confirmed.
- Kevin Austin, the Director Initiatives, Regions and Events at C40 will provide a short briefing after you have met with the manufacturers to set this out in more detail and explain the next steps.

4. Improving the design of buses and incorporating New Routemaster 'DNA' into the bus fleet

Purpose

To improve the design of buses and secure New Routemaster-style design as the future standard for the London bus fleet

Lines to take

- I am rightly proud of my beautiful New Routemaster bus.
- I am keen to develop a 'family' of buses which incorporate its DNA and would strongly welcome any efforts by you to help deliver this.

Background

- The design cues from the New Routemaster are being incorporated into designs from the other manufacturers. Many of these features are directly for passenger benefit involving detail issues such as seating, accessibility, and lighting and information provision.
- The low overall demand for new buses each year does mean that economic manufacturing volumes compel there only to be a small number of manufacturers making generic products suitable for many markets. It is unrealistic for competing companies to share too much of their plans for the future but there is evidence of them working to compete in styling terms to ensure the product is as exciting to see as New Routemaster.
- We do not favour New Routemaster lookalikes as these would almost certainly spoil the reputation of the true product but we do want to encourage all manufacturers to replicate its 'DNA' across its fleet delivering a high quality passenger experience in an exciting design.

APPENDIX – C40 GLOBAL DECLARATION ON CLEAN BUSES

We, the undersigned cities that make up the C40, are committed to reducing emissions from the transport sector and improving air quality through introduction of low and ultimately zero-tailpipe-emission buses in our fleets.

Our strategies are already leading to deployment of cleaner vehicles, development of emerging clean bus technologies, and understanding real-world performance through the C40.

We are committing to accelerating the rapid uptake of low and ultra-low tailpipe emission bus technologies, and urgently seek support from global manufacturers, public transport operators, leasing companies, multilateral development banks and other funding agencies to step up and aid us in this process.

Mayors signing this declaration represent some of the largest cities in the world with a total fleet of xxxx [Note: C40 to populate final number based on inputs from all signing cities] buses. This represents a significant market opportunity for manufacturers who are developing suitable vehicles at an affordable price. [1]

Substantial progress has been made in recent years in the availability and performance of low and ultra-low tailpipe emission buses. Procuring these in volumes that would cut exhaust emissions dramatically depends on more sustainable and cost-effective options being available to municipalities and private bus operators, and for options to be flexible to meet the specific needs of each individual city.

Bus manufacturers and city governments can work together to de-carbonise urban transport and deliver a zero-tailpipe-emission future. This declaration is the first step in the journey, inviting manufacturers and other key partners to work with some of the biggest bus fleets and key cities around the world to increase availability, meet emission requirements and reduce current cost premiums. Leasing companies, multi-lateral development banks and other funding agencies will also need to play a critical role in developing these solutions, and we invite them to be a part of this process.

Signed:

Mayor of _____

[1] For further details on individual city volumes and replacement targets, please see the Annex of this Declaration.

Low emission bus targets and goals from all signing cities

- London aims to have 20% of the city bus fleet converted to clean technologies by 2016 and 40% of the bus fleet by 2020. The size of the overall fleet is 8,700, so the clean bus opportunity represents around 3,500 buses by 2020. This will entail a combination of -diesel-electric hybrids, all- electric (including single and – if available – double-deck buses) and hydrogen fuel-cell powered technologies.

Similar to the London example above, signing cities will need to provide the following information:

City name:	**London**
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Overall number of new buses to be procured between now and 2020:	Approx 3,600 (8,765 * 5 years/12 years average age)
Clean bus targets by 2020, if any (expressed as number of buses, or as a percentage of fleet size):	3,500
Clean bus technologies being considered (e.g. electric, hybrid, hydrogen etc.):	Our proposed ULEZ is the focus of the period to 2020, leading to approximately 3,300 hybrid double-deck buses and up to 300 zero-emission single-deck buses. We would continue to use our eight hydrogen fuel-cell buses.
Other clean bus targets beyond 2020, if any:	TC
If clean bus target is not yet identified, please share any plans to test clean buses between now and 2017:	Our aim is to continue to introduce the latest low-emission technology as it becomes viable operationally and economically. Depending on developments and costs, our vision is to increase the range and number of range extended hybrid buses and the fleet of all-electric buses
Please feel free to include disclaimers or additional notes for clean bus purchasing plans already in process:	See above.

C40CITIES

CLIMATE LEADERSHIP GROUP

Meeting with Bus Manufacturers

London City Hall

Kevin Austin

Director Initiatives, Regions & Events

25 February 2015

Setting the scene

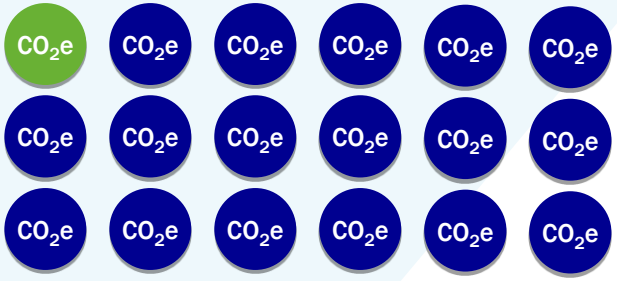
- Introducing C40 and LEV Network
- C40 Clean Bus Declaration
- Manufacturer-city collaboration
- Next steps

The C40 Cities

The Power of the C40

8%
of all humans

5%
of global GHG emissions



21%
of global GDP

$$$$$

The C40 LEV Network

The Low Emission Vehicle Network is currently working with nearly a third of C40 cities in

- **North America**
- **Latin America**
- **Europe**
- **East Asia**

Cities in the C40 Low Emission Vehicle Network feel cleaner vehicle technologies are crucial to reducing their transport emissions.

The C40 LEV Network

The Network serves as a platform for cities to share best practices and policies to reduce emissions through low emission vehicles across four workstreams

- **Low emission vehicle strategies**
- **LEV infrastructure**
- **Incentives to promote uptake**
- **Fleets (taxis, municipal fleets, clean buses)**

Over the past year and a half, the LEV Network formally hosted almost 40 interactions, bringing together 27 cities.

C40 Clean Bus Declaration

- Declaration of Intent on Clean Buses to be announced during C40 Latin American Mayors Forum on March 27th 2015.
- Declaration open to all C40 cities and highlights city demand for buses
- Targets biggest barrier cities face - high cost premiums.
- Declaration is first step in working with manufactures and stakeholders to help cities reach clean bus goals and targets.
- Opportunity for manufacturers to have assurances around the scale of global demand for the first time.

Manufacturer-city collaboration

- Some progress has been made in reducing premiums – in London, the current capital premium for a hybrid bus is around £100,000.
- The capital cost needs to come down to at least £50,000 (at which point a hybrid bus has the same *life time* cost as diesel bus) to deliver London's ambitious hybrid bus programme.
- Likewise, large scale adoption in cities around the world is only feasible when this premium is eventually at zero (on a life time cost comparison basis).
- This is an unprecedented opportunity to offer products to the biggest and most innovative cities in the world with a potential market of tens of thousands of vehicles.
- We want to work with you to be in a position to announce genuine movement on this manufacturer-city collaboration by the Summer.

Next steps: a three step process

- Step 1: Today's meeting with the Mayor is the starting point for engaging with major manufacturers.

- Step 2: Following today we will be seeking bilateral discussions with major manufacturers (GLA/TfL will be involved with those manufacturers serving the London market).

- Step 3: This will lead up to a **major event in Summer 2015** in London.

Next steps: London summer summit

- This dialogue will lead up to a **major event in Summer 2015** in London.

- *Attendees:* Declaration signatory cities, bus manufacturers, multi-lateral development banks and other funding agencies.

- *Expectations:*
  - Hope to be able to announce strong manufacturer responses to the Declaration, centered on reducing existing capital premiums.
  - In return, clear commitment from cities around large-scale uptake of clean buses.
  - Improved financing offer from funding agencies?

- *Follow-up:* Event to be followed by range of roundtables and city-manufacturer dialogues.

Q&A/ Feedback

Thank You