



**Executive Director/Director
Non-Key Executive Decision Report**

Author/Lead Officer of Report: Alastair Black, Waste Strategy Officer

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Report to: *Mick Crofts*

Date of Decision: *15th June 2018*

Subject: *Electric Refuse Collection Vehicle: Testing in Real World Environments – Acceptance of collaboration agreement and funding*

Which Cabinet Member Portfolio does this relate to? Environment

Which Scrutiny and Policy Development Committee does this relate to? Economic and Environmental Wellbeing

Has an Equality Impact Assessment (EIA) been undertaken? Yes No

If YES, what EIA reference number has it been given? *(Insert reference number)*

Does the report contain confidential or exempt information? Yes No

If YES, give details as to whether the exemption applies to the full report / part of the report and/or appendices and complete below:-

“The (report/appendix) is not for publication because it contains exempt information under Paragraph (insert relevant paragraph number) of Schedule 12A of the Local Government Act 1972 (as amended).”

Purpose of Report:

A successful bid was submitted to the Innovation Funding Service (Innovate UK) for £2.6m, with £220,000 allocated to Sheffield City Council to enable two repowered refuse collection vehicles to be trailed in Sheffield.

This funding has been awarded as part of a project to trial a total of four repowered refuse collection vehicles in 2 different Local Authorities, Sheffield and Westminster. The project is made up of six partners including Veolia who will be responsible for operating the vehicles in Sheffield as part of their Waste Contract with Sheffield Council.

The Council was notified of its successful bid on the 3rd April 2018. The report seeks approval to accept and spend the grant in line with the deliverables agreed with the Innovate Funding Service as set out in the report.

Recommendations:

That the Director of Business, Strategy and Regulation:-

- (i) approves the collaboration agreement that will be used to deliver the project; and
- (ii) notes the successful bid of the £220,000 grant and delegates to the Director of Finance and Commercial Services and Director of Legal and Governance and Executive Director of Communities the power to finalise the grant funding agreement in accordance with council procedures.

Background Papers:

N/A

Lead Officer to complete:-		
1	I have consulted the relevant departments in respect of any relevant implications indicated on the Statutory and Council Policy Checklist, and comments have been incorporated / additional forms completed / EIA completed, where required.	Finance: <i>Amanda Smith</i>
		Legal: <i>Marcia McFarlane</i>
		Equalities: <i>Annemarie Johnson</i>
<p><i>Legal, financial/commercial and equalities implications must be included within the report and the name of the officer consulted must be included above.</i></p>		
2	<p>Lead Officer Name: <i>Alastair Black</i></p>	<p>Job Title: <i>Waste Strategy Officer</i></p>
<p>Date: 15th June 2018</p>		

1. PROPOSAL

1.1 *Background*

- 1.1.1 The Office for Low Emission Vehicles (OLEV) and Innovate UK via the Faraday Industrial Strategy Challenge Fund recently ran a £18 million competition to enable industry-led research into vehicle technologies that accelerates the transition to zero emission vehicles.
- 1.1.2 The competition was targeting projects to develop low-cost, highly integrated systems to enable zero emission journeys. For the first time in an Integrated Delivery Programme competition a proportion of the budget focused on medium and heavy goods vehicles.
- 1.1.3 As part of the qualifying criteria projects were required to be a collaboration between at least 2 partners, with a business leading the project.
- 1.1.4 Magnetec Systems Technology Ltd (MagTec) approached the Council to be a partner for a bid to funding to convert refuse collection vehicles to full electric. This was a result of officers from both the Waste Management Service and the Air Quality Team having recently visited MagTec to discuss what opportunities existed for them to support the Council in reducing the environmental impact of its existing fleet. Refuse collection vehicles being chosen due to their work in the urban environments resulting in efficiency being as low as 2.5 miles per gallon.
- 1.1.5 MagTec specialise in converting, known as repowering, medium goods vehicles and buses from diesel power to full electric. Due to the recent developments in battery technology they were now exploring what opportunities, particularly in the public sector, existed for converting heavy goods vehicles to full electric.

1.2 *The bid*

- 1.2.1 The Partnership, led by MagTec, successfully bid for of £2.6 million in grant funding to repower 4 x 26 tonne refuse vehicles to provide a zero emissions option at point of use. The vehicles will then be tested and benchmarked on suitable test tracks before entering trials in 2 challenging environments with 2 vehicles in Sheffield (hilly) and 2 vehicles in Westminster (Central London).
- 1.2.2 The project will allow Sheffield to trial a closed looped waste collection service that repowers end of life collection vehicles powered by the electricity produced by burning the black bin waste they have collected. All of which is made possible by using a system that has been designed, manufactured and fitted in Sheffield. While providing a carbon neutral, zero tail pipe emission waste collection service.
- 1.2.3 Key project deliverables

Key project deliverables	Completion Date
Baseline comparison of Diesel vehicles on test routes	8/10/2018
Drivetrain light weighting	12/11/2018
Manufacture of drive system	12/11/2018
Donor vehicle preparation and design	12/11/2018
Repower of refuse collection vehicles	12/02/2019
Operator engagement and review	27/02/2020
Field testing and data capture	19/03/2020
Business case for commercialisation	19/03/2020
Dissemination	27/03/2020

1.3 **Outcomes**

The projects key objective is to validate the theory that repowering end of life refuse collection vehicles offers a more cost effective, commercially viable alternative to purchasing a new diesel equivalent. The project also aims to ensure that the electrification process doesn't increase the un-laden weight of the vehicles, critical in ensuring that the operational efficiency of the vehicle isn't compromised. Therefore the project will also be developing a bespoke lightweight and cost effective electric drivetrain that will still be capable of negotiating 25% gradients when fully laden. Due to the limited range and poor fuel consumption of the vehicles, making long distant travel impractical, the project also aims to create a conversation package that can be fitted by third parties.

1.4 **How will the project be delivered?**

1.4.1 The lead Partner for the project is Magtec, the other Partners are listed below:

DG Cities Limited
Microlise Limited
City Of Westminster Council
Veolia ES (UK) Limited
Greenwich Service Plus Limited
Sheffield City Council

1.4.2 The project will be managed through a collaboration agreement, ensuring that the project is undertaken at all times by the Partners in accordance with the terms of The Grant Offer conditions.

1.4.3 A Monitoring officer will be appointed by Innovate UK to oversee the Project

1.4.4 A Steering Committee will be formed, with each Partner appointing one individual to the Committee, chaired by a Chairman agreed by the Partners. In addition each Partner shall be entitled, but not bound, to appoint an additional individual to the Steering Committee to act as an observer. An observer appointed in such a manner shall be entitled to attend, but not vote, at meetings of the Steering Committee.

1.4.5 The Steering Committee will meet every three months or at any time when reasonably considered necessary at the request of any of the Parties. Meetings will normally coincide with quarterly progress reporting and claim submission to the Sponsor. The Monitoring Officer will be invited to attend by the Chairman.

1.4.6 Parties have agreed those matters relating to the Project that will be decided by the Steering Committee which shall put in place an appropriate structure to manage the Project. Each Party shall, through one of its representative, have one vote in the Steering Committee.

1.4.7 The lead Partner will appoint and have the right to replace a Project Manager. The Project Manager will be responsible for:

- a) attend Steering Committee meetings at the request of the Chairman;
- b) be the primary contact for and with the Sponsors and Monitoring Officer
- c) be responsible to the Steering Committee for the day-to-day management of the Project;
- d) be responsible for financial administration of the Project as required in the Grant Offer;
- e) be responsible for implementing decisions taken by the Steering Committee; and

f) monitor the progress of the Project with respect to milestones and deliverables.

1.4.8 The grant and its allocation to Partners for the project is summarised below;

	Total	Labour	Overhead costs	Materials	Capital usage	Subcontracting costs	Travel and subsistence	Other costs
DG CITIES LIMITED Partner	£98,359	£79,482	£15,896	£0	£0	£0	£2,980	£0
MAGNETIC SYSTEMS TECHNOLOGY LIMITED Lead organisation	£797,169	£368,534	£73,707	£197,500	£0	£90,000	£14,000	£53,428
MICROLISE LIMITED Partner	£197,521	£159,401	£31,880	£3,040	£0	£0	£3,200	£0
City Of Westminster Council - Local Authority Partner	£221,724	£21,724	£0	£200,000	£0	£0	£0	£0
Sheffield City Council Partner	£220,000	£20,000	£0	£200,000	£0	£0	£0	£0
VEOLIA ES (UK) LIMITED Partner	£432,305	£44,655	£0	£0	£377,250	£0	£2,400	£8,000
GREENWICH SERVICE PLUS LIMITED Partner	£633,788	£356,000	£71,200	£1,470	£63,000	£0	£1,968	£140,150
Total	£2,600,866	£1,049,797	£192,684	£602,010	£440,250	£90,000	£24,548	£201,578

1.4.9 Written quarterly updates will be provided to the Director of Business, Strategy & Regulation and to the appropriate Cabinet Member by the officer attending the Steering Committee on behalf of Sheffield City Council.

2. HOW DOES THIS DECISION CONTRIBUTE ?

2.1 Thriving Neighbourhoods and Communities

2.1.1 The project contributes to our ambition to tackle air pollution as it allows Sheffield to trial a carbon neutral, zero emission from the exhaust pipe, closed looped waste service. If the project is successful it will allow for the removal of the reliance on diesel powered vehicles through the repowering of the existing Veolia fleet of vehicles instead of replacing them with new ones.

2.1.2 The 2 vehicles to be trailed in Sheffield will provide savings of 875,000 kg of CO2 per year and 5,500 kg of NOX per year (based on Replacing euro 5 diesels).

2.2 Strong Economy

2.1 The project also contributes to a strong economy as the project supports a local business to grow and play a full, distinctive role in the global economy.

3. HAS THERE BEEN ANY CONSULTATION?

3.1 The Cabinet Member's for Environment and for Transport and Sustainability have been briefed by officers regarding the bid.

4. RISK ANALYSIS AND IMPLICATIONS OF THE DECISION

4.1 Equality of Opportunity Implications

4.1.1 There are no significant equalities implications, either positive or negative, from this proposal. The project will not negatively impact residents as the service they receive will not change during the trial. However there will be a positive impact on air quality as the vehicles will be undertaking collections that would have normally been completed by diesel powered vehicles.

4.2 Financial and Commercial Implications

4.2.1 Key features (not exclusive) of the general terms and conditions are as follows:

4.2.2 Sheffield City Council have been awarded a grant of £220,00 as part of the overall bid of £2.6million from Innovate UK (to be renamed UK Research and Innovation UKRI). This funding will cover 100% of the projects costs being £200,000 for the cost of the batteries and £20,000 for staffing costs relating to the project delivery.

4.2.3 The Award letter will not be issued by Innovate UK until the collaboration agreement has been signed by all parties. Until the letter is received, general terms and conditions have been reviewed but the offer maybe subject to additional conditions.

4.2.4 The Award letter must be countersigned and uploaded to the project portal in the correct manner before the project can start.

4.2.5 The project must appoint an Independent Accountant who will inspect financial statements and prepare reports using standard templates unless agreement is sought to accept Section 151 Officer approval.

4.2.6 Grant payments will be paid quarterly in arrears on submission of a claim. Innovate UK will not pay more than 85% of the grant (£187,000) until all outstanding claims and supporting information has been received and the final Independent Accountant Report has been approved. The project end date is May 2020.

4.2.7 Records must be maintained for 10 years following the award and must be supplied to the Commission within 20 days if requested.

4.2.8 Innovate UK may suspend, withdraw or reclaim the grant in whole or in part.

4.2.9 All public sector procurement is governed by both European Legislation and UK National Law. In addition, all procurement in Sheffield City Council must comply with its own Procurement Policy, and internal regulations known as 'Contracts Standing Orders' (CSOs). The standard Waiver process is to be applied on this project.

4.2.10 The Project Manager will need to understand and comply with project monitoring and evaluations requests and adhere to the terms and conditions of the grant.

4.3 Legal Implications

4.3.1 Section 45 Environmental Protection Act 1990 places a duty on local authorities to collect and dispose of household waste.

4.3.2 The Localism Act 2011 gives local authorities a 'general power of competence' which enables

them to do anything an individual can do, so long as the proposed action is not specifically prohibited. Sheffield City Council can use this power to:

- (a) deliver proposals in this report that are not covered in the Environmental Protection Act 1990,
- (b) accept and spend the grant from Innovate UK in accordance with grant terms and conditions

- 4.3.3 Sheffield City Council's Contract Standing Orders allows the Director of Commercial Services in certain circumstances to issue a waiver in relation to procurement.
- 4.3.4 Under the grant terms and conditions, the project must start within 90 days from Innovate UK's email notification of the award. Payments are by instalments and delays in either filing reports or submitting claims and supporting documents can result in late or no grant payments.
- 4.3.5 Repayment may be required if Sheffield City Council uses a material element of the grant for purposes unrelated to the project, provides false information in relation to the award or breaches State Aid rules. Arrangements for this grant should fall within the General Block Exemption Regulations for State Aid.

5. ALTERNATIVE OPTIONS CONSIDERED

- 5.1 The only alternative option was to reject the opportunity of being part of the project.

6. REASONS FOR RECOMMENDATIONS

- 6.1 By accepting the grant, the Council will be taking part in a project that if successful, will put Sheffield at the forefront of the transition to zero emission medium and heavy goods vehicles.
- 6.2 The Council will also benefit from having two zero emission refuse collections on the Veolia fleet in Sheffield following the completion of the trial.