Finance and Resources Committee

10.00am, Thursday, 23 March 2017

Procurement of Vehicle Telematics System

Item number	7.15
Report number	
Executive/routine	Executive
Wards	All

Executive Summary

This report seeks the approval to install a telematics system in all council vehicles with a view to reducing the fuel used (hence reducing our carbon footprint), increasing vehicle utilisation, and improving operational efficiency.

This will be introduced in stages with focus given to different aspects of fleet operation in turn, to ensure that implementation of the system is a success. Engagement will take place with managers and the Trade Unions at each stage of project implementation.

Links

Coalition Pledges	P50
Council Priorities	CP08
Single Outcome Agreement	SO2

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Report

Procurement of Vehicle Telematics System

1. Recommendations

1.1 It is recommended that the Finance and Resources Committee:

1.1.1 notes the benefits of implementing a telematics system; and

1.1.2 approves expenditure as outlined in paragraphs 5.1 to 5.6 on the basis that savings will be achieved once the system is fully operational.

2. Background

2.1 The Council has a large fleet of vehicles that operates across the city. Management of these vehicles is done locally by the managers in each area.

2.2 Telematics offers managers at all levels of the organisation access to key data that enables effective management of the fleet, along with options to enhance fleet compliance.

2.3 Some departments already have telematics systems but it is proposed to introduce this across the whole Council fleet to ensure the full benefits of the system and value for money are achieved.

2.4 The information gathered from the introduction of telematics would be key to assisting in the next phase of the ongoing fleet review in order to challenge departments to standardise vehicles, increase utilisation and reduce the numbers overall within the fleet.

3. Main report

3.1 Telematics systems offer a meaningful data resource that can be used to manage a large fleet effectively. By analysing this data as part of a daily routine, managers will be able to improve fleet performance, fleet utilisation, driver safety and enhance fleet compliance.

3.2 CGI, the Council's ICT partner, have identified Trackyou as a supplier who have the capability to meet the Council requirements for telematics.

Fleet Performance

3.3 Fleet Services will have a central role in looking at the exception reports that the system generates, and ensuring that each of these are responded to correctly by managers in each of the areas. Typical exception reports include the use of vehicles outside core working hours and vehicles operating outside of their relative operational area.

The live system will provide the location of all fleet assets on a minute by minute basis. The software will also record the operation of specialist vehicles, such as the gritting fleet, road sweepers and refuse collectors. This data will help in future to easily locate vehicles, to better understand operational routes and to optimise route scheduling in order to re-direct vehicles to deal with urgent or emergency response situations.

Fleet Utilisation

3.4 Fleet services will take a holistic view across the fleet and will determine if vehicles can be shared across departments or whether there are other forms of provision of such a vehicle (e.g. hire as and when required). Any vehicles underutilised could be removed and therefore reduce the overall vehicle fleet. Longer term analysis may show where even more fleet reductions can be made without affecting service levels.

Improving Safety

3.5 The system is live and requires a vehicle user to 'sign on' to the vehicle prior to commencing any journey. This allows driver performance to be monitored, as well as the provision of an audit trail should this be required in relation to road traffic violations or parking/bus lane infringements.

3.6 At a local level, managers or supervisors would have access to a range of data, particularly in terms of driving style which may highlight any unsafe practice, including harsh braking and acceleration. This style of driving not only wastes fuel but causes excessive wear to vehicle components. The data would allow managers to identify driver training needs. Improvements in the overall driving standards of our staff will improve fleet safety through the reduction of collisions. How the training is identified and given including any re-assessment period will be agreed through consultation with managers and Trade Unions.

3.7 The system will be able to highlight 'collision hot spots' such as busy roundabouts or junctions where a high level of braking events is recorded. This data could then be used to populate route risk assessments as a means of engaging with staff about the associated risks.

3.8 A telematics system can also help protect a vehicle from theft, and alert the fleet operation that a vehicle has been taken. It can then be used to assist the Police in locating the vehicle.

3.9 Driver training will take place as part of the rollout of the system. In addition, the current Drivers Handbook will be updated to reflect the use of telematics and the responsibility of drivers to engage in the use of the system.

Fleet Compliance

3.10 Telematics will offer several benefits to help the Council comply with the regulations contained within the Councils Operators licence ('O' licence). For large goods vehicles this will automatically download the information from the digital tachographs fitted to vehicles, eliminating the need for the driver to download their card or Fleet Services having to physically visit each truck every 56 days to gather the required information. Another compliance tool would be the inclusion of a button that the driver presses to indicate that they have completed their first use check and indicates that they are fit and well to drive. This would eliminate the current paper based system.

3.11 The system can also monitor the vehicles speed against the posted limit for any given road. It is normal to set the system so that it only generates a warning when a threshold above the limit has been breached. As the Council has a duty of care to both the public and its employees, these cases must be dealt with appropriately. This will not be implemented until there has been consultation with Trade Unions and managers to establish an agreed process.

Challenges

3.12 To ensure successful implementation of telematics the system will be implemented in stages. Telematics can provide a huge array of reporting that could easily overwhelm managers and cause them to disengage from the project. Fleet services main challenge is to engage with both managers and Trade Unions at all levels through a systematic approach to maximise the benefits of telematics.

3.13 After installation one of the first targets will be engine idling. This can be very effective in providing a near instant fuel saving, as well as helping managers and staff to become familiar with the system and help establish the lines of communication from the head of service to the lowest level of the organisation.

3.14 Telematics will be required to integrate with all other fleet management systems including fuel, digital tachograph compliance and Routesmart. The savings identified in the proposal for the Routesmart Route Management System have been considered and it is envisaged that there is scope for further savings to be made in terms of excess idling activity, fleet reductions and improving safety.

3.15 The impact on the fleet maintenance department as a result of the savings from telematics will be an adverse income from fuel, accident damage and ongoing maintenance however more focus will be able to be applied to planned maintenance to improve service levels for customers and it will provide further opportunity to look into external work.

Future Opportunities

3.16 Fleet Services will be able to use the data to determine what sort of journeys are undertaken by individual vehicles. With this information Fleet Services could determine the potential for the use of alternative fuel vehicles such as electric or duel hybrid systems. This would reduce the fuel and maintenance costs and improve the carbon footprint of the fleet.

3.17 Increased efficiency is a key benefit from this type of system. Telematics will provide the Council with a data set that shows how vehicles move around the city on a day to day basis. This data can be used to verify planning models and contribute to wider Council aims such as air quality management.

3.18 A pool car system similar to that used by The Enterprise Car club is available, but this will be examined separately as part of the review of the Councils "Grey Fleet."

4. Measures of success

4.1 Any reduction in fuel usage will be the simplest measure of success. Longer term a reduction in accidents, non-fair wear and tear and reduction in speeding offences can be achieved. This will only become apparent as the system is used over time.

4.2 Community benefits of this system will be decreased emissions by the Council fleet (improved air quality), and a general improvement of driver standards throughout the Council leading to safer operation of Council vehicles within the Council environments.

5. Financial impact

5.1 The estimated cost of the system proposed by CGI will be £250,000 per year to operate. It is intended to operate the system until the end of the CGI contract which would be seven years, giving a total cost of £1.75m. It is proposed the cost will be funded via the 'Spend to Save' funding scheme in collaboration with the Routesmart Route Management System previously approved for funding in this format.

5.2 The Council fleet currently uses 2.79m litres of diesel, and 303,000 litres of unleaded petrol. The current cost to the Council for this fuel is £0.90 per litre (excluding VAT) giving a fuel bill of £2.8m, but this is variable due to fluctuations in the cost of fuel. Fuel costs are likely to rise in the next year.

5.3 A 10% saving in fuel would cover the cost of implementing the system, and this is a target that is achievable if the system is implemented and managed properly. The saving would not be delivered on day one, but would gradually increase as the information is used. It is anticipated that 5% of this saving will be achieved through the initial targets of a reduction in engine idling and unauthorised use of vehicles.

5.4 Early identification of any underutilised vehicles will allow fleet to challenge departments on their usage and general vehicle requirements to meet service needs. Excess vehicles can be removed from the fleet.

5.5 It is considered that further benefits can be derived from the introduction of telematics across the whole Council fleet such as reduced wear and tear and reduced turnover of vehicles (increasing the period that a vehicle can be utilised within the fleet). The result is vehicle components lasting longer, higher residual values and the opportunity to retain a vehicle for longer than originally planned creating a cost saving.

5.6 Where telematics has been introduced, organisations have noticed a drop in accidents and insurance claims. In the long-term it is anticipated that the Council could see a reduction in insurance costs, although the exact amount of this reduction cannot be calculated (some organisations report a reduction in the number of accidents to be as much as 20%). Last year the Council fleet charged £921,000 for accident damage and non-fair wear and tear.

5.7 Example case studies have been completed and provided by Trackyou to demonstrate the success fleet operators have achieved through the implementation of telematics including:

5.7.1 Northern Powergrid delivered a financial saving of £136 per vehicle per year through improving driver behaviour by managing and reducing the number of harsh driving events by 57% overall.

5.7.2 Swansea Council achieved savings through improved vehicle utilisation allowing them to return 40 vehicles to the lease supplier which were identified as surplus to requirements and in the process, save the authority more than £400,000.

5.7.3 The Parts Alliance Group have a fleet of over 1,100 delivery vehicles utilising telematics since 2009. They have achieved a £10,000 saving per month through elimination of out of hour's/ unauthorised vehicle travel reducing the cost per mile of their vehicles based on fuel usage and maintenance.

5.7.4 Other notable existing public sector customers of Trackyou include: West Lothian, Midlothian, East Lothian, Falkirk and Glasgow City Councils all of whom have seen notable savings and benefits in terms of fleet management following implementation.

6. Risk, policy, compliance and governance impact

6.1 The following risks have been identified as potential issues to success of the project:

Risk	Mitigating Action.
Savings targets not achieved	Fuel spend and vehicle damage will be monitored by Fleet Services and Head of Service to ensure that savings are being delivered.
Concerns regarding monitoring of driving standards and activities	The system is primarily about controlling fleet assets and ensuring that the Council is utilising its fleet correctly. Improving driving standards will benefit drivers, and the system can offer protection in being able to prove a vehicles location in the case of a fraudulent claim. The telematics system will be used to identify training needs for drivers who are not driving efficiently or safely. The implementation plan would allow drivers and managers a short time to become familiar with the information that the system is providing, before the rules around the system were applied fully. The use of telematics is commonplace in all vehicle related industries.
Lack of ownership of the system and data	Managers will be trained to use the system and automated reports will be produced. Where issues are not being addressed by managers, this will be escalated by Fleet Services to Senior Management within the affected department.
Worries by staff that the system will solely be used to spy on their activities.	The system will be implemented with full consultation with managers and Trade Unions to establish an agreed process. The system is fitted to council vehicles only and as such should only be used for authorised council business.

7. Equalities impact

7.1 A preliminary equality and rights impact assessment was considered in relation to the implementation of this system and no equalities or rights impacts have been identified.

8. Sustainability impact

8.1 This system will help the Council meet its carbon targets by reducing fuel usage through controlling idling, harsh acceleration and braking. This will also improve the impact that the Council fleet has on air quality.

8.2 Telematics would provide data to analyse which could determine the financial viability of replacing a conventional diesel setup with an alternative fuel driven vehicle within the fleet (for example: increasing the number of vehicles powered by electric, hybrid and gas systems).

9. Consultation and engagement

9.1 The larger fleet operators; waste and cleansing, parks and greenspace, roads, building services and community transport have been consulted about this implementation.

9.2 The Trade Unions will be consulted at each stage of implementation to ensure that the system is operated fairly.

9.3 As the rules of the new system are agreed, staff will be given time to become acclimatised with the operation of the system, and in the first few months the rules will only apply in cases of serious infringements (to be defined in the updated driver handbook).

10. Background reading/external references

None

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11. Links

Coalition Pledges	P50 – Meet greenhouse gas targets, including the national target of 42% by 2020
Council Priorities	CP08 – A vibrant, sustainable local economy
Single Outcome Agreement	S02 – Edinburgh's citizens experience improved health and wellbeing, with reduced inequalities in health.
Appendices	None