

**Report to: Environment Committee, 3<sup>rd</sup> March 2020**

**Report of: Corporate Director - Place**

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**Subject: PROCUREMENT & INTRODUCTION OF IN CAB TECHNOLOGY FOR WASTE COLLECTION VEHICLES**

**1. Recommendation**

**1.1 That the Committee recommends to Council a supplementary estimate to the capital programme of £26,087 to facilitate the installation of 'Jobtrak' to complement the existing Dennis Connect system.**

**2. Background**

- 2.1 Dennis Connect is a bespoke telematics package developed specifically for waste collection applications, enabling remote diagnosis of faults on waste collection vehicles. The system fitted to the chassis connects with components such as the engine, drivetrain and hydraulic and electrical systems to give holistic vehicle diagnostics. Following the successful deployment of a Dennis Connect in 2018, the waste service now has had an array of advanced telematics at its disposal with real-time tracking, enhanced aftermarket care and real-time alerts.
- 2.2 The availability of real time data driven by this new technology has allowed the service to make maximum use of its resources and deliver route optimisation as required under the wider Environmental Operations Transformation project. The system allows ongoing review and management of routes, including commercial and garden rounds, to improve efficiency.
- 2.3 Following on from the installation of Dennis Connect that has proven its worth since its introduction, the next phase of improvements and transformation is possible through the implementation of a bolt on application (Jobtrak) to the Dennis Connect system. This tool will allow for real time data and service information to be passed between the back office and the front line service delivery crews.
- 2.4 Jobtrak is an in cab tool Garmin tablet that is dash mounted and connected by a mobile sim card to facilitate the transmission and receipt of data. The power supply and mounting cradle is fitted to the vehicle and can be removed when a vehicle is de-fleeted. The actual Garmin device is removed at the end of every shift.

**3. Preferred Option**

3.1 Following a visit to Wolverhampton Council, which has installed Jobtrak in-cab solution to its waste fleet, officers conducted a trial with a live system over a two week period in the summer of 2019. Since the trial was conducted, Gosport Council (operated by Urbaser Ltd) and South Ayrshire have also deployed the system.

3.2 The Jobtrak application will appear within a tab on the same screen as Dennis Connect which is already used in day to day and strategic management of the waste service. Rounds are built and managed within the system and all accompanying data relating to individual properties are held in a database that is held on the same server as the current Dennis Connect system. Rounds are sent to each individual Garmin device and held in the cloud until called for by each driver (team leader) who logs in with their own user name and password.

3.3 There are a number of improvements that the system would bring, largely around the removal of paperwork and timeliness and accuracy of information that crews work from, bringing both Health and Safety and efficiency benefits:

- New properties and any changes made to properties are immediately available to front line service delivery crews.
- Information relating to individual properties with assisted collections, gate codes, bin locations and any other pertinent information is stored in the system and crews alerted as they make collections, with this information added to or removed in real time.
- The system would allow a move from paper based to electronic based vehicle checks. A vehicle can only take to the road if certified as roadworthy by the driver, a legally required check, as stipulated by the Vehicle and Operator Services Agency (VOSA), and has to be completed each day for each vehicle. The system will allow a vehicle failing its roadworthiness to be notified to the back office team in real time, allowing for immediate transfer of rounds between vehicles and details of vehicle faults. The system removes the need for paper based vehicle checks which rely on manual methods of passing information between the driver and back office.
- The supervisor can monitor exact progress of rounds and make early interventions to address rounds that may be at risk of non-completion. From the back office using a "drag and drop" facility, the supervisor can move whole streets with all the accompanying data from one round to another.
- Any crew reports of contaminated bins, bins not out, excessive side waste, broken bins or bins swallowed by the vehicle can be accompanied by photos, these details are sent immediately to the back office system. This information can be sent to a customer by email immediately they make contact with the back office team or be used in conversation with a customer who calls a customer service agent.
- Individual route risk assessments are required for all waste routes and the system enables all relevant information to be stored and the crew/driver advised as the route is driven. It removes the need for paper based systems and folders of information which are impractical and in reality rarely referenced. Once the round is downloaded to the in cab Garmin device, the crew will have access to detailed route risk assessments relating to their specific round, i.e. schools, bridges, pedestrian zones, areas where reversing is particularly hazardous, roads where double side activities are hazardous. Again, this removes the need for waste teams to rely on paper based risk assessments, improving transfer of key route information in a more efficient and accurate way to the driver and crew.
- The Team leader will open and close each street on their device as they enter and leave. This gives the back office instant visibility of round progress.

- The tool acts as a 'sat-nav' if a job is electronically passed to a crew who have no knowledge of the area of the city that they are being deployed to. This enables much improved deployment of support vehicles, for example when additional crews are needed to provide back up following a vehicle break down or road closure. It also means that temporary drivers and crews are provided with good quality, timely and accurate information about their route.
- Team leaders are alerted immediately to the addition of work to their round, the alert screen overrides all other screens. Additional jobs have to be acknowledged, this gives the earliest opportunity to slot additional work into the daily schedule.

3.4 Use of this technology rather than paper based systems improves efficiency in a number of ways. Use of the system and the data it would provide will also place the waste service in an advantageous position as we face potential service changes that may be brought by the National Resources and Waste Strategy published in December 2018. In addition by getting it "right first time" we can reduce the number of unnecessary trips by refuse vehicles that emit high levels of CO2 and use significant amounts of fuel.

#### **4. Alternative Options Considered**

4.1 The continuation of the paper based systems for route risk assessments, individual house exemptions, crew issue reporting could continue but it is recommended that technology is adopted to bring improvements and efficiencies as outlined in the report.

#### **5. Implications**

##### 5.1 Financial and Budgetary Implications

This is a 'bolt on' to the already established Dennis Connect system, we are not procuring a system. There is no contract period and notification to cease using the software can be given at any time.

Purchase of the system requires capital expenditure of £22,825 and a yearly subscription of £3,262 for 15 vehicles (£217 per vehicle per year). This will require an amendment to the capital programme and is therefore subject to approval of Full Council. The amendment would be for 2020/21 and would be for the capital cost and first year's subscription which can be capitalised as expenditure to support implementation: a total of £26,087.

If the system is introduced, the cost of additional capital equipment will be built into vehicle costs for future procurement. The revenue costs of £3262 p.a. will need to be built into revenue budgets for future years.

##### 5.2 Legal and Governance Implications

The most relevant legal issues discussed in this report are that of ensuring that vehicles operate in accordance with the legally required check as stipulated by the Vehicle and Operator Services Agency (VOSA) and that crews follow route risk assessments to ensure risks are removed, mitigated and managed when undertaking waste collection operations. The system assists with both of these in that information is recorded electronically, available instantly and additions and amendments are transferred more quickly and efficiently from the back office to the front line crews.

##### 5.3 Risk Implications

No risks identified, the system has been in place since 2018 with no IT failures recorded.

#### 5.4 Corporate/Policy Implications

With the system in place and detailed data being received and stored electronically, the Council can begin analysing quality data and be in a better position to propose policy changes and corporate action to address areas of high contamination, bins not presented on a regular basis, missing bins and a potential program of rolling bin replacements.

#### 5.5 Equality Implications

The system brings a significant benefit in dealing with those customers who require an assisted collection. Currently records are paper based and often rely on crews remembering locations. This fails when crews have to pick up work they do not regularly do – the system acts like a sat nav providing all the details accurately and in a more accessible format than referring to paper records for a crew whilst they are out and about delivering services.

#### 5.6 Human Resources Implications

No implications identified, risk assessments and safe operating procedures will be reviewed to ensure safe use of the in cab device and roles/responsibilities of driver and crew are clarified.

#### 5.7 Health and Safety Implications

The system brings improvements to the way that route risk assessments and vehicle checks are managed. A risk assessment and safe operating procedure will be generated detailing how and when the in cab tool can be used. All team leaders will be trained on the use of the tool, a two week rolling program will be conducted by the waste supervisors who will deploy with the crews across 8 days.

#### 5.8 Social, Environmental and Economic Implications

##### 5.8.1 Social

Service to customers will be improved, particularly where there is an assisted collection or non standard collection method.

##### 5.8.2 Environmental

Improvements to the efficiency of routes will be enabled, making fuel and carbon reduction possible.

##### 5.8.3 Economic

No economic implications.

**Ward(s):**

**All Wards**

**Background Papers:**

**Contact Officer: Kevin McFeeley, telephone 01905 722383, [kevin.mcfeeley@worcester.gov.uk](mailto:kevin.mcfeeley@worcester.gov.uk)**

**None**