WEST OXFORDSHIRE DISTRICT COUNCIL	**WEST OXFORDSHIRE DISTRICT COUNCIL**
Name and Date of Committee	**EXECUTIVE – 9 OCTOBER 2024**
Subject	**WASTE FLEET PURCHASE**
Wards Affected	All
Accountable Member	Councillor Lidia Arciszewska – Executive Member for Environment Email: lidia.arciszewska@westoxon.gov.uk
Accountable Officer	Bill Oddy – Assistant Director, Commercial Development Email: bill.oddy@publicagroup.uk
Report Author	Simon Anthony – Business Manager, Environmental Services Email: simon.anthony@publicagroup.uk
Purpose	To seek approval to procure ten new waste fleet vehicles and the associated infrastructure for any electric vehicles.
Annexes	Annex A – eHGV Trial Results.
Recommendations	That the Executive resolves to: 1. Agree to the purchase of 3 fully electric supervisor vehicles; 2. Agree to the purchase 1 standard fuel ultra-narrow access vehicle; 3. Delegate authority to the Assistant Director for Commercial Development, in consultation with the Executive Members for Environment and Finance, and the Director of Finance, to purchase or lease up to 2 x full size HGV's and up to 4 food waste vehicles and necessary charging infrastructure up to an estimated cost of £2.8M, (including a procurement contingency and estimated cost of borrowing).
Corporate Priorities	• Putting Residents First • A Better Environment for People and Wildlife • Responding to the Climate and Ecological Emergency
Key Decision	YES – Budget expenditure of more than £150,000.

Exempt	NO
Consultees/ Consultation	• Cabinet Members for Climate, Environment, and Finance • Ubico Head of Fleet Operations • Waste Contract Manager • Climate Change and Nature Recovery Manager • Section 151 Officer • Chief Accountant • Finance Business Partner responsible for waste • Ubico Head of Operations

1. BACKGROUND

1.1 This report relates to the procurement of waste vehicles for use by Ubico to deliver the council's waste collection services. Waste vehicles have a finite life and need replacing approximately every seven years, some vehicles last longer than the seven years depending on their use and care throughout their lifetime. To continue provision of an efficient and effective high performing waste service a number of vehicles currently in use require replacement.

1.2 In February 2024 the Executive agreed to procure four standard fuel HGV's and hire a further two to ensure a degree of flexibility and allow for potential alternative fuel vehicles in the future. This report requests approval to purchase a further four vehicles as part of the vehicle replacement programme and delegated authority for the future procurement of up to a further six.

1.3 For the initial 3-5 years of a waste vehicles life, the cost of repairs and maintenance is comparatively low. As vehicles age, they require additional repairs and planned preventative maintenance, this increases the costs associated with operation of each vehicle. Older vehicles breakdown more frequently because of mechanical failure, this not only impacts on revenue budgets but also frontline service delivery performance with containers being missed and rounds not completed.

1.4 A modern waste vehicle replacement programme must account for three competing factors; operations, environment, and financial. Vehicles must be operationally robust to allow them to perform a demanding waste service to a high level with preferably minimal repair, breakdown and refuelling requirements. Carbon emissions from vehicles should be minimised to achieve carbon neutrality as a council by 2030. Vehicles should also be affordable, not only to purchase but also to operate.

1.5 The UK waste fleet industry is very much in a 'transition phase' moving away from fossil fuel to renewable energy. It is expected that green fuelled, affordable and reliable Heavy Goods Vehicles (HGVs) will become available on the market in the future. To this point Ubico trialled a fully electric 27tonne collection vehicle in May 2024, the results of which are discussed as part of the report and a summary document is attached as Annex A.

2. MAIN POINTS

2.1 The waste service has thirty-five frontline collection vehicles with most of these approaching the end of their life. This paper asks the Executive to consider the purchase of four vehicle and to delegate the purchase or lease of a further six vehicles. This will make the procurement of the vehicles smoother and will allow for better management of the Council's Capital Programme.

2.2 Without reliable replacements, the vehicles, and therefore the service, will become unstable and could result in service disruption and additional costs relating to repairs and maintenance. Waste is the only council provided service that most residents use each week, having an unreliable vehicle fleet will lead to reputational damage and could lead to significant impact on residents.

2.3 A Member/Officer Steering Group met on 17 July and determined that the following vehicles are due for renewal:

- 4 x Food Waste Vehicles 7.5te and retain one of the existing fleet as a spare;
- 1 x 7.5te vehicle with bin lift for ultra narrow access collections;
- 2 x 26te vehicles used across both refuse and garden waste collections;
- 3 x supervisor vans.

3. DELEGATED AUTHORITY OF 2 x 26 TONNE HGV's AND 4 x FOOD WASTE VEHICLES

3.1 A recent trial of a full size, 26-tonne, eHGV in May 2024 revealed that the technology has achieved a level where it can adequately perform standard frontline collections comparable with standard fuel vehicles. Performance of the eHGV included being deployed on WODC's most challenging collection day and completing the rounds with a 30% charge remaining. Collections were completed by the trial vehicle across the trial week and performed well on each collection day. A full review of trial can be found in Annex A.

3.2 However, eHGV waste collection vehicles are still in the first-generation stage and improvements around efficiency and reliability are expected to be met by future generations of eHGVs. It is expected that in early 2025 second generation eHGV's will become available. Given that The Council can be comfortable with the environmental and operational performance of these vehicles this paper recommends delegating authority to the Assistant Director Commercial Development, in consultation with the Executive Member for the Environment, the Executive Member for Finance, and the Director of Finance to purchase up to 2x HGV's to use on either garden or general waste collection rounds.

3.3 A full cost assessment will be completed at procurement as this is point at which actual capital costs will be known. The comprehensive cost assessment will include, but not limited to:

- The cost of borrowing to the council;
- vehicle capital costs;
- cost of infrastructure works for electric vehicle charging;
- potential energy costs throughout the life of the vehicle;
- repairs and maintenance costs throughout the life of the vehicle;
- any reasonable assumptions around vehicle life and the value of the vehicle at end of its life.

3.4 The comprehensive assessment will compare standard fuel vehicles with the eHGV prices and forecast full life costs to determine the most suitable option. Finance officers will be included in the financial assessment, which will then be taken to senior officers and members with delegated authority from this report.

3.5 The waste service currently has four food waste vehicles approaching the end of their life which need replacing. These are operationally reliable given the length of rounds and the weight collected. These vehicles have zero tailpipe emissions and are planned to be charged

using at The Council's depot in Witney. Ubico have confirmed that four fully electric food waste vehicles could be deployed onto the service from an operational perspective provided there is reliable and suitable infrastructure to charge the vehicles.

3.6 Should the Council decide to procure electric food waste vehicles, the vehicles would be the larger 12te version, rather than the standard 7.5te principally as a 7.5te version is not available as an electric. The larger electric food waste vehicles have additional capacity and can accommodate larger rounds without needing to tip off as frequently, this adds additional resilience to the waste service to accommodate housing growth and potentially increased rates of food waste recycling. As per 3.4 a full comprehensive financial assessment will be completed which will include all points set out in 3.4. The finance assessment will determine how many, electric vehicles should be procured, however as 4 replacement vehicles are needed this could mean a mix of electric and standard fuel vehicles.

4. PROCUREMENT OF SUPPORT VEHICLES AND ULTRA NARROW ACCESS VEHICLE

4.1 The waste service deploys several support vehicles to provide ancillary duties which allow for the smooth running of a frontline waste service, these duties typically include crew monitoring, property visits, and other discrete duties which are performed by supervisors in small vans. Three supervisor vehicles have already been carried over from 22/23 when they were due for replacement and their usable life has already been extended. Supervisor vehicles are used every day and shared among supervisors and management staff where appropriate. Supervisor vehicles completed between 200 and 300 miles per week and remain essential for the smooth running of the service.

4.2 Supervisor vans have many equivalents and are reasonably generic in their design, as such there are suitable equivalent electric alternatives which could be considered as part of vehicle replacement options.

Table 1. Supervisor Vans Estimated Costs

Vehicle Type	Purchase Cost	Cost of Borrowing	Fuel Full Life Costs	Whole Life Costs
Supervisor Van (Standard Fuel)	£35,000	£6,300	£26,000	£67,300
Supervisor Van (Electric)	£35,000	£6,300	£20,000	£61,300

4.3 The costs quoted above are also only forecasts and the actual capital cost of each vehicle will only be known at the time of procurement. Similarly, fuel costs are estimates and subject to variation linked to oil and electricity prices. Repairs and maintenance of each option have been discounted as part of the financial assessment as the difference is estimated as marginal due to the current arrangements of externally supplied contracted maintenance.

4.4 Electric supervisor vans can complete the mileage a supervisor covers during standard daily activities, therefore there would be no compromise in the productivity of supervisors who use an electric vehicle. Similarly electric vans have zero tailpipe emissions and are currently more affordable than standard fuel version over their life and making a small annual revenue saving.

4.5 The service also deploys an ultra-narrow access vehicle for collections in hard-to-reach locations, this vehicle is a 7.5tonne specialist vehicle. Having reliable ultra narrow waste collection vehicles is important for any waste collection service as these vehicles tend to be a single point of failure without ready access to spare replacement vehicles as is the case with other vehicles. Having reviewed alternative fuel options, and the distance this vehicle travels each day, Officers do not recommend an electric, or any other alternative fuel version of this vehicle at this point. The table below provides a breakdown of the costs of such a vehicle:

4.6 Table 2. Ultra-Narrow Vehicle Estimated Costs

Vehicle Type	Purchase Cost	Cost of Borrowing	Fuel Full Life Costs	Whole Life Costs
Ultra Narrow Access (standard fuel)	£113,000	£20,300	£42,000	£175,000

4.7 As reported above in 4.3 the costs quoted above are also forecasts and the actual capital cost of the vehicle will only be known at the time of procurement. Similarly, fuel costs are estimates and subject to variation linked to oil prices and other factors.

5. INFRASTRUCTURE REQUIREMENTS

5.1 Downs Road Depot, where most of The Council's waste services are operated from, currently has electric vehicle charge points for smaller electric vehicles already deployed to deliver the service. The depot requires additional vehicle recharging infrastructure to be added to accommodate the additional electric vehicles outlined in this report.

5.2 Exploratory work has already been completed and determined that there is enough capacity in the existing supply to increase the amount of electricity entering the depot. There will be a capital cost to install the additional infrastructure, so the vehicles have suitable and sufficient charge points to access. Installing charge points themselves has become standardised with a range of suppliers fully able to install charge points and complete and enabling ducting works for example.

5.3 It should be noted that supervisor vehicles can be charged at most public charge points, or charge points at the supervisors place of residents if they have them, should supervisors need to charge while away from the depot charge point.

5.4 The cost of installing additional charge points would be fully investigated as part of the comprehensive financial assessment completed as part of the proposed vehicle procurement work outlined in the report.

6. ALTERNATIVE OPTIONS

6.1 The Council has considered alternative fuel options, particularly electric versions of all vehicles due for replacement as part of this report, and where possible this report recommends electric versions which supports the Authority's commitment to net-zero by 2030. Given the sensitive and important nature of narrow access vehicles and the non-availability of spare vehicles it is of primary importance that these vehicles are reliable and in addition have adequate range, this discounts the potential for electric equivalents at this point in time.

6.2 The Council could retain existing vehicles and not replace for a further 12 months in anticipation that affordable and reliable electric alternatives arrive on the market. This option would risk frontline services as key vehicles would, and in some cases are becoming unreliable.

6.3 The Council, and its partner, Ubico, continue to review the market for opportunities to retrofit diesel engine vehicles with batteries which may become an option as local authorities progress towards 2030 and net-zero targets.

7. CONCLUSIONS

7.1 Following a rigorous assessment of the options for the replacement of waste vehicles, Officers believe the recommendations are sound and will be affordable and will ensure the authority to continue providing robust service in the future.

8. FINANCIAL IMPLICATIONS

8.1 These are covered in the main body of the report, or will be fully investigated as part of financial assessments.

8.2 The costs associated with the recommendations can be met by the existing budget for the waste fleet of £3.5M in the Councils 2024/25 Capital Programme.

8.3 There will be reduced repair and maintenance costs following the procurement of new vehicles and the replacement of the existing vehicles.

8.4 Some value is likely to be achieved following the sale of existing vehicles which will be returned to the council.

8.5 The table below provides a breakdown of recommended costs within the paper:

Table 3. Vehicle cost summary

Vehicle	Per vehicle Purchase and Borrowing Cost	Total Cost
7.5te Ultra Narrow Collection Standard Fuel Vehicle x 1	£133,300	£133,300

Supervisor Van Electric x 3	£41,300	£123,900
2 x full size HGV's and up to 4 food waste vehicles and necessary charging infrastructure		£2,832,000
	Total Cost	**£3,089,200**

8.6 The figures presented in Table 3 are forecast costs with the true capital cost only becoming known at the point of procurement.

9. LEGAL IMPLICATIONS

9.1 Procurement of the vehicles will be undertaken by Ubico on the Council's behalf following a standard procurement process.

9.2 Ubico will ensure the procurement of new vehicles will not breach their Operators Licence.

10. RISK ASSESSMENT

10.1 The risks identified with the recommended approach are outlined in the main body of the report. There is a good level of confidence in the performance and longevity of batteries used in the proposed electric vehicles, this is based on available evidence from local authorities that are already using these vehicles. However, as the vehicles are first generation and there is not 7 years of evidence of good battery life in equivalent vehicles it is important to record the risk that batteries may not last the full 7 years.

11. EQUALITIES IMPACT

11.1 Not Applicable

12. CLIMATE AND ECOLOGICAL EMERGENCIES IMPLICATIONS

12.1 This is covered in the main body of the report.

13. BACKGROUND PAPERS

None.

(END)