MEDIA BACKGROUNDER
Pan-Canadian Electric Bus Demonstration and Integration Trial
April 2018

New Flyer
The New Flyer Xcelsior CHARGE™ battery-electric bus features an electric drive system with unique electric drive motor technology permitting the bus to reduce energy consumed while driving, and increase the energy recovered during braking. The Xcelsior CHARGE™ propulsion system also features:
• Zero tailpipe emissions and greenhouse gases
• Reduced noise inside and outside the bus
• Increased operator and passenger comfort
• Lower operating costs

For the purposes of the CUTRIC trial we are implementing an on route rapid charging system in co-operation with ABB and Siemens who are the providers of the charging equipment. This overhead charging strategy allows the bus to essentially stay in service indefinitely and is limited only by the transit service demands.

As with all New Flyer buses, the Xcelsior CHARGE™ forty-foot, heavy-duty battery-electric transit bus is delivered with New Flyer’s commitment to lifetime customer care, including a comprehensive product warranty, maintenance and operations training, spare parts and an extensive network of in-service support professionals.

New Flyer Canada ULC is a subsidiary of NFI Group, North America’s largest bus and motor coach manufacturer and parts distributor with 32 fabrication, manufacturing, distribution, and service centers located across Canada and the United States, and nearly 6,000 team members. NFI Group’s vehicles incorporate the widest range of drive systems available. It is the only North American bus manufacturer offering all 4 types of electric, and all 3 types of zero-emission:
  o battery-electric (zero-emission)
  o fuel cell-electric (zero-emission)
  o trolley-electric (zero-emission)
  o diesel-electric hybrid

The NFI Group has over 50 years of experience in manufacturing zero-emission buses (ZEBs).  www.newflyer.com

Nova Bus and Volvo Buses
Nova Bus, part of Volvo Group, is one of the leading bus partners with most major transit agencies in North America. Our team of over 1000 employees in three plants are striving to be the leader in electromobility and in efficient transportation, having delivered over 1000 hybrid buses and now starting delivery of 100% electric solutions. Nova Bus has recently delivered its first 3 units to the Societe de transport de Montreal. We make a difference.
Our LFSe electric bus, built on the most durable and proven platform in the industry, joins state of the art globally developed technology with a robustness made for our rigorous Canadian climate. Through our fast charging technology, the LFSe can be charged in less than 5 minutes at the end of route stations, while maximising passenger capacity and uptime. With its powerful electric propulsion, the LFSe delivers a smooth and silent ride which both passengers and drivers appreciate. Electric buses are up to 80 per cent more energy-efficient than a corresponding diesel bus. As the leading transit manufacturer in Canada, we are proud to be part of this exciting project with CUTRIC and our preferred partner York Region Transit.

www.novabus.com

Volvo Buses is a globally leading bus manufacturer with a strong focus on vehicles and systems that promote long-term sustainable public transit. Volvo Buses and Nova Bus are part of Volvo Group, one of the world's leading manufacturers of trucks, buses and construction equipment, as well as drive systems for marine and industrial applications. Volvo’s global drive with electrified buses continues to deliver results. Volvo Buses has sold 3000 hybrids, electric hybrids and electric buses to customers in 22 countries in Europe, South America, Asia and Australia.

http://www.volvobuses.com

ABB

ABB will supply interoperable opportunity charging systems with inverted pantograph technology for e-buses, rated up to 450 kW, to the e-bus demonstration project in Brampton, Ontario. The development and project execution will be supported from the new ABB Campus in Montréal. By using an open industry interfaces, ABB is providing a system that is open to all bus brands as well as other charger manufacturers. Open interfaces and open standards are key for operators and cities to embrace the large-scale adoption of carbon emissions-free public transportation.

Since 2010, ABB has sold approximately 5,000 DC fast chargers around the world for electric vehicles. Utilization of technology that comprises cloud-based remote monitoring and control as well as program upgrades via Internet guarantees quick response times and a high degree of availability. More information: http://new.abb.com/ev-charging

Siemens

Siemens is the global leader in electrification, automation and digitalization. In Canada from coast-to-coast, more than 4,300 employees in 52 locations deliver solutions for intelligent infrastructure, sustainable energy, healthcare, and the future of manufacturing. As one of the world's largest producers of energy-efficient transit technologies, including advanced electrification systems for transportation, we are continuously developing innovative applications to keep Canadians moving. Siemens Canada is proud to be selected as an eBus charging solution provider for the Pan Canadian Demonstration Project. With the right charging technology, eBuses are an ideal and versatile solution to the increasing demand for sustainable mobility solutions in our cities. Siemens modular charging systems are available in 150kW, 300kW and 450kW configurations and include
an overhead-charging interface that can charge the bus in station, while passengers exit and enter the bus. The chargers are also OppCharge compliant and in use with multiple bus OEMs. Siemens eBus charging systems have been successfully deployed in Hamburg, Gothenburg and Stockholm as well as the most recent Canadian installation in Montreal, Quebec.

www.siemens.ca

**Canadian Urban Transit Research and Innovation Consortium (CUTRIC)**

CUTRIC is a member-based innovation consortium that partners stakeholders in industry, transit and academia to develop the next-generation of low-carbon smart mobility technologies. Its mandate is to drive forward innovation in transportation across Canada, create jobs by doing so, and lead to significant GHG reductions.

www.cutric-crituc.org
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