

**MEETING DATE:** September 25, 2001

**SUBJECT: REVISED - Project Funding Approval Forty-Foot Low-Floor Diesel Bus Procurement Program**

**RECOMMENDATION**

It is recommended that the Commission:

1) Note that at its August 29, 2001 Commission Meeting, the Commission considered the report, "Project Funding Approval: Forty-Foot Low-Floor Diesel Bus Procurement Program" and approved the recommendation contained in the report, in principle, with a request that staff provide further cost information through the TTC's Budget Sub-Committee to the next Commission Meeting;

2. Note that as requested , on September 13, 2001, TTC staff met with members of the Commission and provided additional information;
3. Note that as action from the September 13 meeting with the Commission, subsequent TTC staff discussions occurred as well as a review with staff from the City of Toronto's CAO office. This has resulted in the recommendation being revised from a \$278M procurement of 509 buses for the years 2003, 2004 and 2005 to a \$119M procurement of 220 buses for the years 2003 and 2004;
4. Approve funds, subject to Council of the City of Toronto approval, in the total estimated upset limit amount of \$119M, which includes an adjustment for the GST rebate, in-house engineering and administrative costs, in-plant and receiving inspections, preparation for service, travelling expenses to the manufacturing facilities, and an allowance for contract changes for the purchase of 220 forty-foot low-floor diesel buses, to cover bus deliveries for the years 2003 and 2004;
5. Forward a copy of this Report to the Budget Advisory Committee and the Council of the City of Toronto with a recommendation for approval to permit the Commission to award a contract at its regular meeting of November 28, 2001; and
- 6.
7. Noting that this procurement is based on a revised bus fleet plan as detailed in the presentation attached as Appendix "C" that incorporates the following items:

- the articulated buses that were to be procured in years 2003 and 2004 will be deferred until technical and commercial problems can be overcome. An equivalent number of forty-foot buses will be procured in their place.
- the 6 year and 12 year bus rebuilds are being transitioned to a one mid-life (9 year) rebuild to reach an 18 year life because:

- longer diesel engine life

- pre-rebuild assessments confirm better structural and corrosion condition than buses already rebuilt at 6 years

∴ life cycle costs are being reduced significantly

- 79 1990 Flyer buses are being retired at 13 years because they are not considered to be rebuildable:

- structural corrosion is much worse than expected

- cost to rebuild uneconomical

- even if rebuilt, structural failure is likely (same design as the 60 1987 Flyer buses that were retired early also)

- 18 year old GM buses (23) that were originally planned for retirement will now be rebuilt for a 24 year life.
- additional new buses (15) that were to be purchased to allow for vehicles to be out of service for warranty will no longer be purchased.
- a reduction of 20 total bus procurements from 1340 to 1320 buses by year 2010.
- a reduction of total bus procurements in years 2003 and 2004 from 299 to 220 buses.

## **FUNDING**

Funds for the purchase of low-floor buses were included in the 2001-2005 Capital Program 4.11 Purchase of Buses under Project #6816 – Replacement of Forty-Foot Diesel Buses or Equivalent (pages 777-779 attached as Appendix "A") as approved by the Commission on December 13, 2000. However, at the meeting of April 30, 2001 City Council limited its project approval to expenditures in 2001 and requested that the Commission report back prior to proceeding with future commitments on new bus procurements under this Capital Program. This report responds to that request.

The 220 buses recommended for procurement include the bus requirements for 2003 and 2004. The two year quantity is proposed due to the lengthy lead times for delivery (up to two years) and the operating efficiencies associated with a larger portion of our fleet being of the same configuration. The number of buses recommended for 2003 and 2004 has been reduced from the approved 2001-2005 Commission approved plan (299 to 220) because of the changes as noted in Recommendation 6 of this report. The revised procurement plan is as set out in the table below:

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
<b>APPROVED (40-ft + 60-ft)</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>124</b>	<b>150</b>	<b>241</b>	<b>205</b>	<b>185</b>	<b>180</b>	<b>80</b>	<b>1,265</b>
40-ft in lieu of 60-ft	0	0	50	25	0	0	0	0	0	0	75
<b>APPROVED (40-ft only)</b>	<b>0</b>	<b>0</b>	<b>150</b>	<b>149</b>	<b>150</b>	<b>241</b>	<b>205</b>	<b>185</b>	<b>180</b>	<b>80</b>	<b>1,340</b>
Additions / (Deletions)	0	0	(50)	(29)	100	(11)	15	(45)	(50)	50	(20)
<b>REVISED</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>120</b>	<b>250</b>	<b>230</b>	<b>220</b>	<b>140</b>	<b>130</b>	<b>130</b>	<b>1,320</b>

### **REVISED PROCUREMENT PLAN**

The following table summarizes the funding implications for the procurement of 220 buses in the years 2003 and 2004. More detail is included in Appendix "C".

### **NEW BUS PURCHASES (\$000)**

	2001	2002	2003	2004	TOTAL
<b>APPROVED (01-05)</b>	<b>115</b>	<b>117</b>	<b>79,004</b>	<b>80,019</b>	159,255
<b>REVISED</b>	<b>(12)</b>	640	53,149	65,281	119,058
<b>Change</b>	<b>(127)</b>	523	(25,855)	(14,738)	(40,197)

It should be noted that the cost per bus has increased over previous estimates due to unit cost increases and the decision to procure forty-foot buses. Approximately \$2M of the \$119M required is for these reasons.

### **BACKGROUND**

Bus purchases are ongoing to allow replacement of an ageing fleet and to address increases in ridership. Although transit buses typically have a life of 12 years, the

Commission's buses are usually replaced at the end of 18 years. The average age of a Commission bus is currently 13 years compared to an average of 7 years for buses at transit properties in the United States. Some non-tubular steel frame buses are being rebuilt at 18 years to extend the life to 24 years. However, some tubular steel frame buses are being retired before reaching the 12-year bus heavy rebuild due to premature structural failure and/or extensive corrosion. When these conditions occur, the buses are considered "unrebuildable." They are uneconomical to rebuild, but more importantly, they pose an unacceptable risk of failing structurally.

The approved 2001-2005 Bus Fleet Plan is attached as Appendix "B". Initially, it was intended to purchase sixty-foot low-floor articulated buses and forty-foot low-floor buses during 2003-2004 or alternatively, if low-floor articulated buses were not available, purchase the equivalent number of forty-foot low-floor buses in lieu of the articulated buses during the same period. After reviewing the sole submission regarding articulated buses earlier this year, it became evident that articulated buses in an acceptable technical configuration would not be available for delivery in the required time frame. Staff decided to defer the purchase of articulated buses and proceed with the alternate option to purchase only forty-foot low-floor buses for delivery in 2003 and 2004.

A recent inspection of the 79 New Flyer tubular steel buses, delivered to the Commission in 1990 and scheduled for a 12-year bus heavy rebuild in 2002 revealed that they had deteriorated through structural corrosion to a significantly greater degree than expected. As a result, they are unsuitable for continued use in service and are scheduled for retirement during 2002-2003 as they fail and/or when new buses are received in 2003. This results in more buses being procured earlier than originally scheduled. The Revised Procurement Plan table in the funding section of this report shows the resultant changes, ie. more new vehicles required in 2005. The procurement of buses for delivery in 2005 is not part of this recommended order.

The revised Bus Fleet Plan is explained in Appendix "C".

## **DISCUSSION**

In May 2001, a request for proposals for forty-foot low-floor buses was publicly advertised resulting in thirteen companies being issued proposal documents out of which two companies, Orion Bus Industries and New Flyer Industries, submitted proposals. The submissions received from both companies included unacceptable exceptions and qualifications. As a result, the proposal was cancelled.

Staff is negotiating with Orion Bus Industries and New Flyer Industries, which have provided buses to the Commission in the past. Upon successful completion of negotiations, staff intends to seek appropriate procurement authorization subject to

funding approval. Due to the lead time for bus procurements of 18-24 months, it is critical that a contract be awarded in 2001 to ensure delivery in 2003. This delivery plan may be optimistic in view of the current experience by numerous transit properties that receive buses many months after the planned delivery schedules due to problems on the suppliers' production lines. Thus, any delay in making a commitment for the procurement of new buses could be further complicated by poor adherence to delivery schedules.

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### **JUSTIFICATION**

Due to the urgency in establishing a contract to ensure delivery of new forty-foot low-floor buses on schedule, staff is recommending Commission approval of capital funds in an amount not to exceed \$119M, subject to City Council approval.

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August 16, 2001

5-92-91

Attachments: Appendix 'A'

Appendix 'B'

Appendix 'C'