



STAFF REPORT

TO: Council

FROM: Marcia d'Eon, Director of Operations & Protective Services

APPROVED BY: Warren Macleod, CAO

DATE: November 13, 2024

SUBJECT: **RFP Award-EV Charging Stations**

BACKGROUND

The Municipality sought proposals for the design, supply and installation of up to three Level 2 EV charging stations at the Municipal building located at 414 Woodlawn Drive, Shelburne.

An RFP was advertised on the Municipality's website, Facebook page and the NS Procurement website, posted on September 20, 2024.

A number of specifications were outlined in the RFP, see attached RFP documents for details including a request for a business case to be made for networked vs non-networked EV Chargers. For the purposes of this RFP let's assume that non-networked equals no charge to the users and networked means that we can charge users. The RFP requested the Proponent to detail the pros and cons of the two systems to assist the Municipality in making an informed decision on the type of EV charging systems to be installed.

The RFP deadline was October 10, 2024, at 4 p.m. Two (2) submissions were received.

An evaluation team consisting of project manager, Andrew Amos, CAO Warren Macleod, DOPS Marcia d'Eon and the executive director for Sou West Nova Transit Association, Kevin Curry met to review and score the RFP submissions. The evaluation team has made a recommendation based on operational requirements together with the feedback from Clean Foundation.

RECOMMENDATION

THAT Council of the Municipality of the District of Shelburne award the EV Charging Stations Request for

Proposal to VistaCare for non-networked option 1, Leviton 320 dual pedestal with retractable cord including an intellimeter power monitor at an estimated total cost of \$57702.50 with a 10% allowance for contingency. Funds to come from Capital Reserve.

ALTERNATE RECOMMENDATION -Additional annual fees with this option.

THAT Council of the Municipality of the District of Shelburne award the EV Charging Stations Request for Proposal to VistaCare for networked option 2, Flo Core+ dual pedestal with new electrical panel as required at an estimated total cost of \$48292 with a 10% allowance for contingency. Funds to come from Capital Reserve.

BUDGET CONSIDERATIONS

Council made a motion to approve up to \$92064.05.

We are anticipating a contribution from Provincial programs towards the total cost of this project, together with a solar project. However, we are unable to disclose at this time what that may be.

ATTACHMENTS

- EV Charging Station RFP
- Business Case for Networked vs Non-Networked Chargers

Comparison of networked and non-networked chargers

Feature	Networked Chargers	Non-Networked Chargers
Remote Management & Monitoring	Yes – allows real-time tracking and diagnostics	No – requires manual monitoring
Payment Integration	Yes – supports multiple payment methods	No – not integrated with payment platforms
Smart Charging & Load Balancing	Yes – offers advanced charging and load control	No – simple charging with no smart features
Software Updates	Yes – updates remotely via the network	No – manual updates if applicable
User Access Control	Yes – restricts access with RFID or apps	No – open access unless otherwise limited
Analytics & Reporting	Yes – detailed reports on usage and performance	No – limited to physical observation
Scalability	High – easily managed for multiple locations	Low – requires individual setup and management
Cost	Higher – includes installation and subscription	Lower – one-time cost with minimal setup fees
Maintenance Requirements	Moderate – requires network maintenance	Low – fewer components to maintain
Installation Complexity	Moderate – requires connectivity setup	Low – easier to install without networking

Network vs Non-Network Units – Factors to consider

Capital Costs

Non-networked (Leviton EV320):

- Lower initial costs as there is no need for networking hardware or software integration.
- Installation costs are simpler and more affordable because non-networked units require fewer electrical and communication connections.
- Without a power management system installation can result in larger costs as upgrading infrastructure is likely required.

Networked (Flo CoRe+ or ChargePoint CT4000):

- Higher initial costs due to the inclusion of advanced hardware, communication modules, and software to connect the chargers to a central management platform.
- There may be additional installation costs related to data cabling or wireless connectivity to enable network access.
- Optional power management system integrated into these smart systems allowing for reduction in load requirements.

Ongoing operational costs

Non-networked (Leviton EV320):

- Minimal ongoing costs, as there are no network service fees.
- Maintenance may be less frequent as there are fewer components (no networking software/hardware to maintain).
- Usage tracking, payments, and diagnostics must be handled manually, potentially increasing administrative time/costs.

Networked (Flo CoRe+ or ChargePoint CT4000):

- Recurring subscription fees for network access, software updates, and customer support.
- Remote monitoring, diagnostics, and firmware updates allow for lower long-term maintenance costs and proactive issue resolution.
- Automated usage tracking, billing, and reporting reduces administrative overhead.

Precedents from other Municipal Units

Non-networked (Leviton EV320):

- Typically used in smaller municipalities or locations where high utilization isn't anticipated, or where cost is a limiting factor.
- Preferred in places where the charging stations are intended to be free to use and low-maintenance.

Networked (Flo CoRe+ or ChargePoint CT4000):

- Many larger municipalities prefer networked chargers for their ability to manage public charging infrastructure, monitor usage data, and offer pay-per-use models.
- They can integrate into smart city grids, leveraging data for sustainability goals.

- Flo is the most commonly used commercial charging station in Canada, where chargepoint also offers a large network across Canada.

Ease of Use

Non-networked (Leviton EV320):

- Simple plug-and-charge operation, making it user-friendly for EV drivers who don't require complex features.
- Limited control or access restrictions.

Networked (Flo CoRe+ or ChargePoint CT4000):

- More advanced features, such as mobile app access, user authentication, and reservation capabilities.
- Remote access allows for managing charging times, reducing grid strain, and optimizing energy use during off-peak hours.
- Flexibility in terms of payment options (contactless payments, RFID cards, app-based payments).

Scalability and Management

Non-networked (Leviton EV320):

- More suitable for smaller installations where little to no ongoing monitoring or scaling is required.
- Scaling would mean individually managing each charger, which can be cumbersome for larger installations.

Networked (Flo CoRe+ or ChargePoint CT4000):

- Highly scalable, with centralized management, making it easier to expand the charging network over time.
- Integration with energy management systems and utility programs for optimized energy use.

Reliability and Diagnostics

Non-networked (Leviton EV320):

- Any issues with the chargers must be identified through manual inspections, and troubleshooting may be delayed without real-time monitoring.

Networked (Flo CoRe+ or ChargePoint CT4000):

- Real-time monitoring allows for quick diagnostics and remote troubleshooting, leading to fewer service disruptions.
- Networked chargers can automatically alert maintenance personnel of issues, reducing downtime. These services are at an additional fee.

Reliability and Diagnostics

Non-networked systems (Leviton EV320) are more cost-effective upfront and simpler to operate but lack remote monitoring, scalability, and revenue-generating capabilities.

Networked systems (Flo CoRe+ or ChargePoint CT4000) offer more advanced features, such as monitoring, payment integration, and scalability, but come with higher initial and ongoing costs. They are better suited for municipalities that anticipate high usage, want data-driven insights, and plan to expand infrastructure.

Given these factors, the networked options provide the most long-term flexibility, data insights, and operational ease, while the non-networked system offers a budget-friendly, low-maintenance solution ideal for smaller installations or free-use scenarios. We are happy to provide additional details as required to support the Municipality in making its decision on balancing budget, long-term goals, and expected usage.

Available Payment Options

For the networked options provided (Flo and ChargePoint), payment processing is managed through their respective networks. This service operates on a subscription basis, with associated fees outlined below. Pricing is determined by the owner of the charging station, and revenue generated from the charging stations is distributed on a monthly basis.

In contrast, the non-networked options do not include built-in payment solutions; however, there are two potential alternatives for consideration. The first option involves the chargers being activated only through an approved app or RFID tag, allowing usage tracking on a per-user basis with monthly billing. This approach limits billing to users who have established an account with the Municipality in advance.

The second option involves integrating a power management system that enables billing for users or tenants. These systems effectively manage the load across all connected EV stations, thereby reducing the overall load on the electrical supply. However, it is important to note that with this solution, all payment processing and invoicing will be the responsibility of the owner of the units.