



Challenge: LCBA - VEC City of Vancouver - EV Charging Infrastructure

Challenge Statement/Synopsis:

In Vancouver, burning gas and diesel in vehicles accounts for 39% of greenhouse gas emissions. The City of Vancouver is seeking innovative ideas that support the City's pursuit of zero-emission fleets (medium- to heavy-duty), including EV charging solutions.

Context:

The City of Vancouver has committed to reducing fleet emissions by 60% compared to 2007 by 2030 and transitioning to 100% renewable energy usage by 2050.

In 2018, the City's fleet shifted to 100% renewable diesel fuel provided by Suncor. This is a major step towards using 100% renewable fuels in the fleet as 49% of the fleet is fuelled by diesel. With the new shift in fuel providers, the diesel will go from 5% biodiesel content (B5) to 100% renewable diesel (R100) and be 100% renewable.

12% of the City's fuel use is CNG with 37% of that CNG being Renewable Natural Gas (RNG). In the near future, the RNG that we use will be from captured methane at the landfill. The City of Vancouver has a dedicated natural gas compression station that allows for our vehicles (including 40 refuse trucks) to be operated on 100% CNG.

The City currently has over 145 electric vehicles (EVs) in their fleet and plans to reach over 200 in 2022, including:

- Medium and heavy duty trucks including refuse trucks, tractor trailers, and delivery vans
- Long range passenger vehicles

To support these electric vehicles, the City has dedicated fleet EV charging stations which includes:

- 85 level two charging stations
- 4 DC fast charging stations

Further, the City currently has over 85 hybrid or plug-in hybrid vehicles in their fleet.



Response Criteria:

- The City is seeking low-cost, high impact solutions that will help the city to achieve a zero-emissions fleet and address EV charging infrastructure challenges.
- The City of Vancouver is targeting companies with solutions that land between TRL 6-9 of the technology readiness scale (TRL), although it will consider low TRL solutions on a demonstration basis if they are especially novel.
- Where applicable, proponents should explain how their solutions meets safety and regulatory standards and provide a description of successful deployments.
- Provide CAPEX and OPEX details for the solution. The City of Vancouver prefers an investment payback/cost recovery within fewer than five years. However, it will consider five- to eight-year paybacks with additional due diligence.
- If applicable, proponents should explain coverage (i.e., how many installations will the solution need?), impact (i.e., how does the solution help Vancouver achieve its Climate Emergency Action Plan targets), reliability (i.e., how well will the solution perform in real-world environments?).

[Eligible European companies](#) can apply to the targeted challenge using the [LCBA Canada Application Portal](#)

The Opportunity:

- If chosen, conduct a demonstration project of the solution with the City of Vancouver, one of Canada's largest, most sustainable cities.
- Pitch your solution during GLOBE Forum 2022, North America's longest running sustainable business conference.
- Meet new customers and access new markets.

About the City of Vancouver:

Vancouver is the third largest metropolitan region in Canada and has the 3rd largest Port in North America. Vancouver as a major infrastructure owner, manages \$25 billion of capital assets encompassing facilities, parks, street and underground infrastructure. Since 2011, the City has adopted a service-based capital planning framework to drive accountability, enhance transparency, and enhance a more holistic, city-wide approach to long-term capital investment decision making.

<https://projectgreenlight.io/wp-content/uploads/2019/10/Capital-assets-inventory-condition-assessment-2019-22-Cap-Plan-July-2018.pdf>

***Only non-confidential information should be included in your response ***