

REPORT TITLE: PROCUREMENT OF WASTE & RECYCLING COLLECTION VEHICLES

19 JUNE 2024

REPORT OF CABINET MEMBER: Cllr Kelsie Learney, Cabinet Member for Climate Change

Contact Officer: Campbell Williams Tel No: 07591 814617

Email: cawilliams@winchester.gov.uk

WARD(S): ALL

PURPOSE

The council is on a journey to increase recycling rates in the district, and this report brings forward the next stage. Specifically, the introduction of kerbside food waste recycling and the need to procure vehicles to enable this by the 31st March 2026. This will build upon the council recent success of increasing recycling rates since 2019, including the introduction of kerbside glass collections, improved garden waste service, and the weekly kerbside collection of batteries and small electrical items.

Cabinet agreed in report CAB3439 that it would seek to introduce a separate food waste collection service by 31st March 2026 through the council's current contractor Biffa. This is a requirement of the Environment Act and supports the Council's commitment to the priority of going greener faster. Introducing a food waste service could reduce the district's carbon emissions by 1,900 tCO₂e per year.

This report sets out the basis and rationale for the procurement of nine 12 tonne specialist Hydro-treated Vegetable Oil fuelled food waste vehicles, utilising the New Burdens capital funding provided through DEFRA.

The report further sets out the rationale for the procurement of one electric RCV and necessary works at the Depot to support the charging of this vehicle.

RECOMMENDATIONS - That Cabinet:

1. Agree to procure, through Biffa, nine 12 tonne food waste vehicles, to operate on Hydro-treated Vegetable Oil, at an estimated cost of up to £1.34m to be funded by the New Burdens capital grant.
2. Agree to provide through the contract with Biffa an electric refuse collection vehicle for the new route to be introduced in Autumn 2024.
3. Agree that the annual revenue cost of £36k to cover the cost of the electric Refuse Collection Vehicle, be funded by an existing waste budget.
4. Agree, subject to the introduction of an electric Refuse Collection Vehicle to the waste fleet, to the use of up to £30k from this project's approved capital allocation to fund infrastructure requirements at the Council's depot to enable charging of the electric Refuse Collection Vehicle.

IMPLICATIONS:

1 COUNCIL PLAN OUTCOME

1.1 Tackling the Climate Emergency and Creating a Greener District

1.2 Waste management and recycling is a key part of tackling the climate emergency and creating a greener district. Winchester City Council has ambitions to significantly increase its recycling, reduce waste and improve its carbon performance, which will support the ambitions in the Council Plan of becoming greener faster.

1.3 The Environment Act 2021 requires a minimum range of materials to be recycled, including food waste. As the provisions of the Act come into force, this will increase the range of materials that can be recycled in Winchester and will enable residents and businesses to reduce the amount of waste each household produces, which in turn will be better for the environment.

1.4 Increased recycling will reduce the amount of waste sent to landfill or incineration, thereby reducing carbon emissions. Stopping waste from decomposing in a landfill, can reduce harmful gases, such as methane from food waste, being created and released into the atmosphere. Methane is a potent greenhouse gas and this action to reduce its production will benefit the environment. Likewise, reuse of recycled materials will reduce the need for carbon intensive raw material extraction and conserve limited resources.

1.5 Hydrotreated Vegetable Oil (HVO) as a replacement for diesel fuel in the waste and recycling fleet has been introduced from May 2024. This is an interim solution while other net zero solutions are explored. From verified sustainable sources, HVO offers up to 94% reduction in carbon emissions and up to 50% reduction in particulates. It contributes to the circular economy and avoids extraction and combustion of fossil fuels. Operating all 17 existing frontline waste and recycling vehicles in this way will result in a reduction of 683 tCO_{2e} per year, reducing the council's current carbon footprint by an estimated 20%.

1.6 Removing the food waste currently mixed in with resident's residual waste, and recycling it, could save the district circa 1,900 tonnes of CO_{2e} per year. A full fleet operated on HVO to collect the food waste will emit only 3 tonnes of CO_{2e} per year by comparison. The importance of this is that whilst the council is on a journey to eliminate carbon from its operations as much as possible, this needs to be balanced against the overall benefit of introducing the service as soon as practicable.

1.7 Vibrant Local Economy

1.8 Government initiatives, Extended Producer Responsibility (EPR) and Deposit Return Scheme (DRS) will introduce changes to businesses that have to be implemented in a limited window of time. There is little information available to businesses at this time, but the council will offer support and information as it

is available. Businesses are likely to need support and education to help achieve compliance.

1.9 Living Well

1.10 The Waste and Resources Action Programme (WRAP) have reported that in 2021/22, households in the UK threw away 4.7 million tonnes of edible food valued at £17 Billion, equivalent to 12% of the food we purchase. A UK household wastes on average the equivalent of eight meals a weekⁱ.

1.11 Introducing a collection of food waste separate to residual (black bin) waste, will allow our residents to quantify the amount of food waste they produce. It will raise awareness of the benefits of buying less (saving money) and using more, contributing to an overall reduction in waste, a reduction in residual black bin refuse and an increase in recycling rates.

1.12 Your Services, Your Voice

1.13 The views of residents are important as, alongside the council's own ambitions of improving recycling for residents and reducing waste, the Council must put in place a new waste and recycling service to meet changes in national legislation and changes in disposal arrangements by Hampshire County Council. A public consultation survey was undertaken in autumn 2023 to seek resident views on recycling to help inform the new waste strategy. This was previously reported to Cabinet in February 2024 (CAB3439 refers).

1.14 Whilst the consultation survey in autumn 2023 addressed the 'what', further consultation and engagement is planned in order to understand the 'how'. Potential questions could include, for example, the types of bins used for food waste. This will inform possible solutions so that implementation can be achieved successfully.

2 FINANCIAL IMPLICATIONS

2.1 It has been confirmed by DEFRA that capital funding will be provided for investments after 31 March 2023 and for running costs from 1 April 2026 onwards under the New Burdens doctrine. Extract from a letter from DEFRA to the Chief Executive received on 9 January 2024 states:

"I would like to set out when you should expect all sources of funding in relation to Simpler Recycling. It is our intention that:

- Capital transitional costs, as above (*intended for the purchase of food bins (this includes internal kitchen caddies, external kerbside caddies and communal bins) and food waste collection vehicles*), will be funded in the 2023/24 financial year.
- Resource transitional funding will be provided from the 2024/25 financial year.

- Ongoing resource/revenue costs will be provided from 1 April 2026 and will be provided to all waste collection authorities, including those that have already fully implemented a food waste collection service.
 - We are currently calculating transitional and ongoing resource costs and will be writing to you on these in due course.”
- 2.2 The Council is awaiting further details of transitional funding from the Government, particularly in relation to the introduction of a food waste collection service by 1st April 2026.
- 2.3 DEFRA has allocated capital funding of £1.38m to Winchester City Council, for the purchase of assets required to deliver the new food waste collection service. However, this allocation is short of the actual vehicle and receptacle costs required and as such an additional £0.4m budget, funded by prudential borrowing, has been presented in the capital programme in 2025/26.
- 2.4 The total capital budget for this project is, therefore, DEFRA grant funding of £1.38m plus the £0.4m, totalling £1.78m.
- 2.5 The council has appealed the Government’s capital funding allocation for the district but has been unsuccessful in its appeal and DEFRA have confirmed that no additional capital allocation will be provided. The sum provided by DEFRA is due to an assumption that all authorities will use less expensive, 7.5t trucks, whereas due to the size of Winchester, the location of the transfer stations, and the anticipated participation rates it is impractical to use 7.5t trucks. This would require the service to make multiple trips to transfer stations and increase both the costs and carbon impact of running the service due to higher mileage. For these reasons, Winchester will need to invest in 12t trucks, which come at a higher cost. This does not affect the decisions being sought in this report.

Table 2.5

Capital Assets required	Funds Allocated by DEFRA	Estimated cost plus contingency
Kitchen caddies (plus spares)	£136,641	£86,730
Kerbside caddies (plus spares)	£264,935	£221,760
Communal wheeled bins (plus spares)	£59,758	£85,313
Vehicles (Plus spares)	£920,700	£1,336,500
Infrastructure to support 1 EV		£30,000
Total	£1,382,034	£1,760,303
Total cost		£1,760,303
Deficit of DEFRA funding		-£378,269
Remaining Capital budget		£21,732

- 2.6 The financial costs and benefits of various procurement methods has been modelled and the resulting recommendation is for the council to procure the vehicles outright, through Biffa, and then lease them back to Biffa to use for the operation of our contract. The electric refuse collection vehicle will be procured by Biffa as part of the existing contract. The council will work closely with Biffa to benefit from the economies of scale they will obtain from placing large order of vehicles for multiple councils. The estimated cost for the fleet of nine vehicles is up to £1.34m. Further capital costs for the remaining assets such as caddies, bins and EV charging infrastructure will be funded by the remainder of the DEFRA allocation and from prudential borrowing, up to the agreed limit of £1.78m as set out in the capital programme. Expected capital costs are set out in Table 2.5 above and in Appendix A.
- 2.7 Details of how the food waste service will be implemented are yet to be developed but it is anticipated, based on current available modelling, that it will cost around £1.4m per annum additional revenue cost (including capital financing costs and additional space costs) to the council to run this service. The cost of the food waste service and associated contractual arrangements will be reported to cabinet in Autumn 2024 once further detail is established.
- 2.8 This report is seeking to place an order for vehicles at this early stage to give the council the best chance of securing the required vehicles in what is likely to be a very busy, supply limited market.
- 2.9 A proportion of this ongoing increased operational cost is expected to be covered by the 'New Burdens' Funding. It is estimated that 80% of reasonable costs will be covered. No indicative funding figures have yet been provided by Government for these costs.
- 2.10 [Extended Producer Responsibility](#) (EPR) payments for packaging will be provided to local authorities, where packaging producers are made responsible for the costs of collecting and managing packaging waste through efficient and effective services. Initial estimates are that local authorities in England will collectively receive payments totalling in the region of £900 million per annum for managing household packaging waste. Details of funding have not yet been released.
- 2.11 Additional space will be required for the storage of the vehicles. Whilst the council has assets in the vicinity that could be deployed to support this additional space requirement, subject to assessment and agreement, the space will then not be able to be let externally and its use would therefore reduce potential letting income to the council.
- 2.12 Biffa have confirmed that the additional costs of a pilot electric RCV will be £36k per annum, with no annual uplifts, either to the end of the current contract in 2029 or for the full life of the vehicle. These additional revenue costs can be funded from existing revenue environment budgets. There are

also forecast capital infrastructure costs to accommodate the electric vehicle of £30k.

3 LEGAL AND PROCUREMENT IMPLICATIONS

- 3.1 The Environment Act 2021 requires a minimum set of materials to be collected separately from households for recycling. The core recyclables include glass bottles and containers, paper and card, metals, plastic bottles, plastic pots, tubs and trays and food and drink cartons. Plastic film will be introduced in 2027. It also requires a separate food waste collection from households with a minimum collection frequency of weekly.
- 3.2 All households and property types, including communal properties, and flats above shops will need to have access to the food waste service and be able to present the core recyclable materials for collection. The project will need to consider the best way to deliver these new services to everyone.
- 3.3 Details were confirmed in the 'Simpler Recycling' announcement of 21 October 2023 and the Government expressed an intention to introduce an exemption to enable the co-collection of dry mixed recyclables (Co-mingled), which has been confirmed in a DEFRA statement in May 2024.
- 3.4 Changes to the existing collection service proposed in this report can be accommodated via contract variations to the existing waste collection contract with Biffa Waste Services Limited. External legal advice has been sought, which confirms that variations to introduce a separate food waste collection and additional recycling materials may be made under the terms of the existing contract and are compliant with the requirements of the Public Contracts Regulations 2015.
- 3.5 All procurement activities undertaken by the council will be conducted in accordance with the Public Contract Regulations 2015 (PCR 2015), the new Procurement Act if applicable (due to come into force October 2024) and the Council's Contract Procedure rules as relevant. Further legal support will be sought prior to any contract variations being agreed.
- 3.6 The capital grant provided by the government under the Food Waste Capital Grant Determination 31/7069 requires that funding "may be used only for the purposes that a capital receipt may be used for in accordance with regulations made under section 11 of the Local Government Act 2003". As such, the ownership and payment structure associated with the purchase of the vehicles is to be consistent with such purposes.

4 WORKFORCE IMPLICATIONS

- 4.1 A core project management team has been established to maintain the project within the bounds of the agreed time, scope, and budget. Financial resources have been allocated to the project and recruitment of an additional communications officer is underway. Further resource, such as Recycling Officers to support the education campaign, will be identified with detailed costs submitted to the appropriate decision-making bodies as required.
- 4.2 A continued commitment of time and effort will be required to run an effective service post-implementation and maintain a high standard of communications with residents to get the best recycling rates possible. Changes to the recycling collection service have been modelled. Outcomes suggest that the proposed solution will require additional operational staff to run the service and administrative staff to implement the changes. The operational staff will be employed by the Council's collection service contractor Biffa.

5 PROPERTY AND ASSET IMPLICATIONS

- 5.1 The collection service operates out of the Barfield Close Depot together with ID Verde for the grounds' maintenance service. The depot is currently at capacity and the mandatory requirement for a food waste collection means that additional vehicles are needed.
- 5.2 New/increased depot space will need to be made available. Facilities owned by the council in the vicinity of the current depot offer an opportunity to meet this requirement and are currently being investigated with a view to developing them. Early indications suggest that the cost of additional depot space may be included in the New Burdens funding, however, the amount is still unknown. Any new site will require a lease with the waste contractor, Biffa.

6 CONSULTATION AND COMMUNICATION

- 6.1 A presentation covering the key elements of this report was presented at Scrutiny Committee on 6th June 2024. The minutes from the scrutiny meeting are shown in Appendix B.
- 6.2 Issues raised at this meeting have been considered, including ensuring that the business case which is included in full at Appendix A includes the detail on how the recommendation on the vehicle type for the new food waste service was reached.
- 6.3 Innovations mentioned at the Scrutiny meeting such as adding solar panels to the trucks, or the use of hydrogen as part of a fuel mix to increase miles per gallon have been considered and discussed with our service provider, Biffa. Following due consideration of several factors, including the urgency to procure the vehicles to meet the governments deadline for service implementation, it is recommended to keep the procurement as simple as

possible, therefore this is not to be pursued. However, it is noted that vehicles have a finite lifespan, and alternatives can be considered when the fleet needs to be replaced. This will allow the sustainable vehicle market time to mature while enabling a reliable service that delivers significant carbon and environmental benefits to commence in the interim.

- 6.4 A public consultation was undertaken in autumn 2023 to seek views from residents on their recycling habits and preferences; further details on this can be found above in 'your service: your voice' and were reported to Cabinet in February 2024 (CAB3439 refers).
- 6.5 Additional consultation about the operational details of a food waste collection service will be held in the autumn 2024 to consider aspects such as the types and sizes of bins with a view to ensuring a service is available to everyone, including those on assisted collections and living in more difficult to access properties such as flats and communal households.
- 6.6 A comprehensive campaign plan will be developed to support the introduction of the new food waste service. This will include education on how to participate and top tips on how to develop and maintain good recycling habits. Importantly, the council aims to develop strategies to help residents to produce less waste by buying less and using more, which could result in households saving money, improving recycling rates and reducing residual waste. It will be important to maintain this educational and encouragement work based on the reduce, recycle, and reuse philosophy, which will require additional staff resources. This will be considered in a future cabinet paper in the autumn.
- 6.7 A Member's briefing will be held in the Autumn to update Members on the wider changes to waste management before a further report is submitted to Cabinet later in 2024.

7 ENVIRONMENTAL CONSIDERATIONS

- 7.1 Winchester City Council has an opportunity to improve its waste and recycling collections and performance and, by doing so, to reduce its impact on climate change. Any changes will consider current viable environmental benefits and impacts as part of the process.
- 7.2 There is a national requirement to increase the range of dry recycling materials collected from households and to collect food waste separately. This change will benefit the environment by reducing the quantity of waste sent to landfill and Energy from Waste.
- 7.3 The council is using Hydrotreated Vegetable Oil (HVO) in its general collection fleet as this is a low carbon fuel, as an interim solution while full electrification is considered. From verified sustainable sources, HVO offers up to 94% reduction in carbon emissions and up to 50% reduction in particulates. It contributes to the circular economy and avoids extraction and combustion of fossil fuels. Operating all frontline waste, recycling, and food

waste vehicles in this way would result in a reduction of 905 tonnes of CO₂e per year. Removing food waste from the residual waste stream and recycling it saves an estimated additional 1,900 tonnes CO₂e per year.

- 7.4 Care and attention has been given to ensuring that the supply of HVO has a fully validated and auditable supply chain – manufactured only from primary waste sources and not causing deforestation and environmental damage. The council has declared a nature emergency and highlighted the need to protect natural environments, and the biodiversity of both plants and animals from the negative impacts of human activity. To further support this aim, only HVO suppliers who meet the requirements of the International Sustainability and Carbon Certification (ISCC) and the Zemo Partnership Renewable Fuels Assurance Scheme (RFAS) have been used.
- 7.5 To prepare for the changes to recycling collections, including food waste, and to rebalance routes following the growth of new housing in the district, our service provider, Biffa, has undertaken a re-routing exercise. The proposed re-route would result in a reduction in distances travelled equalling 35,000 miles per year, with new routes optimised for efficiency and the reduced mileage providing an additional carbon saving of circa 13%. To service the re-route, an additional round with one additional vehicle will be required. There is potential to introduce a fully electric recycling collection vehicle to the fleet, rather than one operated on HVO. This would be a fully operational vehicle which explores the practicalities of operating an electric vehicle across Winchester, as a stepping stone to further electrification. This will be subject to costs and infrastructure requirements. These are set out in section 13 below.
- 7.6 The council has worked with the Association of Public Service Excellence (APSE) to understand the electrical supply capacity at the Depot, and the work required to enable electric vehicles to be accommodated. This is set out in section 13.8 – 13.13 below.

8 PUBLIC SECTOR EQUALITY DUTY

- 8.1 An Equality Impact Assessment was completed for the project in July 2023 covering the consultation and engagement required for any changes to the waste and recycling service (CAB3409 refers). A further Equality Impact Assessment will be developed for the delivery strategy and submitted to a future cabinet once the details of the service have been determined.
- 8.2 An Equality Impact Assessment is not required for the decisions in this report.

9 DATA PROTECTION IMPACT ASSESSMENT

- 9.1 Not required for the decisions in this report.

10 RISK MANAGEMENT

- 10.1 There is a full project risk register which is a working document and will be reviewed and updated throughout the project life cycle as part of the project governance.

Risk	Mitigation	Opportunities
Financial Exposure	<p>Government funding to support required changes will provide some mitigation to the increased costs of new requirements.</p> <p>Mitigation of these issues will be achieved by aligning decision making on implementation with confirmation of Government funding and better understanding of financial exposure.</p> <p>Any changes to the collection service may increase costs. These costs would need to be fully considered as part of the financial modelling to ensure the most cost-effective solution is achieved.</p> <p>There is a risk of the Council being unable to determine value for money where the new service is to be implemented as a variation to an existing contract.</p> <p>To mitigate against this, the Council will review the evidence of supplier costs, benchmark the new service cost proposal against the current contract costs and / or those declared by other local authorities and procure the services of a waste management specialist to evaluate the proposed options and determine the best value (financial, social, and environmental) options.</p>	<p>Introducing a new separate food waste collection will have positive environmental benefits.</p> <p>Support funding from the Government will give the council a cost-effective opportunity to introduce positive changes to its household collections.</p>

Risk	Mitigation	Opportunities
Exposure to challenge	<p>External legal advice has been commissioned to help steer the process to ensure it is robust.</p> <p>Introducing a new food waste recycling service is a government requirement under Environment Act 2021.</p> <p>Engagement with residents through a resident's survey has been undertaken at an early stage of developing the new waste strategy for households. Consultation and engagement will continue to be undertaken as the strategy is developed and agreed to understand residents' needs and issues with any changes to the waste and recycling collections system.</p>	<p>Good engagement and communication with residents will ensure that opportunities as well as issues are identified, and actions taken. Comms will involve education on how and why we should recycle as well as tips to reduce waste and save money.</p>
Innovation	<p>Consideration of the type of collection vehicle for the new food waste service is currently underway. This needs to consider practical considerations such as vehicle ranges, accessibility, and supply of fuel, along with whole life costs of the vehicles.</p> <p>Use of HVO fuel for the current waste collection vehicles is now underway.</p>	<p>Procurement of new vehicles provides an opportunity to explore the use of low carbon vehicles and fuels.</p>
Future HVO supply and accreditation	<p>All suppliers must be ISCC and RFAS accredited as a minimum to ensure a genuinely sustainable product. Confirm that no palm oil sources have been used before purchase. Monitor the HVO market and confirm guarantee of supply for full duration of contract before purchase.</p>	<p>As accreditation improves, ensure our suppliers provide the best assurance available.</p>

Risk	Mitigation	Opportunities
Reputation	<p>Waste and recycling collections affect every resident. Appropriate engagement with residents and members is being factored into the project timeline at an early stage to be considered in development of service delivery models.</p> <p>Engagement with residents will seek to identify key issues which will help to shape the new service.</p> <p>Undertaking the process set out in the report will contribute towards compliance with national and regional requirements.</p>	Improving carbon and recycling performance is a key aim of this project. Improving carbon and recycling performance would have a positive impact on reputation.
Achievement of outcome	The council has a statutory duty to deliver a new waste management service and has committed resources to do so. This project will develop and deploy a collection system that considers environmental benefits, affordability, customer needs, and statutory requirements.	With the opportunity of external funding, it allows an opportunity to review current collection arrangements with the intent to improve the service and most importantly, recycling rates.
Property	Additional food waste vehicles will need to be stored, requiring more depot space.	The Council has assets in the vicinity that could be deployed to support this additional space requirement subject to assessment and agreement.
Community Support	Consultation and engagement exercises will engage with households and community groups to ensure all views are captured and considered.	Building on previous consultation with residents, the Council aims to arrange focus groups to specifically support rollout to harder to reach properties such as flats above shops and communal properties.

Risk	Mitigation	Opportunities
Timescales	Specialist food waste vehicles have a long lead-in time to procure and there will be a very high demand nationally for these vehicles therefore this process is being started as soon possible.	<p>Early procurement of readily available vehicles to ensure priority and timely delivery of vehicles within the government deadline of 31st March 2026. This will include active management of this procurement - order acknowledgement, regular progress updates, prompt notification of delays, shortages, and mitigation plans.</p> <p>Procurement of vehicles, whilst a long lead in time, will not pre-determine the outcome of any consultations on the operational details of the scheme.</p>
Project capacity	A core project management team has been established to maintain the project within the bounds of the agreed time, scope, and budget. Financial resources have been allocated to the project and any further resource will be identified with detailed costs submitted to the appropriate decision-making bodies as required.	Opportunities for knowledge transfer into the council will be maximised when external consultancy is required.

11 SUPPORTING INFORMATION:

Background

- 11.1 The Environment Act 2021 introduced requirements relating to recycling to improve the range of materials that can be recycled. The government announcement, entitled 'Simpler Recycling' (21/10/2023), set out some of the details regarding the implementation, including the requirement for a weekly collection of food waste and the separate collection of a wider range of recyclable materials.
- 11.2 The Council is required to implement changes to its waste and recycling collection service by 31 March 2026 in order to comply with legislation,

including introducing a food waste collection service. The government is providing new burden funding and guidance on delivering these new requirements.

11.3 The proposed changes to the waste and recycling service have been regularly reported to Cabinet. In February 2024 (CAB3439) a broad discussion was held in this public meeting. Comments were received from both Council Members and the public and addressed by the project team. Full details as well as a recording of the meeting can be found [here](#).

11.4 In February 2024 Cabinet agreed;

1. that, as a result of resident feedback and the options appraisal set out in 11.45, the preferred option is a co-mingled recycling collection service collecting a wider range of materials and that Hampshire County Council would be advised accordingly.
2. to seek to introduce a separate collection of food waste by 31st March 2026 with the Councils current contractor Biffa, including to provide quoted prices for the required food waste collection vehicles.
3. that the Council will pursue the current lowest carbon viable options as a priority for service delivery.

12 Introduction of a Food Waste Collection Service

12.1 The Council is committed to introduce a food waste collection service in line with the national timetable set by Government that a weekly food waste collection must be in place by 31 March 2026. Initial community consultation has taken place to support the development of a scheme and further engagement will follow.

Procurement of Vehicles

12.2 To prepare for the changes to recycling collections, including food waste, and to rebalance routes following the growth of new housing in the district, Biffa has undertaken a round re-routing exercise to determine the specific vehicle requirements and indicative costs for the new food waste service. This has confirmed the requirement for a fleet of nine 12 tonne specialist food waste vehicles to operate the service.

12.3 ESPO have provided indicative costs for food waste vehicles of a standard specification. Biffa have also provided indicative costs for vehicles fitted out to their upgraded specification – these include items such as 360° in cab cameras. The indicative costs are set out in Table 12.4 below.

12.4 Due to the length of lead-in time for vehicles, suppliers will only confirm the exact costs once the vehicles are in the assembly line. This is due to fluctuating material costs such as steel and electrical components. For this reason, it is prudent to add a 10% contingency to the vehicle costs.

Table 12.4 Indicative costs for vehicles:

Vehicle Type	Current Cost per vehicle	+ 10% contingency
Hillend Engineering Micro XHD mounted onto a DAF 12 tonne GVW chassis, standard specification	£131,271	£144,398
DAF XB 210 FA 4x2 Rigid, 12t Chassis. Orus 7 Body, standard specification	£121,855	£134,041
Biffa vehicle costs – 12t diesel food waste vehicle with upgraded specification	£135,000	£148,500

- 12.5 Diesel food waste collection vehicles, which can be run on Hydrotreated Vegetable Oil (HVO), are readily available and in high demand as other authorities in the country will require similar vehicles. These types of vehicles have been in use for many years and have well documented lifecycle and maintenance schedules.
- 12.6 From verified sustainable sources, HVO fuel offers up to 94% reduction in carbon emissions and up to 50% reduction in particulates. Operating all existing frontline waste and recycling vehicles and the new food waste vehicles on HVO rather than diesel fuel would result in a reduction of up to 905 tonnes of CO_{2e} per year.
- 12.7 Modelling undertaken by consultants, WSP, also considered the carbon impact of all the recycling options explored. Simply by collecting food waste and recycling this separately to the residual waste could result in a savings of circa 1,900 tonnes of CO_{2e} per year. It should be noted that the carbon emissions produced by HVO powered vehicles are significantly smaller than the carbon saved by introducing a food waste collection service. The importance of this is that whilst the council is on a journey to eliminate carbon from its operations as much as possible, this needs to be balanced against the overall benefit of introducing the service as soon as practicable. The potential carbon savings are shown in the table below:

Table 12.7 – Modelling demonstrating a potential carbon reduction of 1612 tonnes CO_{2e} annually by introducing food waste collections. Note that this modelling was done using diesel powered vehicles, HVO fuelled vehicles would provide an even greater reduction 1946 tonnes CO_{2e} annually.

Modelling, based on diesel powered vehicles		Vehicle carbon	Material carbon	Net impact tonnes CO ₂ e annually
Adding pots, tubs, and trays to recycling collections but no food waste collection		319	161	480
Our preferred option – Adding pots, tubs and trays and food waste collection.		371	-1983	-1612
If HVO is used		37.1	-1983	-1946
Vehicle Type / fuel	Annual CO ₂ e emissions in tonnes per vehicle		Annual tCO ₂ e for 9 vehicles (full fleet)	
12t Diesel	24.68		222	
12t HVO	0.35		3.15	
12t Electric	0		0	

- 12.8 Electric food waste collection vehicles are becoming available but are in an early stage of introduction and are currently significantly more expensive with greater operational uncertainty and risk. These vehicles have not been in use for long enough to have a documented lifecycle or maintenance schedule. It is estimated that their lifecycle will be similar to diesel vehicles of the same specification, however, this has yet to be proved and tested. The incremental carbon savings from a vehicle running on HVO to a fully electric vehicle amounts to 0.35 tCO₂e per year. While the Council recognises that the long-term solution is likely to be full electrification, there is a benefit in waiting until the electric vehicle market for food waste vehicles matures, so that costs have stabilised, range has improved, and reliability of the vehicles has been established.
- 12.9 Furthermore, an electric food waste vehicle currently costs more than double that of a diesel vehicle of the same size and specification. The capital funding allocated to Winchester City Council for food waste vehicles is based on diesel vehicles of a smaller specification than are required in a large rural district such as Winchester. The Council has challenged this allocation and made an official appeal in the hope that it could be increased in line with the government's promise of providing '80% of reasonable costs.'

Funding, Finance and Ownership:

- 12.10 The required food waste vehicles will be procured by Biffa, on behalf of the Council, at an estimated cost of £1.34m. DEFRA has allocated capital funding of £1.38m to Winchester City Council, for the purchase of assets required to deliver the new food waste collection service. As the vehicle costs fall within the funds allocated by DEFRA, the cost of this purchase can be taken from these funds. Details of all expected capital costs are set out in Table 2.5 above and in Appendix A.

- 12.11 It is intended that the Council will own the food waste vehicles and lease these to Biffa, at a peppercorn charge, for use in the food waste collections service. This will ensure that Biffa assume liability for maintenance and repair of these vehicles and if the contract is not extended in 2029, the vehicles will be returned to the council as a capital asset with an assumed net book value of circa £700,000. These vehicles can then be sold at market rate or utilised in a food waste service with another contractor.
- 12.12 **Conclusion** The business case for purchase of HVO vehicles is attached at Appendix A and includes details of the options explored and financial appraisals. It concludes that there is strong business justification for the purchase of nine 12t specialist food waste vehicles to enable separate food waste collections to commence in line with the government deadline of 31st March 2026.
- 12.13 Although the cost of vehicle procurement can be passed to the Council via the existing contract mechanism and charged over a longer period of time, financial appraisals have concluded that the most cost-effective solution for the procurement of these vehicles is for the Council to pay the capital purchase price as a lump-sum pass-through cost from Biffa.
- 12.14 Biffa have agreed to procure the vehicles on behalf of the Council at cost, with no mark-up. This will allow the Council to benefit from Biffa's extensive knowledge of this market, their superior buying power, their existing relationships with suppliers, as well as benefiting from their experiences and lessons learned elsewhere in the UK.
- 12.15 The vehicles can then be leased back to Biffa for use in the food waste collections service ensuring that Biffa are liable for the maintenance and repair of these vehicles. If the contract is not extended in 2029, the vehicles will be returned to the council as a capital asset with a net book value of circa £700,000.

13. Round rerouting and electric RCV procurement.

- 13.1 To prepare for the changes to recycling collections, including food waste, and to rebalance routes following the growth of new housing in the district, Biffa has undertaken a re-routing exercise. The proposed re-route would result in a reduction in distances travelled equalling 35,000 miles per year, with new routes optimised for efficiency and the reduced mileage providing an additional carbon saving of circa 13%. It is intended that changes to the rounds because of the re-route will be implemented over the autumn period with residents given good notice of any changes affecting them, and the introduction of a bin collection notification system.
- 13.2 The re-route exercise has identified the need for a new route and subsequently, a new vehicle. There is potential to introduce a fully electric recycling collection vehicle to the fleet, rather than one operated on HVO. This would be a helpful pilot vehicle with which to explore the practicalities of

operating an electric vehicle in a large district such as Winchester while the council explores opportunities to move towards a fully carbon neutral service.

- 13.3 Electric RCVs have been in use for much longer than the food waste equivalent and as such are considered to be much more reliable. Additionally, these vehicles are manufactured by a single OEM (Original Equipment Manufacturer) rather than assembled using parts from multiple suppliers as food waste vehicles currently are. Biffa have confirmed that a suitable electric RCV could be added to the fleet in Winchester, subject to infrastructure requirements to charge it being in place. The details of the potential carbon savings are outlined below. However, it should be noted that although the difference in carbon between a diesel vehicle operated on HVO and a fully electric vehicle is relatively small, the learning opportunity to test the viability of full electrification may prove worth the investment.
- 13.4 The Carbon footprint of a current frontline 26 tonne RCV per annum has been calculated in accordance with the DEFRA/DESNZ methodology to compare Diesel (DERV) versus HVO and electric. The amounts below are per vehicle per year:
1. DERV RCV (conversion factor = 2.51 kg CO₂e / l) = 40,784 kg CO₂e
 2. HVO RCV (conversion factor = 0.03558 kg CO₂e / l) = 578 kg CO₂e
 3. Electric RCV (conversion factor = 0) = 0 kg CO₂e

Electric RCV costs:

- 13.5 Because the vehicle is required as part of the re-route exercise undertaken by Biffa, no additional cost would be incurred by the council if a diesel vehicle, operated on HVO, was added to the fleet. However, because the council is committed to understanding the best way to fully decarbonise the fleet in future, this report recommends an upgrade of this vehicle to an electric RCV.
- 13.6 The council will be liable for the difference in cost between the two vehicle types. This can be incorporated into the contract cost and paid on an annual basis at an additional £36,000 per annum for the remainder of the existing contract term or for the full life of the vehicle if the contract is extended. If the contract with Biffa is not extended in 2029, Biffa will keep the vehicle and no further cost will be charged to the council. The Council will only be liable for the additional cost of the electric RCV while it is being used to service the existing waste and recycling contract.
- 13.7 This additional revenue cost can be funded from existing revenue environment budgets.

Infrastructure to charge the vehicle will be required and is set out in the next section below.

Infrastructure for EV charging – capital investment

- 13.8 Both the council and Biffa have commissioned independent consultants to evaluate the electrical supply capacity at the Depot, and the work required to enable electric vehicles to be accommodated. The council has worked with the Association of Public Service Excellence (APSE) and Biffa have worked with Green Jam and both have concluded that although there is current capacity to accommodate a small number of AC charging units, the best option would be to future proof the depot and allow for a phased expansion to accommodate a full fleet of electric vehicles with DC charging capability in the longer term. Additionally, the electric RCV proposed by Biffa requires DC charging. This aligns with the proposed longer-term solution.

Initial solution to allow charging of one electric RCV:

- 13.9 Currently, capacity exists within the depot's electricity supply to charge a single electric RCV using a mobile DC charging unit plugged into the existing supply in the workshop. This solution would be quick to instal and has a one-off indicative capital cost of £30,000. It is recommended that this cost be approved, and the infrastructure installed as soon as possible to facilitate the new route in line with the proposed re-route taking place in September 2024.

Long term future proof solution

- 13.10 We have been advised by both external consultants that there is a 'race' to secure the remaining power available in the area and it would be wise to act as soon as possible to secure the necessary power for our future needs now, before it is allocated elsewhere.
- 13.11 The Council is committed to electrification of the waste fleet as soon as practicable and therefore, it is proposed that a long-term solution to ensure supply is available when we need it be properly costed and submitted to Cabinet in the Autumn. This will involve a new substation and the necessary connection from SSE or an IDNO to enable DC charging to an EV fleet.
- 13.12 It is estimated that this infrastructure will take 1 to 2 years to complete and should be started as soon as possible to minimise that chance of missing out on the limited number of connections available in this area.
- 13.13 Further work is required to determine the best solution for the depot's needs. This will be costed and submitted to a future Cabinet meeting in Autumn 2024.

14 OTHER OPTIONS CONSIDERED AND REJECTED

- 14.1 The Council could procure the vehicles independently of Biffa. This option was previously rejected in CAB3439 because the council does not have the necessary buying power, knowledge nor understanding of the market. To purchase the vehicles, the Council would require advice on specification, identification of frameworks and would incur procurement costs. This could

cause a significant delay to purchasing the necessary vehicles and put the Council at risk of missing the government implementation deadline.

- 14.2 The Council has considered Biffa purchasing and owning the food waste vehicles and passing the capital cost to the council through the existing contract mechanism. This would make the overall contract price more expensive. This option has been rejected due to the increased costs this would incur. The council has received enough funding from DEFRA to pay these costs without the need for borrowing.
- 14.3 The Council considered the provision of these vehicles on a contract hire basis for the remainder of the contract term. This option has been rejected due to the restriction on the grant funding from DEFRA which would not allow the funds to be used in this way.
- 14.4 Wait until we know exactly what funding is available for the whole food waste service costs, capital and revenue. This option has been rejected because of the long lead-in time for vehicle delivery. This is currently 12 months but is expected to lengthen as demand for new vehicles begins to outstrip supply. The council has a duty to implement the new service before the deadline imposed by Government of 31st March 2026. The council is also keen to implement the new service because of the benefits it provides to residents, the climate and environment. Waiting until all the details have been worked out will put the council at significant risk of missing the government deadline for implementation.

BACKGROUND DOCUMENTS:-

Previous Committee Reports:-

[CAB3439 Waste and Recycling Strategy 08-02-2024](#) – pages 9 – 102

[CAB3439 Printed decisions](#)

Scrutiny Committee – YouTube link to meeting – [The Scrutiny Committee. 06/06/24, 6.30pm \(youtube.com\)](#)

Other Background Documents: -

APPENDICES:

Appendix A – Business Justification for Food Waste vehicle purchase

Appendix B – Extract of Minutes of the Scrutiny Committee 6th June 2024.
