

# TEWKESBURY BOROUGH COUNCIL

<b>Report to:</b>	Executive Committee
<b>Date of Meeting:</b>	1 March 2023
<b>Subject:</b>	Ubico Fleet Replacement
<b>Report of:</b>	Waste Contracts Manager
<b>Head of Service/Director:</b>	Head of Community Services
<b>Lead Member:</b>	Lead Member for Clean and Green Environment
<b>Number of Appendices:</b>	Two

## Executive Summary:

The replacement of waste collection and street cleansing fleet is scheduled for April 2024. We are in a time of legislative change within waste management in addition to the need to contribute to carbon reduction goals.

This procurement strategy looks to set the scene for what is happening in the waste industry currently, discuss the approach being taken for this fleet procurement and describe the measures being taken to prevent issues which were previously experienced.

This report considers the options available to the Council taking into account budgetary constraints, to present the most appropriate way forward for the fleet replacement. The report sets out five options for the fleet replacement. It is proposed that a hybrid of these options be progressed.

## Recommendations:

### That the Committee:

- 1. ENDORSE the procurement approach outlined in this report; and**
- 2. DELEGATE authority to the Head of Community Services, in consultation with the Head of Finance and Asset Management, the Director: One Legal and the Lead Member for Clean and Green Environment, to proceed with the procurement for fleet replacement as outlined within the report.**

## Financial Implications:

Planned contributions to revenue reserves until 2025/26 are sufficient to meet the estimated expenditure profile within the capital strategy as set out below.

<b>2022/23</b>	<b>2023/24</b>	<b>2024/25</b>	<b>2025/26</b>	
<b>Forecast</b>	<b>Forecast</b>	<b>Forecast</b>	<b>Forecast</b>	<b>Total</b>
164,000	498,000	2,895,000	1,344,000	4,901,000

This profile now includes the additional vehicles to support new round capacity as proposed in the 2023/24 budget.

Any cost incurred over the reserve balance is likely to require external borrowing which is currently available at around 4.4%. This form of funding will also require MRP contributions over the life of the vehicle asset, making this a potential expensive route of funding.

A sum of £33k has been set aside to meet the external consultancy support outlined in the report.

The recommendation within this report highlights a number of options for procurement, in addition to the like-for-like replacement, which will have an impact on the revenue budget of the Council. The options have potential for additional cost (driver, training, HVO fuel etc.) but also potential for savings (electric powered vehicles, efficient driving etc). The net impact of these options will need to be assessed as the procurement proceeds and any net growth in costs will need to be added to the base budget of the Council. Conversely, net savings will be deducted from the budget.

The financial impact of any change to government policy affecting waste and recycling will be subject to future reports.

**Legal Implications:**

As the Council will own the vehicles, Ubico will be required to follow the Council's Contract Procedure Rules, including the Public Contract Regulations 2015 for the procurement scheduled for April 2023. Support of the Council's procurement adviser will be required.

**Environmental and Sustainability Implications:**

Whilst it is noted that the Council has declared a climate emergency and has committed to becoming carbon neutral, a move to full electric vehicles is not practical at this point in time. The proposed approach, however, will reduce carbon emissions compared to the current fleet, by using Hydrotreated vegetable oil in the latest Euro 6 engine collection vehicles, where appropriate. Electric bin lifts and the consideration of some 3.5 tonne electric vehicles will further reduce carbon emissions.

**Resource Implications (including impact on equalities):**

None - Equalities impact assessment not required.

**Safeguarding Implications:**

None.

**Impact on the Customer:**

None.

**1.0 INTRODUCTION**

**1.1** Following the previous fleet procurement in 2017, a replacement of waste collection and street cleansing fleet is scheduled for April 2024.

**1.2** This comes at a time of change in the waste industry, particularly relating to national waste policy which looks to move packaging responsibility to its producers and provide consistency within local authority collections.

**1.3** A move towards lower emission vehicles and Tewkesbury Borough Council's carbon reduction 2030 carbon reduction targets creates the need for an assessment of the lower emission options available for the waste fleet and the feasibility of moving to those options.

**1.4** The 2017 waste fleet procurement led to concerns being raised around the suitability of some of the vehicle types and number procured. There were also concerns regarding the level of expertise available at the procurement stage and whether this led to gaps in the approach.

**1.5** This procurement strategy looks to set the scene for what is happening in the waste industry currently, discuss the approach being taken for this fleet procurement and describe the measures being taken to prevent issues which were previously experienced.

## **2.0 PROCUREMENT APPROACH**

### **2.1 Legislative Background**

**2.1.1** As proposed in the Resource and Waste Strategy for England (2018), the UK government is currently looking to introduce legislation in three areas which will impact local authority waste collections. Consultations have taken place and detailed feedback is expected before the end of 2023. The three areas are Extended Producer Responsibility (EPR), Deposit Return Scheme (DRS) and Consistency of Collections.

**2.1.2** EPR looks to move all life cycle costs for handling and reprocessing packaging to the producer of the packaging. This includes producers contributing to a fund to pay local authorities and others for the cost of collecting packaging.

**2.1.3** The DRS will be an additional charge levied on individual drinks cans and bottles to be refunded to the consumer when those containers are returned. The impact from a local authority perspective is the unknown scale of the impact on key materials being collected from households.

**2.1.4** Consistency of collections has proposed several mandatory changes such as separate food waste collections for all households, source segregated recycling and free garden waste collections for all households.

**2.1.5** The official position is still that these large-scale changes will be mandatory, being funded where necessary from national 'new burdens' funding and will need to be in place for 2024. However, timescales are likely to slip back as the detailed consultation responses for DRS and consistency have not yet been published by DEFRA.

**2.1.6** Due to changes in government and a move towards cost saving, it is not clear if the anticipated level of funding will still be available for new burdens or if elements of the proposals will be watered down. For example, we have already seen business waste pushed back from the main EPR timeline and glass removed from the scope of the DRS.

**2.1.7** A continued drive to reduce costs could see an initial focus on fewer of the original goals, with separate food waste collections often mentioned within the industry as the top priority. If Tewkesbury already have in place the key areas of focus, it could mean less pressure to change.

**2.1.8** There is already a requirement to separately collect paper/card, glass, plastics and metals unless a TEEP assessment shows that it is not Technically, Environmentally or Economically practical to do so. The TEEP test for the new regulations is expected to be a lot more stringent than previously, however the detail has not yet been set out.

- 2.1.9** Due to the delay on the detailed consultation feedback on the DRS and consistency of collections and the arrangements for EPR still being determined, the direction for TBCs waste collection is not yet clear. The biggest risk is a mandatory change of service to a source separated collection. However, if imposed, this may require a twin stream system such as keeping paper and card separate from the remaining recycling rather than full separation.
- 2.1.10** The approach being taken within the fleet procurement is to delay the purchase of recycling vehicles for a further year to 2025/26. This will allow additional time to determine the scale of change required and whether any mitigating circumstances apply. This will reduce the risk of committing to purchasing vehicles which cannot be used on an amended service with the hope of some clarity from DEFRA in the next 12 months or so.
- 2.1.11** This approach will also address a potential issue of indirect pressure being applied to change the recycling service. This relates to the funding provided to local authorities from producers through the EPR. A tailored improvement programme will be developed with each authority with deductions if targets are not achieved. There will be no deductions for the first two years, but a delayed approach to purchasing recycling vehicles will allow an informed decision to be made based on the scale of deductions, the cost of change and feasibility.

## **2.2 Procurement Approach**

- 2.2.1** The main procurement exercise will be led by Ubico's fleet team overseen by the Head of Fleet Operations. While the general approach to procurement can be led by the Council, the detailed expertise on vehicle specifications will come from the knowledge and experience held in Ubico's fleet and operations teams.
- 2.2.2** To ensure objective confirmation of technical detail such as vehicle specifications and to 'sense check' the overall approach and costings, consultancy support has been procured from waste specialists within the Association for Public Service Excellence (APSE).
- 2.2.3** Within APSE, the Head of APSE Solutions will be leading on the consultancy work. This officer has collaborated with the Council several times previously and has a particularly good understanding of Ubico as an organisation and the governance, financial and operational interactions between Tewkesbury Borough Council and Ubico. As such, he is particularly well placed to advise on the current fleet procurement and function as a critical friend on behalf of the Council. APSE have been procured for this work and the cost of this is being met from existing reserves already allocated to waste projects.
- 2.2.4** This cautious procurement approach stems from an understanding of the high monetary value of the procurement, the need to avoid poor allocation of resources and the need to avoid potential reputational damage of procurement errors.
- 2.2.5** When the current fleet was procured in 2017, issues arose due to the specification of some vehicles not being the most efficient to deliver the services. For example, the street cleansing caged vehicles have a relatively low payload, which increases the number of tipping trips, reducing the time spent delivering the service. The increased level of expertise and external challenge built into this procurement aims to maximise efficiency of the fleet and ensure vehicle specifications are fit for purpose.

## **2.3 Options Appraisal**

**2.3.1** An options appraisal has been produced by Ubico (attached at Appendix 1), considering the options for the decarbonisation of the waste fleet. The appraisal sets out five options based on the carbon impact, cost and feasibility of the technology.

Option 1 – a like for like replacement of all fleet.

Option 2 – Switching to electric bin lifts on Refuse collection vehicles (RCVs), but otherwise a like for like replacement.

Option 3 – a like for like fleet replacement on all vehicles but moving to Hydrotreated Vegetable Oil (HVO) for fuelling all vehicles. HVO can be used as a diesel replacement without any modification needed to vehicles. This means a significant reduction in carbon emissions, though the ongoing fuel cost is around 20% higher than standard diesel. Driving training and monitoring would also be introduced to reduce fuel usage.

Option 4 – electrification of vehicles of 3.5 tonnes and below, with use of HVO for all remaining fleet. This option would also include driver training to reduce fuel use.

Option 5 – fully electric fleet.

**2.3.2** Ubico are recommending option 4 as the preferred option based on the practicality of Tewkesbury's operations and restrictions of our current depot. However, the reality may mean that the preferred option is a mixture of options one to four.

**2.3.3** While electric RCVs are becoming increasingly common, the majority of authorities using them at scale are in urban areas, which tend to require lower daily mileage on relatively flat terrain. Less information is available to demonstrate successful use in areas similar to Tewkesbury Borough, given its large geographical area and a number of steep hills.

**2.3.4** Any electric vehicle needs to be able to do a full day's work on a single charge, before charging overnight. In 2021, Ubico trialled an electric 3.5 tonne cage vehicle in the streets service, where the only issue experienced was that it lasted for around 5 hours before charging was required. With electric vehicles improving all the time, models are now available with twice the power of the test vehicle. This supports the use of electric 3.5 tonne vehicles in Tewkesbury but flags up a concern around whether electric RCVs would be suitable at this point.

**2.3.5** A fully electric fleet would likely need contingency built in such as a high number of reserve diesel vehicles to ensure a robust service, which would increase capital and maintenance costs.

**2.3.6** Tewkesbury share Cheltenham Borough Council's Swindon road depot. For several years, the intention has been to leave the Swindon road depot and build a new purpose-built depot for both operations. This work is now progressing and the Swindon road depot is therefore in a phase of being suitably and safely maintained with this in mind.

**2.3.7** Electric vehicles require charging infrastructure. Cheltenham Borough Council have confirmed that enough power enters the site for the charging of additional 3.5 tonne vehicles, though additional charging points would likely need to be installed. RCV charging would require a higher flow of electricity into the depot from the national grid than is currently available, plus the installation of charging points for each vehicle so they can be charged simultaneously overnight. This would be a large-scale, long-term investment into the depot, contrary to the current approach of funding minimal, temporary improvements on site.

**2.3.8** The capital cost of the Option 5 fully electric fleet is c.£9m compared to the Option 4 cost of c.£4.2m, which is a significant additional expenditure above currently allocated budget. Although it is now considered that for smaller vehicles (under 3.5 tonnes) over the lifespan of the vehicle, which can be up to 10 years due to having fewer moving parts etc, this could be cost neutral or even deliver a small saving on their diesel alternative. Due to the volatile nature of the electricity market at the moment this is difficult to predict with any certainty.

**2.3.9** With regard to disposal of the current full fleet a valuation figure for this is awaited and a further option to retain one or two if the existing fleet is being considered in order to reduce reliance on hired fleet at times of breakdown, service etc. It is thought that this retained fleet could also be used across contracts in order to generate income for the service from other contracts.

## **2.4 Conclusions**

**2.4.1** Option 5 is unaffordable for the council at the moment and the technology is as yet not available to run TBCs fleet fully with EVs. The estimated cost for each vehicle along with a cost for an equivalent electric vehicle are set out in Appendix 2.

**2.4.2** Option 1 is the most affordable, but this option does not significantly reduce carbon output in any way other than the Euro 6 engines being more efficient than the current Euro 4 engines.

**2.4.3** The options to introduce electric bin lifts and introduce additional driver training (options 2 & 3) make sense as these will reduce fuel usage and therefore carbon output, this will however, depend on cost. The cost of introducing electric bin lifts will not be known until the tender stage has been concluded and will be included as an option in the tendering process. (A piece of work is currently underway to ascertain the viability of electric bins lifts, seeking feedback from Council's that are currently using them with regard to reliability).

**2.4.4** With regard to option 4 introducing HVO will reduce carbon output but will increase cost. It may be possible to introduce a hybrid approach to this option as HVO and diesel are interchangeable with no negative effect on the engines, where the manufacture has approved this. It should be noted that the HVO option will reduce carbon emissions, it is a transitioning step to carbon neutrality - while the low carbon vehicle technology advances and the cost hopefully reduces over the next few years, to make it more affordable and fit for purpose. Purchasing smaller electric vehicles can be considered once the full cost of the overall fleet procurement is known i.e. we may be able to afford a small number of smaller electric vehicles within the allocated budget envelope.

**2.4.5** Whilst not part of the options appraisal paper, it seems prudent due to the issues set out in paragraphs 2.9 & 2.10 to delay procurement of recycling vehicles for a further year when it may become clear whether we will be required to change the way we collect recyclable materials in future. In order to minimise the risk of increased cost of maintenance it is proposed to retain six of the 26 tonne vehicles with the lowest mileage and best track record for reliability.

**2.4.6** The estimated cost of like for like replacement without the additional options / modifications is as follows:

2024-25 - £2,895m.

2025-26 - £1,344m.

**2.4.7** A small amount of the overall cost of replacement will be offset by the sale of the current fleet. Prices at auction vary but a general indication is the sale price for a second hand 26 tonne RCV is approximately £7,500.

## **2.5 Timescales**

**2.5.1** It is proposed to finalise the procurement documentation with a view to proceeding to tender in April 2023 with a view to moving the fleet forward to a full replacement early in the 2024/5 financial year.

## **2.6 Recommendation**

**2.6.1** Proceed with the procurement on a like for like (with the inclusion of Euro 6 engines) fleet replacement with the options (depending on cost) to include the following elements:

- the introduction of electric bin lifts (dependant on feedback).
- the introduction of driver training etc.
- the use of HVO in some vehicles where appropriate.
- the purchase of small electric vehicles where the budget allows.

## **3.0 CONSULTATION**

**3.1** The Lead Member for Clean and Green Environment, the Depot Services Working Group and the Flood Risk Management and Climate Change Working Group have all been consulted on the approach.

## **4.0 ASSOCIATED RISKS**

**4.1** There is a risk that due to the volatility of the market prices for vehicles may have increased to the point that we cannot purchase all of the vehicles required to deliver the services. This will be mitigated to some extent by staggering the replacement of the RCVs over two years as outlined in 2.4.5 above. However if prices have increased significantly the current budget may not be sufficient to cover the replacement and in the event of this happening a further report would be brought back to this Committee to seek further funds.

**4.2** There may be a risk that the market cannot produce the vehicles within the required timescales, this will also be mitigated to some extent by staggering the vehicle procurement. However if there is a significant shortfall in suitable vehicles on the market then Ubico would need to retain more of the current fleet in order to protect service delivery. This in itself carries an increased risk of breakdown and increased cost of maintenance and vehicle hire.

## **5.0 MONITORING**

**5.1** Assessed through regular Partnership board meetings with Ubico.

## **6.0 RELEVANT COUNCIL PLAN PRIORITIES/COUNCIL POLICIES/STRATEGIES**

**6.1** In 2019, Tewkesbury Borough Council declared a Climate Change Emergency and has committed to becoming Carbon neutral by 2030.

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**Background Papers:** None

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**Appendices:** 1 - Ubico Fleet Carbon Reduction Options Appraisal.

2 – Tewkesbury Fleet Replacement Expected Costs.