

# Smarter, Greener, Cleaner: The future of council fleets

Westminster Journey towards a 100% Electric Waste and Cleansing Fleet

**Edward Yendluri**  
Westminster City Council

Feb 2026

## Key facts and figures

- Operating 24 hours a day, 365 days a year
- 192k tonnes of waste per annum
- Number of streets 1,600, length 750kms
- 2 million collections a week
- Over 50 special events a year
- Area - 8 Sq Miles
- Residents -250,000
- Daily population – 1m day and 30m tourist PA
- 200 plus vehicles of various specifications are used to keep the city clean
- Poor air quality is a big concern – Clear Air and Fairer Environment Policy – Key Drivers



# Key Drivers for Changes



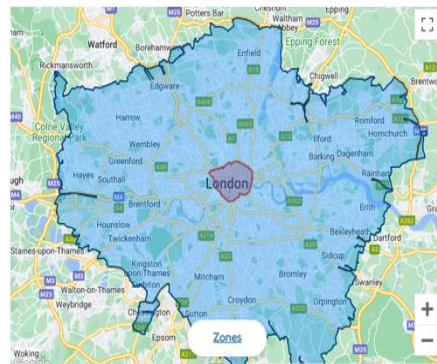
City of Westminster

- Climate Emergency
- WCC Clean Air Policy & Fairer Environment
- London Transport Strategy

April 2019 – ULEZ



October 2021- ULEZ



September 2023  
ULEZ

**WCC Transport Footprint appro 4000t CO<sub>2</sub>e PA**

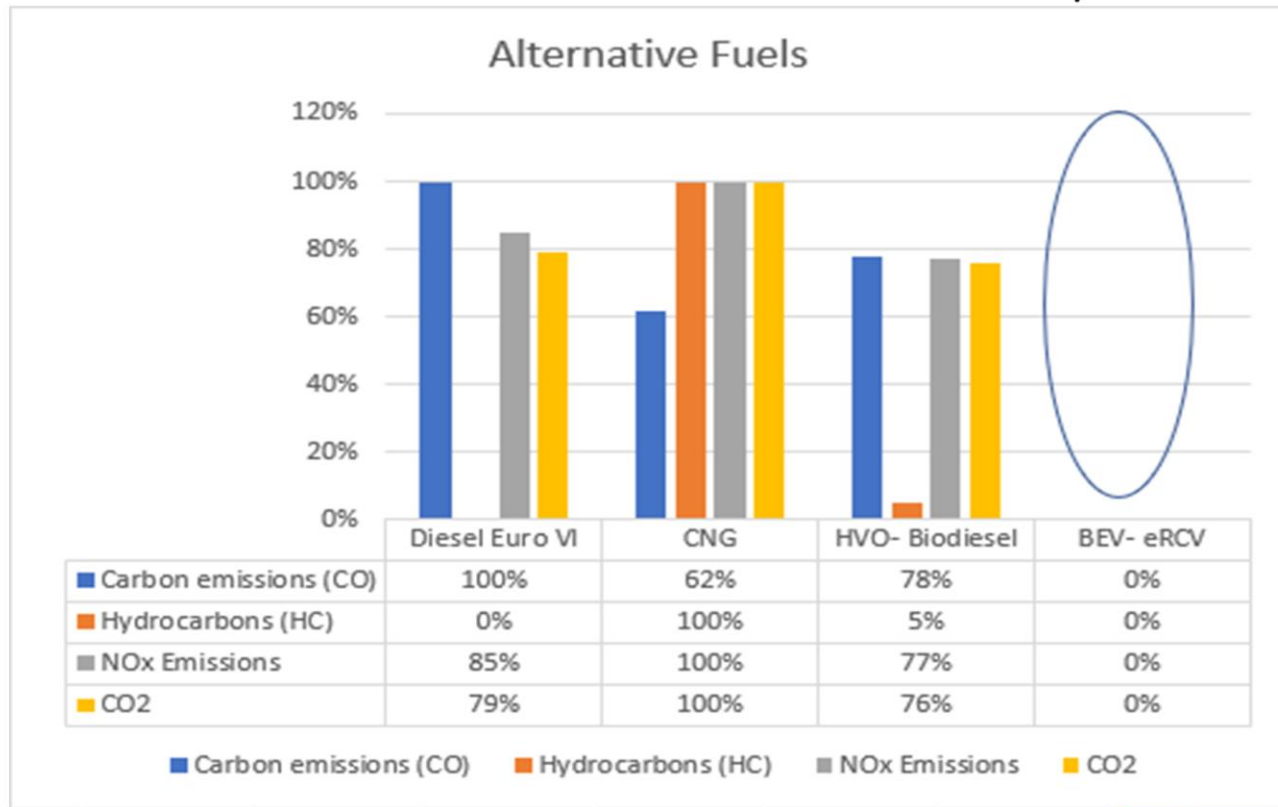
**What is the best fuel technology for the Westminster  
City Council Waste & Cleansing Fleet ?**

# **Alternative Fuel Technologies in the Market to address emissions**

## **R&D and Challenges 2018/19**

- Natural Gas (CNG) powered RCV's - Small reduction in emissions
- Biodiesel (HVO) powered RCV's - Small reduction in emissions
  - Hydrogen (H<sub>2</sub>) powered RCV's - H<sub>2</sub> Reliability (45%)
- Electric Powered RCV's - No OEM, Tested Upcycling model

## Tailpipe emissions



## Steps WCC followed for the fleet decarbonisation

- SWOT of WCC fleet (Inc. technical skills)
- Developed partnership with key suppliers (Veolia, DE and Mercedes)
  - Identified the electric fleet that meets our service demands
    - Tested them in real environment
  - Identified the total power demand
  - Reviewed the local grid capacity
- Reviewed alternative power sources (EfW & Solar etc)
- Commissioned suitable smart charging infrastructure
- Ordered the EV fleet
- Trained the staff and got them onboard with changes
  - Mobilised the fleet



# LANDMANN WAY PROJECT OVERVIEW

**Depot procured by WCC**, next to SELCHP/around railway tracks and tunnels

Safety consideration at heart of design

**WCC investment - £22m**

**54 vehicles** - Westminster procured

- 38 x 26t eRCVs
- 16 street cleansing vehicles (which includes 8 vans, 4 7.5t cages, 2 Large Mechanical Sweeper and 2 18t GEMs)

**Power Purchase Agreement (PPA)** signed with SELCHP eRF for the supply of electricity

- 3,300MWh of electricity per annum (~1.5% of SELCHP's overall generation),
- At an approximate annual cost of £350-500k (depending on wholesale prices)

Veolia's electrification services oversaw the design and implementation and will lead the management of the electric feed and optimisation.

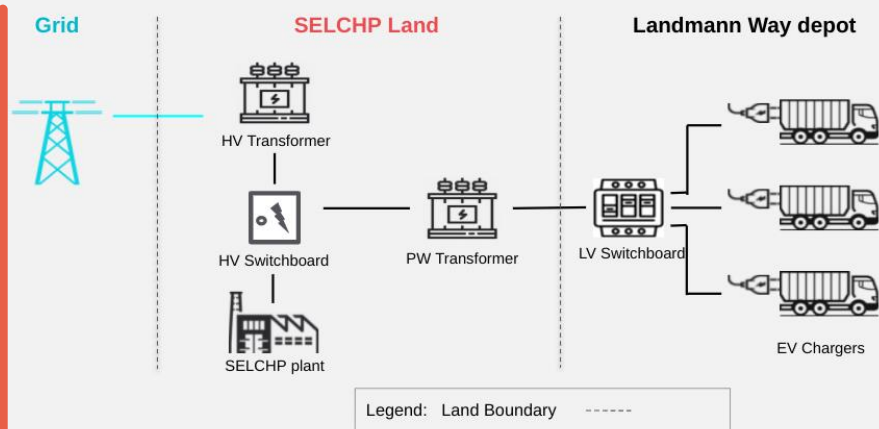




# INCEPTION PROJECT CONCEPT

## Design Concept:

1. A **new high voltage (HV) switchboard** was installed on SELCHP land, with a panel dedicated to the depot private wire (PW).
2. A **2.5MW transformer** steps the power down to low voltage (LV), then taken across the SELCHP boundary.
3. The **low voltage switchboard** installed **distributes the power** to the cabinets located across the depot.
4. Six large inverter cabinets convert the power from alternative current (AC) to direct current (DC), distributing it to a total of **40 DC outlets** where eRCVs connect. Another **18 AC fast chargers** power the smaller vehicles.
5. Each DC charger is capable of delivering 50kW per vehicle and each AC charger 22kW.



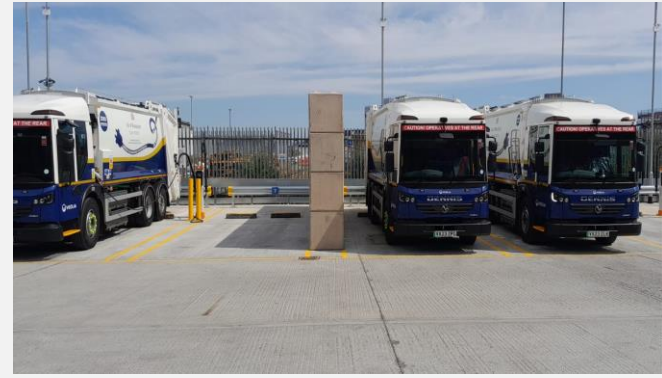
# DEVELOPMENT SCHEDULE AND DELIVERY

## Design Timeline:

1. **Feasibility Study:** Dec 2019 - Mar 2020
2. **Contractor Tender:** Aug 2020 - Mar 2021
3. **Detailed design stage:** Jul 2021- Jul 2022
4. **Construction on site:** February- July 2023



# Cleansing Fleet





# DELIVERY PARTNERSHIP WORKING

## Project Team (left to right)

Shaun Bridges - Regional Fleet Manager

Richard Johnson - Group Building  
Manager

Mark Hedderley - Counsel - Legal  
Department

Briony Bendle - Strategy Manager

Helder Branco - General Manager

Alvaro Machuca - Electrification Project  
Manager

Philippe Queruau - Electrification Services  
Manager

Pascal Hauret - Municipal Director

Rupert Grass - WCC Property Consultant

Edward Yendluri - WCC Waste and  
Recycling Manager

Debbie Biddiscombe - Senior Risk and  
Assurance Advisor

Jon Griffiths - WCC Cleansing Manager



# LAUNCH EVENT PRESS COVERAGE

## 32 pieces of press coverage

Evening Standard Online, LAPV, London News Online, Yahoo News, Commercial Fleet News, Let's Recycle, Circular, Energy Live News, Materials Recycling World Electric & Hybrid Vehicle Technology, FM Industry, FM Business Daily, Fleet Vision Intl, Automotive EV, Future Net Zero, ENDS Waste & Bioenergy, Fleet News, Facilities Management Journal, Smart Transport, and Green Fleet

10 million  
circulation!



### Westminster unveils 'trailblazing' fleet electrification

Westminster City Council and Veolia are rolling out the UK's largest electric refuse collection fleet, with vehicles powered by the waste they collect.

The council has invested £20m in 45 electric refuse collection vehicles (RCVs). It will gradually replace its entire fleet of 80 trucks, in what Veolia has called the biggest decarbonisation programme of its kind by a UK local authority.



## ENDS UK's largest EfW powered waste-collection fleet launched

Luke Walsh

20 Jul 2023

Westminster Council and Veolia unveil depot, which will house 50 electric refuse-collection trucks powered by the iconic SELCHP EfW facility



## FMBusinessDaily

Westminster Council unveil UK's largest electric waste collection fleet – powered by the waste they collect



letsrecycle.com

## Evening Standard

Council unveils 'pioneering' new fleet of electric waste vehicles powered by rubbish

The 45 new trucks will be the mainstay of a wider zero-emission refuse fleet which also includes 90 electric street cleaning vehicles ranging from e-bikes to e-sweepers

VIEW COMMENTS



SMART TRANSPORT | Connecting Policy to Solutions

Electric refuse truck deal is 'UK's biggest decarbonisation programme of its kind by a local authority'

Energy Live News

Efficiency & Environment

### 'UK's largest' electric trash fleet rolls out

Westminster City Council and Veolia have launched an electric refuse collection fleet, powered by waste

19,941 to cover



'Pioneering' zero-emission waste collection trucks unveiled

By Noah Vickers, Local Democracy Reporter

A 'pioneering' fleet of zero-emission waste collection trucks – powered by the waste they collect – has been unveiled by Westminster council.

# National & International Awards



H&S Winners 2024



EV innovation of the year  
2023



Green Fleet 2023



Best Fleet Management Strategy and  
Innovators of the Year

Winners 2024



Green Fleet Awards  
Fleet Manager of the Year 2023



Circular Economy success -  
2023



Partnership Excellence - Public/private sector



Net Zero 2024  
(commendable)



