

Project by Project Details

1.1 **Fleet Heavy Overhaul Programme:** Table C1 below provides a detailed project-by-project breakdown.

Table C1: detailed project by project breakdown

| Project and Key Delivery to December 2022 | Financial Authority (£m) | Estimated Final Cost (£m) | Existing Programme and Project Authority (£m) | This Authority Request (£m) | Future Authority Requests (£m) |
|--|--------------------------|---------------------------|---|-----------------------------|--------------------------------|
| Jubilee line fleet: <ul style="list-style-type: none"> Commence pull forward activities and Programme Lift | 155.87 | 155.97 | 103.68 | 0.86 | 51.44 |
| District, Circle and Hammersmith & City line fleets: <ul style="list-style-type: none"> Place contracts for programme lift Complete programme lift optimisation review from Metropolitan line programme lift experience. | 138.67 | 138.71 | 57.58 | - | 81.12 |
| Victoria line: <ul style="list-style-type: none"> Complete programme lift catch back activities. Complete door overhaul of 22 trains. Complete coupler overhaul of 47 trains. Complete Pressure Ventilation system replacement on 32 trains | 70.61 | 71.35 | 51.45 | - | 20.16 |

| Project and Key Delivery to December 2022 | Financial Authority (£m) | Estimated Final Cost (£m) | Existing Programme and Project Authority (£m) | This Authority Request (£m) | Future Authority Requests (£m) |
|---|--------------------------|---------------------------|---|-----------------------------|--------------------------------|
| Bakerloo line: <ul style="list-style-type: none"> • Complete new* Programme Lift cycle of 24 trains, • Complete new* Heavy Overhaul cycle of 9 trains • Complete Door Overhaul of 5 trains. | 58.38 | 58.37 | 16.86 | 4.53 | 47.54 |
| Metropolitan line fleet: <ul style="list-style-type: none"> • Complete overhaul of all 47 trains | 95.86 | 96.98 | 58.21 | 0.12 | 39.58 |
| Piccadilly line: <ul style="list-style-type: none"> • Complete 8 units of Programme lift • Complete remaining 5 units of seating overhaul • Complete remaining 12 units of Door scope 1 • Commence Door scope 2 works • Remobilise pneumatic control module works | 68.10 | 71.57 | 55.72 | 3.91 | 9.58 |
| RATs: <ul style="list-style-type: none"> • Complete catch back activities on the two Central line RATs. • Develop overhaul scope for Metropolitan line RAT. | 3.94 | 4.97 | 2.74 | 1.00 | - |
| Continuing Projects Sub-Totals | 591.44 | 597.92 | 346.23 | 10.42 | 249.42 |
| Central line: DC Motors Overhaul | 9.00 | 4.30 | - | 4.30 | - |
| New Projects Sub-Totals | 9.00 | 4.30 | - | 4.30 | - |
| Totals | 600.44 | 602.21 | 346.23 | 14.72 | 249.42 |

* Due to their age (approaching 50 years old), Bakerloo line trains undergo a continuous cycle of overhauls to maintain safe and reliable operation.

1.2 Table C2 below illustrates the time-based financial implications of the FHO Programme to 2027/28. All figures, at outturn and inclusive of risk, represent the minimum additional authority required to continue this multi-year, in-flight programme.

Table C2: Time-based financial implications of the FHO Programme to 2027/28

| Costs and Funding (£m) | Prior Years | 2021/22 | 2022/23 | 2023/24 to 2027/28 | Total |
|--|-------------|---------|---------|--------------------|--------|
| Cost (Outturn) | | | | | |
| Existing Programme and Project Authority | 71.28 | 47.00 | 89.01 | 138.95 | 346.23 |
| This Authority Request | - | 0.45 | 10.66 | 3.61 | 14.72 |
| Future Authority Requests | - | - | 17.02 | 232.40 | 249.42 |
| Financial Authority* | 71.00 | 50.79 | 117.73 | 360.91 | 600.44 |
| Programme EFC | 71.28 | 47.58 | 117.13 | 366.22 | 602.21 |

* Financial Authority is currently provided through the two-year Budget for 2021/2022 and 2022/23 as approved by the Board on 28 July 2021, referenced within the paper as “Revised Budget”, will be aligned to the overall EFC as part of the 2021 GLA Budget before the next submission to the Committee.

1.3 **Fleet Programme:** Table C3 below provides a detailed project-by-project breakdown of Table 3 from 5.6.3 in the main text.

Table C3: detailed project-by-project breakdown

| Project and Key Delivery to December 2022 | Financial Authority (£m) | Estimated Final Cost (EFC) (£m) | Existing P&PA (£m) | This Authority Request (£m) | Future Authority Requests (£m) |
|--|--------------------------|---------------------------------|--------------------|-----------------------------|--------------------------------|
| CLIP, Programme Lift and New Workshop: <ul style="list-style-type: none"> • AC Traction Infrastructural testing in Spring 2022 • Design Sign-off by Spring 2022 • First train back to fleet in Spring 2022 • Withdrawal of five trains from service from Summer 2022 • Seats Repairs | 522.96 | 525.57 | 488.52 | 4.69 | 50.55 |

| Project and Key Delivery to December 2022 | Financial Authority (£m) | Estimated Final Cost (EFC) (£m) | Existing P&PA (£m) | This Authority Request (£m) | Future Authority Requests (£m) |
|--|--------------------------|---------------------------------|--------------------|-----------------------------|--------------------------------|
| Bakerloo line RVAR <ul style="list-style-type: none"> • First train installation of LED, PIS, lighting, wheelchair bays and grab poles • Deliver above and below waist rail components • Commence works on 2nd train by Spring 2022 | 39.00 | 41.48 | 30.65 | - | 12.38 |
| Train Cab J-Door Security Improvement: <ul style="list-style-type: none"> • Complete Detailed Design on all passenger fleets. • Commence installation on 92TS, 72TS & 09TS. | 10.08 | 10.09 | 10.77 | - | - |
| Victoria line passenger fleet: <ul style="list-style-type: none"> • Continue to deliver ventilation and fan cleaning • Complete floor repairs where required | 4.72 | 4.72 | 3.81 | - | - |
| Continuing Projects Sub-Totals | 576.76 | 581.85 | 533.74 | 4.69 | 62.93 |
| JUMP: <ul style="list-style-type: none"> • Commence procurement for design and manufacture • Develop technical specifications | 34.30 | 25.97 | 1.07 | 3.93 | 21.81 |
| Victoria and Jubilee line Obsolescence Management (CCTV, Customer Information Systems, TMS, and life extension) | 52.10 | 52.10 | - | 0.10 | 52.10 |
| New Projects Sub-Totals | 86.40 | 78.07 | 1.07 | 4.03 | 73.91 |
| Jubilee line passenger fleet mid-life refurbishment | 26.10 | 26.10 | 26.25 | - | - |
| Bakerloo line Life Extension | 55.20 | 55.23 | 57.66 | - | - |
| Metropolitan line Rail Adhesion Train | 7.16 | 7.18 | 7.15 | - | - |
| Closed Projects Sub-Totals | 88.46 | 88.49 | 91.06 | - | - |

| Project and Key Delivery to December 2022 | Financial Authority (£m) | Estimated Final Cost (EFC) (£m) | Existing P&PA (£m) | This Authority Request (£m) | Future Authority Requests (£m) |
|---|--------------------------|---------------------------------|--------------------|-----------------------------|--------------------------------|
| Totals | 751.62 | 748.41 | 625.87 | 8.72 | 136.84 |

* Financial Authority (based on the Revised Budget) will be aligned to the overall EFC as part of the 2021 GLA Budget before the next submission to the Committee.

1.4 Table C4 below illustrates the time-based financial implications of the Fleet Programme:

Table C4: time-based financial implications of the Fleet Programme

| Costs and Funding (£m) | Prior Years | 2021/22 | 2022/23 | 2023/24 to 2027/28 | Total |
|--|-------------|---------|---------|--------------------|--------|
| Cost (Outturn) | | | | | |
| Existing Programme and Project Authority | 185.59 | 50.80 | 96.72 | 292.76 | 625.87 |
| This Authority Request | - | - | 4.56 | 4.16 | 8.72 |
| Future Authority Requests | - | - | - | 136.84 | 136.84 |
| Financial Authority* | 186.64 | 45.27 | 104.63 | 415.08 | 751.62 |
| Programme EFC | 186.60 | 31.45 | 82.93 | 447.44 | 748.41 |

* Financial Authority (based on the Revised Budget) will be aligned to the overall EFC as part of the 2021 GLA Budget before the next submission to the Committee.

1.5 **Engineering Vehicles Programme:** Table C5 below provides a detailed project-by-project breakdown of Table 4 in the main paper.

Table C5: detailed project-by-project breakdown

| Project and Key Delivery to December 2022 | Financial Authority (£m)* | Estimated Final Cost (£m) | Existing P&PA Authority (£m) | This Authority Request (£m) | Future Authority Requests (£m) |
|--|---------------------------|---------------------------|------------------------------|-----------------------------|--------------------------------|
| Locomotive Capability: | | | | | |
| <ul style="list-style-type: none"> Develop technical requirement specifications for the new fleet Start procurement activities | 183.86 | 187.19 | 0.78 | 1.02 | 182.51 |
| EV Overhauls Life extension: | | | | | |
| <ul style="list-style-type: none"> Overhaul of 6 locomotives, 24 wagons, deep tube cranes, and tamping machines | 40.80 | 34.17 | 21.20 | 8.94 | 11.80 |

| Project and Key Delivery to December 2022 | Financial Authority (£m)* | Estimated Final Cost (£m) | Existing P&PA Authority (£m) | This Authority Request (£m) | Future Authority Requests (£m) |
|---|---------------------------|---------------------------|------------------------------|-----------------------------|--------------------------------|
| Remote Track Monitoring (RTM/TRV): <ul style="list-style-type: none"> Contract award for the track geometry equipment and progress concept design Close out of TRV SSL project | 22.10 | 23.89 | 5.00 | - | 15.93 |
| Mechanised Renewals Vehicle (MRV) <ul style="list-style-type: none"> Initiate MRV enhanced phase 2 to add functionality and reduce manual handling on site and in the depot | 23.60 | 24.05 | 3.70 | 0.10 | 19.64 |
| Engineers Vehicle Depot Enabling – Ruislip: <ul style="list-style-type: none"> Complete feasibility study for a parallel stabling track for the new wagons Conduct familiarisation for Mod P&C and supply welfare facilities for O&M | 9.00 | 5.94 | 4.77 | - | 0.84 |
| Mod P&C: <ul style="list-style-type: none"> Obtain certification to work on LU Sub-surface network (open section) and Ruislip depot for track renewals. | 27.70 | 28.28 | 27.62 | 0.10 | - |
| New Wagons: <ul style="list-style-type: none"> Commence mass production of remaining wagons | 12.30 | 12.32 | 11.88 | - | 0.50 |
| Ward Coupler Modifications: <ul style="list-style-type: none"> Start concept design phase | 0.85 | 1.14 | 0.50 | 0.20 | - |
| Continuing Projects Sub-Totals | 320.21 | 316.98 | 75.45 | 10.36 | 231.21 |
| Future Projects (Including deep tube gauge tamper, EV braking solutions and TRV contingencies) | 35.20 | 34.86 | 0.20 | 0.75 | 34.10 |
| New Projects Sub-Totals | 35.20 | 34.86 | 0.20 | 0.75 | 34.10 |
| Totals | 355.41 | 351.84 | 75.65 | 11.11 | 265.31 |

* Financial Authority (based on the Revised Budget) will be aligned to the overall EFC as part of the 2021 GLA Budget before the next submission to the Committee.

1.6 The additional request of £11.1m Programme and Project Authority will bring the total to £86.8m. Table C6 below illustrates the time-based financial implications of this to the EV Programme to 2027/28.

Table C6: time-based financial implications of this to the EV Programme to 2027/28.

| Costs and Funding (£m) | Prior Years | 2021/22 | 2022/23 | 2023/24 to 2027/28 | Total |
|--|--------------------|----------------|----------------|---------------------------|--------------|
| Cost (Outturn) | | | | | |
| Existing Programme and Project Authority | 50.06 | 12.56 | 9.88 | 3.15 | 75.65 |
| This Authority Request | - | - | 6.80 | 4.31 | 11.11 |
| Future Authority Requests | - | - | 0.33 | 264.98 | 265.31 |
| Financial Authority* | 46.70 | 17.32 | 16.22 | 275.17 | 355.41 |
| Programme EFC | 46.70 | 10.95 | 17.58 | 276.61 | 351.84 |

* Financial Authority is based on the Revised Budget and the EFC is reflected in the GLA budget.