

City of Mississauga Corporate Report



<p>Date: June 13, 2025</p> <p>To: Mayor and Members of Council</p> <p>From: Sam Rogers, MBA, Commissioner of Transportation and Works</p>	<p>Originator's files:</p> <hr/> <p>Meeting date: June 25, 2025</p>
---	---

Subject

Single Source Award Approval for High Voltage Bus Training

Recommendation

1. That the Chief Procurement Officer or designate, be authorized to award and execute the single source contract with respect to the purchase between The Corporation of the City of Mississauga and Centennial College of Applied Arts and Technology for the supply and delivery of high voltage bus training in the amount of \$594,000.00, exclusive of taxes, for a term of up to three (3) years, as outlined in the corporate report entitled "Single Source Award Approval for High Voltage Bus Training" dated June 13, 2025, from the Commissioner of Transportation & Works, and all necessary agreements and related ancillary agreements, all in a form satisfactory to the City Solicitor, in accordance with the City's Procurement Bylaw 0013-2022, as amended
2. That all necessary by-laws be enacted.

Executive Summary

- MiWay's bus fleet contains 288 buses with 1st and/or 2nd generation hybrid bus technology that contains high voltage drive componentry, which requires specialized high voltage training for maintenance staff to ensure the safety of workers.
- As MiWay transitions to a low, and eventual zero emission fleet, high voltage componentry is quickly becoming a technology staff will be maintaining as we move away from diesel buses.
- After a review of educational institutions, Centennial College of Applied Arts and Technology is being recommended for award due to its close proximity to MiWay campuses, reducing time and travel costs.
- The financial impact to provide the high voltage componentry training program is \$594,000.00 over 3 years. The first year (2025) can be accommodated within the existing budget, and the next two years will be included in the respective annual budget

processes.

Background

A Rapidly Changing Bus Fleet

288 of MiWay's buses consist of 1st and/or 2nd generation hybrid technology meaning 58% of its fleet has high voltage componentry. That number is projected to increase dramatically over the coming years as MiWay progressively transitions to low, and eventually a zero-emission fleet.

Hybrid, battery electric and fuel cell electric buses all contain high voltage drive systems in which technical expertise is required. All maintenance staff that work on high voltage drive systems require certified high voltage training to uphold manufacturer's warranty requirements and is of the utmost importance for the safety of employees.

High Voltage Training Availability

The Ministry of Labour, Immigration, Training and Skills Development continuously review the trade licences required to safely work on buses that contain high voltage componentry. To date, there are no separate licences or licence endorsements required other than that employees must complete transit bus high voltage training.

In the Greater Toronto Area, there are limited options for staff to receive this training. Per Natural Resources Canada – Zero Emission Vehicle Training, there are four learning academies currently offering high voltage transit bus training in Ontario. Course fees are the same at all four locations. Two academies are located in Sudbury and Windsor, and another in Hamilton, at Mohawk College. Centennial College of Applied Arts and Technology offers a transit-specific certificate program at the Ashtonbee Campus (75 Ashtonbee Road, Toronto) and is the closest in proximity to MiWay for staff to attend, which limits time and travel associated costs.

Present Status

MiWay staff members have had limited exposure to high voltage componentry starting with the original 15, 2010 Orion 1st Generation Hybrid buses. Back then most of the high voltage componentry work was contracted out to 3rd party vendors while staff were concentrating on maintaining a predominant diesel fleet. As MiWay progresses within its "Stepping Stone Approach" towards transitioning to a zero-emission fleet, staff members require specialized transit bus high voltage training to maintain the fleet today and for the future.

A total of 110 staff members requires this training, including mechanics, mechanic helpers and MiWay maintenance supervisors. Classes are available at Centennial College of Applied Arts and Technology and the full program consists of 6 modules. With 5 MiWay participants per session, 22 sessions will be required for staff to acquire the certification and technical skills for

Council	2025/06/13	3
---------	------------	---

working in and around high voltage components. It will take 36 months to complete as daily maintenance operations must continue uninterrupted.

Comments

This report seeks authority to award a single source contract to Centennial College of Applied Arts and Technology for the supply and delivery of high voltage bus training.

Procurement Bylaw Authorization

The contract with Centennial College of Applied Arts and Technology will be executed under Procurement By-law 0013-2022, as amended, Schedule 'A' (1) using the Single Source procurement justifications:

(b) There is a scarcity in the market

Centennial College of Applied Arts and Technology is in close proximity to MiWay campuses and makes for a viable learning academy to provide the training required for MiWay maintenance personnel to safely service MiWay's fleet which consists of high voltage componentry. MiWay is planning to enroll 110 staff members consisting of mechanics, mechanic helpers, and maintenance supervisors in Level 1 & 2 High Voltage Transit Bus Certification.

Centennial College of Applied Arts and Technology is the local industry leader when it comes to technical training for licenced trades, specifically for training related to transit buses. They have the largest transportation training facility in Canada that mirrors real-world environments for a realistic learning experience. They supply the transit bus sector with industry-recognized programs and help ensure proficient mechanics. Currently Centennial College of Applied Arts and Technology offers a Hybrid & Electric Bus Level 1 & 2 Certification program.

Financial Impact

The cumulative impact over the three years for high voltage bus training is \$594,000.

The 2025 high voltage bus training cost of \$198,000 will be funded under 715114-23590 through existing Transit budget. The remaining \$396,000 cumulative budget for this contract would be requested through future operating budgeting processes to ensure sufficient funding and will be subject to Council approval.

The table below provides the estimated cumulative expenditures over the next 3 years.

Course	Length	Cost per Course
High Voltage Safety and Vehicle Systems	1 day	\$2300.00
Introduction to High Voltage Bus Overview	2 days	\$4500.00
Introduction to High Voltage Energy Storage Systems	3 days	\$6800.00
Introduction to Drive Systems, Brake and Regenerative Braking	2 days	\$4500.00
High Voltage Bus Maintenance and Accessory Systems	2 days	\$4500.00
Advanced Troubleshooting and Systems Overview	2 days	\$4500.00
Cost for Full Program	Subtotal	\$27,000.00
22 Programs Required Based on 110 FTE's @ 5 per class	Total	\$594,000.00

Conclusion

The City is committed to ensuring staff are fully trained with the skill set required to perform their daily duties. Recognizing the requirement for certified transit specific high voltage componentry training, MiWay is seeking approval to single source the required training to Centennial College Of Applied Arts and Technology.



Sam Rogers, MBA, Commissioner of Transportation and Works

Prepared by: Darren Ridings, Senior Manager Transit Maintenance & Facilities