



LONDON FIRE BRIGADE

Decision title

LFB Specialist Heavy Fleet Vehicles Replacement

Recommendation by
Assistant Director, Technical and Commercial

Decision Number
LFC-0284y-D

Protective marking: **OFFICIAL**

Publication status: Published with redactions

Summary

Report LFC-0284y explains that the current LFB fleet of specialist heavy vehicles identified within this report have reached or are nearing the end of their planned serviceable life, as such, all of these vehicles require replacement. This replacement programme also assists the Brigade to ensure that the fleet complies with current emission control requirements which will apply to LFB vehicles from October 2021. The report outlines predicted costs associated with the procurement of the replacement of these specialist heavy vehicles and seeks LFC permission to spend capital budget accordingly.

Decision

The London Fire Commissioner delegates authority to the Director of Corporate Services to purchase the following vehicles with a minimum Euro 6 emission standard under the Vehicles and Equipment contract with Babcock Emergency Services for an overall combined cost of up to [REDACTED] which is inclusive of a 10% contingency on each project. This contingency is based on unforeseen costs such as Operational change requests and vehicle modifications to the original build programme. These are all documented accordingly.

1. The life replacement of 18 Fire Rescue Units (FRUs), excluding the operational equipment items stowed on the vehicles.
2. The life replacement of nine Command Support Units (CSUs) and the associated IT hardware within the vehicles, excluding the operating system.
3. The accelerated replacement of five Hose Layer Units (HLUs).
4. The replacement of Bulk Foam Units (BFUs) and Heavy Distribution Units (HDUs) with five combined Bulk Foam and Heavy Distribution Units, under one single project.
5. The replacement of Operational Support Units and the re-purposed London Resilience Lorries and with nine combined Operational Support Units, under one single project.

Andy Roe
London Fire Commissioner

This decision was remotely
Date signed on Tuesday 30 June 2020

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LONDON FIRE BRIGADE

LFB Specialist Heavy Fleet Vehicles Replacement

Report to	Date
Commissioner's Board	18 March 2020

Report by	Report number
Assistant Director Technical and Commercial	LFC-0284y

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Summary

The current LFB fleet of specialist heavy vehicles identified within this report have reached or are nearing the end of their planned serviceable life, as such, all of these vehicles require replacement. This replacement programme also assists us to ensure that the fleet complies with current emission control requirements which will apply to LFB vehicles from October 2021. This report outlines predicted costs associated with the procurement of the replacement of these specialist heavy vehicles and seeks LFC permission to spend capital budget accordingly.

Recommended Decision

The London Fire Commissioner delegates authority to the Director of Corporate Services to purchase the following vehicles with a minimum Euro 6 emission standard under the Vehicles and Equipment contract with Babcock Emergency Services for an overall combined cost of up to [REDACTED] which is inclusive of a 10% contingency on each project. This contingency is based on unforeseen costs such as Operational change requests and vehicle modifications to the original build programme. These are all documented accordingly.

1. The life replacement of 18 Fire Rescue Units (FRUs), excluding the operational equipment items stowed on the vehicles.
2. The life replacement of nine Command Support Units (CSUs) and the associated IT hardware within the vehicles, excluding the operating system.
3. The accelerated replacement of five Hose Layer Units (HLUs).
4. The replacement of Bulk Foam Units (BFUs) and Heavy Distribution Units (HDUs) with five combined Bulk Foam and Heavy Distribution Units, under one single project.
5. The replacement of Operational Support Units and the re-purposed London Resilience Lorries and with nine combined Operational Support Units, under one single project.
6. The life replacement of one Specialist All Wheel Drive Vehicle located at Biggin Hill Fire Station, excluding stowed operational equipment.
7. The life replacement of one Detection, Identification and Monitoring (DIM) vehicle.

Background

- 1. Fire Rescue Units (FRUs)** – Fire Rescue Units are deployed to incidents where specialist equipment is required to assist in search and rescue operations, water rescue operations, casualty extrication, line rescue operations and HAZMAT incidents. The Fire Rescue Units carry large amounts of specialist equipment to assist with numerous types of emergency incidents. The existing Fire Rescue Units came into service between September 2004 and August 2007 and are categorised as Euro 3, making them non-compliant against the current London Ultra Low Emissions Zone (ULEZ) requirements which will apply to all LFB vehicles from October 2021.
2. The contracted life of a Fire Rescue Unit is 12 years and so all of the Fire Rescue Unit vehicles are at the point natural life replacement, which is also an opportunity to bring the vehicles in line with the ULEZ target. Babcock Emergency Services maintain the front line Fire Rescue Unit vehicles for a revenue slot price of [REDACTED] per vehicle, per year. When the vehicles go out of planned life, Babcock can increase the slot price if maintenance exceeds this cost.
3. It was initially estimated that the cost of replacing one Fire Rescue Unit would be [REDACTED] and [REDACTED] for all 18 vehicles. These costs were based on the similar Pumping Appliance vehicle value as these have the same chassis and a Euro 6 combustion engine. Bulk buy discount on the 189 Pumping Appliances was not factored in to the original tender quotes for the 18 Fire Rescue Units, which is partly why the revised cost is greater, along with inflation and a different design i.e. different body builds. A 10% contingency has been applied to the estimated project spend as standard practice. For the FRUs this is [REDACTED] and a total approval value of [REDACTED].
- 4. Command Support Units (CSU's)** – Command Support Units are mobilised to incidents of four pump fires and above and are utilised to support Fire Rescue Unit senior officers in command of incidents. The Command Support Units offer a full incident command facility with inbuilt IT and communications capabilities, as well as a conference facility for briefings. The existing Command Support Units came into service between March 2006 and August 2007 and are categorised as Euro 4, making them non-compliant against the current ULEZ requirements which will apply to all LFB vehicles from October 2021.
5. The contracted life of a Command Support Unit is 12 years and so all vehicles are at the point of natural life replacement, which is also an opportunity to bring them in line with the ULEZ target. Babcock Emergency Services maintain the front line Command Support Unit vehicles for a revenue slot price of [REDACTED] per vehicle, per year. When the vehicles are out of planned life, Babcock can increase the slot price if maintenance exceeds this cost.
6. LFB has expressed an interest in a fully electric solution for the Command Support Unit, which is what the following vehicle cost estimates have been based on. It is estimated that the cost of replacing one Command Support Unit base vehicle with conversion would be [REDACTED] plus [REDACTED] for the IT hardware instalment. A 10% contingency has been applied to the project estimated spend as standard practice. For the CSUs this is [REDACTED] and a total approval value of [REDACTED]. These costs have not yet been confirmed through a market evaluation and nor do they provide a whole life cost comparison, including the costs of the infrastructure to support the electrical charging of these vehicles. The cost of the infrastructure itself has been

estimated by the electricity suppliers as ranging between [REDACTED] to [REDACTED] per location, as the actual costs will be site specific. There may however, be possible cost savings in fuel, maintenance and by avoiding early vehicle replacement in later years. Therefore further information is required to fully understand the implications of the electric option. There is a risk for this option, as the electric charging infrastructure is yet to be funded and issues around the provision of this infrastructure within fire stations and whether it can be achieved within the timeframe required remains uncertain.

7. This vehicle procurement project is in the early planning stage and Babcock are nearing the stage of going out to tender. However, due to the risks posed by the electric powered vehicle described in paragraph 6, Babcock have invited tenders for both; 1) An electric powered vehicle solution and; 2) A ULEZ compliant combustion engine vehicle solution.
8. A separate project for the Incident Command Operating System (ICOS) is running alongside the vehicle and IT hardware replacement project and is being managed and funded internally by the LFB Procurement, Ops Policy and IT departments. It is estimated that this ICOS project may cost up to an additional [REDACTED]. The Ops Policy department have also drawn up a paper to cover the whole project, so to include the Command Support Units in this paper is to seek permission to spend for the vehicles and hardware element within the wider project as a whole. The Chief Information Officer will be bringing a further paper to the appropriate governance boards in the future, setting out proposals to procure the Incident Command Operating Software (ICOS) and seeking appropriate authority to proceed.
9. **Hose Layer units (HLUs)** – Hose Layer Units are a specialist heavy vehicles utilised to support large fires and deploy 90 millimetre fire hose to facilitate relay water pumping operations with minimal delay. The Hose Layer Units came into service between August 2010 and March 2011 and are categorised as Euro 5, making them non compliant against the current London ULEZ requirements which will apply to all LFB vehicles from October 2021.
10. It is estimated that the cost of replacing one Hose Layer Unit would be [REDACTED], and [REDACTED] for all five. A 10% contingency has been applied to the estimated project spend as standard practice. For the HLUs this is [REDACTED] and a total approval value of [REDACTED]. Babcock Emergency Services maintain the front line Hose Layer Unit vehicles for a revenue slot price of [REDACTED] per vehicle, per year. When the vehicles are out of planned life, Babcock can increase the slot price if maintenance exceeds this cost. This project is in the early planning stage and so replacement costs provided are estimates.
11. **Bulk Foam and Heavy Distribution Units** – LFB plan to replace the Bulk Foam Units (BFUs) and the Heavy Distribution Units (HDUs) under the same workstream, bringing the three Bulk Foam Units and two Heavy Distribution Units to the same specification for continuity and to assist with operational availability and deployment. The Heavy Distribution Units and Bulk Foam Units are operated by the Brigade Distribution Centre and Fire Stations to deliver large quantities of materials and operational equipment to incidents, such as flood rescue equipment or IBC's containing up to 1000 Litres of liquid foam concentrate. The Bulk Foam Unit has a Fork Lift Truck attached to the vehicle. There are currently three Bulk Foam Units which came into service in February 2010 and are categorised as Euro 5, making them non-compliant against the current London ULEZ requirements which will apply to all LFB vehicles from October 2021.
12. The contracted life of a Bulk Foam Unit is 12 years and so the vehicles will be out of life in 2022. London Fire Brigade need to ensure that their vehicles are compliant against the

emission control requirements and so the natural life replacement of these vehicles needs to be bought forward to meet the October 2021 sunset period deadline. It is estimated that the cost of replacing one Bulk Foam Unit would be [REDACTED], and [REDACTED] for all three. A 10% contingency has been applied to the forecast project spend as standard practice. For the BFUs this is [REDACTED] and a total approval value of [REDACTED]

13. Babcock Emergency Services maintain the front line Bulk Foam Unit vehicles for a slot price of [REDACTED] per vehicle, per year.
14. There is one Heavy Distribution Unit on fleet which came into service in June 2010 and is categorised as a Euro 5, making it non compliant against the current London ULEZ requirements which will apply to all LFB vehicles from October 2021. The contracted life of the Heavy Distribution Units is 12 years and so it will be out of life in 2022. London Fire Brigade need to ensure that their vehicles are compliant against the emission control requirements and so the natural life replacement of these vehicles needs to be bought forward to meet the October 2021 sunset period deadline. It is estimated that the cost of replacing one Heavy Distribution Unit would be [REDACTED] per vehicle.
15. A growth bid was submitted to procure a reserve Heavy Distribution Unit as we currently have no resilience when this vehicle is in for maintenance every 13 weeks. The total cost for the two vehicles is estimated to be [REDACTED]. A 10% contingency has been applied to the forecast project spend as standard practice. For the HDUs this is [REDACTED] and a total approval value of [REDACTED]
16. The additional vehicle will also provide reserve cover for the new Heavy Distribution Units as it is planned to replace all of these vehicles with a single vehicle type, all with a fork lift truck.
17. Babcock Emergency Services maintain the front line Heavy Distribution Unit for a slot price of [REDACTED] per year. When the vehicles are out of planned life, Babcock can increase the slot price if maintenance exceeds this cost.
18. **Operational Support Units (OSU's) and London Resilience Lorries (LRL's)** – There are six (6) front line Operation Support Unit (OSU) type vehicles, three (3) London Resilience Lorries, and one (1) reserve OSU in service, with the end user requiring only nine replacements in total. The Operational Support Units came into service in August 2007 and the London Resilience Lorries came into service in January 2004. Both vehicle types are categorised as Euro 3, making them non-compliant against the current London ULEZ requirements which will apply to all LFB vehicles from October 2021. The contracted life of both vehicle types is 12 years and so both vehicle types are either at or approaching the end of their life.
19. The replacement vehicles will be operated by the Operational Support Centre and Fire Stations to deliver and replenish a variety of operational equipment such as breathing apparatus (BA) and personal protective equipment (PPE) as well as large quantities of materials and some items of flood rescue equipment to incident grounds. It is estimated that the cost of replacing one Operational Support Unit would be [REDACTED] and [REDACTED] for all nine. A 10% contingency has been applied to the forecast project spend as standard practice. For the OSUs this is [REDACTED] and a total approval value of [REDACTED].
20. A growth bid was submitted for the two London Resilience Lorries which were not currently a slot under the contract, and the capital spend forecast has been amended to account for this

additional spend. This is because these two London Resilience Lorries had originally come from the National Resilience (NR) fleet, but later re-purposed for LFB use when no longer required for NR use. As such, they are now considered as part of the LFB owned fleet, but have not previously been covered by the planned capital budget.

21. Babcock Emergency Services maintain the front line Operational Support Units and London Resilience Lorries for a revenue slot price per vehicle of [REDACTED] per year. When the vehicles are out of planned life, Babcock can increase the slot price if maintenance exceeds this cost.
22. **Biggin Hill All Wheel Drive Small Pumping Appliance** – Biggin Hill Fire Station has one 6x6 All Wheel Drive (AWD) Land Rover Challenger which is used to respond to calls where a normal Pumping Appliance would be less able to reach due to the rural nature of the area. The All Wheel Drive vehicle came into service in July 2003 and is categorised as a Euro 4. The vehicle is now driven by only four of the six wheels due to an unrepairable defect, it has a contracted life of 10 years and is overdue for replacement.
23. Babcock Emergency Services maintain the All Wheel Drive vehicle for a revenue slot cost of [REDACTED] per year and can increase the slot price if maintenance exceeds this cost. It is estimated that due to the specialist nature of this appliance and the need for an individual build, the cost of replacing the All Wheel Drive would be [REDACTED]. A 10% contingency has been applied to the project spend as standard practice. For the AWD vehicle this is [REDACTED] and a total approval value of [REDACTED].
24. **Detection, Identification & Monitoring Vehicles** – There are three Detection, Identification & Monitoring (DIM) Vehicles within the LFB FLEET, however only one Detection, Identification and Monitoring vehicle belongs to LFB. The remaining 2 Detection, Identification and Monitoring vehicles are National Resilience assets which belong to the Home Office. As a result, LFB are currently only seeking funding to replace the one LFB owned Detection, Identification and Monitoring vehicle. The Detection, Identification and Monitoring vehicle is used by the Rapid Response Team currently based at Lambeth to detect, identify and monitor hazardous materials at incidents.
25. Detection, Identification and Monitoring vehicle 101 (the LFB owned Detection, Identification and Monitoring Unit came into service in July 2009 and is categorised as Euro 4. The vehicle has a 10 year contracted life and so it is at the point of its natural life replacement. Babcock Emergency Services maintain the Detection, Identification and Monitoring vehicle for a revenue cost of [REDACTED] per year. When the vehicles are out of life, Babcock can increase the slot price if maintenance exceeds this cost. To replace LFB's Detection, Identification and Monitoring vehicle it is estimated that it will cost [REDACTED]. A 10% contingency has been applied to the forecast project spend as standard practice. For the DIM this is [REDACTED] and a total approval value of [REDACTED].

Projects Combined Cost Summary Table:

Stage payments are usually broken down into the following;

- **Stage 1 on delivery of chassis to the LFB**
- **Stage 2 on manufacture and build of body including delivery to LFB**

Project code	Project & Payment description	Staged payment £k	No vehicles	Total per vehicle £k	Total for project £k	10% contingency £k	Total project value £k
RV069	Fire Rescue Unit stage 1	████████	18	████████	████████	████████	████████
	Fire Rescue Unit stage 2	████████		████████	████████	████████	████████
RV127	Command Support Unit stage 1	████████	9	████████	████████	████████	████████
	Command Support Unit stage 2	████████		████████	████████	████████	████████
	Command Support IT Hardware	████████		████████	████████	████████	████████
RV143	All Wheel Drive	████████	1	████████	████████	████████	████████
TBC	Detection Identification and Monitoring	████████	1	████████	████████	████████	████████
RV140	Hose Layer Unit Stage 1	████████	5	████████	████████	████████	████████
	Hose Layer Unit Stage 2	████████		████████	████████	████████	████████
RV141	Bulk Foam Unit Stage 1	████████	3	████████	████████	████████	████████
	Bulk Foam Unit Stage 2	████████		████████	████████	████████	████████
	Bulk Foam Unit Fork Lift Truck	████████		████████	████████	████████	████████
	Heavy Distribution Unit Stage 1	████████	2	████████	████████	████████	████████
	Heavy Distribution Unit Stage 2	████████		████████	████████	████████	████████
	HDU Fork lift Truck	████████		████████	████████	████████	████████
RV142	Operational Support Unit - frontline	████████	9	████████	████████	████████	████████
	Operational Support Unit - OSC	████████		████████	████████	████████	████████
			48	████████	████████	████████	████████

Tendering process

26. Output based specifications (OBS) have already been submitted to Babcock for most of the above workstreams and work has begun on the projects with the LFB Technical and Service Support workstream lead to review and determine the Brigade's requirements for safety, operational use, quality and performance for our specialist fleet. These requirements include the vehicles listed in paragraphs 27 to 31 below:

27. Fire Rescue Units (FRU's) – 18 heavy vehicles to stow and transport specialist equipment and crews to assist in search and rescue operations, water rescue operations, casualty extrication, line rescue operations and HAZMAT incidents. Euro 6 engines are being pursued for this bespoke heavy vehicle workstream. Tenders were returned on 2nd March and Babcock provided LFB with informal notice of the costs. As such LFB have had to adjust the figures initially submitted in this report in December 2019 (FP0533). Babcock will supply LFB with a Product Description and Financials (PDF) and an Agreed Solution Order (ASO) with final costs, which are anticipated to be within the new revised figures detailed in the financials table.
28. Command Support Units (CSU's) – nine heavy vehicles to provide command support at large operational incidents that attract senior management command and control. Electric vehicle options have been spec'd and are being considered as part of this bespoke heavy vehicle workstream. However, as described in paragraphs 6 & 7 above, there are risks including the fact that the procurement of electric vehicles will be dependant on the provision of a charging infrastructure under the wider Command Support Unit project being managed by Ops Policy, this provision has yet to be confirmed. Therefore, due to the risks posed by the electric powered vehicle described in paragraph 6, Babcock have invited tenders for both; 1) An electric powered vehicle solution and; 2) A ULEZ compliant combustion engine vehicle solution.
29. Hose Layer Units (HLU's) – five heavy vehicles to provide fast mechanically assisted hose laying capability at large incidents. Euro 6 engines are being pursued for this bespoke heavy vehicle workstream.
30. Bulk Foam Units, Heavy Distribution Units, Operational Support Units and London Resilience Lorries – Ten heavy vehicles where Babcock are approaching commercial, non fire specific and fire specific companies to provide non bespoke heavy vehicles that can be converted and liveried in accordance to the LFB's output based specifications.
31. Biggin Hill All Wheel Drive – One bespoke All Wheel Drive Small Pumping Appliance to be deployed to size appropriate incidents where a Dual Pump Ladder would be excessive or inappropriate due to the nature of the terrain.
32. Babcock will draw up procurement strategies for each workstream that will include an evaluation process to be agreed with LFB officers before going out to tender. The evaluation scoring has historically consisted of using Most Economically Advantageous Tender (MEAT) with a split of 70% scoring for technical/quality and 30% for cost. Lead times and emission standards that play a significant role in the selection process will be included in the evaluation, where Babcock will identify potential vehicle suppliers and score them against this criteria. As detailed above, Babcock have advised that they are looking to approach commercial non fire specific and fire specific companies to provide non bespoke heavy vehicles that can be converted and liveried in accordance to the LFB's output based specifications, for the Joint workstreams of Bulk Foam Units, Heavy Distribution Units, Operational Support Units and London Resilience Lorries replacements. This could result in cost and time savings for the Brigade.
33. Following a competitive tender process and evaluation of the tenders, Babcock Emergency Services will identify the preferred bidders that meet the LFB's requirements. The quotes from the preferred bidders are anticipated to sit within the identified capital spend budget, though some of the spend will need to be brought forward to earlier years. Details of the

quotes will be shared with Finance once received and until the quotes are received, the estimated costs outlined in this report will populate capital expenditure forecast.

34. On top of the costs of purchasing the replacement equipment, there are additional costs included in the indicative project costs given in this report. The costs are to cover fittings to ensure safe carriage of equipment, for corporate livery and road safety markings. The detailed cost of these items will be determined once Babcock have been out to tender for each workstream. Babcock has informed us that these items need to be separate from the main vehicle procurement, as experience has demonstrated that it is the most effective and efficient method of providing an acceptable product.
35. There will be an increase to the revenue budget of [REDACTED] for the maintenance slots for the one additional new Operational Support Unit, as this will be an addition to the fleet.

Training

36. For the FRU, an agreed copy of a full and comprehensive Operators Manual will be provided to the authorised officer, along with the Manual Handling and Safety Risk Assessment reports and the Environmental Impact Assessment report. Familiarisation for Fire Rescue Unit crews on how to operate any new features on this vehicle will be provided via Babcock Emergency Services.
37. A Command Support Unit (CSU) training solution will be required to facilitate the upskilling of CU operators. The solution will not require the use of an operational Command Unit and will be conducted through the LFB's training provider, Babcock Training or the ICOS provider. This will not form part of the vehicle replacement project. If a bus type vehicle is procured, driver familiarisation may be required via Babcock Emergency Services.
38. For the Hose Layer Units, Bulk Foam Units, Heavy Distribution Units, Operational Support Units and London Resilience Lorries replacements, LFB have requested that Babcock Emergency Services ensure that the training programme and skill sets required to operate these vehicle and its ancillary equipment is compatible with established courses. In addition to this, that they have provided the necessary Training Programme agreed by the Joint Specification Technical and Training Team.
39. For the All Wheel Drive Small Pumping Appliance an agreed copy of a full and comprehensive Operators Manual will be provided to the authorised officer, along with the Manual Handling and Safety Risk Assessment reports, and the Environmental Impact Assessment report. Familiarisation for the All Wheel Drive Small Pumping Appliance crew on how to operate any new features on this vehicle will be provided via Babcock Emergency Services.

ULEZ

40. New emission regulations came into force for central London on 8th April 2019. However, a sunset period extension for our specialist heavy vehicles replacement was agreed until 25th October 2021. Therefore, if we have not replaced the vehicles mentioned in this report by 25th October 2021, we will potentially be subject to numerous daily charges as a result. Paying the charges is not considered as an appropriate nor acceptable solution and we are already working towards reducing the emissions across all of our fleet of vehicles in line with our corporate strategy.

41. As the new vehicles are replacing existing front line vehicles, there is a deadline and financial pressure to meet the sunset extension date of October 2021 ULEZ requirement.
42. Babcock are predicting that 19 of the heavy vehicle replacements will not be complete by the deadline of October 2021 and the delay could range between 2 to 6 months. This is due to large numbers of vehicles that need replacing at the same time, the resources needed to run that number of projects concurrently and due to the need to prioritise the delivery of the busiest vehicles first. The 19 vehicles predicted not to be replaced by October 2021 are as follows; 3 x Fire Rescue Units, 2 x Command Support Units, 1 x Detection Identification & Monitoring Units, 4 x Bulk Foam & Heavy Distribution Units and 9 x Operational Support units. These vehicles account for an average of 2,400 blue light journeys per year and are used much more widely on a day to day basis, so the ULEZ charges after October 2021 could amount to well in excess of [REDACTED] for these vehicles.
43. However, it should be noted that despite the small number of appliances anticipated to be delivered slightly beyond the ULEZ deadline, LFB will have replaced the majority of its fleet with ULEZ complaint vehicles by October 2021 and therefore very successfully supporting the Mayor's ambitions for cleaner air in London. All 188 of the ULEZ compliant combustion engine pumping appliances will be in service by quarter 3 of 2020/21, ahead of the deadline. This makes up the largest proportion of London Fire Brigades fleet. It is also currently planned that all fifteen of the Aerial Appliances will be successfully replaced with ULEZ compliant vehicles by the October 2021 deadline. We will have delivered into service by the October ULEZ deadline, over 250 ULEZ compliant heavy vehicles and over 120 ULEZ compliant vans and cars. Given that LFB will have replaced the majority of our vehicles (370) by the October 2021 ULEZ deadline and well in advance of the deadline afforded to the other London emergency services, we will respectfully request an extension to the deadline for the remaining 19 vehicles that are not anticipated to be delivered by October 2021.
44. As mentioned in paragraph 23, there are also 2 x Detection, Identification & Monitoring (DIM) vehicles on the fleet that belong to the Home Office, they are not currently planning to renew these prior to the October 2021 ULEZ deadline. In addition to this, there are 25 x Urban Search And Rescue (USAR) Prime Movers on the fleet that belong to the Home Office and again they are not currently planning to renew these prior to the October 2021 ULEZ deadline. We understand that perhaps with the exception of the two DIM units, the Home Office do not intend to start to look at renewing these vehicles until 2024. We have been in discussions with the Home Office to try to progress this matter and will continue with those discussions.
45. We recognise that the future 2030 emissions targets will also be challenging for us to achieve, with the latest estimates for electric vehicles and the required infrastructure to support them ranging up to an additional [REDACTED] to be spent up to six years earlier than the normal lifing programme under the capital spend budget. If fossil free fuels are readily available at that point, that will present us with a much more viable option financially, but at this stage it is unknown as to whether these fuels will be sufficiently developed or available at that time. Therefore, we need to highlight this issue as a potential future risk.

Lead times

46. It is anticipated that each heavy vehicle workstream will take 18 to 24 months from project initiation, to delivery.

47. Throughout the end of 2019 and into 2020, Covid-19 started to have an impact on existing workstreams. Babcock have issued LFB with an Early Warning notice advising that the current climate suggests that restrictions in the UK will be ramped up in the coming weeks which could impact current estimated delivery dates to LFB. This will also have an impact on the heavy vehicles within this report, however the extent of which is unknown.
48. For the Hose Layer Units, Bulk Foam Units, Heavy Distribution Units, Operational Support Units and London Resilience Lorries, as the replacements for these vehicles are reasonably standard lorries with bespoke conversions and livery, delivery could be sooner, depending on supplier stock availability and ability of Babcock to overcome the issues raised in paragraph 42 which may affect the speed of these projects.

Finance comments

49. The costs set out above are estimated. Any significant variances in costs as part of the tender process or other changes, above £150k will be subject to further formal approval.
50. The original total estimated capital costs for all Fleet was [REDACTED]. This has increased to [REDACTED]. The increase of [REDACTED] relates to [REDACTED] additional costs after the tender process for the FRUs and [REDACTED] for a 10% contingency on all vehicle estimates to cover change requests and modifications. The revised capital budgets includes [REDACTED] budget for these costs as the budget allocations. The [REDACTED] increase relates to additional costs of the Command Support Unit Vehicles which includes [REDACTED] for IT hardware and [REDACTED] additional cost for the purchase of electric vehicles.
51. If the budgets are approved and they are funded from external borrowing the additional debt changes will be [REDACTED] per annum based on a 12 year life and an interest rate of 3%.
52. The original capital budget was been considered as part of the 2020/21 Mayoral Capital Strategy submission in November 2019 and is included in the March budget report for the 2020/21 capital budgets. The changes included in this report will need to be reflected in the capital budgets in 2020/21 onwards as a change to the current proposed capital budgets for 2020/21.
53. The associated costs for infrastructure changes and training in relation to the purchase of electric Command Support Unit vehicles are not included in this report and would need to be considered as part of the overall scheme costs.
54. The report also notes that the addition one new Operational Support Unit to the fleet will increase annual maintenance costs by [REDACTED]. This additional pressure will be included as part of the budget process for future years. The maintenance costs for the other vehicle replacements set out in this paper will be contained within existing budgets.

Workforce comments

55. These new vehicles will be broadly similar to the existing vehicles that they are to replace, so whilst there may be some training requirements as detailed above, it is not anticipated that they will result in any other issues that affect the workforce. The LFB FLEET team have regular and positive communication with representatives of the FBU and other key stakeholders in relation to new and existing vehicles and equipment. Therefore, it is anticipated that any

potential issues with these vehicles that may affect the workforce, will be identified early, receive appropriate and positive consultation and will be addressed as necessary.

Legal comments

56. Under section 9 of the Policing and Crime Act 2017, the London Fire Commissioner (the "Commissioner") is established as a corporation sole with the Mayor appointing the occupant of that office. Under section 327D of the GLA Act 1999, as amended by the Policing and Crime Act 2017, the Mayor may issue to the Commissioner specific or general directions as to the manner in which the holder of that office is to exercise his or her functions.
57. By direction dated 1 April 2018, the Mayor set out those matters, for which the Commissioner would require the prior approval of either the Mayor or the Deputy Mayor for Fire and Resilience (the "Deputy Mayor").
58. Paragraph (b) of Part 2 of the said direction requires the Commissioner to seek the prior approval of the Deputy Mayor before "[a] commitment to expenditure (capital or revenue) of £150,000 or above".
59. The Deputy Mayor's approval is accordingly required for the London Fire Commissioner to place orders with Babcock Emergency Services for LFB Specialist Heavy Fleet Vehicles identified in this report.
60. The statutory basis for the actions proposed in this report is provided by section 7 (2)(a) of the Fire and Rescue Services Act 2004, under which the Commissioner must secure the provision of personnel, services and equipment necessary to efficiently meet all normal requirements for firefighting.
61. Furthermore, under section 7 (2)(b) of the aforementioned Act the Commissioner must secure the provision of training for personnel.
62. The General Counsel also notes that the proposed procurement under the vehicles and equipment contract with Babcock Emergency Services is within the scope of services provided under that contract and is in compliance with the Public Contracts Regulations 2015.

Sustainability implications

63. The identified vehicles will be fitted with a minimum standard of Euro 6 engines and will therefore comply with ULEZ regulations that were introduced in April 2019. ULEZ aims to reduce the air quality impacts of transport in London and assist the London Mayor to achieve legal air quality limits, supporting both the sustainability objectives of the LFC and the London Mayor.
64. Zero emissions options are being considered for the Command Support Units. A higher upfront capital cost has been estimated due to the increased cost of a bus chassis over other HGVs and the limited economies of scale at present in the electric bus market. The whole life cost (WLC) implications of this vehicle such as reduced fuel costs, the potential for reduced maintenance costs, and negating the potential for early Command Support Unit replacement to achieve the 2030 target have not been identified or factored into the assessment. Vehicles fall within scope of PN 886 on WLC, which requires a mandatory WLC assessment to be undertaken as part of the purchase. We will ask Babcock to provide us with details of this

assessment, so that it can be considered by the Command Support Unit Project Board when they come to make the decision as to which power unit should be procured.

65. Due to future more stringent London emission targets coming into place in 2030 as part of the Mayor's London Environment Strategy, the future planned replacement dates for all of these vehicles will need to be brought forward if we are to meet those 2030 targets, unless suitable fossil free fuel is readily available. Replacement could therefore shorten the usual planned life of LFB vehicles and in turn that will create additional future budgetary pressures. The exception is the Command Support Units where this will be dependent on whether the current replacement is an electric or combustion engine vehicle, with the latter requiring early replacement.

Equalities implications

66. The Public Sector Equality Duty applies to the London Fire Brigade when it makes decisions. The duty requires us to have regard to the need to:
 67. Eliminate unlawful discrimination, harassment and victimisation and other behaviour prohibited by the Act. In summary, the Act makes discrimination etc. on the grounds of a protected characteristic unlawful.
 68. Advance equality of opportunity between people who share a protected characteristic and those who do not.
 69. Foster good relations between people who share a protected characteristic and those who do not including tackling prejudice and promoting understanding. The protected characteristics are age, disability, gender reassignment, pregnancy and maternity, marriage and civil partnership, race, religion or belief, sex, and sexual orientation.
 70. The Act states that 'marriage and civil partnership' is not a relevant protected characteristic for (b) or (c) although it is relevant for (a).
 71. The equality impact assessment undertaken within the tender bids evaluation process found that the proposals in this report will not have an adverse effect on any persons with a particular characteristic. This was based on the following; the Output Based Specification (OBS) was written with the end users needs in mind. Reasonable seating position adjustments can be made in the vehicles by users, however where required, modifications can be carried out on vehicles to cater for those with special requirements.
 72. In addition, the Babcock contract requires Babcock and any sub-contractor they may engage, to conform to equality legislation and LFB equalities protocol. Babcock also assess all of their providers approach to equality and ensure they are satisfied that they meet appropriate protocols, prior to them listing those companies as approved providers. Therefore, it is considered that there is an appropriate approach to equalities right through the supply chain in respect of this procurement.