

Report of:	Meeting	Date
Councillor Michael Vincent, Leader of the Council and Mark Billington, Corporate Director Environment	Cabinet	6 September 2023

Replace using Diesel with HVO Fuel for the Council's Fleet

Key decision: Yes

1. Purpose of report

- 1.1 To seek agreement to utilise Hydro treated Vegetable Oil (HVO) fuel to replace diesel as the primary fuel used to power diesel engine council vehicles.

2. Corporate priorities

- 2.1 Delivering our action plan to reduce the effect of climate change on our borough including the carbon footprint of all council activities and assets.

3. Recommendations

- 3.1 To significantly reduce the use of diesel to fuel the council's vehicle fleet and instead utilise HVO fuel, which is more expensive (generally between 30p and 45p per litre) but yields a significant reduction in the council's carbon footprint (c30%), contributing to our net zero target.
- 3.2 To employ a hedging strategy to ensure a consistent supply of HVO fuel at an agreed price over the first twelve-month period, with the flexibility to move away from this approach delegated to the Corporate Director Environment in future years to procure when required if this is assessed to be more economical.
- 3.3 That approval is given to proceed under the exemption to Contract Procedures contained within the Financial Regulations and Financial Procedure Rules (Appendix F) on the grounds that exceptions may apply if "a framework agreement is available that necessitates the Council not having to go out to tender and the goods, works and services will still

provide the Council with best value for money”. In line with this, the council would continue to utilise YPO framework number 981 to purchase the HVO product and appoint supplier Standard Oils to supply the HVO product.

- 3.4** To approve the increased cost to the non-Refuse Collection Vehicle (RCV) fleet to cover the additional cost of HVO fuel in 2023/24. In a full year the impact is estimated to result in an increased cost of £48,635 compared to diesel. Owing to the inflated diesel prices in 2022/23, the actual impact on the budget is lessened and expected to be in the region of £17,080 (to be applied pro-rata in 2023/24 based on the agreed implementation date).
- 3.5** To approve a budget in 2023/24 for the Refuse Collection Vehicle fuel, currently paid in full by Veolia, in order to subsidise the use of HVO fuel which is outside the current contract terms at an estimated cost of £75,770 per annum (to be applied pro-rata in 2023/24 based on an agreed implementation date).
- 3.6** To recommend that full Council approve the ongoing increased budget as part of the budget setting process for 2024/25 which goes to full Council in March.

4. Background

- 4.1** On 11 July 2019 the Council declared a Climate Emergency and committed to reduce the carbon emissions created by council activity by at least 78% by 2035.
- 4.2** The council’s diesel powered vehicle fleet creates approximately 30% of all of the council’s currently measured carbon emissions.
- 4.3** The council has a relatively young fleet of vehicles, particularly the refuse collection fleet. The fleet usually operates on an 8-year replacement cycle.
- 4.4** HVO fuel is a “drop in” replacement fuel for diesel-powered vehicles that emits 90% less carbon at the tailpipe than white diesel. Its composition of various feedstock makes it burn clean and it is readily available on the open market.
- 4.5** Using HVO fuel would allow the council to continue to consider the option of purchasing diesel-powered vehicles whilst not adding significantly to the carbon levels within the borough. Currently diesel-powered vehicles are considerably more affordable for the council and have a more reliable performance history and higher residual value to them than alternative fuelled vehicles such as electric.
- 4.6** The use of alternative fuel vehicles would continue to be considered on a case by case basis at the time of vehicle replacement.

5. Key issues and proposals

- 5.1** Unlike oil, HVO is not a traded commodity and its pricing is not dynamic.
- 5.2** HVO suppliers tend to buy shipments in bulk and this sets the pricing, making it difficult to view pricing trends as this information is not readily available, unlike the Platt's oil index for diesel. This means we are unable to reliably track long-term pricing trends for this commodity.
- 5.3** In 2022/23 the council used 282,841 litres of white diesel purchased in bulk as well as some ad hoc fuel card spend estimated at 17,170 litres at a total cost of £422,153 (all estimates are excluding VAT). Of the estimated 300,011 litres used in the year, approximately 176,210 litres were consumed by Veolia who reimburse the council under the contract for this spend. The average cost per litre for the bulk purchases of diesel over the financial year was £1.40.
- 5.4** On 24 July 2023, the spot price for HVO was £1.45 per litre, and a hedged price for the volume consumed in 2022/23 would be £1.50 per litre.
- 5.5** Based on the hedged price, the annual cost of the fuel typically consumed would be £450,017 based on £1.50 per litre. This represents a (currently worst case) price premium of £129,004 compared to the equivalent amount of diesel at £1.07 pence per litre.
- 5.6** In 2022/23 the price of diesel was exceptionally high relative to current pricing and as such the budget for non-RCV fuel was set at £152,580 for 2023/24. Based on current pricing and the switch to HVO fuel, the increased cost against the budget is therefore offset by the underlying assumptions and means the additional budget required will be an estimated £17,080.
- 5.7** To compare like for like, on a volume of 300,011 litres the cost for diesel at £1.07 per litre would be £321,012 whereas the cost for HVO at £1.45 per litre would be £435,016 or at £1.50 per litre would be £450,017. The percentage increase in cost would therefore be 36% at £1.45 or 40% at £1.50 per litre. The hedged price of £1.50 per litre is carrying a 3.3% risk premium to the spot price but it guarantees the price for 12 months.
- 5.8** Our waste contractor Veolia currently consume circa 62.3% of all bulk fuel volume (or 58.7% including fuel card purchases) to operate the refuse collection vehicles owned by the council.
- 5.9** If the council were to move to HVO fuel, a variation to the contract with Veolia would be required to determine the cost recovery formula for the fuel used by the refuse vehicle fleet. This could work by obtaining a spot price for white diesel from the council's appointed supplier at the point of ordering HVO and advising Veolia of this price, to determine the cost difference between white diesel and HVO for any fuel drawn between the

dates of the bulk fuel deliveries. The precise methodology will need to be agreed with Veolia.

- 5.10** All pricing quoted was current at the time of writing and is subject to change based on market conditions.
- 5.11** The 2023/24 Original Estimates includes a fuel budget of £455,540, with a net impact to the council of £152,850 owing to the reimbursement by Veolia for their fuel usage under the refuse collection contract. The budget was based on typical diesel usage and the prices being obtained in quarter three of 2022/23 when the forecasts were set. Based on current diesel prices, a saving against the net budget by continuing to purchase diesel could be achieved estimated at £31,560 and over a five year Medium Term Financial Plan (MTFP) period this would be £157,800. By contrast, an additional estimated cost against the 2023/24 Budget will be incurred by the council if it switches to HVO Fuel of £91,850 which over the MTFP period equates to an additional cost of £459,250, increasing the current budget gap from £3.7m to £3.8m. It should be noted that all fuel prices vary throughout the year and these are forecasts based on current pricing.
- 5.12** It is currently not viable to run a small number of the council's fleet (mainly plant and machinery) on HVO owing to where they are used, therefore the ongoing carbon footprint measurement will still account for some white diesel use.

6. Alternative options considered and rejected

- 6.1** The Council declared a climate emergency with a target to reduce emissions by 78% by 2035 with operation of the fleet accounting for circa 30% of current emissions. Therefore to do nothing to reduce this was rejected as an option.
- 6.2** Alternative fuel vehicles continue to be evaluated at the point of fleet replacement on a rolling programme and remains a consideration where feasible in terms of cost and vehicle efficiency. The transition to HVO delivers significant carbon savings immediately without the need to replace existing serviceable fleet.
- 6.3** A partial move to HVO was considered but owing to the reduction in carbon emissions that would be achieved and limited storage capacity for an additional fuel tank at the depot, this was discounted.

Financial, Legal and Climate Change implications	
Finance	The 2023/24 Original Estimated fuel budget of £152,850 (net of Veolia's contribution) will be insufficient to cover the increased cost of HVO fuel for its non-RCV fleet. An additional budget of £17,080 in a full year will need to be

	added. Veolia will still reimburse the council for their fuel consumption, but at diesel equivalent prices. This will mean a shortfall of approximately £75,770 for the switch to HVO fuel and an increased budget requirement overall of £91,580. The impact will increase the budget gap in the MTFP by this amount each year based on current assumptions (plus inflation) meaning that the gap in 2027/28 will be £3.8m based on current forecasts.
Legal	The Veolia contract would require a variation to agree the methodology to be used to reimburse the council for the cost of fuel if the council are going to subsidise the move to HVO fuel.
Climate Change	By switching to HVO, the council can significantly reduce its carbon footprint as HVO emits 90% less carbon at the tailpipe. In the 2022-23 financial year, the authority fleet accounted for 736.99 tCO ₂ e (27% of total emissions). A 90% reduction in emissions would reduce this figure to 73.70 tCO ₂ e (now only 4% of total emissions). This could therefore have an overall impact of reducing total council emissions by approximately 32%, well towards our net zero target. Figures will not be exact as a small number of vehicles and machinery cannot switch to HVO due to their proximity to the depot. The transition will also take place mid-year and therefore total impact will not be accurately measured until 2025.

Other risks/implications: checklist

If there are significant implications arising from this report on any issues marked with a ✓ below, the report author will have consulted with the appropriate specialist officers on those implications and addressed them in the body of the report. There are no significant implications arising directly from this report, for those issues marked with a x.

risks/implications	✓ / x
community safety	x
equality and diversity	x
health and safety	x

risks/implications	✓ / x
asset management	x
ICT	x
data protection	x

Processing Personal Data

In addition to considering data protection along with the other risks/ implications, the report author will need to decide if a 'privacy impact assessment (PIA)' is also required. If the decision(s) recommended in this report will result in the collection and processing of personal data for the first time (i.e. purchase of a new system, a new working arrangement with a third party) a PIA will need to have been completed and signed off by Data Protection Officer before the decision is taken in compliance with the Data Protection Act 2018.

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List of background papers:		
name of document	date	where available for inspection
None		

List of appendices

None