

## PFCC Decision Report

**Report reference number:** 050-24

**Classification** OFFICIAL

**Title of report:** Zero Vehicle Emissions Delivery – Phase 1 (Infrastructure Only)

**Area of county / stakeholders affected:**

Whole county with a phase 1 focus on Dunmow, Chelmsford Police Station and Rayleigh

**Report by:** Emma Smith - Senior Estate Project Manager

**Chief Officer:** ACC Kevin Baldwin

**Date of report:** 10/06/2024

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### 1. Executive Summary

Decision report PFCC/170/23 approved the allocation of £430,500 of capital investment against Phase 1 of the Zero Vehicle Emissions Delivery Plan. This decision report is seeking approval to increase the funding and award the contract to undertake the electrical infrastructure associated with the project.

### 2. Recommendations

The first recommendation to the PFCC is to increase the approved capital budget from £430,500 to £504,030, an increase of £73,530. This will enable the contract to be awarded for the preferred option at the value of £433,156 for electrical infrastructure and funding of £70,874 for a further procurement exercise to select and install the charging units. Furthermore, additional revenue recurring funding of £25,633 per annum is required for the charging software solution.

The second recommendation is for the PFCC to award the contract at a cost of £433,156.12 and enter into a JCT Intermediate Building Contract with Contractors Design 2016 Edition with the main contractor to undertake the project by approving the application of the PFCC's electronic signature to the contract attached at Appendix 1.

### **3. Background to the Proposal**

In 2020 the UK Government announced a two-stage plan to end the sale of new petrol and diesel cars in the UK by 2035. Stage 1 will see the phase-out of new petrol and diesel car and van sales by 2030. Stage 2 will see all new cars and vans be fully zero emission at the tailpipe from 2035, effectively ending the sale of hybrids and leaving electric vehicles (EVs) as the only viable option for purchase, barring any sudden advancements in green fuel technology. Whilst there have been some changes to the plan by the UK Government recently, given that vehicle manufacturers have already made their investment into electric vehicle production, and that the 2035 target still stands, we are continuing to work to the timelines set out when the project was initiated.

The Essex Police vehicle fleet currently consists of 777 vehicles, with a replacement rate of 75 - 150 vehicles per year. At present most of the fleet are petrol or diesel vehicles, and like-for-like replacement will no longer be possible beyond 2030. Transport Services have begun replacing vehicles with hybrids to extend the lifetime of the fleet to 2035, giving the force up to 12 years to complete the transition to EVs.

There are 33 sites across the county where vehicles are based, which are a mix of owned and leased properties. With a wide variety of building conditions, locations, yard sizes / layouts, electrical wiring quality and capacity, the installation of charging points on each site is set to be incredibly complex and requires a focussed, bespoke and phased approach.

Essex Police established the Zero Emissions Delivery (ZED) Board chaired by an Assistant Chief Constable lead. The board membership has been carefully considered to represent all stakeholders key to achieving the Net Zero target through working to the required Zero Vehicle Emissions Delivery Plan. The Head of Estates and Head of Transport Services sit on the board along with representatives from operational commands. In addition, collaborative colleagues are on the board membership, specifically Essex County Fire and Rescue Service (ECFRS).

In determining the most suitable sites for the first phase of the electric vehicle transition, an evaluation was undertaken by Estates, Transport Services and Strategic Change, based on the following parameters:

- Available electrical capacity in kVA (kilo Volt Amperes)
- Existing electrical infrastructure condition
- Ease of installation – electrical
- Ease of installation – car park
- Number of vehicles ready for transition
- Vehicle utilisation and associated mileage
- Operational dynamics of the building and resident teams
- Proximity and accessibility to collaborative, public and commercial charging facilities

The following exclusion criteria was agreed by the group to remove overly complex or inappropriate sites from consideration for phase 1:

- Sites due for major investment within the next five years.
- Sites due for disposal.
- Sites which are leased.
- Sites where no EP building is present.
- Sites with limited existing electrical capacity.

Following this review, the Zero Emissions Delivery Board endorsed the recommendation to initiate the electric vehicle transition at the Dunmow, Chelmsford Police Station and Rayleigh sites as Phase One of the delivery.

An assessment of available construction frameworks was considered by both Estate Services and Commercial Services, with the preferred framework being the Crown Commercial Services Framework RM6088 Construction Work and Associated Services due to the Essex Construction Framework 2 (ECF 2) ending in February 2024 (before we could award the contract). The new framework ECF 3 would not be available until May 2024.

The tender was published on 04/03/2024 with a tender return date of 08/04/2024. We only received one compliant tender return that has been assessed against the commercial, technical and social value criteria. The result of the evaluation for the bidder is shown below:

Supplier	Total Bid Price (£)	Commercial Score % (max 52.5%)	Technical Score % (max 37.5%) *	Social Value Score % (max 10%)	Total Score (out of 100%)
Bidder 1	433,156.12	52.5	23.5	3.8	79.8

\* Technical score broken down as follows:  
 Project delivery timescales – 10%, Project team – 5%, Project management – 15%, Health and safety – 7.5%

#### 4. Proposal and Associated Benefits

It is proposed to install infrastructure to support the installation of 22kW EV charging units across the three proposed Phase 1 sites: Six charging points at Dunmow PS with two simultaneous charging capacity, 20 charging points with 10 simultaneous charging capacity at Chelmsford PS, and 20 charging points with 12 simultaneous charging capacity at Rayleigh PS. These charging pedestals would support the transition of 69 vehicles across the three sites which, in combination with vehicles already converted to electric, represents 10% of the fleet transitioning to electric, allowing us to develop best practice and learning, and successfully deliver future phases of the project with increased efficiency.

An outline of the anticipated benefits of the project is as follows:

Operational cost savings: Over their lifetimes, electric vehicles tend to have lower operating costs than traditional combustion engine vehicles. This is due to fewer

moving parts, reduced maintenance needs, and the general lower cost of electricity compared to fossil fuels.

**Environmental responsibility:** Transitioning to EVs will significantly reduce the force's carbon footprint, aligning with global sustainability goals and local environmental initiatives. This step helps combat climate change and air pollution, fostering a healthier environment.

**Public perception and trust:** Adopting EVs may improve the public image of the force, positioning it as forward-thinking and environmentally conscious. This can strengthen community trust and support, especially among eco-aware demographics.

**Operational efficiency:** Modern EVs come equipped with advanced technological integrations, which can offer better fleet management, real-time tracking, and improved communications, enhancing operational efficiency.

**Health and well-being of officers:** Electric vehicles produce no tailpipe emissions, leading to improved air quality. This can have positive health implications for officers, especially those stationed in urban settings with already high pollution levels.

**Noise reduction:** EVs are quieter than traditional vehicles, which can be an asset in certain tactical situations where discretion is essential. Furthermore, reduced noise pollution benefits both officers and the general public in urban areas.

**Future-proofing the fleet:** Given the global shift towards EVs and government targets for ending the sale of Internal Combustion Engine (ICE) vehicles, transitioning now prepares the force for a future where combustion engines will become obsolete.

**Safety enhancements:** Many new electric vehicles come with advanced safety features and assistive driving technologies, which can reduce the risk of accidents and ensure the safety of both officers and civilians on the road.

## **5. Options Analysis**

The specification allowed for different options to be costed allowing flexibility for Essex Police when installing the EV infrastructure. Principally these were whether to utilise existing building power supplies or to bring in a new power supply provided by UK Power Networks.

Option 1 – Utilise existing supplies at Rayleigh and Dunmow, upgrading the supply at Chelmsford only. £378,572.

Option 2 (recommended option) - Use existing electrical capacity at Dunmow and increase electrical capacity at Rayleigh and Chelmsford. £433,156.

Option 3 - Use existing electrical capacity at Rayleigh and increase electrical capacity at Dunmow and Chelmsford. £558,886

Option 4 - Increase electrical capacity at Rayleigh, Dunmow and Chelmsford. £609,805

Benefits of increasing electrical capacity:

- Upgraded supply allows more of the installed chargers to operate at full capacity simultaneously.
- There would be an independent electrical supply for the EV chargers reducing any impact on station operations.
- Simpler future scalability due to having more power capacity.

If we do not undertake the works, the draw backs would be as follows:

- Reduced charging capacity.
- There would not be an independent electrical supply for the EV chargers, which would impact on station operations.
- Supply may need to be upgraded in the future.

Option 2 is the recommended option based on the high cost to provide a new power supply at Dunmow PS. The proposal will allow for the following chargers to be used simultaneously at 22kW, although a higher number of chargers will be installed at each site with power control on the chargers.

Site	Charging Points	Simultaneous 22kW Charging Capacity
Rayleigh	6	2
Chelmsford	20	10
Dunmow	20	12

The Strategic Estate Board challenged whether Dunmow was still the correct site to progress with EV installation. Based on the fact that transition to EV is a long term project and we have incorporated the installation into the tender exercise, it is still recommended to proceed with EV infrastructure at a lesser level, removing the mains power upgrade rather than omitting the site from the project at this stage.

## **6. Consultation and Engagement**

In order to capture the specific operational requirements, engagement with teams across the force has taken place through an operational gold group. Work has also taken place with the Estates Services teams to review our sites' suitability for electrification of vehicles, as well as work with Transport Services to review our current fleet. The information recorded was used to produce Phase One of the delivery plan. This plan has been presented to the Zero Emissions Delivery Board and was endorsed by a meeting of the Chief Officer Group.

More specific engagement with officers and staff at the pilot sites has commenced and will continue following implementation.

## 7. Strategic Links

The Zero Vehicle Emissions Project promotes several areas of the Force Plan:

**We learn and develop:** The ongoing cultural change and training work will support officers and staff as they transition to electric vehicles, with additional driver training and support being provided throughout.

**We are skilled, equipped, and enabled:** The transition to electric vehicles will equip the force to continue to be effective, as well as introducing new technology to support efficient officer deployment through improvements to the fleet management information provided to the Force Control Room (FCR) and supervisors.

**We are collaborative:** Through this project we are working closely with a number of partners including ECFRS, Essex County Council, the East of England Ambulance Service Trust, and the other six forces of the eastern region. As well as working with these close partners, we are establishing links with businesses and communities to develop a comprehensive charging strategy that will enable officer visibility in communities whilst expanding access to vehicle charging points across the county.

In line with the PFCC's Police and Crime Plan, the Zero Vehicle Emissions Project will support the priorities of:

**Supporting officers and staff:** Transitioning our fleet to electric vehicles not only underscores our commitment to environmental responsibility, but it also ensures that our officers and staff have access to modern, efficient, and reliable transport options. This shift promotes a healthier work environment by reducing exposure to exhaust emissions and reflects our dedication to equipping our personnel with the best tools to perform their duties.

**Increasing collaboration:** Through this project we are working closely with a number of partners including ECFRS, Essex County Council, the East of England Ambulance Service Trust, and the other six forces of the eastern region. As well as working with these close partners, we are establishing links with businesses and communities to develop a comprehensive charging strategy that will enable officer visibility in communities whilst expanding access to vehicle charging points across the county.

**Improving safety on our roads:** This objective is supported by utilising vehicles with advanced safety features, reduced noise pollution, and consistent performance attributes. Additionally, electric vehicles, with their quieter operations, diminish the risks associated with auditory distractions, thereby ensuring safer road conditions for all users.

**Protecting rural and isolated areas:** Through our work identifying partners for charging in the community, we have begun conversations with rural communities and owners of solar farms, who are so far supportive of the idea of providing vehicle charging points for emergency services vehicles, in exchange for the benefit of increased police presence in rural communities.

In line with the Essex Police Estates Strategy, the Zero Vehicle Emissions Project will adhere to the Essex Police estate vision by "...ensuring our officers, staff and volunteers are ... equipped and enabled in their mission to prevent and detect crime, keeping the people of Essex safe...". The transition of vehicles and introduction of on-site charging infrastructure will ensure that our fleet remains fully operational and deployable, empowering officers, staff, and volunteers to continue keeping the people of Essex safe.

## **8. Police operational implications**

During phase 1 of delivery there would be minimal police operational implications as the vehicles being transitioned are non-response. The infrastructure work may cause some disruption to car parks and electrical services to buildings, but mitigations will be put in place to ensure this does not impact our fleet operational capability.

## **9. Financial implications**

The recommended proposal is to increase the approved capital budget from £430,500 to £504,030, an increase of £73,530. This will enable the contract to be awarded for the preferred option at the value of £433,156 for electrical infrastructure and provide funding of £70,874 for a further procurement exercise to select and install the charging units.

Furthermore, additional revenue recurring funding of £25,633 per annum is required for the charging software solution.

	Year 1 2024/25	Year 2 2025/26	Year 3 2026/27	Year 4 2027/28	Year 5 2028/29	Total
<b>CAPITAL COSTS</b>	£'000	£'000	£'000	£'000	£'000	£'000
Stage B - budget setting 2024/25	0.00	1,449.50	0.00	0.00	0.00	1,449.50
Stage C - budget setting 2024/25	430.50	0.00	0.00	0.00	0.00	430.50
Stage C - Revised	504.03	0.00	0.00	0.00	0.00	504.03
Variance: Stage C revised compared to budget setting provision (if applicable)	73.53	(1,449.50)	0.00	0.00	0.00	(1,375.97)
<b>REVENUE SET-UP COSTS SUMMARY</b>						
Stage B - budget setting 2024/25	0.00	0.00	0.00	0.00	0.00	0.00
Stage C - budget setting 2024/25	0.00	0.00	0.00	0.00	0.00	0.00
Stage C - Revised	0.00	0.00	0.00	0.00	0.00	0.00
Variance: Stage C compared to budget setting provision (if applicable)	0.00	0.00	0.00	0.00	0.00	0.00
<b>REVENUE RECURRING COST SUMMARY</b>						
Stage B - budget setting 2024/25	0.00	0.00	0.00	0.00	0.00	0.00
Stage C - budget setting 2024/25	0.00	0.00	0.00	0.00	0.00	0.00
Stage C - Revised	25.63	25.63	25.63	25.63	25.63	128.15
Variance: Stage C compared to budget setting provision (if applicable)	25.63	25.63	25.63	25.63	25.63	128.15
<b>TOTAL PROJECT COSTS</b>						
STAGE B - BUDGET SETTING	0.00	1,449.50	0.00	0.00	0.00	1,449.50
Stage C - budget setting 2024/25	430.50	0.00	0.00	0.00	0.00	430.50
Stage C - Revised	529.66	25.63	25.63	25.63	25.63	632.18
NET IMPACT ON CAPITAL PROGRAMME- (SURPLUS)/DEFICIT *	99.16	(1,423.87)	25.63	25.63	25.63	(1,247.82)

\*Please note that the 'surplus' of (£1,247.82k) shown in the table above incorporates an additional revenue budget requirement not previously identified. The remaining capital budget earmarked for the project in the 'subject to approval' category of the capital programme is £1,375.97k. The 'surplus' figure included in the tables is an indicative figure only that includes both revenue and capital costs although the budget was allocated for capital elements only as no revenue budget was included in the original Stage B submission.

The remaining capital budget will be subject to a further Stage C business case being submitted in the future i.e., these funds will be required for future spend. A refreshed capital bid will be submitted for the 2025/26 draft capital programme.

To further clarify, this is an updated Stage C business case seeking approval of additional funding for phase one only. The original Stage C business case for £430.5k



was approved as part of budget setting for 2024/25 which left £1,449.5k budget in the 'subject to approval' category. However, a review of the phase one requirements has identified the need for additional capital budget of £73.53k for a phase one total of £504.03k, plus previously unidentified recurring revenue budget requirement for £25.63k per year.

The budget requirement for the first phase (as set out in this Stage C proposal) is now £504.03k for capital expenditure in 2024/25 which will involve transitioning vehicles across three pilot sites (i.e., Dunmow PS, Chelmsford PS, and Rayleigh PS), to EVs by installing 28 22kW type 2 EV chargers across these sites. In addition to the extra capital budget requested for phase one, this proposal seeks recurring revenue budget of £25.63k per annum. This was not previously identified nor specifically allocated from the revenue budget earmarked to support the capital programme, but the revenue budget pressure will be managed within the existing force revenue budget allocation.

The funding summary figures exclude the costs associated with borrowing in respect of this project however it should be noted that this will lead to an increase in the force's capital financing requirement (CFR). This will result in charges to the revenue account relating to minimum revenue provision (MRP) and interest payable. For this project, these costs will equate to the capital investment value of £504.03k being charged as MRP in instalments over the useful economic life of the related asset. In respect of interest payable for external borrowing, it is assumed that the force will incur financing costs of approximately 5.75% for a period of 15 years. On the assumption the principal is not repaid in full until the end of the borrowing term, this will result in total charges to the revenue account of proceeding with this project of £938.76k, incorporating both the MRP and interest elements. It should be noted that the interest element equates to £434.73k and the MRP is £504.03k, for a total of £938.76k; the standard annual combined interest and MRP charge is thus £62.58k per year. The above financing costs are already budgeted in the capital programme as part of the approved and subject to approval capital projects, and these values are being provided for information only in respect of understanding the cost implications to the force of proceeding with this project.

## **10. Legal implications**

Following approval of the decision report, the PFCC will be required to enter into a JCT Intermediate Building Contract with Contractors Design 2016 Edition with the main contractor appointed to undertake the infrastructure works. An unsigned copy of the contract is included within Section 16.

## **11. Staffing implications**

There are no direct staff implications associated with this decision report.

## **12. Equality, Diversity and Inclusion implications**

Engagement with Support Networks is currently taking place and preliminary feedback is that there are no concerns raised.

## 13. Risks and Mitigations

### Project risks:

Inevitably any construction project has risks. At tender stage, a designer's risk assessment has been provided to the suppliers. During the construction phase, the Principal Contractor will be responsible for managing the day-to-day risks. Any power shutdowns required at stations will be managed with the coordination of the estate project manager and technical team.

### Supplier risk:

The framework owners ensure that suppliers on the framework maintain the required insurances, check financial stability, and monitor any alerts regarding the company. In addition, 7F Commercial Services ran a Dun & Bradstreet credit report, which returned a score of 2A3, which signifies an overall higher-than-average risk of failure. On further investigation, the company has been trading a long time, is making payments to its creditors on time, and is considered stable for the coming 12 months, however their profit margin this year is very weak compared with the previous year. Its current tangible net worth is £2,814,166. For a contract of this nature, the supplier's position is acceptable. This is further supported by the contract and staged payments after work has been completed.

### Risks associated with not approving the decision report:

**Operational risk:** As the UK government has set a clear directive to end the sale of new petrol and diesel cars by 2030, police forces that do not proactively transition to electric vehicles face significant operational risks in the coming decade. Post-2030, with the discontinuation of combustion engine vehicles, the force may experience challenges in fleet replenishment, potentially leading to operational inefficiencies, increased maintenance costs of ageing petrol and diesel vehicles, and diminishing availability of parts.

**Increased operational costs:** As the infrastructure and support for petrol and diesel vehicles wanes, maintenance costs may rise due to the reduced availability of parts and specialised services. Fuel prices may also increase as demand for petrol and diesel decreases or as taxes on fossil fuels increase.

**Reputational damage:** As public awareness and commitment to environmental issues grow, police forces that do not adopt sustainable practices risk being perceived as out-of-touch or indifferent to global ecological concerns.

**Reduced public funding or support:** Future governmental funding or grants might prioritise eco-friendly initiatives. A police force lagging in this transition may miss out on these financial opportunities.

**Loss of competitive edge in recruitment:** As electric vehicles and sustainability become more mainstream, new recruits may prioritise joining forces that reflect these values. A force not adopting EVs might struggle to attract environmentally conscious talent.

Reduced synergy with other services: As other emergency services (fire and rescue, ambulance) and police forces transition to EVs or other sustainable options, Essex Police might find itself out of sync in joint operations or initiatives.

#### **14. Governance Boards**

PFCC Strategic Estates Board – 13/05/2024  
Chief Officer Group – 15/05/2024  
PFCC Strategic Board – 10/06/2024

#### **15. Links to Future Plans**

As noted elsewhere in this paper, this is Phase 1 of the Zero Vehicle Emissions Delivery Plan, with further phases continuing the rollout of electric vehicles and requisite charging infrastructure across the county. Learning from Phase 1 will be key to informing the development of detailed plans for further phases.

#### **16. Background Papers and Appendices**

##### **Appendix A**

[Redacted]

[Redacted]

##### **Appendix B**

[Redacted]

[Redacted]

##### **Appendix C**

[Redacted]

[Redacted]

**Report Approval**

The report will be signed off by the PFCC's Chief Executive and Chief Finance Officer prior to review and sign off by the PFCC / DPFCC.



Chief Executive / M.O.

Sign:

Print: P. Brent-Isherwood

Date: 31 May 2024



Chief Financial Officer

Sign:

Print: Janet Perry

Date: 31 May 2024

**Publication**

Is the report for publication?

YES

NO

If 'NO', please give reasons for non-publication (Where relevant, cite the security classification of the document(s). State 'None' if applicable)

None

If the report is not for publication, the Chief Executive will decide if and how the public can be informed of the decision.

**Redaction**

If the report is for publication, is redaction required:

1. Of Decision Sheet?

YES

2. Of Appendix?

YES

NO

NO

If 'YES', please provide details of required redaction:

Appendices are not for publication and are marked in accordance with the official Government Security Classification as OFFICIAL SENSITIVE

Date redaction carried out: .....

**Chief Finance Officer / Chief Executive Sign Off – for Redactions only**

If redaction is required, the Treasurer or Chief Executive is to sign off that redaction has been completed.

Sign:  .....

Print: Janet Perry .....

~~Chief Executive~~ / Chief Finance Officer

**Decision and Final Sign Off**

I agree the recommendations to this report:

Sign: 

Print: Roger Hirst

PFCC

Date signed: 25/06/2024

I do not agree the recommendations to this report because:

.....

.....

.....

Sign:

Print:

PFCC/Deputy PFCC

Date signed: