



LCBA - VEC City of Vancouver - Low carbon construction materials and equipment

Challenge Statement/Synopsis:

In Vancouver, embodied carbon from new building accounts for approximately 179,500 tonnes of carbon emissions every year. The City of Vancouver is seeking innovative ideas that address low-carbon construction requirements of the future, focusing on low embodied carbon construction materials for buildings and low emission equipment on construction sites.

Context:

In 2019, Vancouver City Council declared a climate emergency, and set a goal of reducing embodied carbon from construction by 40% by 2030, compared to 2018.

Vancouver's Embodied Carbon Strategy sets a vision for a healthy, equitable, circular, and carbon-positive construction economy. The City aims to take responsibility for carbon pollution created while extracting, manufacturing, assembling, replacing and disposing of building materials, such as concrete, metals, insulation. This means:

- Using materials more efficiently
- Reusing existing buildings and materials
- Building more from sustainably sourced wood and mass timber
- Using lower-carbon blends of concrete
- Powering construction sites with renewable energy instead of diesel fuel
- Using low-carbon insulation instead of spray foam, and putting less parking in buildings

Response Criteria:

- The City is seeking low-cost, high impact solutions that help to reduce embodied carbon from construction. Solutions can include, but are not limited to, alternative construction materials, recycling technologies and low carbon construction equipment.
- 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 ***



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