TRANSIT TALK

VOL. 27

Seattle seeks to Test Advances In Electric Bus Technology

Early this year, King County Metro, the provider of transit services for the Seattle region, released a Request for Proposal (RFP) seeking tenders for a demonstrator electric vehicle that can operate as a normal trolleybus under overhead wire, but would also be able to operate on electricity for more than 30 miles away from the trolley network. The vehicle must be able to be disconnected from and reconnected to the trolley overhead automatically, without need for the operator to leave the coach. The technology to allow automatic rewiring of trolleybuses anywhere along the route and without the need for special "wiring pans" to align the collector shoes with the wires is known to exist. But it is uncertain if any systems are currently employing this technology. In North America, trolleybuses with battery back-up power typically have an off-wire range of under 2 km.

A spokesperson for King County Metro indicated that the agency was not seeking tenders for the replacement of its current trolleybus fleet in issuing the Request for Proposal, but simply wishes to test what is currently possible with electric bus technology. The RFP indicates a potential order for 202 of the vehicles if a suitable demonstrator is offered.

The vehicles would be used on some surface routes, mostly replacing diesel buses, and would help Seattle to reduce its dependency on petroleum fuels while increasing the utilization of its trolleybus infrastructure. With recent increases in the price of petroleum fuels, transit agencies across the United States have become strapped for cash to fund their operations; transit service in many cities has had to be cut back.

[Source: International Trolleybus News, R.C. DeArmond, Feb 3 and 27, 2012]

Quebec Consortium to build Electric Buses

On March 21st, Montreal-based bus builder Nova Bus welcomed Québec Premier Jean Charest as he announced the launch of an electric bus project. The Province of Québec is investing $30 million in an ambitious $73-million public-private partnership that plans to develop electric buses for the international mass-transportation market.

The funding is intended to give the province a leg up over the competition and a chance to become an innovation leader in the burgeoning global electric vehicle industry. "The development of the electric vehicle industry is a priority for the government of Québec," Charest said in a statement.

A non-profit organization, Consortium Bus Électrique, has been established to lead the three-year project. The group plans to produce two different sized electric bus models. (see page 2)

etc

News Bulletin of the Edmonton Trolley Coalition
Sustainable Transit for Liveable Communities
www.trolleycoalition.org
Editor: Robert R. Clark, retired supervisor of transit planning

Of the $30 million being invested by the province, $27 million has been earmarked for the design and manufacture of a 40-ft electric bus to be developed by Nova Bus, Bathium Canada, TM4, Giro, René Matériaux Composites and Précicad.

The other $3 million will fund the design and manufacture of a 25-foot aluminum electric micro-bus that will be developed by Infodev, STYL&TECH and Structures CPI.

In a statement, Clément Gignac, Minister of Natural Resources and Minister responsible for the Plan Nord, said putting more electric buses on the province's roads will help reduce the carbon footprint of Quebecers. "Every dollar" paid to charge up on electricity produced by Hydro-Québec is "a dollar that contributes to the creation of wealth and to our prosperity," he added.

Charest added, "Electric buses will play a significant role in reducing greenhouse gas emissions, and my government is striving to have 95% of public transit electrified by 2030."

The government's 2011-2020 action plan concerning electric vehicles is focused on developing products for the electric vehicle industry so that Québec can become an important player in this new global market. The Quebec provincial government is planning to invest $250 million in coming years to help deploy and promote the use of electric vehicles in the province, including the implementation of modern electric trolleybuses on some of Montreal's busiest routes.

[Sources: Novabus, March 21, 2012; Montreal Gazette, November 5, 2011]

Los Angeles to bring back Streetcars

Los Angeles once had 1,600 km of streetcar track and was the largest streetcar operation in the United States. That all began to disappear about 70 years ago when the General Motors-backed National City Lines tore up the tracks and replaced the streetcars of the Pacific Electric with diesel buses. But a move is now underway to return streetcars to downtown LA.

A proposed route of 6.4-kilometers has been selected which will be known as the Broadway-to-Figueroa loop. It will provide a link between the key areas of a downtown revitalization project and a symbolic link with the city's past.

Los Angeles' famous Yellow and Red Cars gave way to diesel buses and freeways in the 1950's; The last streetcars operated in 1961. Since then, they've become a symbol of the city's lost intimacy and identity, celebrated by politicians looking to restore public transit to its former glory. In fact, the streetcars were so much a part of Los Angeles that the city's new Expo light rail line will have Red Car tickets etched into the concrete at its final stop.

But the new streetcar loop will be even more a resurrection of transit's lost glory: "Virtually every bit of this alignment is on streets that historically had Red or Yellow car lines," said Robin Blair, director of planning for the Los Angeles Metropolitan Transit Authority. While the new cars may be thoroughly modern, sleek and environmentally sound, nostalgia is their biggest emotional selling point.

"Everyone has a story about themselves or their parents or somebody riding these streetcars," said City Councilman Jose Huizar, whose 2008 "Bringing Back Broadway" revitalization plan started the push to return streetcars to the streets. Broadway was once the busiest and brightest street in the center of the city. After the streetcars disappeared, it became a symbol of downtown's decay. (con't on page 3)

A 1913 Pullman car that operated in LA until 1961. (Photo Courtesy OERM).

Los Angeles Streetcars (con't)

The streetcar line would be the crowning touch on Huizar's $36.5-million revitalization plan. "It's a beautiful corridor," Huizar said. The streetcar line itself will cost about $110 million.

Similar streetcar systems can be found throughout Europe and in U.S. cities like Portland, Seattle and Pittsburgh, with a Washington, D.C. line set to open next year. And thanks to Tennessee Williams and Marlon Brando, they're also associated with New Orleans and its "Streetcar Named Desire."

Unlike the light rail that is becoming commonplace in public transit, streetcars run low to the ground on shallow tracks, often mixing with the regular flow of traffic. Supporters say they are safer than cars and buses because they have predictable paths and stop patterns.

Portland's streetcar system has become a model for LA, and a visit there helped sell Huizar on the idea. He was quickly won over when he stepped onto a car and got a smooth ride even though the car was packed. "It's like a sidewalk escalator ride," the councilman said.

The proposed route would head south from First Street down Broadway, then turn around and head north past Staples Center and a possible National Football League stadium that remains in the planning and policy stages, before ending near the Museum of Contemporary Art.

"Some of that line is highly dense, highly trafficked, and some of the route needs a good incentive for investors to come in," said Paul Habibi, a professor of business at UCLA, who is acting as the project's director.

An environmental review is currently underway and is expected to conclude in about a year. The groundbreaking is projected for 2014 and completion for 2016. A tax to cover some of the costs of the streetcar also requires approval; this will be put to a vote in 2013.

[Sources: Miami Herald, April 10, 2012; Wikipedia]

APTA: Rough Road for American Transit Systems

The American Public Transportation Association (APTA) periodically surveys its member transit agencies across the U.S. as to their performance. The most recent survey, released late last year, paints a picture of transit systems hit hard by the economic recession. While most systems continue to find solutions to enable them to continue to provide basic service, they continue to face funding challenges and fear worse is yet to come.

The APTA survey found that over 70% of member transit systems polled had experienced either no increases or reductions in state and local operating funding. 85% reported similar issues with capital funding. Eight out of ten agencies had or were about to resort to fare increases or service cuts to remedy shortfalls. Fare increases and/or service cuts were more common in large agencies operating in urban centres. 75% of these large agencies had also taken steps to reduce their workforce, with almost half of them having laid off workers. (See graph on page 4.)

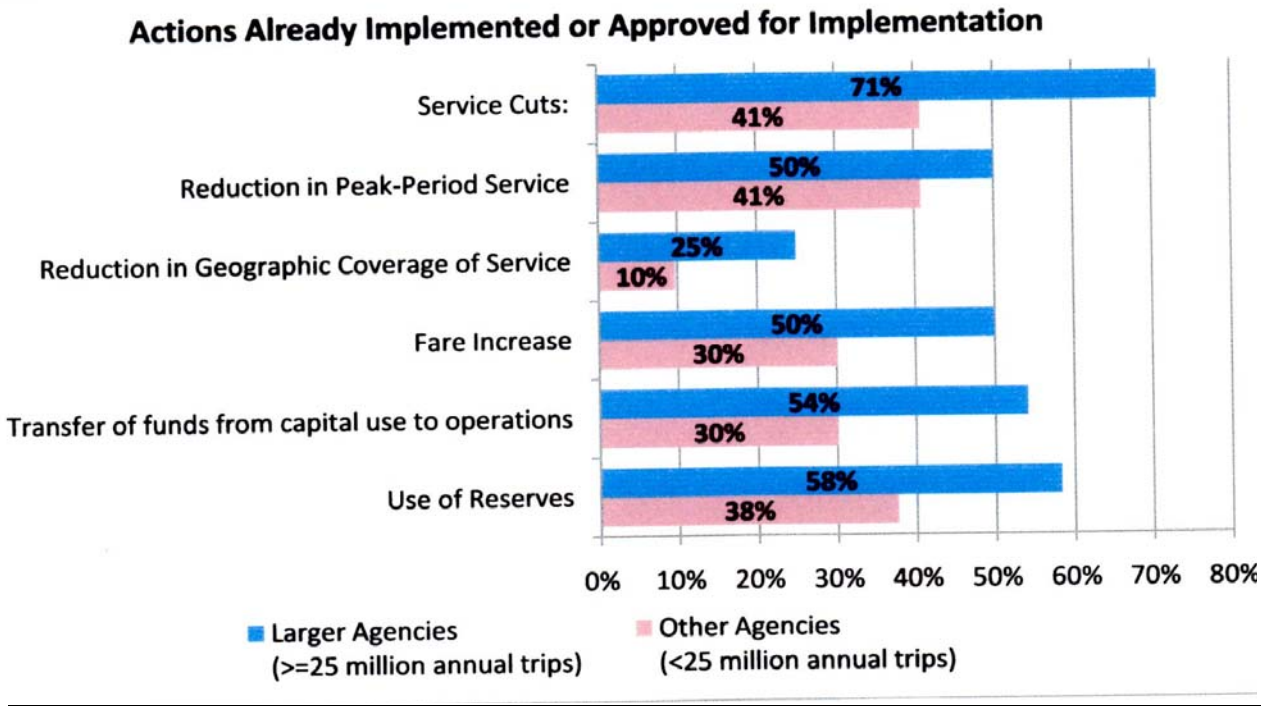
The transit agencies fear cuts to federal funding by the U.S. Committee of Transportation and Infrastructure will further impair their ability to deliver service. State and local funding sources would never be able to compensate for this loss in federal funding. 35% of agencies are already predicting budget shortfalls in 2012 according to the report.

Since the release of this report and the dawn of 2012, it is clear that rising fuel costs will deal another blow to public transit. Five-dollar-a-gallon gasoline and diesel prices in many places in the U.S. recently became a reality, and with most transit agencies relying heavily on diesel fuel and ill-prepared for a switch to other means of propulsion, a fuel price crunch lies just down the road.

Canadian systems are not immune. With all levels of government facing tight budgets, it is only a matter of time before transit agencies are hit with similar shortfalls. The financial woes of the Toronto Transit Commission (TTC) have received attention in a number of recent media articles.

[Sources: APTA: Impacts of the Recession on Public Transportation Agencies, 2011 Report; "$5 a Gallon for Gas", Baltimore Herald, Jan. 2, 2012; "Budget Woes blamed for cuts to TTC bus and streetcar routes", CBC News, Nov. 25, 2011; "Can the TTC survive Budget 2012?", Torontoist, Dec. 7, 2011]

How U.S. Transit Systems are Coping with the Recession



Above: American transit agencies are grappling with tough economic times. Service cuts and fare increases have been two common measures used to try to cope. With fuel prices on the rise, and cuts to federal funding programs expected, the situation is likely to get worse in 2012. [Graph from *APTA: Impacts of the Recession on Public Transportation Agencies,* 2011 Report, page 7.]

Kansas City seeks Funding Plan for Downtown Electric Streetcar

In the aftermath of two failed attempts to secure popular support to build an $800 million limited stop light rail line, Kansas City has officially applied for $25 million in federal funding for a downtown streetcar to bring electric transit to Kansas City. The streetcar concept was chosen because it is much cheaper than light rail, costing only $15 to 20 million per mile as opposed to light rail's $60 million per mile. Streetcar lines can also be less disruptive to build.

Backers of the streetcar are proposing a transportation development district that would be paid for primarily by downtown property owners.

A similar plan has been put forward in Oklahoma City. But there, a 1% sales tax will be imposed city-wide to cover a six-mile streetcar line costing $130 million. Besides the streetcar, the latest Oklahoma City Metropolitan Area Projects plan will help build a new convention center, a downtown central park and wellness centers.

"The ongoing theory is, downtown belongs to everybody," said Jeff Bezdek, a spokesman for the Modern Transit Project in Oklahoma City. "You either go there for entertainment or shopping -- a lot of people haven't had a problem spending money for downtown."

In Kansas City, the burden of financing the streetcar project falls on fewer wallets. Downtown property owners there generally favor the streetcar concept, but they admit the funding proposal may pose hardships for a number of stakeholders and businesses downtown who can ill afford the additional tax expenditure for the project. They have asked for perks, like making it a free ride. (con't on Page 5)

Kansas City Streetcar (con't)

"It would make it more of an amenity to the downtown stakeholders who are paying for the streetcar," said Bill Dietrich, President of the Downtown Council. "It would be an amenity for people to use the streetcar to get from their office to a restaurant and also for people living downtown. People could jump on the train and not worry about having change. It would drive higher ridership and introduce more people to transit."

Dietrich said the Downtown Council was willing to work with the city to come up with a more equitable plan. Kansas City Councilman Russ Johnson, who is leading the streetcar charge, has submitted a resolution asking City Manager Troy Schulte to pursue supplemental funding ideas.

"We're at the table with the city working through the issues we've identified with the goal of developing the best streetcar plan possible," Dietrich said. One way or another, Kansas City seems intent on joining the growing list of North American cities that have returned electric streetcars to their streets.

[Kansas City Star, March 27, 2012]

Electric Car Charging Stations – A Harbinger of Transit's Future?

An Editorial

70 years ago, the gasoline motorcar began in earnest its onslaught, resulting in the deterioration and elimination of a large network of electric public transit operations across North America and their replacement with the less effective diesel bus. At the time, the gasoline motorcar was heralded as modern, progressive, futuristic. Today, we recognize much of the damage that the motorcar has wrought on our cities. As petroleum fuels dwindle, we also recognize the value of the countless electric streetcar and trolleybus systems that once provided reliable, cost-effective transportation without using so much as a drop of petroleum fuel.

History is about to repeat itself. For as much of the public transit dithers away with the continued use of aging petroleum technology like the diesel bus, the car industry is rapidly turning toward products aimed at allowing automobiles to operate without petroleum fuels. This year, a number of electric cars will hit dealer showrooms in Canada and the U.S. (con't p. 6)

SunLink: Modern Electric Streetcar System to Grace Tucson

At 11:00 am on April 12th, ground was broken in a special ceremony marking the start of construction on the newest addition to public transit in the state of Arizona – a four-mile modern electric streetcar system connecting the University of Arizona, Fourth Avenue and Downtown. The streetcar system will cost $196 million to construct and is expected to be completed and begin operations by late 2013. Streets will be closed in phases to allow the rapid completion of the project.

Tuscon mayor Jonathan Rothschild announced at the ceremony that the system will be dubbed SunLink to create an association in the minds of users with the local SunTran bus system.

The streetcar is intended to be a driver of economic growth for the area and generate more public-private development. It will improve transit service and offer easy, convenient connections for bus users, bicyclists and pedestrians. It offers a sustainable, non-petroleum based transit option that will improve the environment and reduce congestion.

The streetcar system will use seven vehicles that share a travel lane with other vehicle traffic and will be compatible with on-street parking. The streetcars will accommodate bicycles, be wheelchair accessible and have easy roll-on access for strollers. There will be 18 stops along the route. Service frequency range from 10 to 20 minutes throughout the day.

The streetcar is part of a $2.1 billion regional plan to improve transportation in the entire Tucson area.

An interesting video simulation of the streetcar can be viewed online at the Tuscon Modern Streetcar Web site at www.tusconstreetcar.com

[Sources: Arizona Daily Star, April 12, 2012; Tucson Streetcar Web pages at wwww.tucsonstreetcar.com]

The Chevrolet Volt, the Ford Transit Connect and the Nissan Leaf are just a few of the vehicles that will reduce petroleum dependency and give the automobile a new lease on life. The Mayor of St. Paul Minnesota, Chris Coleman, for instance, says the future looks a lot like the electric car, and he's willing to make an aggressive leap to prove the point. He recently unveiled two new solar-powered electric car charging stations in Como Regional Park in that city. The City of St. Paul already has four electric cars in its fleet and 18 charging stations—and they are not the only municipality. City officials there are banking that electric cars will grow in popularity faster than hybrid vehicles once the infrastructure to support them is installed. State officials are following St. Paul's lead and will invest $500,000 to build 75 more electric car charging stations across the state of Minnesota.

The public transit industry needs to get its act together and start electrifying its bus operations fast if it wants to keep pace over the next 20 years and not lose another round to the automobile. Continuing to toy with hybrid and small, short-range battery buses or experimental fuel cells (the latter of which have been largely given up by the automobile industry) means losing headway. None of these vehicles have shown great promise for large-scale, heavy duty transit operation. Grid connected electric vehicle technology for transit buses has been around for a long time; it is a mature and proven technology that can handle the demands of the 21st century. Rather than holding so tightly onto the past by sticking with the diesel buses that have trundled up and down our streets for the past 50-odd years, the transit industry needs to refocus on modernization with 21st century electric trolleybuses, modern streetcars, light rail and the like.

[Information source for Minnesota: Pioneer Press, April 13, 2012]

World News . . .

Beijing, China has placed an order for 180 new electric trolleybuses from two different manufacturers. 110 will be Foton trolleybuses ordered after evaluation of a prototype, and 70 will be Young-MAN trolleybuses built by the consortium of Jinhua-Neoplan.

Lucern, Switzerland is planning to extend its trolleybus system. Route 1 will be extended by 3 km and headways of 7.5 minutes will be introduced. Route 4 is designated to get articulated trolleybuses in place of the current standard sized vehicles in order to increase capacity. Headways will be slightly reduced. The replacement of diesel buses on Route 12 with trolleybuses is also under consideration.

Salzburg, Austria has completed an extension to trolleybus Route 10 and introduced a new trolleybus route numbered 14.

Modena, Italy has extended its trolleybus Route 6 by about a half kilometre; the upgrade was introduced in early April. 12 of the 27 trolleybuses in use on the system are over 25 years of age – a testimony to the longevity of trolleybuses over their diesel counterparts.

Construction on the new three-route trolleybus system in Lecce, Italy is now complete, and trolleybus operation commenced on January 12, 2012 on the first of the three routes – Route 29. This route covers a total distance of four km. A total of 12 trolleybuses will be used on the system when it becomes fully operational.

Pescara, Italy's first trolleybus for its new system was publicly displayed on November 19th, 2011. The vehicles will feature electromagnetic guidance equipment. The trolleybus infrastructure for the new system is still under construction.

Zurich, Switzerland will introduce two new trolleybus lines in 2017, according to a decision of the City Council on March 21st. Between 2015 and 2017, a large portion of Zurich's diesel bus fleet will be due for replacement, and the current direction requires the selection of environmentally friendly vehicles with reduced CO2 emissions. After consideration of a number of possibilities, the choice was trolleybuses. Diesel bus routes 69 and 80 will be converted to trolleybus operation by 2017.

A proposal to restructure the transit network in Wellington, New Zealand and reduce the number of trolleybus lines from 9 to 6, albeit with greater service frequencies on the remaining lines, met with strong opposition. MP Gareth Hughes spoke in early April while standing in front of 11 barrels of oil – the amount of oil saved daily in Wellington by the use of electric trolleybuses. Wellington saves $3,000 a day in diesel costs through the use of trolleybuses. Hughes says the proper direction would be to retain and improve utilization on the entire trolleybus system, and to start investing in electric light rail as well. No decision has yet been made on the proposal.

Bratislava, Slovakia put 2.2 km of new trolleybus infrastructure into operation on March 27th.

[Sources: International Trolleybus News (R. C. DeArmond; Trolleymotion – March – April 2012]