

# Bedford Electrical

## CASE STUDY

Design, Installation, and Maintenance of 3 x 90kW DC Chargers

**Customer: Stoke Newington Police Station**

**Location: Hackney**

**Core Service: EV Chargers**

**Sector: Transport & Logistics**



# Project Details

## Client Overview

The Metropolitan Police at Stoke Newington Police Station, located at 33 Stoke Newington High Street, N16 8DS, initiated a project in partnership with VEV Services Limited to install a cutting-edge charging infrastructure for their electric vehicle (EV) fleet. This initiative aimed to support the force's transition to sustainable transportation as part of its commitment to reducing carbon emissions and meeting environmental sustainability goals.



## Project Overview

The primary objective of the project was to design, install, and implement a reliable **EV charging solution** tailored to meet the operational demands of the police station's fleet. Key requirements included:

- Supporting daily operations with fast and efficient charging.
- Ensuring scalability for future fleet expansion.
- Minimising operational downtime and maximising charger uptime through an effective maintenance plan.



# Design Phase

## **Site Analysis:**

Engineers assessed the available space, existing power infrastructure, and fleet movement patterns. We tailored our solution to integrate seamlessly into the station's operations..

## **Charger Specification:**

The chargers were equipped with load balancing and energy management systems to optimise power usage and prevent grid overload.

## **Electrical Infrastructure:**

The design included upgrades to the electrical system to handle the chargers' high-power demand while adhering to safety and regulatory standards.

## **Charging Capabilities:**

Three 90kW DC fast chargers can quickly recharge multiple vehicles, ensuring minimal disruption to fleet operations.

# Maintenance Plan

**We implemented a comprehensive maintenance plan to ensure optimal performance and reliability:**

## **Scheduled Maintenance:**

Routine inspections will clean, test, and calibrate the chargers, ensuring consistent performance.

## **Remote Monitoring:**

Chargers are equipped with diagnostic systems allowing for real-time fault detection and remote troubleshooting, minimising downtime.

## **Emergency Support:**

We established a 24/7 support service to address urgent technical issues.





# Challenges and Solutions

## **Grid Capacity Constraints:**

Upgrades to the electrical supply were required to support the power demand. Close coordination with the local utility provider ensured efficient addressing.

## **Space Optimisation:**

We strategically utilised the available space to place the chargers without impeding daily operations or access.

## **Operational Continuity:**

Our teams carefully planned the installation to avoid disruptions to police station activities.





## Outcomes

**The installation of 3 x 90kW DC chargers enabled Stoke Newington Police Station to:**

- Significantly reduce its carbon footprint by supporting the use of electric vehicles.
- Enhance operational efficiency through fast charging capabilities, minimising fleet downtime.
- Future-proof its infrastructure for the anticipated growth of the EV fleet.





## **Client Satisfaction:**

The project has laid a foundation for future scalability. As the fleet grows, additional charging units can integrate with the system.

Plans are also in place with our client to explore renewable energy sources, such as solar panels, to further reduce reliance on grid electricity.

## Conclusion

This project demonstrates the collaboration between the Metropolitan Police, VEV Services Limited, and other stakeholders to achieve a sustainable and efficient EV charging solution. It is a benchmark for similar initiatives to support the transition to electric mobility in critical public service sectors.





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## Contact Us



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