

Purchase Order Requests for Approval

1. Request: Sole source purchase of ZincFive Battery Backup Systems

Supplier: Innovative Traffic Solutions Inc.

Sole source purchase of traffic signal cabinet battery backup systems required for twenty (20) signalized intersections at a total cost of \$238,900.00 (exclusive of HST).

Rationale for Purchase

This request is for the approval for a sole source purchase of traffic signal cabinet battery backup systems (BBS) as an interim measure to address immediate business needs.

This purchase is for the materials needed for the installation of traffic signal cabinet battery backup systems at twenty (20) signalized intersections falling under both Regional and local area municipality jurisdiction. The Region has implemented a redundant backup system with the installation of these batteries in all new traffic signal installations and/or rebuilds.

ZincFive has the patent and is therefore the sole supplier of the sealed Nickel-Zinc (NiZn) battery system which is safer, has a wider operating temperature range, and a longer operating life than traditional batteries. The ZincFive battery is also intelligent and can self-monitor performance and is hot-swappable. This battery system has a central system management platform which can continuously monitor equipment health and report faults. The result is a system which requires little to no preventative maintenance, with the redundancy needed for operations.

Since 2014, the Region has invested over \$700,000 in ZincFive systems at 70+ signalized intersections throughout the Niagara region. The product is a proven performer.

Alternatives Reviewed

- (i) Do nothing: Without the battery backup systems in place, signalized intersections go down and are not operational. Therefore, this creates inefficient operation of the signalized intersections during brownouts, blackouts, and utility power issues with increase driver delays and frustration, resulting in an increase of safety issues.
- (ii) Procurement strategy is under review: In 2021, Staff will work with Procurement on proper supporting information in support of this sole

source purchase, plus review if other vendors have the rights to price and supply this patented battery. Staff will also evaluate the performance of other battery types with similar operational and cost characteristics against the proven performance of the patented ZincFive battery system.

Recommendation by Transportation Services

Proceed with sole source purchase of traffic signal cabinet battery backup systems in the interim.

2. Request: Sole source purchase of Polara Accessible Pedestrian Signal (APS) button systems

Supplier: Tacel Ltd.

Sole source purchase of Polara Accessible Pedestrian Signal (APS) button systems required for fifteen (15) signalized intersections at a total cost of \$138,000.00 (exclusive of HST).

Rationale for Purchase

This request is for the approval for a sole source purchase of Polara Accessible Pedestrian Signal (APS) buttons required to meet immediate operational needs. Staff will work with Procurement and the supplier on proper sole source documentation for existing infrastructure. What makes this a sole source request is that Polara owns the patent rights for a 2-wire Accessible Pedestrian Signal (APS) system which allows for installation in existing signal infrastructure with minimal cost and resources. Competitive products use a 3-5 wire system which would require new cabling to be installed throughout each signal plant throughout the Region. As part of future procurement reviews, an analysis will be done on the merits of introducing a 3-5 wire system product.

In accordance with the Accessibility for Ontarians with Disabilities Act, 2005 (AODA), the Region installs Accessible Pedestrian Signal (APS) button systems at all new traffic signal installations and/or rebuilds.

This purchase is for the materials needed for installation of Polara Accessible Pedestrian Signal (APS) button systems at fifteen (15) signalized intersections falling under both Regional and local area municipal jurisdictions. This sole source product has proven to meet all Regional operational and performance standards consistently at other locations for years without issue.

Since 2006, the Region has invested over \$1.6 million in Polara Accessible Pedestrian Systems at 171+ signalized intersections related to safety. As part of

AODA, it is very important to ensure equipment has a consistent look, sound, and feel, therefore, the Region has standardized their installation methods so staff are experienced when installing and maintaining this product. The product is a proven performer and has evolved to provide non-contact actuation where citizens can activate the buttons by simply waving their hand in front of it.

Alternatives Reviewed

- (iii) Do nothing: Not recommended. AODA regulation mandates that APS buttons shall be installed at all new signal installations and/or signal rebuilds.
- (iv) Procurement strategy is under review: Staff will be assessing the risk of introducing a 3-5 wire product against a number of factors such as its appearance, operation, and performance related to safety and operational requirements, if to be introduced into the larger Regional network.

Recommendation by Transportation Services

Proceed with sole source purchase of Polara Accessible Pedestrian Signal (APS) button systems as staff undergo the review process with Procurement.