For Information Only

The Green Way and Rightsizing Vehicles Program

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Recommendation

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Background

In the Infrastructure Services, 2012 – 2016 Capital Budget report dated October 5, 2011 presented to the Finance Committee by the General Manager of Infrastructure Services, Fleet Services outlined several initiatives that would be presented to Council in 2012 by way of Council Reports. The following is the first report outlining our Green Way and Rightsizing Vehicles Program.

Rightsizing of vehicles is a process where the unit is designed to match the actual requirements of the work being performed. As one of the City of Greater Sudbury goals is to reduce fuel consumption and lower Green House Gas emissions, it is hoped that in many cases there would be a downsizing of the vehicle or piece of equipment. However, there will be circumstances such as when combining functions where the size, capacity and functionality of the vehicle may be increased.

The City of Greater Sudbury, for many years, has been involved with rightsizing practices. It has been our objective to ensure that the proper vehicle matched to the work performed is being purchased. Some examples of these occurrences are:

a) Traditional larger (legacy) sedans are being replaced with compact model cars or hybrid cars.

b) Tandem multi-function trucks that carry larger loads and perform multi-functional work that previously required two vehicles (e.g. one plow truck and one sander) are being purchased.

c) Commercial vans in the one ton capacity were either undersized and overloaded or were oversized and carried very little cargo. We are now purchasing dual wheel cab & chassis with service bodies for heavier applications and in the case of the lighter requirements, mini-vans. For example; In the W/WW plants section one ton commercial vans are currently being utilized. They are undersized to carry the weight required and they do not have the towing capacity requirement for

towing of necessary generators and thawing equipment. The Wastewater Section also contracts out for crane services to carry out certain duties in plants and lift stations. Fleet Section met with the end-users and determined their needs and has purchased two (2) crew cabs equipped with service bodies and 6,000 pound cranes. This results in a higher load and trailering capacity vehicle, as well as reducing contracting out by having the crane integrated into the service truck. The estimated annual savings for contracted crane rentals in the Wastewater Section is $25,000 , based on a three year average of actual expenditures.

d) Historically, SUV type vehicles were full sized, four wheel drive models. They are now being replaced with cars or light duty two wheel drive SUV models. Four wheel drive requests must be justified as a requirement for carrying out work by completing a Business Plan Justification Form or Report.

e) Flusher trucks have historically been purchased for one specific purpose resulting in minimal summer utilization. When replacing this unit we redesigned the truck to include flushing functions with anti-icing capabilities for winter control purposes. The truck can now be used year round to accomplish many tasks, such as; watering of flower beds and medians, flushing streets, pre-wetting sidewalks for sweeping, spraying liquid calcium for dust control on gravel roads, high pressure cleaning under sides of bridges and underpasses and anti–icing for roads in winter control.

Fleet Challenge Ontario:

In 2007 the Ministry of Finance, with support from the Ministry of Transportation, through the “Strengthening Our Partnerships” initiative, funded a project designed to effect change in Ontario’s municipal fleet sector. Fleet Challenge Ontario was designed to assist Ontario municipalities in understanding and delivering on opportunities to facilitate fleet efficiencies and achieve associated environmental benefits. The E3 (Energy, Environment, Excellence) Fleet Review was an evaluation framework that was based on the principles of a LEED (Leadership in Energy and Environmental Design) certification.

In early 2008, the City of Greater Sudbury participated in an E3 Fleet Review that was sponsored by Fleet Challenge Canada. Fleet Challenge Ontario staff looked at the makeup of our fleet, fuel consumption, maintenance programs and idling controls. Following the review a report from E3 Fleet was provided. The report, based on City of Greater Sudbury information, included the following:

a) Key performance indicators

b) Key recommendations

c) Guide for Managers

d) Detailed E3 Fleet Review reports

After reviewing these reports with City of Greater Sudbury Fleet user groups, the need for a “Green Way” and a continuing Rightsizing Program was identified as recommended for the City of Greater Sudbury.

Green Way and Rightsizing Program:

Our Green Way program laid the foundation for the development of our internal City of Greater Sudbury Idling Control Policy dated August 13, 2008, and for the purchasing of high efficiency/low emission vehicles (hybrids and compact vehicles).

Our programs detail the procedure for vehicle selection for all City of Greater Sudbury vehicles based on the requirements necessary to perform typical tasks. The City of Greater Sudbury supports the reduction of Greenhouse Gas (GHG) emissions and fuel consumption from our Fleet.

The Rightsizing Program will allow the Fleet Section, in consultation with the user department; to determine the requirements for a base model vehicle for each specific function. The selection process will be incorporated into the Fleet Capital Replacement plan where each vehicle up for replacement will be reviewed to define, evaluate and optimize its functional requirements based on the customer requirements. Co-operatively our goal is to balance the environmental, operational and financial aspects of all equipment purchases.

Base Models Rightsized for Typical Loads:

The purpose of each vehicle including its functional requirements must be clearly and where possible, quantitatively defined. A vehicle will be selected based on the “typical” functional requirements where not only the application of the vehicle is considered, but the utilization will be important as well. Often a vehicle is selected based on the maximum load or performance that is required for a given operation, even though maximum vehicle performance is required for a small percentage of time. Properly sizing a vehicle for the “typical” loads and performance frequently results in the reduction of fuel consumption and GHG emissions.

In areas where additional functions are important but occasional, user departments are encouraged to evaluate their operations to determine how to optimize their internal fleet requirements to aid in our objectives. Instead of supplying a group of vehicles with similar functional requirements with full capabilities, allowances should be made to specify the majority of vehicles for average use, while allowing a few vehicles of the same group to be fully equipped to perform the specialty tasks that are only occasionally necessary. Also, it may be more efficient to occasionally rent specialized pieces of equipment instead of owning them with limited full utilization. For example, within a fleet of work vans that are originally sized to handle every situation, it may be more appropriate to have most of the vehicles sized to typical functional requirements and reserve a few vans to have the capabilities required for the extreme case situation.

Detailing the passenger and cargo carrying requirements quantitatively also helps to properly size the performance specifications of the vehicle and to properly design the unit to maximize space and utilization.

Due to the wide range of applications that City of Greater Sudbury user departments perform, exceptions are occasionally required due to the unique and necessary application of certain vehicles. However, the guidelines of the Functional Analysis form are designed to provide a base model by working through a series of criteria.

The City of Greater Sudbury has and will continue to use best practices in Rightsizing and the Greening of our fleet. Through co-operative efforts amongst the departments and with assistance from external agencies we have achieved fleet reductions in the number of assets, fuel consumption and Green House Gas emissions.

We are committed to the Green Way and Rightsizing Vehicles program and are confident that further achievements of our goals are attainable.