

February 23, 2004

Edmonton City Council  
Transportation and Public Works Committee  
#1 Sir Winston Churchill Square  
Edmonton, AB T5J 2R7

Dear Committee Member:

**The Edmonton Transit System Advisory Board examined the January 23, 2004 report of the consulting firm Booz Allen Hamilton and concluded that it contains significant flaws and omissions. As such, we do not believe it provides adequate basis for making an objective decision on the future of the trolley system.**

According to a Department of Asset Management report presented at the September 16, 2003 Transportation and Public Works Committee meeting, "Input from the Transit System Advisory Board . . . will be solicited for inclusion in the consultant's report." We were surprised to hear at our January 2004 Board meeting that we had been consulted. While the consultants' work was going on, the ETS Advisory Board was, in fact, not formally approached for input. The only contact with our Board consisted of a representative from Mobile Equipment Services sitting in at our September Board Meeting during a presentation made by a community organization. The ETS Advisory Board neither saw nor reviewed a draft of this report prior to its release, nor has it seen the consultants' terms of reference.

The ETS Advisory Board identified a number of serious shortcomings in this report. The following summarize Booz Allen's conclusions and the ETS Advisory Board's comments:

***Booz Allen conclude: Edmonton's trolley fleet is old and the system is underutilized.***

- The ETS Advisory Board feels the trolley infrastructure is well maintained and represents a significant capital asset. The report does not assess the value of this asset. The Vancouver system--about twice the size of ours--was valued at \$184 million. To consider the trolley's future objectively, we need to know the value of our system.
- If the trolley fleet is "underutilized" (the consultant described it as "not utilized to industry standards") what steps could be implemented to bring utilization to "industry standards"?

***Booz Allen conclude: Because of dramatic improvements in diesel engine controls (spurred by impending 2007 exhaust regulations), trolleys no longer will offer advantages in area-wide emissions. Localized emission considerations will continue to favor trolleys . . .***

- The issue has never been "area-wide emissions"; it has always been one of curbside emissions. A statement that passengers waiting at bus stops are exposed to up to 40 times the ambient levels of diesel particulate emissions appears buried in the report. Despite devoting many pages to diesel emission standards, Booz Allen miss the fact that Environment Canada states there is no safe level of particulate exposure and recommends exposure be minimized wherever possible. Curbside diesel emissions obviously present greater risk than distant power plant emissions, and this needs to be a key consideration in any comprehensive assessment.
- The report seems unsure about what new technology will be used to meet the 2008+ emission standards. At one point, it alludes to hybrid buses, which are twice the price of current diesels (and would change the capital cost assessment). To our knowledge, emission reduction technologies are still very much in development, with the long-term costs and performance yet unknown. The ETS Advisory Board does not share the consultants' belief that the mere promise of stringent diesel emission standards is sufficient basis to decide the future of zero emission trolleybuses.
- The current fleet renewal timetable will see most of old diesel fleet replaced with existing diesel technology before the new standards come into effect. Thus, the entire diesel fleet will not actually meet the new standards until about 2028. In terms of "area-wide emissions", the trolleys will still be cleaner than many of the diesel buses in use until that time according to the power and diesel emissions data in the report.

**Booz Allen conclude: The trolley system has been and will continue to be more expensive to operate and maintain than an equivalent diesel service.**

- The report focuses on costs without considering how ridership and revenue factor into this equation. Trolley routes operate downtown and carry thousands of passengers. The revenue from these passengers should offset the added cost of maintaining trolley infrastructure to some extent. Trolley routes may, in fact, be more financially viable than lightly patronized diesel routes operating in the suburbs. But Booz Allen's cost per km measure does not permit this analysis; the report's operating cost assessment is therefore missing a key element. In order to assess the financial viability of the trolley system or establish the cost of the trolley's benefits, one needs to know the cost per passenger or cost per passenger km. A discounted cash flow (DCF) analysis would provide a better basis for comparison.
- "Life cycle costings"--the cost of each type of vehicle over its lifespan--are customary in fleet maintenance for making equitable comparisons. Such an evaluation is not provided. Instead, the study unfairly compares vehicle maintenance costs of a diesel fleet that is about 50% new with 20+ year old trolleybuses over only the past three years. If one compares old trolleys to old diesels in Booz Allen's data, the report's conclusion that trolleys cost more to maintain is, in fact, incorrect. The reported vehicle maintenance costs of 20+ year-old trolleys are significantly lower than diesel buses 10 years of age and older, and the cost of maintaining 12 year old diesels is at least twice that of 21 year old trolleys. When used "maximally" trolleys show up as the least expensive to maintain of all vehicles in the bus fleet 10 years of age and older. The presence of conclusions not supported by the data damages the ETS Advisory Board's confidence in this study.
- The report states ETS has negotiated a low rate for power on contract with EPCOR, but the consultants cannot predict diesel fuel prices beyond 2007. The ETS Advisory Board is aware that City Council has had to inject funds into the Budget to cover rising diesel costs for the past three years. The report's conclusion that phasing out trolley operations will bring future cost savings is questionable if diesel fuel price trends cannot be projected for more than three years in advance. The report also does not acknowledge that all Edmontonians are shareholders in EPCOR and benefit from the sale of power and infrastructure maintenance services for the trolley and LRT systems.

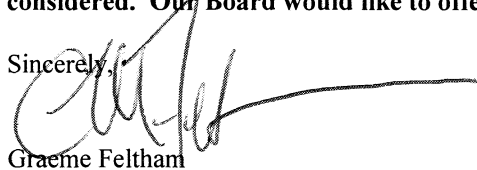
**The ETS Advisory Board has identified other important issues not considered in the report:**

- Diesel bus noise has been a concern in Edmonton neighbourhoods. Trolleybuses are not noise polluters. The report devotes one page to noise emissions, but contains no noise impact assessment that would identify, for instance, the increase in noise peaks per hour >80 db in trolley corridors if all routes were diesel. The City and communities need such an assessment in order to weigh the impacts that any proposed change would have.
- The study does not take into consideration population growth patterns in the city core or evaluate what potential role trolleys might play in the revitalization of downtown Edmonton.
- Most importantly, the study contains no evaluation of ETS customer preferences or the views of residents and business owners in the areas served by trolleys.
- On review of the report, consideration of other capital cost scenarios would reduce the capital cost expenses from 20 Million to 8.75 Million dollars.

**The ETS Advisory Board does not see the long-term future of the trolley system as requiring an immediate decision. While Edmontonians can appreciate the need to control expenditures, they have also voiced recent concerns about quality of life issues being lost in an emphasis on economics.**

**Given the flaws and omissions in this report, the ETS Advisory Board--as a citizens board--recommends deferring any decision until adequate consultation with stakeholders can take place. While a public hearing has been promised in April and may be beneficial, the Board feels that the effectiveness of such hearings as a measure of public opinion is sometimes limited. Timing can limit the participation of affected citizens, and there is minimal opportunity for discussion. We feel more comprehensive consultation would ensure citizens views are heard and considered. Our Board would like to offer to facilitate such a public consultation process.**

Sincerely,



Graeme Feltham  
ETS Advisory Board Chair

Cc: Wayne Mandryk, Manager of ETS  
Edmonton Environmental Advisory Committee