TORONTO TRANSIT COMMISSION
REPORT NO.

MEETING DATE: December 16, 2009

SUBJECT: CANADIAN CONTENT – BUS PROCUREMENTS

ACTION ITEM

RECOMMENDATION

It is recommended that the Commission direct staff to proceed with a pre-qualification process to determine the highest practical level of Canadian content that could be achieved for future low floor transit bus procurements, while maintaining competition.

FUNDING

Funds for the purchase of buses will be based on the approved Bus Fleet Plan and no commitments will be made without appropriate funding approval and authorization in accordance with the Authorization for Expenditures policy.

BACKGROUND

In March 20, 2008 Premier McGuinty announced that all transit vehicles procured using any sources of provincial funding must have at least 25% Canadian content which would come into effect September 1, 2008. This would apply to revenue vehicles including city buses and light rail vehicles, but would exclude specialized vehicles such as Wheel Trans buses.

At its meeting of August 27, 2008, the Commission moved that staff be requested to report back on future bus purchases and to explore the possibility of establishing a policy encouraging Canadian content of 50% for bus procurements.

In addition, at the Commission Meeting of August 27, 2008 staff was directed to issue letters to both the Provincial and Federal governments to explore the possibility of adopting a 60% Canadian content requirement for future transit vehicle purchases, which would include city buses and future light rail vehicles. Letters were sent to both levels of government on January 20, 2009. To date no response has been received, however it should be noted that prior to the Province establishing the 25% Canadian content they met with both rail and bus manufacturers.

DISCUSSION

In order to respond to the Commission's request, staff issued letters to the four known bus manufacturers with the capability to provide forty foot and/or sixty foot articulated city buses in Canada; ABC Bus Companies, representing Van Hool from Belgium, New Flyer Industries Canada (New Flyer), Daimler Buses North America (Orion) and Nova Bus, a division of Volvo Group Canada Inc. (Nova). ABC did not respond despite follow up.

In addition to the Canadian manufactures there are currently three U.S. based city bus manufacturers (i.e. North American Bus Industries Inc., Gillig Corporation and El Dorado National – California Inc.); however they have never participated in a TTC procurement.

New Flyer and Orion have actively participated in competitive procurements for the TTC over the last ten years. Nova has not actively participated in a competitive procurement for the TTC in the last ten years, but has now expressed an interest, however, at this time staff cannot confirm that Nova could provide a vehicle that would meet the TTC's specific requirements. ABC has to date not participated in a TTC bus procurement.

In addition to the above, Booz Allen Hamilton (Booz Allen) was retained to evaluate the highest practical level of Canadian content that could be achieved for future low floor transit bus procurements, while maintaining competition. These future procurements may include low floor forty foot and/or sixty foot articulated buses with either clean diesel or diesel-hybrid electric power train. Booz Allen was retained based on their experience with the Province of Ontario, which included discussions with the bus and rail industry prior to the Province establishing its 25% Canadian content. Booz Allen also completed a similar assessment for the Commission for the new low floor light rail vehicles to evaluate the highest practical level of Canadian content that could be achieved while maintaining competition.

To put the Canadian market in context, Booz Allen has advised that the transit bus market for both the United States and Canada combined is approximately 5,000 – 5,500 buses per year. The Canadian market accounts for an average of 500 – 600 buses per year or approximately 10% of the combined U.S./Canadian market.

The U.S. and Canadian bus market relies on the heavy duty truck market for the majority of its major power and drive components. This is normally a 250,000 unit per year market of which the transit bus market represents only about 2%.

While there are three domestic heavy duty transit bus manufacturers in Canada and a Canadian supply base for certain systems and components, the majority of the cost of a transit bus is associated with the power and drive train and major systems (engines, transmissions, axles, suspensions, hybrid systems, steering components, or transit bus door operating systems, HVAC, etc.), none of which are available from Canadian suppliers.

Further, based on the limited size of the Canadian bus market, it is unlikely that a manufacturer of drive trains or major system components would undertake the significant capital outlay and financial risks associated with opening a branch plant in Canada to manufacture these components, particularly since the economies of scale of such a plant would likely result in higher manufacturing costs and render them uncompetitive relative to existing manufacturers based in the United States. In addition, the dramatic fluctuations in the value of the Canadian dollar relative to the U.S. dollar would compound the risk if the Canadian dollar strengthens significantly (as is currently happening) as it could render the Canadian based manufacturers potentially uncompetitive for any sales outside of Canada.

All of the Canadian manufacturers named also provide buses to the significantly larger U.S. transit market and therefore, must comply with the Buy America guidelines. Booz Allen has advised that New Flyer and Orion also compete in the U.S. market and between them typically provide 50% to 60% of the U.S. orders. Nova has not had a presence in the U.S. for a number of years, but was recently awarded a contract from New York Transit for delivery of sixty foot articulated buses in 2010 and they will likely have to comply with the Buy America requirements. It should be also noted that currently only Nova and New Flyer produce sixty foot articulated buses.

The majority of buses sold to U.S. transit agencies are purchased with the support of Federal Transit Administration funding. Therefore companies interested in marketing buses in the United States are subject to the "Buy America" regulations, which require 60% U.S. content with certain restrictions including final assembly in the United States. Based on discussions with the bus manufacturers, the U.S. labour associated with the final assembly of buses represents approximately 6% of the total value of the buses. Therefore, in order to comply with the "Buy America" regulations the major bus manufacturers must have a manufacturing presence in the United States. However, this makes it difficult for the Canadian manufacturers to justify the additional costs associated with duplicating similar facilities in Canada for a market that is one tenth the size of the U.S. market. This is important as domestic bus manufacturers need to remain competitive in the U.S. market against U.S. based manufacturers where the majority (approximately 87%) of their bus sales occur.

Both New Flyer and Orion, the two manufacturers that have provided the majority (approximately 90%) of the current bus fleet to the TTC, advised that the buses traditionally marketed to U.S. and Canadian transit properties have a Canadian content of approximately 30%-35% for 40 foot diesel buses and a lower content for hybrid buses due to the significantly higher cost of its propulsion system, which is not available in Canada. Nova claimed that they could potentially meet a minimum of 50% Canadian content; however this would likely be based on the Quebec guidelines, which may differ from the Ontario guidelines. At this time and without an in depth study; neither Nova nor TTC staff could determine whether Nova would be able to meet that level of Canadian content in accordance with the Province of Ontario's Canadian content policy.

Based on the analysis of Booz Allen and subsequent discussions with the three Canadian based bus manufacturers, it is possible that the maximum levels of Canadian content identified may potentially be achievable in a competitive environment, subject to utilizing all of the suppliers identified in the Booz Allen report. It should be noted that this includes items that are not currently being provided by Canadian suppliers on TTC buses. These items account for approximately 4% of the material on the bus. Any consideration for changing suppliers for specific materials/components would have to be reviewed in conjunction with the potential impacts on vehicle reliability, warranty and any additional costs associated with either the development of new suppliers or the subsequent supply of such material/components.

In addition, based on input from the Canadian based manufacturers any level of Canadian content percentages selected by the Commission that are higher than the Provincial Policy would need to be based on a fixed foreign exchange rate of $1.00 CDN=$0.80 U.S. This rate, selected as the Canadian/U.S. exchange rate, has been very volatile in recent years and continues to fluctuate dramatically. This rate was selected as representative of the actual ten year average for the Canadian dollar relative to the U.S. dollar. Staff recommend this as a reasonable position although the current exchange rate is in the mid to high ninety cent range, it should be recognized that the exchange rate was $1.00 CDN=$0.80 US as recently as the first quarter of 2009.

Selecting a higher exchange rate as the basis for the recommended levels of Canadian content is not recommended, as it would place a potentially unwarranted hardship on Canadian based bus manufacturers in meeting the Canadian content percentage, without the benefit of actually increasing the real dollar value (i.e. actual Canadian content) of Canadian labour or material. This is true as increases in the value of the Canadian dollar would tend to make Canadian products more expensive relative to U.S. products, which would therefore increase the relative percentage of Canadian content without resulting in an increase in the actual Canadian content. However, it would also make the Canadian content of the buses relatively more expensive and therefore, less competitive (compared to U.S. based manufacturers) when Canadian based manufacturers are bidding into the U.S. market. As a further consideration, the bus manufacturers need to establish long term relationships with suppliers that can provide cost effective and reliable products and none of the Canadian bus manufacturers would be capable of responding to and changing their supplier base in step with the frequent and dramatic fluctuations in the relative values of the Canadian and U.S. dollars.

Based on the Booz Allen analysis and discussions with the bus manufacturers the potential maximum Canadian content percentages achievable while maintaining all three Canadian manufacturers for future bus purchases are as follows:

	40 ft Diesel	40 ft Hybrid	60 ft Diesel	60 ft Hybrid
Canadian Content Percentage	38.7%	28.1%	34.6%	29.4%

However, the following issues may affect future bus orders and the Commission's ability to reach these percentages and staff will need to explore these issues to determine the actual level of Canadian content that can be reliably achieved by the domestic manufacturers:

- Requiring a Canadian content percentage higher than the provincial requirement increases risks to the manufacturers. It may reduce their flexibility in selecting suppliers, and may require that they find/develop new suppliers;
- Some of the potential suppliers identified by Booz Allen do not currently have transit service proven products and may not initially be able to meet either the Commission's or the bus manufacturers' reliability, warranty and customer service expectations;
- The bus manufacturers will need to identify Canadian sources and develop suppliers.

There are risks associated with relying on new suppliers to enter the transit industry that are not accustomed to the transit bus market, potentially resulting in delays and/or vehicle maintenance or reliability issues and additional costs;

- In order to achieve the maximum percentage of Canadian content the bus manufacturers must maximize their sourcing of components from Canadian suppliers. This will require additional engineering effort by the manufacturers to integrate new suppliers and the Commission must also be prepared to accept, where necessary, new suppliers for components/systems. This may result in different parts/maintenance requirements;
- The Canadian bus manufacturers may not be able to maintain the appropriate level of Canadian content if the exchange rate falls below $1.00 CDN = $0.80 U.S.;
- In the event that the bus manufacturer loses a significant Canadian supplier or suppliers through no fault of the bus manufacturer, the Commission would have to consider the impact on Canadian content.

In addition to the above, the Commission's current bus fleet is approximately 1760 buses. Since 2003, the Commission has purchased or committed to purchase 1476 buses for delivery through to 2012. The forecast to purchase additional buses reflects less than 200 buses purchased for delivery from 2013 - 2015.

Therefore the Commission is not currently in a position to exert significant influence on Canadian based bus manufacturers to introduce dramatic changes, particularly if such changes may jeopardize their competitive position in the U.S. market.

Based on the situation described in this report, attempting to establish a Canadian content of 50% or more using the criteria in the Province of Ontario's Canadian content policy would likely result in limited or no competition based on the economics of the current market for buses in the Canadian/U.S. market. Further, even if a manufacturer could meet such a requirement, it would likely result in a significant cost premium compared to the cost of a bus manufactured to meet the balance of the Canadian/U.S. market, and the manufacturer would expect an ongoing commitment of future bus purchases to justify their additional costs to develop new Canadian sources of supply.

In addition, it should be noted that establishing Canadian content requirements at the maximum percentages shown will likely prevent bus manufacturers that are not based in Canada from competing in any TTC procurements, which would limit competition to a maximum of the three existing domestic manufacturers.

In addition to reviewing Canadian content, Booz Allen was also asked to comment on direct and indirect offsets. Direct and indirect offsets are primarily used for very large multi-year, specialized procurements where no (current) domestic manufacturers exist and the purchaser is trying to offset the purchase cost by establishing a benefit to the domestic market through direct purchases (direct offsets) from manufacturers of equipment/products made in Canada under the specific contract and indirect purchases (indirect offsets) when those same manufacturers continue to use/sell the same Canadian made equipment/products under other contracts to different customers.

The above concept is not applicable to the city bus industry in Canada as we already have three domestic manufacturers, of which two are currently reliant on access to the U.S.

market for their survival since the Canadian market is not large enough to support one Canadian based manufacturer let alone three. Further, the bus industry in the U.S. and Canada is a well established and potentially ongoing industry where the manufacturers have evolved over time to develop sources of supply that recognize the realities of the North American supply chain tempered by the unique demands of both the Canadian and U.S. markets. In response to these dynamic market forces, the Canadian manufacturers have over time adjusted to supplier and market forces and as noted earlier are already including a significant percentage of Canadian content in their buses whether sold in Canada or the United States. This represents a significant current benefit to Canadian suppliers as they therefore have access to a much larger U.S. market for ongoing sales of their equipment/products for new buses as well as maintenance parts.

To determine the maximum level of Canadian content achievable, it is recommended that staff explore the opportunities with the three domestic manufactures to source Canadian suppliers of material/components to increase the potential level of Canadian content. Further, staff recommends issuing a pre-qualification package to establish an achievable maximum level of Canadian content while ensuring we are only dealing with those manufacturers that can also demonstrate an ability to meet our commercial and technical requirements. Once this process is completed and prior to proceeding with any future RFP's for buses staff will report back to the Commission with a recommended maximum level of Canadian content.

In any event, staff will retain an external party to conduct Canadian content audits on future bus orders to ensure that the successful bus manufacturer meets the Canadian content requirements and that liquidated damages will apply for failure to meet the requirements.

JUSTIFICATION

Staff recommends commencing a pre-qualification process to determine the highest practical level of Canadian content that could be achieved for future low floor transit bus procurements while maintaining competition. In addition, the prequalification process will identify those Canadian manufacturers that can also meet our commercial and technical requirements for the supply of buses. Once this process is completed, staff will report back to the Commission on the results.

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December 2, 2009
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