

The background of the cover is a close-up photograph of various food items, including purple basil, watermelon slices, and other vegetables, representing food waste.

# **SPECIFICATION OF SPECIALIST FOOD WASTE COLLECTION VEHICLES**

**Standardised  
design specification**

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# Supported by





Crown  
Commercial  
Service



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## Definitions

<b>Delivery Date</b>	The date by which a vehicle fully compliant with the Specification and the order requirements shall be delivered to the delivery address.
<b>Maximum Vehicle Width</b>	The maximum width of any part of the vehicle excluding rear view mirrors.
<b>Maximum Height</b>	The maximum height of any part of an Unladen Weight vehicle.
<b>Maximum Loading Height</b>	The Maximum height measured from ground level on an Unladen Vehicle to the top of any obstruction that must be cleared in order to deposit material into a compartment, support bin, or loading trough.
<b>Maximum Overhang</b>	The Maximum distance from rear axle to the rear of the vehicle including any ancillary devices.
<b>Maximum Turning Circle</b>	The size of the smallest circular turns that the vehicle is capable of making between walls, including for the addition of any lifting equipment.
<b>Maximum Wheelbase</b>	The maximum distance permitted between the centre of the front axle and the centre of the rear axle.
<b>Mobilisation Date</b>	The date from which The Purchaser intends to operate the ordered vehicle. If a vehicle is delivered after the Mobilisation Date, then the provisions of this Specification relating to Mobilisation Date shall commence on the weekday immediately after the date of delivery.
<b>Payload</b>	The Gross Vehicle Weight minus the Unladen Weight. Payload includes operatives, their personal belongings, ancillary equipment such as brushes and support bins and the collected material.
<b>Unladen Weight</b>	The weight of the entire completed vehicle, including the body and all parts normally used with the vehicle such as lifts, with full fuel tank but no Materials loaded or operatives in the vehicle.
<b>Gross Vehicle Weight</b>	(GVW) The weight of the vehicle including the maximum payload that can be carried safely when it is in operation. Also known as the Maximum Authorised Mass (MAM) or permissible maximum weight.

## Standardised Food Waste Vehicle Specification

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- Usable Storage Volumes**      The internal compartment volume in cubic metres that can be utilised for the storage of material and allow the emptying of collection containers (food waste caddies and wheeled bins) whilst not increasing the risk of material being lost to the environment.
- Kerbside Food Waste Caddies**      Rigid plastic boxes for the collection of food waste.
- Wheeled bins**      Rigid plastic or metal bin from 120 litres to 440 litres capacity as specified by the customer.
- Support Bins**      Wheeled bins, or “slave bins” used to aid the collection of food waste onto a collection vehicle. These should be securely mounted to the vehicle when not in use.
- Power Take Off**      (PTO) provides a vehicle with versatility beyond its usual function of providing transportation for materials. The PTO directs power to the auxiliary equipment to perform work at the site and/or en route. A PTO can eliminate the need for a second, or auxiliary, engine to power the equipment.

# 1.0 Base Specification

## 1.1 General

We are looking for the supply of dedicated food waste collection vehicles ranging from 7 tonnes GVW to 14 tonnes GVW.

Vehicles are to be single compartment with options for either bin lift (for use with support bins) or a trough (for use with Kerbside Food Waste Caddies).

Vehicles are to be designed primarily for the collection of food waste; compaction of the type used in standard refuse collection vehicles is not required however inclusion of equipment such as a sweep plate to enable redistribution of the load within the collection compartment to ensure the safe distribution of the load is desirable.

Vehicles must be new and unused.

Vehicles are to comply in all aspects with relevant legislation.

Vehicle to be right hand drive.

## 1.2 Chassis

Will be of a length, gross weight and manoeuvrability, suitable for residential streets in our environment. The supplier should note any local requirements for specific approach and departure angles where specified by the purchaser.

## 1.3 Engine

As a minimum a diesel Euro VI specification, the provided solution must comply with the [if applicable] Ultra Low Emission (ULEZ) standards.

## 1.4 Transmission

Automatic or manual. Inbox retarder or exhaust brake for engine braking may be included where offered. Supplied with either a PTO or chassis chargeable battery pack.

## 1.5 Ergonomic Cab

The Supplier shall provide an ergonomic, easy entry and exit Cab with slam doors.

A fully adjustable driver's seat with head restraint and 3-point inertial seatbelt.

Seating for a minimum of two (2) operative(s), a minimum of two (2) x three-point inertia seat belts (including the driver) and one (1) x centre seat lap-belt to be provided. The belt colour will be red or other high contrast colour.

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The cab shall be crash tested by the Supplier to ECE R29-2 (or higher) specification.

To prevent repetitive leg/knee injuries the floor height of the cab shall not exceed 1,300 mm when the vehicle is unladen.

One step entry is preferred. It is desirable that the first step should not exceed a range of 450mm to 550mm. Cab step height and number of steps to be provided by the manufacturer.

### 1.6 Body

The body is to be designed to allow the collection of FOOD WASTE from households.

Lifting equipment may be mounted to the rear or to the nearside of the vehicle.

Suppliers shall provide the body volume of the tendered vehicle and calculate the approximate total payload in typical loading situations using a food waste bulk density of 500kg / m<sup>3</sup>.

The body must be capable of retaining all wastes and slurry without leakage.

### 1.7 Additional items

Meets Requirements of CE/UKCA Machinery Directive.

Certified IP65 rating on all electrical components.

Calibrated digital tachograph.

'White Noise' audible reversing bleeper with silent facility.

Non-removable radio/ USB connection.

Body flat sided for easy application of advertising.

Vertical discharge exhaust system, or down swept exhaust system.

Electrically operated windows (drivers minimum).

Heated mirrors.

Fuel tank Approximately 90 litres or greater (nominal), with locking cap.

Engine tachometer.

Gearbox mounted PTO or chassis chargeable battery pack.

On nearside chassis a stowage container of suitable design for the containment of food waste liners for delivery to householders as part of a replacement liner service [subject to space being available].

On nearside chassis hot / cold hand wash facilities with soap dispenser / sanitiser station as appropriate [subject to space being available].

## Standardised Food Waste Vehicle Specification

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Stowage for shovel and a minimum of one broom [subject to space being available].

In cab indication of height, width and length dimensions and in plain sight maximum permissible weight limits for axles and gross.

The cab must have sufficient mirrors and colour CCTV systems to address the problem of both rear and lateral blind spots, 360° vision is required.

Option for a reverse radar system that will aid safe reversing.

When reversing, there must be a light to both sides of the vehicle, which should also compliment a minimum of two work lamps to illuminate the working area, angled so as not to show white lights to the rear of the vehicle and fully protected from damage and fouling.

An electrical isolator and adjacent boost socket to be situated be on the nearside of the vehicle.

On the rear of the vehicle, light clusters to be LED (Light Emitting Diode) units where possible, additional repeater units are required to aide overall Conspicuity.

First aid kit, single eye wash bottle and 2kg Fire Extinguisher to be fitted in cab to meet current legislative standards.

All maintenance points as described in the Operators manual to be highlighted in yellow.

Suppliers shall provide the Maximum height of the vehicle with the body (unladen) - discharge height of the vehicle.

### **1.8 [Optional] Maintenance**

There is a close relationship between the major components, chassis, body and lifting equipment and to maximise this relationship we are seeking to equip our in-house workshop [if applicable] with all the necessary tools, diagnostic systems and staff training to keep these machines in the optimum condition.

Supplier to submit estimated repair and maintenance costs for up to 7 years.

### **1.9 Ease of Operation**

The successful solution provider will be required to provide full on-site training to our maintenance provider [if not in-house] to comply with Health & Safety requirements and ensure that the correct operation will minimise downtime.

### **1.10 Warranty**

Comprehensive information is to be provided as to the warranty period, limitation of cover, and costs for extension, along with procedure for any claims. Separate warranty details should be

provided for chassis, body and lifting mechanism, if not all provided by 1 manufacturer, plus details of any extended warranty options.

The vehicle is to be registered by the supplier just prior to final delivery to The Authority in order for the full manufacturer's Warranty to be enjoyed by The Authority. Should the vehicle be rejected by The Authority for any reason, the Warranty must commence from the date of final acceptance.

### **1.11 Environment**

As part of the evaluation process, manufacturers will be required to demonstrate how the proposed solution will benefit the environment. This could be by providing engines that exceed current European standards, or that are particularly fuel-efficient. Another area, which will be taken into consideration, is noise arising from the operation.

### **1.12 Painting**

The chassis shall be painted in factory finish (typically grey or black), the cab in factory finish solid white and the body to be factory finish solid white.

The cab will have the [the Authority] corporate livery, which consists of a [x]. Exact paint specifications will, be supplied to the successful Tenderer.

### **1.13 Lettering and Signage**

The unladen weight will be displayed on the nearside of the cab, and notices "Operatives Working at the Rear" or similar.

### **1.14 Conspicuity**

Body sides - conspicuity tape.

Forward facing flashing amber coloured warning lights to be fitted either into the cab roof, by means of front grill beacons, or by means of a full width lightbar with bright LED lamps.

Rearward facing bright LED Directional Warning Lights with build in Multi-Pattern Flashers to be fitted and protected from damage.

### **1.15 Lifting Equipment**

The Supplier shall provide vehicles of approximately xx tonne GVW with purpose-built food waste collection body the overall dimensions and manoeuvrability to provide easy access to residential roads and fitted with suitable lifting equipment capable of lifting wheeled bins, 120 litres to 1100 litres capacity.

If the operation is using support bins, then a suitable method of safe stowage is required when travelling.

Another option is that a 'trough', with or without a bin lift comb, is permanently fixed to the lift, this will aid emptying of kerbside food waste caddies.

The Supplier shall ensure the vehicle is suitable for the collection of household food waste from domestic premises, and that the marriage of the body and lifting equipment is entirely suitable for this purpose.

### **1.16 Load Discharge**

Vehicles can, if required, discharge the load into a skip as long as the discharge height is in excess of 1590mm.

Vehicles must be designed to avoid the spillage and/or seepage of liquid / slurry from the vehicle onto the highway.

In cab body controls, to enable improved operator safety should be available for the safe discharge of loads, in preference to external controls.

The overall height of the raised body, whilst discharging the load from the vehicle body, must be disclosed at the time of bidding.

Discharging lights external to the vehicle must be provided with controls in the cab.

# 2.0 Technical Requirements for Tender Specification

Name of Local Authority: \_\_\_\_\_

Requirement for up to  number of  tonne GVW Food Waste Collection Vehicles

## 2.1 Technical Information

The Tenderer is to complete all sections of this schedule indicating the make / model of equipment offered and any variations from the Specification provided.

Please duplicate for each specification of chassis tendered.

### 2.1.1 Chassis/Cab

Local authority / procurement authority to specify requirements below.

Local Authority Requirements [x] Replace x with actual number	Please provide details e.g., brand name, dimensions
Chassis Make / Model	
Vehicle [x] tonne Gross Vehicle Weight (GVW)	
Wheelbase [x] mm	
Engine power	
Fuel type (i.e., Diesel)	
Estimated Fuel consumption where available (State Theoretical or by test)	
Warranted Biofuel %	
Fully/Semi - Automatic Gearbox / Retarder	

## Technical Requirements for Tender Specification

Local Authority Requirements [x] Replace x with actual number	Please provide details e.g., brand name, dimensions
Exhaust system – point of discharge	
All wheels and tyres the same size	
Vehicle braking system	
ABS – Anti-lock braking system	
ASR – Acceleration and Skid Control	
Capacity of fuel tank (litres)	
Type of Load indicator system	
Tyres / Make	
Digital Tachograph	
Electric adjustable / heated mirrors	
Electric Cab windows	
Multifunction steering wheel	
Cab Crash test certified to ECE R29-2 (or higher)	
Driver's seat shall be of a high quality. It must be adjustable for reach, rake and height	
If the cab has LED running lights, or any lamps in the bumper the bumper must be a three-piece unit to keep repair costs to the minimum	

## Technical Requirements for Tender Specification

Local Authority Requirements [x] Replace x with actual number	Please provide details e.g., brand name, dimensions
An electrical isolator and adjacent boost socket to be situated be on the nearside of the vehicle	
On the rear of the vehicle, light clusters to be LED (Light Emitting Diode) units where possible, additional repeater units are required to aide overall conspicuity. The operation of the lamps to be from a switch within the cab.	
The operation of the Forward-facing cab beacons to be operated from a switch within the cab.	
All maintenance points as described in the Operators manual to be highlighted in yellow	
Where possible all body maintenance points to be accessed at ground level to minimise the risk of working at height injury	
Chassis Warranty Period - standard	
Chassis Warranty Period - extended and price	

### 2.1.2 Body Type for Food Waste

Body Description	
Nominal Body Volume [x] m <sup>3</sup>	
Nominal sealed Body volume [x] litres	
Single compartment	

## Technical Requirements for Tender Specification

The body should be designed for the collection of food waste; to avoid the spillage and/or seepage of liquid / slurry from the vehicle onto the highway.	
Maximum height of the vehicle with the body raised (unladen) - discharge height of the vehicle.	
Loading Trough (with / without comb) / Comb and support bins. (delete as required).	
LED Lightbars & loading area working lights fitted	
Colour 360° view Camera system fitted	
Broom & shovel holder(s) fitted to a reasonably accessible location to loading activities.	
Hydraulic Tank isolation valve is required, and security tied in the 'open' position.	
Body Warranty Period - standard	
<b>Optional</b> – Reverse radar system fitted.	
<b>Optional</b> - Body Warranty Period - extended and price	
<b>Optional</b> - nearside chassis a stowage container for the containment of food waste liners.	
<b>Optional</b> - nearside chassis hot / cold hand wash facilities with soap dispenser / sanitiser station.	

## Technical Requirements for Tender Specification

### 2.1.3 Lifting Equipment Proposed

Please provide details e.g., brand name, dimensions, lifting equipment must be designed to operate safely and, where support containers are to be used, accommodate the safe lifting of all containers conforming to EN840-1, EN840-2 and EN840-3 in line with CE/UKCA machinery directive certification EN1501-1 and EN1501-5.

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### 2.1.4 General Requirements

<b>Please confirm the Vehicle will be supplied with:</b>	<b>Yes / No</b>	<b>Comments</b>
Painting to Chassis, Body as per Specification, including all Conspicuity requirements		
All Certification & manuals as detailed in the Specification		
Training courses required (chassis, body and lifting equipment, train the trainer and pre-operational familiarisation training) required for Operatives [and technicians' maintenance]		
Service back-up for chassis / body /lifting equipment, including dealer network if available		

## Technical Requirements for Tender Specification

<b>Please confirm the Vehicle will be supplied with:</b>	<b>Yes / No</b>	<b>Comments</b>
Please provide grade of materials used in body and any options for extending life		
Certified noise level data to be provided for the provided vehicle	Dba	
Please supply Chassis with factory fitted immobiliser and alarm.		
Colour 360° view Camera system		
Reverse radar system (where requested)		
A minimum of two work lamps to illuminate the loading area, angled so as not to show white lights to the rear of the vehicle and fully protected from damage and fouling. The operation of the lamps to be from a switch within the cab.		



2.1.6 Training for operator and vehicle workshop staff

To keep the equipment in optimum condition and minimise downtime it is acknowledged that training is required for the in-house team. Please detail that training (distinct from operator training) and whether it is included within the tender price.

Show separately items for chassis, body and lift. (add additional rows as required).

Course Description	Duration (Days)	Included Y/N	If No Cost £



**Technical Requirements for Tender Specification**

This vehicle will be required to provide x years frontline service, based on your experience of similar operations please provide expected maintenance costs for the life of the vehicle (average 1,000 miles per month / 5-day operation)

Note: Maintenance costs can be provided for the whole term and divided equally across the years for a level maintenance program giving a fixed cost for each year.

Chassis & Body	Interval	Labour hours	Service Labour charge rate	Parts cost (net)
Year 1				
Year 2				
Year 3				
Year 4				
Year 5				
Year 6				
Year 7				

**2.1.8 Workshop and Repairs**

Delete if not applicable.

We have a comprehensive in-house workshop [if applicable] assuming some / all repairs will be carried out in-house, please define the parts discount and non-warranty labour rate that will be applied to all (new and existing) of your product in service with [the Authority] for the life of the vehicles.

Retail Price £	less	% discount
Non-Warranty Labour rate	£	per hour

### 2.1.9 Overloading

Vehicle Load Calculation/Weight Prediction Data must be submitted in the table below, indicating predicted weights for the front and rear axles and the vehicle maximum gross weight.

Details of the vehicles Axle, Unladen and Gross Weights must be provided. Also details of whether or not an axle overload can be achieved before a Gross Vehicle Weight overload is achieved and if so, what preventative measures can be put in place or are in place.

A statement is to be provided detailing what measures are to be undertaken to eliminate the potential risk of overloading, both (any) Axle and Gross. Also, any recommendations for action the Operator (the Authority) can undertake to eliminate the potential risk of overloading.

[The Authority] will utilise the vehicles to collect: - **Food waste from domestic properties with an expected bulk density of 500kg/M<sup>3</sup>.**

Prediction data provided in the table below must be based on the vehicle as configured in the submission. Duplicate this table for each calculation produced where applicable.

## Technical Requirements for Tender Specification

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Vehicle Weight Prediction Data – Food Waste Density 500kg/M <sup>3</sup>	
Vehicle Maximum Gross Weight:	Kg
Front Axle Maximum Gross Weight:	Kg
Rear Axle Maximum Gross Weight:	Kg



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