

Edmonton Trolley Coalition Bulletin



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The Trolley vs. Diesel Decision: Points to Remember

On June 22nd, Council’s Transportation and Public Works Committee will hear from the public on the issue of whether to keep or scrap Edmonton’s trolley system. Recent public consultation on the issue was inconclusive. The majority of citizens at public meetings favored keeping trolleys, but telephone and rider surveys yielded mixed results. There was no decisive majority one way or the other. Those who felt trolleys should be replaced by diesels thought cost arguments were most important, apparently persuaded money could be cut from the budget. Those who wanted trolleys kept felt that environmental impacts (pollution, noise) were important considerations, along with several other key points like future oil prices, neighborhood character and historical value. One thing is certain: significant public support was shown for the trolleybus.

If the issue were to replace *diesel* buses with another ‘cleaner’ technology (e.g. natural gas), it is doubtful one would find members of the public expressing concern or mounting a ‘save our diesels’ campaign. The fact that this kind of support exists for trolleybuses ought to be enough to tell us that we have something special here—a form of transportation that resonates with a significant segment of the public.

In considering what decision should be made regarding the trolleys future, it is important to keep the following points in mind:

- Unlike diesels, trolleybuses produce zero emissions in the streets and do not add noise. These are important issues where buses pass by hundreds of times per day. Trolleys are less disruptive to communities and represent a commitment to a better quality of life. Last year’s citizen satisfaction surveys found citizens are concerned about quality of life being lost in an overemphasis on economics.
- All trolley routes operate through the city core, an area the city is seeking to revitalize and where concentrated population growth is taking place. Quality of life issues like clean, quiet transit should be an important consideration here.
- *Plan Edmonton* and the *Transportation Master Plan*, two guiding documents for current planning, state the City will aim to reduce the community and environmental impacts of transportation, in particular on inner city areas (i.e. downtown). Trolleys meet these requirements; diesels do not.
- The electricity and maintenance for the trolley system are purchased from Epcor—a city owned company that pays annual dividends in excess of \$100 million to the city. No similar local benefit results from buying more diesel fuel.
- The consensus among leading economists and geologists is that oil prices will rise sharply within ten years. Trolleybuses, together with LRT, offer an important fuel alternative to diesel for at least a portion of the transit system.

- Edmontonians already have a substantial investment in trolleybuses. The overhead wire system was valued in 2002 at a replacement cost of \$73 million; over the past ten years more than \$12 million has been invested in upgrades. This investment is lost if trolleys are abandoned. \$13 million--or maybe more--would be spent to take the system down.
- It is not necessarily the case that \$60 million can be saved over the next ten years by abandoning trolleys. Administration only looked at one trolley retention scenario. There are other ten-year scenarios that would keep trolleys for about the same capital costs as converting to diesel. There are also scenarios for keeping trolleys with capital costs that are markedly less than converting to diesel.
- Trolleybuses *can* operate in construction zones, perform well in cold climates and represent reliable public transit. This is proven in hundreds of cities around the world. Using diesels every time a road repair crew appears is the choice of management, it is not a necessity. This choice has a cost penalty associated with it.
- Well managed trolley systems can be cost effective when trolleys operate in *busy* corridors, as trolleys do in Edmonton. The revenue from higher ridership offsets the cost of investing in overhead wires. Well run and marketed, trolley systems in other cities have shown that trolleys attract between 10 and 20% more riders than diesel buses on the same routes.
- No other proven technologies can offer all the advantages of trolleybuses at this point in time. For this reason, most cities that operate trolleys are planning to continue with them.

ETC Editorial
by Bob Clark

The King's New Clothes

OR . . . When will we ever learn?

Hans Andersen told the tale of a king that wanted a new set of robes such as had never been seen before. Some dubious characters from over the border told him that they could make him a set of robes that, as well as being magnificent beyond belief, would enable the king to identify traitors and incompetents, because only the pure of heart would be able to see them.

When the king emerged from his dressing room in the nude, all his courtiers swore how beautiful the new robes were except for one or two who were promptly silenced.

The king paraded solemnly around the castle square, for the news of the magic properties of the clothes had been circulated, and nobody wanted to be considered a traitor or a fool--least of all the king. Only when a little boy who had pushed his way through from the back of the crowd piped up, "THE KING IS NAKED", would anyone admit the truth. But by this time it was too late and the crooks had robbed the king not only of his wealth, but of his reputation, too.

This tale should be inscribed over the doors of all our halls of administration, especially those having to do with transit. Look how many cities have been conned into spending millions planning monorails and maglevs that never got built, while ignoring less expensive LRT and trolley bus alternatives. Look at Ottawa with its busways that could have been LRT for the same cost, but with *three times* the capacity. Look at Vancouver with its Skytrain that cost a billion dollars for 27 km and needs a new computer control system every ten years or so. Look closer to home where tunnels sixty feet below the University stalled LRT for twenty years, and where we are still being told we have to put it underground at every intersection.

Now the experts from abroad and a few influential local courtiers want us to scrap our quiet, clean trolleybuses with the promise that at some distant time in the future diesels won't roar and poison the air. In the mean time, we're told we just have to get rid of those awful trolleys right now in order to save \$20million, or is it \$60 million, or is it really throwing away a \$100million asset?

For Goodness sake, put your clothes on!

A Sensible Approach to High Speed Transit

by Bob Clark, retired supervisor of ETS planning

The recent (Sept 2003) study report on High Speed Transit shows a welcome return to long-term planning for public transit in Edmonton after two decades of retrenchment. It more or less reiterates the findings presented to City Council in 1974 and approved as The City of Edmonton Transportation Plan Part I in July of that year.

The tenets of this plan were followed by Edmonton Transit until the mid-80's, including completion of LRT to the University and the construction of Transit Centres at Southgate, Kingsway, Westmount, Jasper Place etc. in anticipation of their being linked by future LRT extensions.

In order to make this ambitious plan more achievable and to help establish travel patterns in advance, the existing trolleybus network was extended, and the electrical infrastructure installed so as to be easily adapted for LRT when the time came to do so.

It is interesting to note that the HST report discusses various possible transit modes for use in these corridors, dismissing monorails and their various relatives as being impractical in Edmonton conditions. While the report considers buses on exclusive rights of way and “enhanced” buses, it does not touch directly upon the means of propulsion of these vehicles.

The diesel bus is a very useful vehicle. It can be used anywhere from small villages to big cities. In the Third World it even carries a cachet of sophistication - a big improvement over the Mamma-wagon. It can be purchased “off the shelf” and does not require a high degree of skill to manage its operation and maintenance. For low ridership routes it may be a logical choice. But it is unattractive to the public, and the only way to make it high speed is to space stops so far apart that it needs to be serviced by a secondary network of feeder buses.

The trolleybus, whose power is limited only by the capacity of the electrical grid, can be designed for whatever speed is practical in the various circumstances. Its high, but yet smooth acceleration and braking rates, enable it to serve more closely spaced stops. Given a fair comparison, it has been shown in cities all over the world that the trolleybus is preferred over the diesel and is capable of attracting a larger ridership.

If this High-Speed Network for Edmonton is to be more than a pipe dream, it has to be broken down into achievable sections. Might we suggest that the first step be to pick up where we stopped the Transportation Plan by completing trolleybus wiring to Northgate? The poles are mostly already in place, requiring only the erection of the contact wire. Much of the route already has bus lanes, and thus could be a very economical test bed for the principles outlined in the High-Speed Transit document. Vehicles could be obtained in fairly short order by transferring the propulsion units from the stored high floor trolleys into new low floor articulated “glider” packages that could be obtained quickly and cheaply from the present manufacturer of our diesel units.

The High Speed Transit Report indicates that someone in Transportation and Streets has been doing some forward thinking, and that we indeed may hope that the present anti-transit mentality demonstrated by this ‘scrap the trolleys’ scheme will be superseded by more progressive ideas.

With this High Speed plan, the City of Edmonton has a chance to show its own citizens and higher levels of Government that we are serious about providing efficient, accessible, non-polluting public transit at a cost that can be afforded in a relatively short time frame.

In 1978 when Edmonton introduced Light Rail Transit to North America, we were emulated by many other cities that have gone on to surpass us. Perhaps we can regain the position we once held, in the forefront of progress.

A Rapid Transit system using Trolleybuses in Quito, Ecuador has proven itself both affordable and highly successful.



Highlights from the International Trolleybus Symposium Salzburg, Austria - May 13-15, 2004

A transit conference held in Salzburg, Austria drew trolleybus experts from all over Europe and demonstrated unqualified support that trolleybuses are good for transit, good for ridership and good for the environment. Speakers presented evidence from all over Europe of the widespread popularity of the mode among the public wherever trolleybus systems had been retained. The conference produced solid proposals to extend the take-up of trolleybus technology.

Management personnel from many cities were present, including Arnhem, Bern, Salzburg, Solingen, Zurich, Eberswalde, and Tallin. All had embraced the trolleybus as a viable transit mode for today and the future. Guenter Mackinger, Director of Stadtbuss Salzburg, explained how that city had recently reaffirmed its commitment to trolleys. As part of the plan, trolley routes were renumbered so as to make them identifiable and establish precedence over diesel routes. The system is run with the philosophy, commitment and teamwork typical of rail operations. Mackinger emphasized the commitment to trolley service, indicating their fleet has no auxiliary propulsion units, and they do not routinely substitute diesel buses on trolley routes. Patronage on diesel bus routes converted to trolleys has risen by 16%—proof that trolleys are effective and worth the infrastructure investment. There is a five year plan to expand trolley service and to convert two more diesel routes to trolley. Trolleys carry various slogans, such as “I work—instead of 100 polluting cars.”

Will Teunissen from Arnhem, Netherlands, spoke of the success of his city's "Trolley 2000" concept, a plan for continuing and enhancing trolley service. Trolleybuses in that city had resulted in a 17% increase in ridership on routes that were previously served by diesels. Teunissen reported that his city had successfully resisted several attempts to close its system in the past, and had now proven the trolley's worth to Arnhem's transportation system. Solingen's (Germany) Peter Hanz explained how citizens there identified with the trolleybus, and how trolleybuses were equated with "quality streets".

A number of manufacturers were on hand to showcase their latest trolleybus technology. These included such names as Skoda, Irisbus, Neoplan, Solaris, Van Hool and Ganz. Low floor trolleys are, of course, the norm in European cities. But manufacturers spoke of new technologies that allow trolleys to traverse long distances without need for overhead wires. Nickel metal hydride battery packs, similar to those used in the Toyota Prius car, represent a big advance in off-wire capability. On the new trolley system in Landskrona, Sweden, there is no wire in the garage, and no wire to connect the garage with the routes. Instead, the trolleys travel to and from service on auxiliary power—a distance of several kms. The Ganz vehicles built for the new trolleybus system to open in Rome feature similar off-wire capability. The Rome trolleys can travel 10 kms off wire. In fact, there is a 3 km gap in the overhead wires on historic streets in Downtown Rome which the trolleys pass through on auxiliary power at regular service speeds.

New Vancouver trolleys to be design hit – motorists to leave sports cars at home!

The new trolleybuses currently being designed in Winnipeg for the city of Vancouver will boast a radical new skin, according to TransLink officials. While New Flyer, the manufacturer, will be using the body and chassis design from its existing D40LF low floor diesel model as a basis for the new trolleys, they won't look anything like the rather mundane, boxy looking new diesels we see running around Edmonton every day. In fact, Vancouver's new trolleys won't look like anything any city in North America has seen before. A new sleek front end and a stylish rear are being designed for these vehicles that will make them the sleekest transit vehicles on the streets. If trolleys already attract more riders than diesels, they are sure to do twice the job with this new design. Motorists can leave their sports cars at home! The new trolleys will pass our way on their journey to Vancouver sometime in mid-2005.



This sleek new trolley design appeared in Wellington, New Zealand last year. Its cost: The same as a new diesel bus! (B. Knewstubb)



Lyon, France's new Cristalis trolleybus is the ultimate in 21st century design—doubtless adding to its ability to attract passengers. (TBus Group)

What can you, as an Edmontonian, do to have your voice heard?

Call or write directly to your City Councillor or the Mayor's Office; Contact the Citizens Action Centre at 496-8200, by fax at 496-8210 or by electronic mail at cacentre@edmonton.ca

Speak to City Council: At the Public Hearing, June 22nd, 1:30 pm in Council Chambers, City Hall. To register to speak, call the City Clerk's office at 496-8178 or contact them by e-mail at: civic.agencies@edmonton.ca