

# T R A N S I T T A L K

## Montreal to Electrify Busiest Bus Routes

### Introduction of Trolleybuses to Modernize Transit System

Montreal's transit operator STM is studying the conversion of up to fourteen of the city's major bus routes from diesel to electric trolleybuses according to a November 5<sup>th</sup> report in the Montreal Gazette. The route 105, which operates on Sherbrooke Street to Notre Dame de Grace tops the list as a candidate for electrification with 17,000 riders per day, according to a preliminary analysis.

The STM has said it will only buy electric buses by 2025 as it strives to cut pollution and greenhouse-gas emissions and match its transit operations to the 21<sup>st</sup> century. Battery-electric buses are still in their infancy, but trolleybuses rely on proven technology and are used around the world. Trolleybuses are non-polluting, quieter, and more comfortable than the diesel buses currently in use, says the Gazette, and adds that while they may be more expensive than diesel buses to buy, they last longer, require less maintenance and can be cheaper to operate.

A more in-depth study, to be completed by December 2012, will identify the costs associated with installing a trolleybus system on major routes in Montreal. The STM is looking at a plan to buy 100 to 150 articulated trolleybuses.

The preliminary analysis looked only at a handful of factors, such as bus frequency and current ridership—two major factors in deciding which lines would be the most financially viable for conversion. The STM says further study may push the 105 down the list of potential trolley bus lines.

(continued on Page 2)

### Spokane proposes Introduction of Trolleybuses to Serve Downtown

The city of Spokane, Washington and Spokane Transit Authority have unanimously decided to move forward with plans for an electric trolleybus in Downtown Spokane. The decision, after more than a year of deliberation and input from the community and a Sounding Board, eliminated both the most expensive and the least expensive option.

The "Central City Alternatives Analysis" project reviewed many routes and modes. A route from Spokane's Browne's Addition neighborhood to Gonzaga University was selected for a 'key' transit route to serve Downtown. Three options were considered: a streetcar, an electric trolleybus, or bus rapid transit. The streetcar option was by far the most costly and found to be not feasible. The bus rapid transit option was rejected by a (continued on Page 2).

VOL. 26



News Bulletin of the Edmonton Trolley Coalition  
Sustainable Transit for Liveable Communities  
[www.trolleycoalition.org](http://www.trolleycoalition.org)

Edited by Robert R. Clark, retired supervisor of transit planning

## Montreal to Install Trolleybuses (con't)

STM president Michel Labrecque told The Gazette that the network could be up and running by 2015 or 2016. Trolleys could be a major step toward electrifying the STM's above-ground network (the métro is already electric), Labrecque said.

The STM has said trolleybuses may have their own reserved lanes. The study will look at how much parking would disappear, what kind of preferential treatment the trolleybuses would have on streets and the impact on other traffic.

18 metre articulated trolleybuses are envisioned to start with. The STM document says 24-metre-long "double articulated" trolleybuses could be added later.

Ahmed El-Geneidy, a public transit expert at McGill's School of Urban Planning, says trolleybuses would be a good fit for Montreal, which has access to cheap, relatively clean electricity. He also said trolleys would make transit more attractive and comfortable because they are quieter and create less vibration. Battery-electric buses, while avoiding the need for overhead wires, require batteries manufactured in an unsustainable way, he noted. It makes more sense to adopt trolleybuses that use electricity directly off the grid, he said. El-Geneidy felt that the introduction of trolleybuses should be part of an urban-renewal project that would revitalize and modernize the streets. That means installing new lighting and street furniture, he said.

Popular in Europe and Asia, only one city operates modern trolleybuses in Canada-Vancouver. Some cities with harsh winters, like Moscow and St. Petersburg, rely heavily on trolleybuses.

[Source: Montreal Gazette, November 5, 2011]

RIGHT: Computer generated model of Spokane Trolleybus (STA) [Pacific Northwest Inlander, July 20, 2011].

## Spokane proposes Trolleybus (con't)

group of core stakeholders and business owners who were concerned it would not draw riders because it is too much like a regular bus. The decision was made to go with the electric trolleybus. The capital cost for installation of an electric trolleybus system was marginally more expensive than the BRT option. BRT capital costs ranged between \$3 and 5 million per mile, whereas trolleybus installation costs came out at \$6-9 million per mile. The streetcar option would cost \$34 to \$51 million per mile to install.

STA officials estimate it will cost \$36 million to build the electric trolleybus line. Half of those funds would come from the federal government in the form of a small starts grant. The other major chunk will have to be paid for by most of the taxpayers of Spokane County, in the form of a sales tax increase.

"We think we can get the bang from both a transportation and an economic perspective from the trolleybus," Susan Meyer with STA said. "We don't think we can meet all of our objectives with a bus," Meyer said. "We don't think people will see it as the cool transportation mode we are looking for."

"I like the idea because I think it would be a lot cleaner and easier than the bus mainly, and I think it would be fun; my kids would love it," Cassandra Bower said.

After the city council and STA transit board adopt the proposal and create a strategic plan, voters will then have the final say. The issue is expected to appear on the ballot in 2013.

[Sources: KXLY News, July 8, 2011; Washington Policy Centre, July 7, 2011]



# Condon chastises City Planners

Focussing only on LRT too narrow; need to install trolleybuses and trams in city core

Urban planning expert Patrick Condon, a professor with the Design Centre for Urban Sustainability with the University of British Columbia, chastised a group of Minnesota urban planners and transit officials in a talk on December 8<sup>th</sup>. Condon, known for his work in the area of sustainable urban development and public transit, essentially told the group assembled at the University of Minnesota in Minneapolis that their fixation on light rail to the exclusion of other, in many cases more appropriate electric modes, will prevent the Twin Cities from gaining optimal environmental and economic advantages from their transit systems in future. Condon explained that electric trams and trolleybuses would be more conducive to creating vibrant, sustainable and economically sound cities than LRT lines with large, infrequently spaced stations, where the focus is on providing rapid connections between points of great distance.

Pointing to the trolleybuses and trams before the 1950s as an example, Condon illustrated how a well-planned transit system requires more transit lines and stops than are featured on modern American LRT and subway systems. "The goal should be cities that do not have skyscraper-filled centers", he said, "but rather cities should be places where residents need walk no more than five minutes to get on the nearest trolley or tram."

"It was this idea that spurred the growth of grid-planned cities featuring neighborhoods of single-family homes in the early 20th century", Condon explained. "Trolley companies often built lines into subdivisions they owned, then sold property to riders looking to build their own homes. The American dream came out of this period where the streetcar allowed people to have something of their own for the first time," he said.

Condon explained that LRT transit in the Twin Cities will spur dense, new development along transit lines. And while this system has its positives, it does little to cut single-occupancy motor vehicle traffic in the city's suburbs. With cities producing up to 80 percent of man-made greenhouse gases — by his figures — LRT does not get enough people out of their cars when traveling between home and work.

He also pointed out that LRT-style transit is expensive. A billion might build a single, 15-mile heavy LRT line in a city, but the same amount of money can buy a trolleybus or tram system that puts public transit on every major street in a downtown area.

Transit officials in the Twin Cities agreed that cities do need more small-scale transit options, including buses that travel arterial streets. Arlene McCarthy, the director of transportation of the Met Council, said the Twin Cities will try to move in the direction of creating Condon's ideal commute: a 5-minute walk and a public transit ride.

[Source: Finance & Commerce, Dec. 8, 2011]

## Canadian Transit Ridership on the Rise

Statistics from the Canadian Urban Transit Association show that transit use in Canadian cities rose by nearly 5% in the first six months of 2011. This figure represents over 45 million new trips taken on public transit. CUTA President and CEO Michael Roschlau attributes the ridership gains to increased investment in quality transit and capacity improvements, which are in turn drawing more riders. [Source: CUTA, November 30, 2011]

## Milwaukee to Build Streetcar Line

Milwaukee, Wisconsin is planning for a 2.1 mile streetcar line, which it hopes will be the start to a larger streetcar network in that city. Approval to enter the final engineering phase of the project was given by Milwaukee Common Council on July 26<sup>th</sup>, 2011. A team will be in place by January, 2012. The streetcar line should be completed by the Fall of 2014.

The line will connect the Intermodal Station and its 1.4 million annual users; the Third Ward (the fastest-growing neighborhood in the city); East Town (with the largest concentration of jobs in the state); and the Lower East Side (the highest-density residential neighborhood in the state). The line will complement bus services, and three new express bus services—including one to the airport--will be added to enhance access to major destinations and bring more riders.

The streetcars themselves will be modern vehicles similar to those operating in Portland, Ore., Seattle and Tacoma, Wash. They will provide clean, quiet electric operation, floor-level boarding, higher capacity than buses, bicycle access and multiple doors for fast loading.

According to Milwaukee Mayor Tom Barrett, “when we build the Milwaukee Streetcar, we are creating jobs for city residents; we are constructing functional and attractive infrastructure that promotes business growth, and we are setting the stage for additional private sector investment and economic activity.”

The project enjoys widespread support in Milwaukee, including that of developers, business groups and residents, as a forward-thinking move that will greatly enhance the face of the city. “An environmentally friendly city promotes a multimodal approach to transportation, including pedestrian connections, bicycle amenities and quality public transit. The Milwaukee Streetcar is an integral part of a public transportation strategy that will enhance the quality of life, and yield greater transportation choices for all residents of Milwaukee,” commented Jessica Wineberg-Binder, President of the Bicycle Federation of Wisconsin.

Milwaukee is one of many cities in the United States that abandoned all forms of electric public transit in the 1960's and is now returning to electric modes. [Sources: Daily Reporter, November 18, 2011; The Milwaukee Streetcar at [www.themilwaukeeestreetcar.com](http://www.themilwaukeeestreetcar.com), accessed December 8, 2011]



Artists concept drawings of Milwaukee Streetcar in Downtown Milwaukee courtesy The Milwaukee Streetcar ([www.themilwaukeeestreetcar.com](http://www.themilwaukeeestreetcar.com))

## Our Editorial

### *Some Tax-Reducing Philosophies*

by Robert R. Clark



Money has no intrinsic value since it is based only on perception which may change or be manipulated at any time.

Hydrogen as a “fuel” has no value until it is extracted from some compound by the expenditure of more power than can be retrieved by burning the “fuel”. The romance with hydrogen is similar to the 19<sup>th</sup> century search for perpetual motion.

Because an actuary has determined that an asset has been written off for tax purposes does not mean it is life expired. Every extra year you can keep it in service is a bonus.

The aim of “overhaul” is to return the asset to pristine condition. Obsolescence is in the eye of the beholder. As long as the cost of overhaul is less than the cost of replacement there is potential for saving.

In business the ultimate value of a share is proportional to the scrap value of the assets. That is why so many people lost out on dot-coms and other ponzi schemes.

The value of a municipal enterprise is in infrastructure. Selling off or destroying infrastructure should be an indictable offense.

The money invested in infrastructure is an asset to the community, not a cost.

Municipal expenditures should be prioritized

- Within the City
- Within the Province
- Within the Country
- To poorer countries whose economies we need to bolster

Beware of cartels, monopolies and patented systems.

Beware of consultants. The good ones will tell you what you need to know, but don't necessarily want to hear, the others are incompetents and thieves, and will repeat back what they think you want to hear.

Just because an article, a design, or an idea is different, it is not necessarily more costly. When the increased costs of doing business are being considered, the relative change in revenues must also be taken into account.

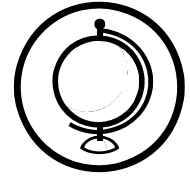
The “spare-parts syndrome” was invented by the auto industry to bolster their “profit” by planned obsolescence. There is no point in paying engineers when a mechanic can do the job.

Our engineers should be finding ways to make standard off-the-shelf components fit, or to design new parts that can be made locally. The Edmonton Radial Railway Society has rebuilt several streetcars from hen-houses and summer cottages back to operating condition without any commercial source of spare parts existing for fifty years.

***EV2012VÉ, the Electric Vehicles Conference & Trade Show***  
*takes place at the Palais des Congrès*  
*in Montreal from October 23 to 26, 2012*

EV2012VE is hosted by Electric Mobility Canada, is the premier electric mobility event in Canada and draws about 500 delegates from various parts of the country as well as some from outside Canada. Theme of the 2012 event is “The Business of Going EV”. More information can be obtained through Electric Mobility Canada at <http://www.emc-mec.ca>

## INTERNATIONAL NEWS



On December 14<sup>th</sup>, the city of Salzburg, Austria inaugurated the latest route in a series of expansions to that city's electric trolleybus system. Route 14 is now up and running and busy carrying passengers. Six trolleybuses operate the service on weekdays when school is in session. [International Trolleybus News, R. C. DeArmond]

Saransk, a city in the Russian Republic of Mordovia, has ordered 20 new Trolza trolleys with a lower floor than previous models. The reconstruction of a bridge over the railroad and a river has made it possible to put routes 5, 5A and 15 back into service. The three routes had not operated in some time. The Saransk system has eleven routes and nearly 100 trolleys. [International Trolleybus News, R. C. DeArmond]

Trolleybus service in Arnhem, Netherlands will expand with plans to reintroduce trolleybuses to the suburb of Vredenburg and with an extension to De Laar Oost. A contract to operate the trolleybus system from December 2012 to December 2022 has been awarded to Hermes, a subsidiary of Connexion. [International Trolleybus News, R. C. DeArmond]

The Italian seaside resort of Pescara on the Adriatic coast will be constructing a new trolleybus system. In May of this year, the consortium of APTS/Vossloh Kiepe GmbH received an order for the installation of the new "Zero Emission" system. The new trolleybus vehicles will be articulated with three axles and six steerable wheels, according to the announcement, which will aid in negotiating the incredibly narrow streets. Vossloh Kiepe will be providing its proven trolleybus technology, which will also be used in new vehicles for the Italian cities of Genoa, Lecce, Milan and Modena. [Vossloh-Kiepe/International Trolleybus News, R. C. DeArmond]

With the huge success of the trolleybus line in Rome (Route 90), construction of the overhead has begun on a new trolleybus network in the southern part of that city. The new network should be fully completed by December 2012, according to news reports. 45 articulated trolleys have been ordered from a manufacturer in Bologna, Italy. Skoda electrical equipment will be installed in the vehicles at their plant in Plzen. About 12 trolleys have been completed for the order to date. Twenty-five trolleys should be delivered before the end of 2011, with service starting up on the first line shortly thereafter. The remaining 20 trolleybuses will be delivered in 2012. The trolleys will have an auxiliary diesel engine as well as a super-capacitor to permit off-wire movement when necessary. [International Trolleybus News, R. C. DeArmond]

The UK's Electric TBus Group received the 2011 TROLLEY Marketing Award, presented at the EU TROLLEY Marketing Symposium in Lviv, Ukraine in June of 2011. The Conference was attended by some 60 mobility experts from all areas of Europe, who committed themselves to the idea of clean and quiet trolleybus transport. The Award recognizes outstanding efforts in trolleybus marketing, and rewards the TBus Group for its ongoing and remarkable efforts in trolleybus promotion, advice and information. [European Union Regional Development Fund]

A test trolleybus project has been set up at the Universidad Pontificia Bolivariana in Medellin, the second largest city in Columbia. The project has been undertaken with the help of the Byelorus government using a low-floor Belkomunmash BKM 420 two-axle trolleybus. It has a battery for off-wire use with a range of approximately 1 km. There are plans for several trolleybus-operated Bus Rapid Transit systems in Colombia, including in the city of Medellín. [International Trolleybus News, R. C. DeArmond]

As many as 70 new Young-MAN trolleybuses, built by Jinhua Neoplan, are on order for Beijing. This will be the second batch of Young-MAN trolleys to operate in the city. The new trolleys will replace the aging BJD-120 models--the first generation of rigid trolleys in Beijing with off-wire capability. The BJD-120's were bought in 1999. when wires were removed from Wang-Fujing Street in preparation for the celebration of the 50th anniversary of the founding of Peoples' Republic of China. [International Trolleybus News, Z. Jiang]

A Chinese-owned company, Zonda U.S.A., is reported to be planning to locate a plant in the Treasure Valley near Boise, Idaho to produce electric buses. Zonda, a division of Zhongda Industrial Group, is hoping to make inroads in the North American market with its products by arranging demonstrations in various locations in the U.S. The type of electric buses that will be manufactured is not yet known. [Idaho Statesman, November 23, 2011]