

This report is public	
Hydrotreated Vegetable Oil (HVO) Fuel	
Committee	Executive
Date of Committee	2 September 2025
Portfolio Holder presenting the report	Portfolio Holder for Neighbourhood Services, Councillor Ian Middleton
Date Portfolio Holder agreed report	May 2025 & 19 August 2025
Report of	Assistant Director Environmental Services, Ed Potter / Corporate Director Communities, Ian Boll

Purpose of report

This report looks at the issues of cutting vehicle fleet emissions by the adoption of Hydrotreated Vegetable Oil (HVO) fuel to replace standard diesel fuel. The report considers the reduction in emissions and the potential increase in revenue costs from moving to HVO.

1. Recommendations

The meeting resolves:

- 1.1 To support the change from standard diesel to HVO diesel commencing from Autumn 2025 leading to a substantial reduction in emissions during 2025/26 & 2026/26.
- 1.2 To note the small increase in fuel costs as a result of moving to HVO which can be contained within the existing fuel budget.

2. Executive Summary

- 2.1 The vehicle fleet is a significant contributor to the overall emissions of the Council. There are around 90 vehicles in the vehicle fleet with half these vehicles being Large Goods Vehicles (LGV)
- 2.2 Small vans and medium sized vans are increasing battery electric vehicles (BEV). Usually, battery electric vehicles are more expensive to initially purchase but have lower operating costs including fuel and maintenance costs. In addition, due to fewer moving parts, they are likely to have a longer life span.
- 2.3 For Large Goods Vehicles the choice of electric vehicles is more limited. In addition, the initial capital cost is 2-2.5 times the cost of a diesel vehicle. Operating costs can be lower than the diesel equivalent. However, the reduction in operating costs can

be small and this reduction does not cover the increased capital costs over the life time of the vehicle.

- 2.4 The change from standard diesel to HVO involves a number of steps such as gaining confirmation from our vehicle suppliers that engine warranties are not invalidated, confirmation of HVO prices, confirmation of the HVO coming from a sustainable source and following an implementation plan which is outlined in Appendix 1.
- 2.5 Moving to HVO fuel will increase fuel costs by around £25-30k in 2025/26 and a further £25- 30k in 2026/27. However, the current price of diesel is well below the budgeted price for 2025/26 so should be contained within the existing budget. The reduction in CO2 will be around 600-700 tonnes in 2025/26 and a further 600-700 tonnes in 2026/27. This will reduce fleet emissions overall from 1400 tonnes to less than 250 tonnes, an 85% reduction. This overall reduction in emissions of 1150 tonnes, comes at an estimated annual cost of £60k, this equates to around £50/tonne of CO2.
- 2.6 The 1150 tonnes reduction will reduce the overall emissions from the Council's operation by around 25-30 %.
- 2.7 The additional revenue cost of around £60k (difference between HVO & standard diesel) in a full year is a significant increase. However, the current price of diesel is well below the budgeted price. Consequently, the move to HVO should be covered within this year's budget. The benefit from this cost increase is that the change will deliver a large reduction in fleet emissions for an affordable price.
- 2.8 It should be noted that the move to HVO is a short-term move (up to five years) and that the longer term solution is to move the fleet fully over to battery electric and/or hydrogen. The HVO must be certified to show it has come from sustainable sources

Implications & Impact Assessments

Implications	Commentary
Finance	HVO fuel typically costs around 10-12p/litre more than standard diesel. However, moving to HVO reduces emissions by 80-90%. HVO is a transition fuel until Battery Electric Vehicles (or Hydrogen vehicles) for Large Goods Vehicles are both available and affordable Joanne Kaye Head of Finance, 22 January 2025
Legal	Legal services will need to review the proposed ESPO agreement and where necessary amend it to enable compliance with Council legal obligations and the Council's Constitution. Due diligence over the nature of this service and the supplier will need to be conducted in line with the Procurement Act 2023 and Procurement regulations. The use of HVO fuel has recently garnered some press attention and central government investigation over potential fraudulent claims over its use. This underpins the need for due diligence and risk management in this matter. The Council purchases fuel through a ESPO framework. Denzil Turbevill Head of Legal, 22 January 2025

Risk Management	The sustainability of HVO presents a risk. However, the Council will purchase HVO through a framework supplier (ESPO) with the sustainability of the HVO being certificated. Celia Prado-Teeling, Performance Team Leader, 22 January 2025			
Impact Assessments	Positive	Neutral	Negative	Commentary
Equality Impact				Not applicable
A Are there any aspects of the proposed decision, including how it is delivered or accessed, that could impact on inequality?		Y		Not applicable
B Will the proposed decision have an impact upon the lives of people with protected characteristics, including employees and service users?		Y		Not applicable
Climate & Environmental Impact				Moving to HVO will reduce CO2 emissions by 85% compared to diesel. However, it is important that the HVO comes from a certified sustainable source. The intention is that the source material will be used cooking oil
ICT & Digital Impact				No impact
Data Impact				No impact
Procurement & subsidy				Not yet applicable as rates are set on fuel
Council Priorities	Supporting Environmental Sustainability			
Human Resources	There are no immediate HR implications with the report. Claire Cox, Assistant Director of Human Resources, 22 January 2025			
Property	N/A			
Consultation & Engagement	N/A			

Supporting Information

3. Background

- 3.1 The Council operates around 90 vehicles to deliver its services. The vast majority of these vehicles operate on Waste Collection and on Street Scene & Street Cleansing services. 50% of these vehicles are Large Goods Vehicles (LGV) which are 7.5 tonnes or greater.
- 3.2 The vehicles are predominately fuelled by diesel with LGVs exclusively diesel powered. Small vans in the vehicle fleet have been changed over to electric vehicles since 2018, with very few diesel vehicles left. By the end of 25/26 all small vans should be battery electric vehicles. The lowest whole life cost for small vans is battery electric. Typically, the initial purchase cost is greater than the diesel equivalent. However, reduced fuel costs, lower maintenance costs and other benefits ensures the additional capital cost is covered by lower revenue costs in around 5 years. It is also likely that electric small vans will last 10-15 years rather than diesel vehicles which have had an economic life in the range 7-10 years.
- 3.3 Vehicles larger than small vans, typically vehicles up to 3.5 tonnes are being replaced by electric vehicles. Until very recently supply of 3.5 tonne chassis cab vehicles have been difficult to source, The first battery electric Ford Transit was delivered in June 2025 with two Ford Transit caged tippers delivered in July 2025. Two more Ford Transits are due for delivery In August/September 2025. In total there should be 19 electric vans in the fleet by October 2025. If the latest electric vehicles perform as expected seven more vehicles are on the vehicle replacement programme. By March 2028, virtually all the vehicles at 3.5 tonnes or less will be battery electric vehicles.
- 3.4 Replacing a small diesel van saves around one tonne of CO₂ emissions per year. Replacing each Street Cleansing vehicle will reduce emissions by 1.5 -2.0 tonnes of CO₂ emissions per year. It is expected by the end of 2027/2028 most vehicles below 3.5 tonnes will be battery electric.
- 3.5 However, for Large Goods Vehicles (LGVs) the solution isn't clear. There are some electric Refuse Collection Vehicles (RCVs) across the country which largely operate in tight geographies such as Westminster and City of London. The purchase cost is around 2.5 times the cost of the diesel equivalent and electrical infrastructure to charge the vehicles is extremely important. With most RCVs having 250 or 300kw battery packs a large incoming supply to the depots are needed to charge the vehicles. Typically, a charger of 50 kw plus is needed. For multiple RCVs the incoming electrical supply to charge such vehicles is substantial and there is no certainty there is sufficient electrical capacity in local electrical networks. An alternative solution may be hydrogen. However, the future route to decarbonise LGVs is not fully clear. Currently the lowest whole life cost for a RCV is diesel

4. Details

- 4.1 The fleet make up a very large part of the overall Council emissions accounting for 40% of the total emissions of the Council.
- 4.2 In 2023/24 emissions from the vehicle fleet were around 1400 tonnes, Large Goods Vehicles (LGV) make up 50% of the vehicle fleet but, over 80% of the vehicle fleet emissions. There are a number of barriers to reducing emissions from the LGV fleet, these include:
- Charging infrastructure at the two depots
 - Availability of battery electric LGVs
 - Very high capital costs of battery electric LGVs
- 4.3 LGVs typically have batteries of 250- 300kw. Consequently, the chargers to recharge these batteries are large and the incoming power supply to the depots need to be much higher than the current incoming supply. Currently the supply to Thorpe Lane depot is 100kVA, a single charger for a single LGV is likely to need a supply of 50KVA. A project to uprate the supply initially with funding has been approved to uprate the incoming supply to 500 kVA. This project is awaiting a start date from the District Network Operator (DNO) to install the relevant transformer.

Hydrotreated Vegetable Oil (HVO)

- 4.4 HVO fuel is made from vegetable and other waste oils. None is currently produced in the UK. HVO is imported and it is important that the sustainability of the fuel source is understood. A certification process exists to confirm that the fuel source is sustainable and hasn't come from the result of crops being grown on former rainforest. The intention is to use HVO from a sustainable source certified by the Renewable Fuel Assurance Scheme (RFAS). In addition, the HVO will largely use waste cooking oils as its feedstock.
- 4.5 HVO fuel represents about 1% of diesel fuel sales. Our current diesel supplier, BWOC (ESPO framework supplier) has supplied both standard diesel prices and HVO fuel prices on a weekly basis. The difference fluctuates but, is within a range of 10-12p/litre, this is about 10% higher than standard diesel. BWOC currently collects HVO diesel which has been imported from Tilbury docks or Cardiff port. The standard diesel it supplies usually comes from a depot in Birmingham.
- 4.6 HVO and diesel are largely interchangeable. The warranties from the major vehicle manufacturers are not compromised by moving to HVO. However, before moving to HVO our vehicle manufacturers will be contacted to confirm that this is the case.
- 4.7 The interchangeability between HVO and standard diesel means that changeover does not require fuel tanks to be cleaned out.
- 4.8 Equivalent net CO₂ emissions from HVO fuel are up to 85-90% lower than standard diesel. In addition, there are lower emissions in other areas such as Nitrogen oxides (Nox) and particulates.
- 4.9 It should be remembered that HVO is a transition fuel which produces lower net CO₂ emissions when made from renewable feedstocks. However, to achieve full

Net Zero at the tailpipe, vehicles will not be able to be fuelled either by diesel or HVO fuel.

- 4.10 In addition from 2035 the government is looking to ban the sale of new diesel vehicles at 26 tonnes and below.
- 4.11 Hence the intention is to use HVO as a fuel while the fleet continues to move over to electric vehicles.

5. Alternative Options and Reasons for Rejection

- 5.1 The following alternative options have been identified and rejected for the reasons as set out below.

Option 1: Continuing using diesel until either Battery Electric Vehicles or Hydrogen Vehicles are available at an affordable price. Fleet emissions will remain very high until the current Large Goods Vehicles are replaced. This may take a considerable number of years.

6 Conclusion and Reasons for Recommendations

- 6.1 To move to HVO fuel with the implementation plan commencing from Autumn 2025, this will reduce fleet emissions in 2025/26 and further with the full year effect in 2026/27.

Decision Information

Key Decision	Yes – financial & service delivery
Subject to Call in	Yes
If not, why not subject to call in	N/A
Ward(s) Affected	All

Document Information

Appendices	
Appendix 1	Implementation Plan
Background Papers	None
Reference Papers	None
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Corporate Director Approval (unless Corporate Director or Statutory Officer report)	Corporate Director for Communities, Ian Boll, 08/01/25 & 19/08/25