Opportunities to Utilize Car Share Technology Solutions on City-Owned Vehicles

Date: May 14, 2018
To: Government Management Committee
From: General Manager, Fleet Services Division
Wards: All

SUMMARY

The purpose of this report is to provide Government Management Committee with car-share solutions available in the marketplace that could be utilized to manage City owned vehicles and other assets and to seek authority to proceed with the undertaking of a pilot project to evaluate such technology.

RECOMMENDATIONS

The General Manager, Fleet Services Division recommends that:

1. City Council authorize the General Manager, Fleet Services to develop and implement a one year pilot program utilizing car share technology in City operated vehicles.

2. City Council authorize the General Manager, Fleet Services to include, as part of the 2020 capital and operating budget submission, a business case, including financial impacts for the City Wide implementation of a car sharing solution if the pilot program is successful.

FINANCIAL IMPACT

Funding for implementing the recommended pilot program is included in the 2018 Approved Capital Budget for Fleet Services under capital project CFL034-14 (Green Fleet Plan - 2018).

The Interim Chief Financial Officer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

City Council at its December 5, 2017 meeting requested the General Manager, Fleet Services to report to the Government Management Committee on opportunities to utilize commercial car-share company technology solutions on City-owned vehicles.
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.EX29.30

COMMENTS

Fleet Services Division (FSD) currently has contracts with two (2) vendors that provide car sharing services using external (non-City owned) vehicles. These contracts provide City staff with an alternative to City pool vehicles or personal vehicles for travel for business purposes (i.e. off-site meetings, site visits, etc.). These car share services for non-city owned vehicles provides quick, convenient, on demand access to vehicles across the city.

Given the success and ease of use of 3rd party car share vehicles for City staff, FSD will be investigating the possibility of utilizing car share technology directly on City vehicles to provide an efficient and cost effective solution to manage daily fleet requirements.

There are two primary types of technologies that can be utilized to manage a motor pool fleet: (a) a lockbox solution; and, (b) an in-vehicle solution.

The lockbox solution is a stationary solution that securely houses the keys for each of the motor pool vehicles at that particular location. The second is a standalone in-vehicle solution with the keys secured in the vehicle and accessed through an application, such as a smart card, key fob or smart phone. The lockbox solution is ideal for vehicles where the users are located in the same vicinity and the vehicles are required to be returned to same location, whereas the in-vehicle solution is more versatile.

The in-vehicle solution is flexible for fleets that operate motor pools in multiple locations. Reservations are made through a passcode obtained from an online portal and by connecting the passcode provided to an in-vehicle device the driver is able to unlock the door with a smart card, key fob, or smartphone application. The in-vehicle device then provides access to the vehicle's key that are stored in a secure location within the vehicle. To prevent theft, if the vehicle keys are obtained through other means, the vehicle will not start without the passcode verification. This solution typically has on-going monthly charges whereas the lock box solution does not.

Both applications allow drivers to reserve vehicles 24 hours per day / seven (7) days per week, update / change reservations and pick up and drop off vehicles after hours, or at unstaffed locations. The technology will record data such as usage time, kilometres and vehicle operator. By utilizing car sharing technology, employees would be able to use vehicles that are currently not assigned to them, or their Division or Agency.

Potential Vehicle Application:

Car Share Technology is most appropriate for Class 1 and Class 2 vehicles. This class of vehicles includes cars, vans and pick-up trucks and accounts for the largest part of the fleet. FSD manages 2,058 in the Class 1, 2 and 3 categories of vehicles. The table below identifies the number of vehicles with low utilization (less than 5,000 km) year for 2017.

CLASS 1, 2 ,3 Vehicle Count and Low Utilization (2017)		
Category	Number of Vehicles	Low Utilization (Below 5,000km)
Class 1	776	234
Class 2	1020	232
Class 3	262	78
Total	**2058**	**544**

In many cases low utilization may be due to vehicles carrying tools and equipment that sit at a job site while staff work using those tools. There is an opportunity to utilize Car Share Technology on some of the Class 1 and Class 2 vehicles in the categories listed above that are not outfitted with specialized equipment or loaded with tools and supplies for job specific requirements.

A significant proportion of Class 2 and most Class 3 vehicles are typically outfitted or equipped to meet Division specific operational requirements. This includes various shelving packages (electrical, mechanical, HVAC, cages for animals, roof ladder and rack) and some have additional operator licensing requirements. Vehicles which transport and store tools or are equipment may be excluded from the car share technology due to increased time and operational costs to remove - install and store tools and items before and after each shift.

Installations for the lockbox solution will require site preparation including electrical and network wiring. Installation of the standalone solution will require a technician to install the product into each individual vehicle. FSD will also need to engage Corporate I&T to ensure that all approaches and options, including mobile applications for reservations and vehicle access will leverage and integrate with existing infrastructure.

Any car sharing solution will require resources to administer and manage the motor pool process, including training and support to clients with reservations, vehicle cleaning, detailing and fueling as well as installation, maintenance and repair activities.

Both solutions would require the development of an appropriate charge back model for usage to client divisions.

Estimated figures based on preliminary analysis for both solutions are indicated below:

Lockbox (8 Vehicle Pilot)	Cost Estimate
Project management, software and implementation	$15,000 to $40,000
Hardware and equipment per site	$8,000 to $20,000
Annual costs for software and network connection per site	$2,000 to $10,000

Standalone (5 Vehicle Pilot)	Cost Estimate
Project management, software and implementation	$15,000 to $30,000
Hardware & Installation	$3,200 to $7,300
Annual cost for airtime and licence	$3,000 to $4,800

As the needs of clients vary across divisions and individual operating units, FSD is recommending a one year pilot project to evaluate both the lockbox and standalone solutions for City operated vehicles. The parallel pilot project approach will allow FSD to evaluate costs, I&T infrastructure, security requirements, staff requirements and return on investment on the feasibility of a full scale implementation.

In addition to ten (10) fleet pool vehicles, Municipal Licensing and Standards has agreed to include three (3) of their vehicles as part of the pilot. FSD will lead the pilot and establish criteria and requirements to ensure a successful evaluation.

It is proposed that the pilot will review:
- operational impacts (including administration, resources, maintenance, cleaning, fueling and damage management);
- location restrictions;
- operating costs - including operating cost sharing;
- capital costs - including capital reserve contribution sharing;
- vehicle requirements to meet service levels; and,
- input and feedback from client Division and staff.
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SIGNATURE

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