

Request for Information (RFI) 24062-24-208

On consideration of proposed requirements related to the inclusion of whole building life cycle assessments (wbLCAs) into procurements of design services for Government of Canada building and infrastructure projects.

PART 1 – PURPOSE AND NATURE OF THE REQUEST FOR INFORMATION

1.1 Purpose of the Request for Information

The Treasury Board of Canada Secretariat (TBS) is launching this Request for Information (RFI) to engage industry. This RFI seeks feedback from architects and engineers, Life Cycle Assessment (LCA) practitioners, quantity surveyors and all other interested parties.

Respondents are requested to provide answers and feedback related to the questions in Annex 1.

1.2 Nature of the Request for Information

This is not a bid solicitation. This RFI will not result in issuance of a solicitation and will not result in the award of any contract. This RFI is simply intended to solicit information and feedback from industry with respect to the matters described in this RFI.

PART 2 – RESPONSE INSTRUCTIONS AND INFORMATION

2.1 Nature and Format of Responses Requested

- a. Respondents are invited to provide comments regarding the questions found in Part 3 of this RFI. Respondents can comment directly on and return an electronic copy of Annex 1.
- b. Alternatively, respondents can comment on a different media and format by appropriately referencing the document as well as the relevant section(s) and question(s). Respondents are requested to explain any assumptions they make in their interpretation of the questions.

2.2 Response Costs

Canada will not reimburse any respondent for expenses incurred in responding to this RFI.

2.3 Treatment of Responses

2.3.1 Use of Responses

Responses will not be formally evaluated. The responses received may be used by Canada to develop or modify procurement policies, requirements, or standards. Canada will review all responses received by the RFI closing date. Canada may, at its discretion, review responses received after the RFI closing date.

2.3.2 Access to Information

The *Access to Information Act* provides, upon request, a right of access to information in records under the control of a government institution. The general right of access is limited by specified exclusions from disclosure. These exclusions include, among other things, certain types of third-party information, the disclosure of which could be detrimental to that party. Respondents are requested to indicate and

mark any portions of their response that they consider proprietary or confidential. Canada will handle these portions in accordance with the *Access to Information Act*.

2.3.3 Sharing of Information with Other Governments

Canada may share some or all the information collected in the process of this request for information with provincial and/or municipal governments.

2.4 Contents of this RFI

This RFI contains specific questions addressed to the identified stakeholders.

2.5 Response Content

The first page of each document of the response provided should contain:

- A. The RFI number
 - a. The name of the company that the respondent is representing
 - b. The date of submission of the documents

2.6 Enquiries

TBS will not necessarily respond to enquiries in writing or by circulating answers to all interested suppliers as this is not a solicitation process. However, respondents who have questions regarding this RFI may direct their enquiries to the Contracting Authority named below:

Contracting Authority: Richard Boyling

Email: Richard.Boyling@tbs-sct.gc.ca

Telephone: 343-542-9916

2.7 Submission of Responses

2.7.1 Time and Place for Submission of Responses

Suppliers interested in providing a response should deliver it in accordance with section 2.5 to the attention of the Contracting Authority **by July 15th, 2024**, to the address indicated in Part 2 section 2.6.

2.7.2 Responsibility for Timely Delivery

Each respondent should ensure their response is delivered on time to the correct email address or location.

2.8 Security Requirements

There are no security requirements associated with responding to this RFI.

2.9 Official Languages

Responses to this RFI are requested to be presented in either of the official languages of Canada.

PART 3 – QUESTIONS

3.1 Context

The Government of Canada's (GC) **Greening Government Strategy** (GGS) includes the following commitments:

The government will implement Buy Clean in its procurement by reducing the environmental impact of structural construction materials by:

- disclosing the amount of embodied carbon in the construction materials of major construction projects, based on material carbon intensity or a life cycle assessment
- conducting whole-building (or asset) life cycle assessments by 2025 at the latest for major buildings and infrastructure projects
- reducing the embodied carbon of major construction projects by 30%, starting in 2025, using recycled and lower-carbon materials, material efficiency and performance-based design

TBS has implemented the [Standard on Embodied Carbon in Construction](#) to establish requirements to disclose and reduce the embodied carbon footprint of construction projects in accordance with the commitments in the [Greening Government Strategy](#), and supported by the [Policy on Green Procurement](#), which applies to all federal departments within the meaning of section 2 of the [Financial Administration Act](#), unless specific acts or regulations override it.

This RFI seeks feedback to assist in the development of requirements designed to achieve environmental objectives and support a competitive and resilient marketplace.

3.2 About wbLCA

Whole building Life Cycle Assessment (wbLCA) involves breaking down a building's life into distinct stages and modules, and quantifying carbon emissions, along with other environmental impact categories, at each stage. wbLCAs often assess the entire lifecycle, from the extraction of raw materials, across an assumed service life (typically spanning 50-60 years), to the end-of-life scenarios. In some cases, a wbLCA isolates some modules for assessment, defined as the assessment's system boundary. These assessments are essential for informing design decisions and reporting purposes, with the scope and level of detail tailored to specific needs. Environmental Product Declarations (EPDs) are used in wbLCAs to provide important information about the carbon footprint of specific materials.

Global Warming Potential (GWP) is a metric used in wbLCAs for quantifying a product or building's contribution to climate change, often referred to as its carbon footprint. Assessing carbon emissions and other pollutants enables more informed choices about materials, construction methods, and energy systems, aiming to minimize the building's environmental footprint and contribute to a more sustainable future.

3.3 Proposed Additions to the TBS Standard:

The Government of Canada (GC) is the largest asset owner in the country with over 32,000 buildings and 20,000 engineering assets used to serve Canadians and provide critical infrastructure.

The Government of Canada is considering a mandatory requirement to conduct whole building life cycle assessments (wbLCAs) to inform the design of major federal government construction projects, to reduce the embodied carbon of the final design by at least 30% (compared to a functionally equivalent baseline or recognized benchmark), and publicly disclose the results.

Proposed Requirements:

Design service providers (referred to below as designers) will be expected to incorporate the consideration of embodied carbon impacts throughout their design processes and reduce the embodied carbon impacts of their final designs.

Designers will be required to submit wbLCA reports of both a preliminary and final design to demonstrate the extent embodied carbon reductions were achieved through the design process. All wbLCA report submissions will be required comply with the methods and parameters of provided guidance documents.

Final design wbLCA reports will be expected to demonstrate an embodied carbon reduction of at least 30% for lifecycle modules A-C, compared to either a project baseline or a benchmark recognized by the federal standard. Where project baselines are used to compare against a final design, they must comply with provided guidance and be based on either an early design iteration or on an alternate design. Where final design wbLCAs are unable to achieve the minimum 30% reduction, designers will be expected to provide a written justification to the business owner that detail the efforts made and barriers to further address the embodied carbon of their design.

The results of the final design wbLCA are intended to be disclosed publicly, either in full or in part, to improve transparency of the wbLCA process for federal government projects.

3.4 Scope of Application:

All major federal government construction projects starting in 2025.

ANNEX 1 - RFI Questions for steel producers, suppliers, fabricators, architects, engineers and associated interested parties.

Optional – please provide information about your company:

Company Name:			
Primary place of business:		Number of employees:	

Respondent - Please indicate your discipline:

Life Cycle Assessment Practitioner	Construction contractor, installer or related subtrade
Architect	Construction Material Supplier
Architectural Technologist/Technician	Civil Engineer
Structural Engineer	Civil Technologist/Technician
Structural Technologist/Technician	Project Owner (Government)
Geotechnical Engineer	Project Owner (Private Sector)
Geotechnical Technologist/Technician	Non-Governmental Organization
Mechanical Engineer/Technologist/Technician	Other Government Representative (please specify):
Quantity Surveyor or Cost Estimator	Academic/Researcher (please specify subject area):
General Contractor or Construction Manager	Other (please specify):

To assist the GC in considering these requirements interested parties are invited to answer the following questions and provide feedback.

Respondents may respond to any or all questions below.

Question 1: Does your firm currently offer wbLCAs as part of your design services?

--

Question 2: Please respond if answered Yes to Question 1:

a. What types of projects (i.e. new construction, major renovations)?

--

b. What standards or guidance does the firm follow when conducting wLCA (e.g. NRC's National guidelines for whole-building life cycle assessment, EN 15978, RICS Whole Life Carbon Assessment for the Built Environment)?

c. How are the results of a wLCA communicated to the client? Where reduction targets are involved, how are project baselines established, or what benchmarks are referred to?

d. To what extent do the results of a wLCA inform design decisions that lead to embodied carbon reductions in the asset over its lifecycle?

e. Please identify any common trends for solutions and strategies that often result in low-cost embodied carbon reductions

Question 3: Please respond if answered No to Question 1:

a. what level of effort would be required for your organization to be able to meet a wLCA requirement for major federal projects?

b. What supports or resources would help enable or accelerate adoption of wLCA by your organization?

Question 4: GC is evaluating the potential impact of setting requirements for the use of wbLCA to estimate and reduce the embodied carbon of construction for major GC construction projects.

Design services providers would be required to submit wbLCA results and associated information for the early design (i.e. schematic design) and final design and demonstrate a 30% reduction in embodied carbon compared to a project baseline or absolute intensity limit.

a. What prior knowledge would you require to be compliant with these requirements and how much advance warning would you need to prepare for these requirements?
b. Do you anticipate the requirements would affect a typical project schedule? If so, please describe and offer any suggestions on ways to improve the process and any ways to minimize impacts to the project schedule.
c. Do you anticipate the requirements would affect a typical project budget? If so, please describe and offer any suggestions on ways to improve the process and any ways to minimize impact to the project budget.
d. Do you anticipate the requirements would affect the typical design and/or construction of the structure? If so, please describe and offer any suggestions on how to incorporate them into design and construction considerations.
e. Please identify risks, costs, or barriers you see to meeting these requirements and any solutions you can think of to overcome barriers.
f. Please provide comments or rationale on what would be considered reasonable exemptions from disclosure requirements.
g. How would the approach to demonstrating project reductions affect these costs (i.e. comparing the final design to absolute intensity limits versus a baseline of an early design iteration or an alternate design)?

- h. How much would asset type or project complexity affect these costs (i.e. office tower vs. research campus)?

Question 5: What impact would the public disclosure of wbLCA results (by project or in aggregate) have on the transparency of assessments?

- a. Would a requirement to disclose wbLCA results publicly result in additional barriers or costs to implementation?

Question 6: What are lessons learned from provincial and municipal governments that are currently setting embodied greenhouse gas emission thresholds for procurement or in regulations, as well as international efforts underway?

- b. What are the most effective ways for GC to learn from these programs or otherwise support consistency, where appropriate?

The Government of Canada would like to thank you in advance for your participation!