OFFICE OF THE
City Auditor

Edmonton Transit Branch
Follow-up to the 2006 Audit

April 2, 2009

THE CITY OF Edmonton

The Office of the City Auditor conducted this project in accordance with the *International Standards for the Professional Practice of Internal Auditing*

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Summary for City Council

The Edmonton Transit System (ETS) operating budget is the second largest civic budget in 2009. The approved 2009 operating expenditure budget is $246.1 million with a tax levy of $143.8 million. The budget includes funding for the equivalent of 2,075.6 full time positions (FTEs) and operations of 904 buses, 37 LRT vehicles and 98 DATS lift vans.

The objective of this follow-up review was to determine the implementation status of the five recommendations relating to bus and LRT operations contained in the Edmonton Transit Branch Audit Report issued by the Office of the City Auditor (OCA) on December 18, 2006. We re-examined statistical information presented in the 2006 report and assessed the actions taken by ETS to address our recommendations.

Council is the governing body providing overall direction for the delivery of services. Responsibility for delivering services in an effective, efficient and economical manner and for meeting Council expectations is delegated to the Administration through the City Manager.

Our review of performance indicators for comparable Canadian transit systems indicates that relative to those systems, ETS performance has remained constant. In 2005 and 2007, two key performance indicators were the lowest of comparable systems:

- Service utilization measured in terms of ridership per service hour, and
- Financial performance measured in terms of the revenue/cost (R/C) ratio.

The 2009 budget suggests ETS will experience an improvement in these performance indicators with ridership increasing at a greater rate than service hours and revenues increasing at a greater rate than expenditures.

The approved Transit Fare Policy forecasts the R/C ratio to continue improving through to 2013 based on maintaining the current growth pattern. However, the ETS Ridership Growth Strategy shows service hours increasing at a greater rate than ridership, suggesting performance will decrease between 2009 and 2013 if the strategy is fully implemented.

We noted that ETS has calculated R/C ratios and uses them for internal analysis purposes. However, the ETS published budget documents do not identify the R/C ratio, the impacts budget decisions will have on the forecasted R/C ratio, or how changes in the economic climate will impact Edmonton Transit's ability to meet revenue/cost targets.

We also noted that the reports on the Ridership Growth Strategy and ETS' proposed Service Standards, have not been accepted by the Transportation and Public Works

Committee (TPW). Additional information on these topics is scheduled for discussion at the April 21, 2009 TPW meeting.

A full report outlining the detailed results of our review is attached. The purpose of this summary is to highlight areas requiring improvement by the Administration.

Our review found that although progress has been made by ETS in implementing the five recommendations contained in our 2006 report, the following major steps need to be taken to achieve the intent of the recommendations:

- A R/C ratio needs to be established and approved that considers affordability for both transit users and tax payers. The R/C ratio needs to be incorporated in ETS's service planning and fare product pricing activities and performance reporting.
- Ridership growth projection and service enhancements need to be reassessed to take into account the current economic climate and the City's ability to sustain service delivery in the future. Multi-year service planning cannot be completed effectively if financial constraints are only considered in the annual budget.
- Service performance standards need to be established, approved and applied consistently to improve the cost effectiveness of service delivery and to reduce the risk of setting service level expectations that cannot be met or sustained.

From a service delivery perspective we found that ETS operations aligned with the goals set out in the City's vision document "The Way Ahead". However, the ridership growth strategy only presents a list of options that could be considered to increase ridership, it does not include recommendations for a strategy that recognizes the City's financial constraints or ability to fund and sustain growth and enhanced services. We believe this strategy contradicts the underlying principle of sustainability that supports the City's vision and the 3-year priority goal "Ensure transit sustainability through appropriate cost recovery ratio".

With ETS being the second largest civic operation, the way they manage service delivery, growth, and expansion of service has a significant impact on the overall city budget. We believe that ETS needs to improve integration of forecasting activities undertaken by their Marketing section and the service planning activities undertaken by their Service Planning section to effectively balance service delivery requirements with the City's capacity to sustain planned service.

The OCA will monitor the progress towards full implementation of the five recommendations and schedule a second follow-up review at an appropriate time and report the results to Council.

1. Introduction

The Edmonton Transit System (ETS) Branch Audit Follow-up is included in the Office of the City Auditor's (OCA) 2009 work plan, approved by City Council. The objective of this review was to determine the implementation status of the OCA's five recommendations contained in the ETS Branch Audit Report issued on December 18, 2006. In addition, this review included re-examination of statistical information presented in the 2006 report and an assessment of the degree of alignment between the current ETS long-term strategy/practices and the intent of our original recommendations.

Our review started with the review of 2005 statistics that were the basis for the 2006 recommendations. We reviewed the 2006 and 2007 statistics published by the Canadian Urban Transit Association (CUTA); 2008 data is not available at this time. We supplemented the data with information contained in the approved 2009 operating budget and ridership growth strategies for ETS. Our assessment on the implementation status of our recommendations also included the examination of reports, policies and other documentation that supported the actions taken by ETS as well as discussions with ETS staff.

This report focuses on Bus/LRT operations as DATS operations were not included in the scope of our 2006 Audit.

2. Performance Update

2.1 Summary of the Original Report

The objective of the ETS Branch Audit was to provide assurance that ETS services were being delivered in an effective, efficient and economical manner and determine whether risks within the Branch were being managed to an acceptable level.

We concluded that Council is the owner of the transit service and the Administration is accountable to Council for operating the service within approved policy. However, policies in place at that time did not provide clear direction for the delivery of transit services and performance expectations of Council.

We noted that ETS was effective in increasing ridership numbers. However, there were opportunities for ETS to improve its effectiveness, efficiency and economy without sacrificing ridership growth. The OCA believed that policies that provide clear direction are required in order for ETS management to deliver services that are aligned with Council expectations relative to service levels and the level of tax levy subsidy.

The OCA observed that a financial measurement common to transit organizations is the revenue/cost (R/C) ratio. The R/C ratio is one tool Council can use to provide direction on financial performance expectations.

2.2 Operating Budget and Statistical Update

The ETS operating budget is the second largest civic operating budget in 2009. The approved 2009 operating expenditure budget is $246.1 million with a tax levy of $143.8 million. The budget includes funding for the equivalent of 2,075.6 full time positions (FTEs) and operations of 904 buses, 37 LRT vehicles and 98 DATS lift vans.

Table 1 summarizes the approved operating budgets for the years 2006 through 2009.

Table 1
ETS Operating Budget
(Millions of Dollars)

	2006	2007	2008	2009
Operating Expenditures				
Bus/LRT Operations	$159.0	$175.9	$193.9	$220.4
DATS Operations	21.6	22.6	25.0	25.7
Total Operating Expenditures	$180.6	$198.5	$218.9	$246.1
Revenues				
Bus/LRT Fare Revenue	$65.7	$71.4	$80.7	$92.7
Other Bus/LRT Revenue	4.8	5.1	5.3	7.6
DATS Fare Revenue	1.5	1.6	1.9	2.0
Total Revenue	$72.0	$78.1	$87.9	$102.3
Tax Levy	$108.6	$120.4	$131.0	$143.8
Percentage Increase	*11.4%*	*10.9%*	*8.9%*	*9.8%*
Bus/LRT Cost Recovery Ratio	44.3%	43.5%	44.4%	45.5%
Full Time Equivalents (FTEs)	1,914.9	1,970.8	2,008.7	2,075.6

Information Source – Approved Operating Budget Documents

From 2006 to 2009 Bus/LRT budgeted operating expenditures increased by $61.4 million or 38.6%. ETS attributes $33.8 million of the expenditure increase to inflation on fuel and on operator wage settlements for direct service, $17.6 million for new services and the remaining $10.0 million for inflation and increases in support services such as dispatch, inspectors, training and recruitment.

Over the same period budgeted revenues increased by $29.8 million or 42.3%. ETS attributes $10.6 million to fare increases and $16.4 million to increased passengers and new services. The remaining $2.8 million is attributed to increases in advertising, charter service and regional service.

Based on the approved budget figures the percent of the Bus/LRT expenditures funded by revenues increased from 44.3% in 2006 to 45.5% in 2009. The 2008 and 2009 budgets show an improvement in the percent of budgeted expenditures funded from budgeted revenues. If the 2009 ETS budget is achieved, the 11 year trend of declining cost recovery will be reversed.

Cost efficiency can be demonstrated by comparing expenditure and revenue increases on a per ride basis. A ride is defined as a single one way trip, from origin to final destination; passengers whose trips involve transferring from one vehicle to another are counted only once.

Ridership is a calculated estimate based in part on the number of times ETS believes passes are used. For example, based on a survey of transit users ETS estimates that adult monthly passes are used an average of 54 times in a month. Effectively this means one individual who buys a pass every month accounts for 648 of the 67.5 million rides identified in the 2009 budget.

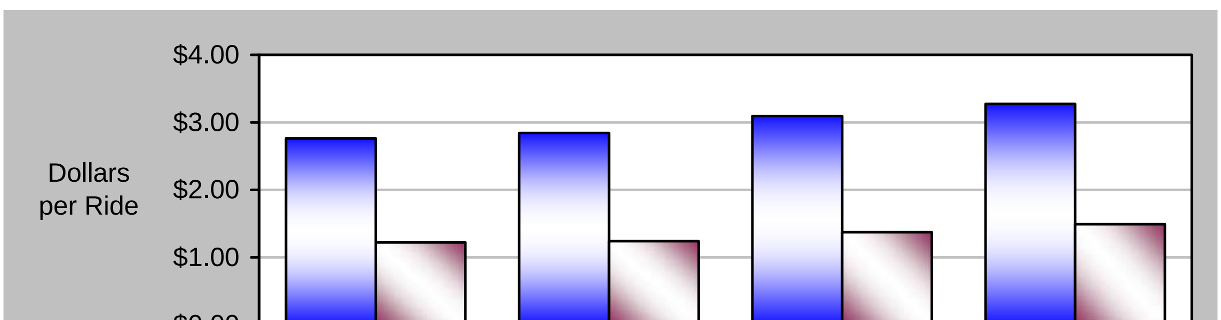
Table 2 sets out operational statistics for the years 2006 through 2009.

Table 2
Bus/LRT Operating Statistics

	2006	2007	2008	2009	3 Year Increase
Service Hours (millions)	1.8	1.9	1.9	2.0	11.1%
Ridership (millions)	57.5	61.9	62.8	67.5	17.4%
Adult Cash Fare	$2.25	$2.50	$2.50	$2.50	11.1%
Adult Monthly Pass	$59.00	$59.00	$66.50	$74.25	25.8%

Chart 1 reflects the budgeted expenditures and revenues for Bus/LRT service on a per ride basis. The expenditures per ride reflects the combined impact of ridership and service hour increases, inflation and other cost increases. Revenue per ride essentially combines the impact of ridership increases and fare increases.

Chart 1
Expenditure & Revenue per Ride*



	2006	2007	2008	2009
Expenditure	$2.76	$2.84	$3.09	$3.27
Revenue	$1.22	$1.24	$1.37	$1.49

* Based on Annual Budget for Bus/LRT operations

The budgeted expenditure per ride increased by 18.5% from 2006 to 2009 compared to a 38.6% overall expenditure increase. Changes in service hours have a significant impact on the overall expenditure increase. The lower increase in expenditures per ride is a reflection of ridership increasing at a greater rate than service hours.

Revenue per ride increased 22.1% over the same period compared to a 42.3% increase in overall revenues. The difference is a reflection of higher adult fares being partially offset by the introduction of the UPASS which is offered at a substantial discount as well as increased revenue from regional and charter services.

2.3 Transit Industry Statistics

There are many factors that influence the efficiency, effectiveness and economy of public transit service delivery. These factors include population density, location of major employment centres, geographic location and layout, and automobile usage culture of the region. Therefore, care must be taken when comparing performance indicators with other transit organizations.

The OCA compared ETS operating results for 2005 through 2007 to those of the five most comparable Canadian cities[1] as well as the average for all Canadian municipalities with transit systems serving a population of 400,000 or greater. We used the Canadian Transit Fact Books produced annually by CUTA to determine whether ETS trends are a reflection of those being experienced by other transit organizations.

Our high level review of information contained in the Canadian Transit Fact Books showed that Edmonton's trends are similar to other comparable systems. Changes in performance reported by ETS showed a slight improvement relative to the comparable transit systems but Edmonton's rankings relative to service utilization remain unchanged. For example:

- Edmonton's ridership per service hour is lower than comparable transit systems.
- Edmonton's ridership per capita is third lowest of the five most comparable transit systems and is lower than the average for all transit systems serving a population of 400,000 or greater.
- Edmonton's fleet utilization is the lowest of all comparable transit systems.

A comparison of fares presented in the 2007 Canadian Transit Fact Books show Edmonton's adult cash fare on par with the average for all transit systems serving a population greater than 400,000. Monthly pass prices compare as follows:

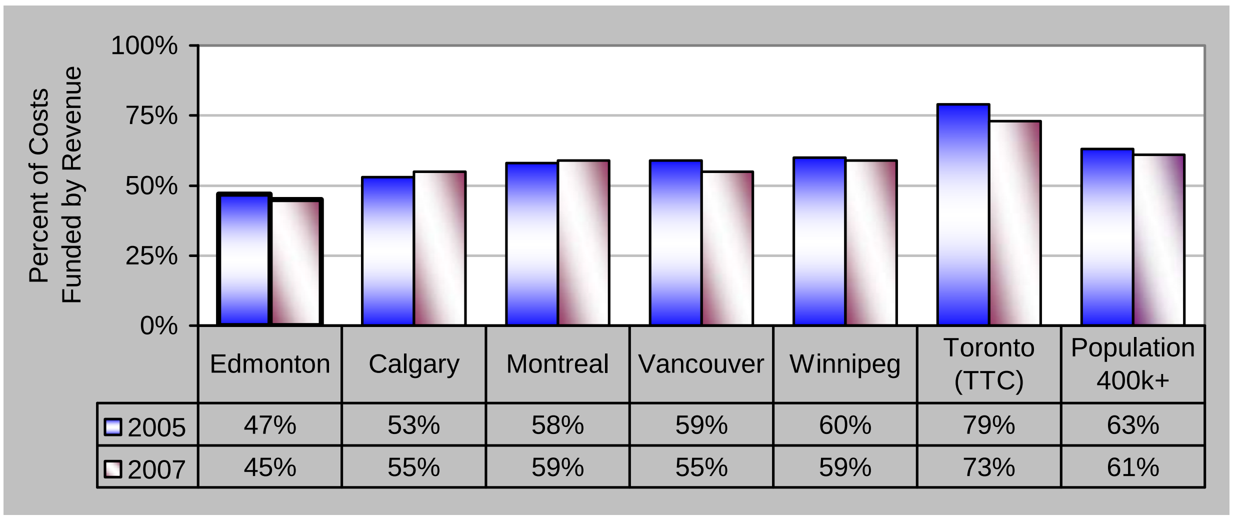
- Edmonton's adult monthly pass price is lower than that of comparable systems and the average for all transit systems serving a population greater than 400,000.
- Edmonton's student pass price is lower than the average for all systems serving a population greater than 400,000 but higher than that of four of the five most comparable transit systems.

[1] The consultant hired by ETS to prepare their Ridership Growth Strategy and Planning Process Review used Calgary, Montreal, Toronto, Winnipeg and Vancouver as comparable transit organizations.

- Edmonton's senior monthly pass is priced lower than all comparable transit systems with the exception of Calgary which offers an annual senior pass at a much lower cost.

Chart 2 shows the R/C ratio[2] for comparable Canadian transit systems. The R/C ratio is influenced by many factors including service design, fare structure, population density, socio-economic conditions and policy direction.

Chart 2
Revenue/Cost Ratio Comparison



Information Source – 2005 & 2007 Canadian Transit Fact Book

Based on the application of criteria established by CUTA, Edmonton's R/C ratio of 45% continues to be the lowest of all comparable transit systems in 2007.

3. Results of Follow-up Review

3.1 Fare Policy and Revenue/Cost Ratio

3.1.1 2006 Audit Recommendation

The OCA recommends that ETS Management develop a fare policy for Council approval. Establishment of the fare policy requires Council's direction on the appropriate transit revenue/cost ratio.

[2] CUTA defines revenue/cost ratio as the total operating revenues divided by total direct operating expenses.

Management Response

Agreed. The fare policy report will be presented to the Transportation and Public Works Committee during the first quarter of 2007.

Implementation Status

The recommendation has been partially implemented. A fare policy that sets out the fare product structure was approved in May 2007. However, ETS management advised us that Council has not provided direction on a R/C ratio to guide planning and decision making processes.

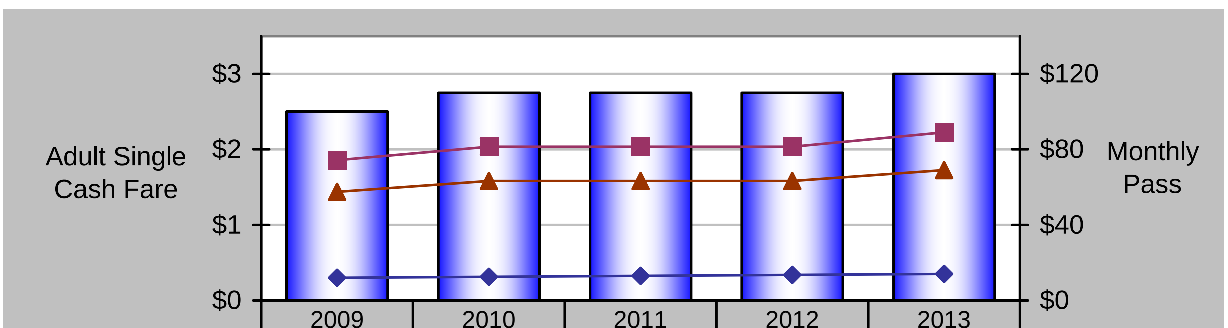
3.1.2 Follow-up Observations

Fare Policy

Edmonton Transit System Fare Policy C451D was approved by Council on May 8, 2007. The policy sets out the fare product structure from 2007 through 2013. The policy is to be reviewed at least once per Council term providing Council with the opportunity to provide direction to the Administration in implementing a fare structure. Edmonton Transit has developed a model to forecast the fare structure that incorporates inflationary and additional service cost increases, population increase, historical ridership increases and projected ridership growth.

The adult cash fare is the basis for calculating all fare product prices. Chart 3 illustrates the approved fare structure for adult single cash and monthly fares over the five year period 2009 through 2013.

Chart 3
Fare Structure



	2009	2010	2011	2012	2013
Cash Fare	$2.50	$2.75	$2.75	$2.75	$3.00
Adult Pass	$74.25	$81.50	$81.50	$81.50	$89.00
Student Pass	$57.50	$63.25	$63.25	$63.25	$69.00
Senior Pass	$12.00	$12.50	$13.00	$13.50	$14.00

Information Source – ETS Fare Policy

The price of the adult cash fare, adult monthly pass and student monthly pass is forecast to increase by 20% from 2009 to 2013 while the senior monthly pass increases by 16.7% over the same period.

As part of the budget process each year, ETS recommends an annual transit fare structure. This process is based on the direction provided through the Corporate Business Plan and Long Range Financial Plan guidelines regarding tax levy support and revenue requirements, as well as Policy C451D.

In May 2008 a ridership growth strategy was prepared that projects ridership growth more than double than what was identified in the fare policy approved in 2007. Edmonton Transit advised that the new ridership growth forecast will be incorporated in the fare policy should the Ridership Growth Strategy be approved by Council.

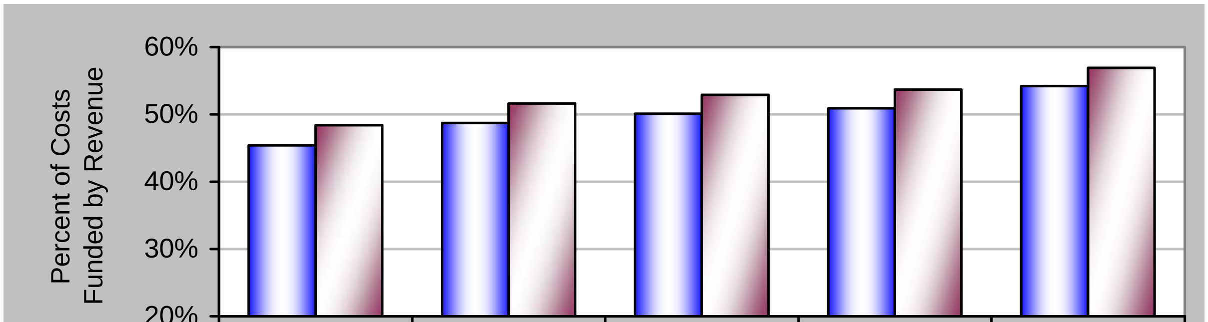
Revenue/Cost Ratio

The ETS fare policy includes two cost recovery rates based on estimated costs and average revenues per ride. Neither of these rates reflect the R/C ratio defined by CUTA or currently defined by ETS. Edmonton Transit management advised us that the cost recovery rates include in the fare policy are not Council direction on a R/C ratio target.

Edmonton Transit management advised us that the focus of their service planning process is on service delivery and meeting transit user needs. Cost recovery and financial impacts are considered but not presented until the annual budget is being developed.

Chart 4 illustrates the cost recovery ratios included in the fare policy.

Chart 4
Cost Recovery Ratio



	2009	2010	2011	2012	2013
Fare Only	45.4%	48.7%	50.1%	50.9%	54.2%
All Revenue	48.4%	51.6%	52.9%	53.7%	56.9%

Information Source – Transit Fare Policy

The projections in the chart show a rapid increase in cost recovery from 2009 to 2013. In contrast, the R/C ratio reported to CUTA declined by 4% from 1997 to 2007.

In April 2008, City Council received a report titled “Definition of Transit Revenue/Cost Ratio” as information. In the report ETS identified the importance of the revenue/cost ratio as follows: “The Revenue/Cost (R/C) Ratio associated with operating conventional transit buses and LRT vehicles is the most important indicator of how policies, fares, services and financial challenges impact the affordability of the Edmonton Transit System.” The report defines revenues and costs as follows:

- “Revenue is not just fares collected from passengers. It includes any income generated by ETS such as advertisement, regional bus service and businesses in ETS areas.”
- “Costs cover more than just the operations of buses and LRT vehicles. It includes fuel for buses, electrical power for LRT vehicles, maintenance of equipment and buildings, security, planning and services from other City Departments.”

Recent events that may impact ETS’s R/C ratio definition include:

- Starting in 2009, Municipalities are required to report all tangible capital assets (TCA) on their financial statements and amortize the assets on an ongoing basis over their expected service lives. Initial estimates indicate that for 2009 amortization of transit capital assets will be approximately $21 million.
- A request from the Transportation and Public Works committee (TPW) for information on the creation of a city-wide one stop shop to coordinate and administer subsidized programs and benefits for low-income households including ETS fares.

ETS budget documents do not identify the R/C ratio, the impacts budget decisions will have on the forecasted R/C ratio, or how changes in the economic climate will impact ETS’s ability to meet revenue/cost targets. ETS management advised the OCA that they use the R/C ratio when developing the budget, for internal analysis, for annual performance assessment and during budget deliberations. The documents provided by ETS include three R/C ratio scenarios, all showing an increase from 2007 to 2009.

3.1.3 OCA Conclusion

Recommendation Partially Implemented

Edmonton Transit has developed a fare policy setting out the fare structure up to 2013. However, ETS has advised us that Council has not provided direction on a R/C ratio to guide fare discussions, service planning and identify financial challenges that impact the affordability of transit services.

The fare policy sets out the requirement for review at least once per Council term. It is not updated annually to reflect changes in the environment that could impact Council decision making. This includes changes in the economic climate, projected ridership growth and service delivery. ETS provided us with documents showing they update their ridership, cost and revenue forecasts on a regular basis for use when making decisions internally. We believe that service delivery and financial impacts, including the R/C ratio, need to be presented and discussed with Council at the same time.

We acknowledge ETS' efforts in developing different methods of presenting a R/C ratio and concur with ETS's April 2008 report stressing the importance of the R/C ratio. During our review we were provided a number of different R/C ratios, based on different criteria. Even in our analysis we used different methods to identify trends over different time periods. It is critical that a single method of presenting a R/C ratio be adopted for establishing service standards, service planning, fare increases, budget development and performance monitoring. In developing a meaningful R/C ratio Edmonton Transit will need to consult with internal and external stakeholders who could be impacted by decisions resulting from an approved R/C ratio. This would include the Finance & Treasury Department responsible for all financial related matters and the Office of the Deputy City Manager responsible for strategic planning and "Transforming Edmonton" to achieve Council's vision.

Until Council direction is received on a R/C ratio we suggest that ETS' financial performance be monitored against the R/C ratios included in the approved fare policy and presented in Chart 4 on page 7. We believe these actions will satisfy the 3-year priority goal included in the City's vision "Ensure transit sustainability[3] through appropriate cost recovery ratio".

[3] The Way Ahead defines sustainability as: "a way of living which meets the needs of the present and does not compromise the ability of future generations to meet their own needs. Urban planning takes an integrated, holistic view of urban environments and defines sustainability in the context of interrelated ecosystems encompassing economic, social, environmental and cultural sustainability. The principle of sustainability also includes financial sustainability, ensuring urban planning recognizes and addresses resource constraints and capacities."

3.2 Long-Term Strategy

3.2.1 2006 Audit Recommendation

The OCA recommends that ETS Management develop a comprehensive long-term strategy that is aligned with the Transportation Master Plan (TMP) for City Council approval. The strategy should address ridership growth, long-term fleet requirements and service delivery standards. The strategy should be kept current and aligned with Council direction through regularly scheduled reviews.

Management Response

Agreed. ETS is currently preparing terms of reference for the development of a Strategic Ridership Growth Plan. Input into the plan will be sought from key stakeholders including City Council. ETS is providing input into the Transportation Master Plan and will ensure that the strategies in both documents are aligned. This will be completed by the end of 2007.

Implementation Status

The recommendation has been partially implemented. A report on funding requirements for the ETS Ridership Growth Strategy, which is based on unconstrained growth, was presented to TPW in October 2008. The report was referred back to ETS with a request for additional cost information.

3.2.2 Follow-up Observations

In May 2008, a consultant contracted by ETS released a strategic report titled “ETS Ridership Growth Strategy and Planning Process Review” that identified increases in service that have the potential to increase ridership. The report focused on actions that would increase ridership; financial constraints were not identified or included in the consultant report. The results presented in the report included projected ridership growth and fleet requirements over the next five years as well as changes to service standards intended to attract and retain transit system users. Fleet requirements are discussed in Section 3.4, Fleet Mix and Financing Strategies; and service delivery standards in Section 3.5 later in this report.

Ridership Growth

The consultant report sets out the increases in ridership and hours of service associated with current service standards, growth and enhanced services. The report projects a 32% increase in ridership and 45% increase in hours of service for the five-year period ending 2013. Twenty percent of the ridership increase is attributed to population/system growth and 12% to service enhancements. These increases require a major investment in additional fleet and infrastructure ($267 million) in addition to associated operating costs.

In comparison, the transit fare policy approved in 2007 identified a 10% increase in ridership, over the same period, which is more in line with a the population increase forecast in the City's 2007-2012 Socio-economic forecast.

Historically, the percentage increase in transit use has been similar to the percentage increase in population. In 1994 and again in 2005 the Household Travel Survey showed the transit modal split at 9%. Our review of 2008 pass sales shows that approximately 10% of Edmonton's population purchased monthly passes.

An additional 5% of the population was issued passes under the UPASS program in partnership with the University of Alberta and Grant MacEwan College. Participation in the UPASS program is mandatory for students attending these institutions regardless of whether they use public transit services or not.

Based on the information contained in the consultant report, Edmonton Transit presented two reports to TPW:

- A report titled "ETS Ridership Growth Strategy and Planning Review" presented in May 2008, and
- A report titled "Funding Strategy for ETS Ridership Growth Strategy and Planning Review" presented in October 2008.

The forecasted ridership and service changes presented to TPW focused on service growth and meeting customer needs. Financial constraints faced by the City and the ability to sustain service delivery were not addressed in the reports. Edmonton Transit advised the OCA that financial and resource capacity is not a consideration until the annual budget is prepared and approved.

Both reports were referred back to the Administration with direction to prepare comparative information on service standards and associated costs. The reports are due back in April 2009.

Table 3 summarizes the increases identified in the October 2008 report presented to TPW. These increases reflect growth that ETS could expect in an unconstrained environment.

Table 3
Ridership Growth Strategy Increases
(millions)

	2009 Budget	2009-2013 Increase	
		Amount	Percentage
Operating Expenditure	$220.4	$85.8	38.9%
Bus/LRT Revenues	$100.3	$32.3	32.2%
Hours of Service	2.0	0.9	45.0%
Ridership	67.5	21.5	31.9%

The percentage increase in hours of service and operating expenditures are greater than those of ridership and revenues. This will have a negative effect on the R/C ratio and result in a higher tax levy than would be required if the R/C ratio had remained constant.

3.2.3 OCA Conclusion

Recommendation Partially Implemented

Edmonton Transit has prepared a ridership growth strategy based on unconstrained resources. The strategy has not been accepted by TPW. Edmonton Transit is currently working on a report to address requests made by TPW.

While an unconstrained ridership growth strategy is aligned with two of the 10-year goals that support Council's vision, specifically "Transform Edmonton's Urban Form" and "Shift Edmonton's Transportation Mode", it contradicts the sustainability principle that supports Council's vision.

We acknowledge that the first step in developing a strategy is identifying an upper limit, in this case the consultant report based on unconstrained growth. However, we do not consider the reports presented to TPW as a strategy that effectively addresses the future needs of the Corporation.

Given the historical trends related to ridership increases, the Service Development and Business Development sections of ETS need to work together to validate projected ridership increases as well as cost and revenue projections. The report on the ridership growth strategy should be restructured to highlight those services that ETS believe can be implemented over the next five 5 years, taking into account the financial and resource constraints the City is facing as well as the R/C ratios included in the approved fare policy, prior to presenting information to TPW in April 2009.

3.3 Performance Reporting

3.3.1 2006 Audit Recommendation

The OCA recommends that ETS management regularly report key performance information to Council indicating progress towards implementation of the long-term strategy. Key performance indicators include the revenue/cost ratio, passengers per vehicle hour, passengers per capita.

Management Response

Agreed. These three reporting indicators will be incorporated into future reports that will be presented to committee and council.

Implementation Status

The recommendation has been implemented.

3.3.2 Follow-up Observations

The following documents containing key performance indicators have been provided to City Council.

- The corporate Organizational Performance report, compiled quarterly by the Finance and Treasury department,
- ETS 2008 Highlights, presented by Edmonton Transit at a Councillors open house in August. Edmonton Transit advised that a similar highlights document will be produced and presented to members of Council annually, and
- The annual budget.

The performance indicators provided in the above council reports and budget documents include overall statistics on rides, boardings, hours of service as well as revenue and operating costs. Key performance indicators that address the recommendations are boardings per hour (passengers per vehicle hour) and rides per capita (passengers per capita). We reviewed documents ETS provide to Council during budget deliberations that include a R/C ratio. The Manager of Edmonton Transit advised that the R/C ratio will be included in the published budget document in the future.

3.3.3 OCA Conclusion

Recommendation Implemented

The actions taken meet the intent of our recommendation. With the assurance provided by the Manager of Edmonton Transit that the R/C ratio will be included in future published documents, we consider this recommendation fully implemented.

3.4 Fleet Mix and Financing Strategy

3.4.1 2006 Audit Recommendation

The OCA recommends that ETS management in conjunction, with Corporate Services management, develop a long-term fleet replacement and funding strategy. The strategy should include opportunities to improve the bus fleet mix and identifying alternate stable fleet replacement funding sources.

Management Response

Agreed. Currently the Transit Administration does have a long-term bus replacement plan however it is not funded beyond 2009. As well the current fleet of GM's has become less and less reliable and has increased operating costs. A short-term replacement plan will be presented early in 2007 and long-term replacement and vehicle mix type strategy will be developed over the course of 2007 with a report in 2008.

Implementation Status

The recommendation has been implemented. Long-term fleet replacement and growth plans have been developed. The primary source of funds identified in the Capital Priorities Plan comes from other levels of government.

3.4.2 Follow-up Observations

Fleet Mix

The ETS fleet includes 904 buses. Fifteen are designated for special purposes such as training and charter service. The remaining 889 are used for daily fixed route service.

Table 4 shows the fleet mix reported in 2006, the current mix and the additional buses identified in the Ridership Growth Strategy.

Table 4
Fleet Mix – For Daily Fixed Route Service

Type of Bus	August 2006	February 2009	Growth 2009-2013
30 Foot Buses	29	39	27
40 Foot Buses			
• Diesel	756	791	241
• Hybrid*	--	5	
• Trolley	49	41	
60 Foot Articulated Buses	13	13	64
Total Bus Fleet	**847**	**889**	**332**
Average Age	12.4 years	7.5 years	
Peak Requirement	671	716	
Average Spare Ratio	26%	24%	

* ETS has 6 hybrid buses; 1 is designated for special service

In 2006 ETS's average spare ratio was higher than other Canadian transit organizations. The decrease to 24% brings ETS's ratio in line with the average for comparable Canadian transit organizations.

Edmonton Transit's fleet has grown by 42 buses, a 5% increase over the past three years; ten 30' community buses, five 40' diesel/electric hybrids and thirty-five 40' diesels with a reduction of eight trolley buses.

The Ridership Growth Strategy and Capital Priorities Plan identify the additional 332 buses, a 37% increase over the next 5 years. The description ETS provided in the Capital Priorities Plan identifies the types of buses as well as the timing of their purchase. ETS management advised us that plans may be modified prior to placing an order for new buses in response to changing service needs. They also advised us that input from a representative from the Environmental Management Steering Committee and Mobile Equipment Services is included when making any fleet purchase decisions.

During 2009 budget deliberations Edmonton Transit revised their fleet purchase plans replacing 47 hybrid powered buses with 66 clean diesels. This change resulted from a Council request for "a proposal on how to cash flow the budget to fast track the purchase of buses, in Bus Fleet Replacement".

Financing Strategy

The approved 2009-2013 Capital Priorities Plan includes funding for 81% of the replacement buses and 45% of the growth buses identified in the Ridership Growth Strategy. Over the following five years 2014-2018 only 45% of replacement buses and 44% of growth buses are funded.

The 2009-2013 Capital Priorities Plan show 91% of funding for replacement buses and 60% of funding for growth buses comes from other levels of government. An additional 31% of the funding for growth buses comes from developer financing.

3.4.3 OCA Conclusion

Recommendation Implemented

Edmonton Transit have acquisition and replacement plans in place that address fleet needs over the next 10 years; priority is assigned on increasing the number of smaller buses in the fleet to address the needs of lower volume routes.

Council approves the CPP assuming that the published document accurately reflects how the funds will be spent. In reality, the actual fleet purchases may differ from the approved plan to meet the changing service needs of ETS. We suggest that a statement describing the possible need to modify the planned fleet purchases be included on future project profiles to ensure Council is aware of the dynamic nature of ETS fleet acquisitions.

Other Considerations

ETS purchasing practices should also allow the flexibility needed to address fleet acquisitions that may be required as a result of Council direction provided at any time during the year (e.g., premium service[4]) without the need to increase capital funding outside the annual budget approval process.

The City has benefited by Provincial and Federal funding for fleet replacement, as reflected in the reduction in the average age of the fleet. However, there is significant risk associated with relying on other levels of government as a primary stable source for funding. We suggest that the City develop an alternate funding strategy for fleet replacement in the event government funding is withdrawn.

[4] At the January 27, 2009 TPW meeting the Administration was requested to report back on “premium service as a measure that could be implemented as a pre-curser to LRT. The report is scheduled to be discussed at the June 2, 2009 TWP meeting.

3.5 Service Standards

3.5.1 2006 Audit Recommendation

The OCA recommends that ETS management set and consistently apply service level standards that will challenge Transit to reduce service delivery hours for non-performing bus routes, improve the cost efficiency and reduce the risk of passenger overload and underload conditions.

Management Response

Agreed. As part of the Strategic Ridership Growth Plan noted in recommendation 2 ETS will undertake a review of service standards. This review will include options that involve stringent minimum standards as well as options that consider public transit needs of specific markets (e.g., community bus routes, senior citizens and mobility need in low demand time periods). The impacts of different service standards will be identified for Council consideration.

Implementation Status

The recommendation has been partially implemented. A policy setting out service standards was provided to TPW in October 2008. The policy was referred back to the Administration for additional information. ETS considers the standards as guidelines, and uses them to identify routes with potential service issues. Decisions on acceptable service are based on subjective analysis of all available information.

3.5.2 Follow-up Observations

Service Standards

The May 2008 consultant report “ETS Ridership Growth Strategy and Planning Process Review” identified changes to service standards to help encourage the growth in public transit usage in Edmonton.

In October 2008 ETS presented a report to TPW recommending approval of a new policy, number C539, Transit Service Standards. Standards cover topics such as walking distances, frequency and span of service, service coverage by time period and route performance. The report was referred back to the Administration for additional comparative information and cost of implementation. The report is due back at TPW in April 2009.

Route performance standards are measured in terms of passenger boardings per hour. Current minimum standards for peak and mid-day periods are 30 boardings per hour for 40 foot buses and 20 boardings for smaller/community buses.

Bus Route Performance

ETS has stated that the route performance standards are not intended to define when service is to be withdrawn, reduced or increased. The standards, measured in terms of passenger boardings, are to be used as a baseline to flag individual routes with potential service issues for further review.

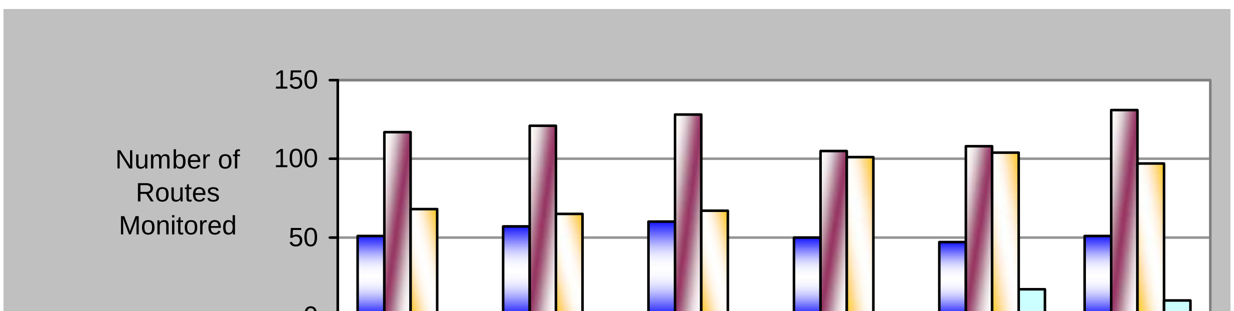
Recommendations for changes in service whether elimination, reduction or increase are based on subjective assessments following the collection of additional information such as:

- Additional boarding and passenger counts collected by transit staff or through the use of automated passenger counters,
- Customer feedback received directly from passengers, community conferences, City Council and from surveys, and
- Population and employment projections, market(s) being served (e.g., senior centre, low density industrial area, etc.) route length, and potential impact of change on connecting routes.

When ETS has completed its assessment of routes with potential service issues a report with a detailed route by route listing of service changes is provided to Council. The service changes recommended for the fall of 2008 were presented to members of Council at the Councillors' open house held August 28, 2008. The report did not provide an overall assessment of system performance.

Chart 5 summarizes the results reflected in monitoring reports produced in the fall of each year between 2002 and 2007. The chart summarizes the monitoring data collected during peak periods only.

Chart 5
Peak Period Route Performance



	2002	2003	2004	2005	2006	2007
Below Standard	51	57	60	50	47	51
Meeting Standard	117	121	128	105	108	131
Possible Overload	68	65	67	101	104	97
Overload	--	--	--	--	17	10

ETS System Performance Review

The percentage of routes flagged as not meeting minimum standards has decreased by 4.0% from 21.6% (51 of 236 routes) in 2002 to 17.6% (51 of 289 routes) in 2007.

The percentage of routes flagged with overload or possible overload conditions has increased by 8.2% from 28.8% (68 of 236 routes) in 2002 to 37.0% (107 of 289 routes) in 2007.

3.5.3 OCA Conclusion

Recommendation Partially Implemented

Edmonton Transit has defined standards that they use in planning, establishing and monitoring transit routes. The proposed standards have not been accepted by Council.

Service decisions affect both the cost efficiency and effectiveness of public transit. In our opinion, the performance standards defined by ETS are interim decision points and do not reflect how ETS measures the efficiency and effectiveness of route performance. Further, the absence of consistently applied, approved pre-determined standards decreases the City's ability to defend decisions that may be unpopular with citizens.

ETS should reassess the proposed performance standards and ensure they can be applied consistently to ensure that services are provided to the greatest number of citizens in a cost effective manner. The potential impact, both in terms of cost and citizen feedback, needs to be understood by the Administration and Council to minimize the risk of conflicting messages relative to the level of service the City can afford to deliver.

4. Conclusion

While progress has been made in implementing the recommendations contained in our 2006 audit report, major steps that include obtaining Council direction and approval on an R/C ratio, a ridership growth strategy that integrates financial and resource constraint considerations for service planning, and consistent application of minimum service performance standards are required. We believe implementation of these actions will allow for a more balanced approach to service planning, increased effectiveness of long-term planning and budgeting, and decreased risk of creating expectations that the City cannot afford to deliver or sustain.

The Office of the City Auditor thanks the management and staff of the ETS Branch for their cooperation and assistance during this audit.

5. Management Response & Action Plan

The following response has been provided by Edmonton Transit management to address the OCA conclusions in Section 3 of this report.

3.1 – Fare Policy and Revenue/Cost Ratio
Audit recommendation partially implemented. Fare policy was approved by City Council. City Council considered administration reports on revenue cost ratios in April 2008. A decision was made not to establish a council-approved target for revenue cost ratio.

The matter of a targeted R/C Ratio for transit will be tabled with Executive Committee following the report on Subsidized Programs One Stop Shop, transit fares and other city services on August 26, 2009.

3.2 – Long-Term Strategy
Audit recommendation was partially implemented, with the exception of final approval of the service standards. A long-term strategy was developed that addressed ridership growth, fleet requirements and service delivery standards. Proposed service standards recommendations were submitted to City Council in October 2008. Based on Council's direction, additional information was requested, and the report will be considered in May 2009.

3.3 – Performance Reporting
Audit recommendations were fully implemented, as noted by OCA.

3.4 – Fleet Mix and Financing Strategy
Audit recommendations were fully implemented. A fleet replacement and growth plan has been developed and included in the LRFP, taking into account growth needs identified in the Growth strategy and overall funding constraints.

3.5 – Service Standards
Audit recommendation was partially implemented with the exception of approval of the service standards. Proposed service standards recommendations were submitted to City Council in October 2008. Based on Council's direction, additional information was requested, and the report will be considered in May 2009.