Request for Information (RFI) 24062-23-633

On consideration of proposed requirements related to procurement of low-carbon steel products 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 designers (architects and engineers), steel producers, fabricators & suppliers, EPD and LCA practitioners, general contractors, construction managers 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: Shawn Corbett

Email: shawn.corbett@tbs-sct.gc.ca

Telephone: Tel: 343-630-3110

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 March 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 structural materials of major construction projects, based on material carbon intensity or a life-cycle analysis,

- reducing the embodied carbon of the structural materials of major construction projects by 30%, starting in 2025, using recycled and lower-carbon materials, material efficiency and performance-based design standards"

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 Steel

Steel is an alloy of iron and carbon commonly used as a construction material due to its high tensile strength, high strength-weight ratio, and its utility as a composite material with concrete.
Steel is generally produced in one of two ways: blast furnace-basic oxygen furnace (BF-BOF) or electric arc furnace (EAF), with other methods such as direct reduction iron (DRI) currently being deployed.

The carbon emissions intensity of steel production varies greatly between different manufacturing processes, energy sources and input materials. Canadian produced steel is among the lowest in embodied carbon in the world due to the technological capabilities and efficiencies of its major producers. Canada is also a major recycler of steel scrap through electric-arc furnaces, accessing low carbon electrical grids, and using metal scrap as an input material. As part of generational investments in modernization, by 2030 the Canadian steel industry will reduce it carbon footprint by nearly half, or more than 6 megatonnes of CO2e. Steel is highly recyclable, with Canadian steel producers recycling approximately 7 million tonnes of steel annually, a figure that is expected to increase substantially in the future. Steel is a strategic and highly competitive global market, with most domestic producers owned in

whole or in part by international partners. Canada is the largest importer of American steel and central to automotive supply chains both here and in the United States.

3.3 Proposed Additions to the TBS Standard:

The majority of GHG emissions associated with finished construction steel products are attributable to the primary manufacturing production of the steel. GC is evaluating the potential impact of setting requirements for the disclosure of embodied carbon for construction steel products and setting an approach to limit the associated carbon emissions. These requirements would be applied to the mill-level products that go into the finished construction steel products.

GC is proposing to implement disclosure requirements that would require the submittal of a list of eligible construction steel products used (e.g. Bill of Materials), their quantity, and their associated environmental impacts for the manufacturing activities associated with producing the unfinished steel content of listed products (i.e. steelmaking, casting, hot-rolling, etc.). Environmental impacts could be substantiated by facility and product specific environmental product declarations (EPDs), or life cycle inventory (LCI) data that represents the facility-specific greenhouse gas emissions (GHG).

GC is proposing to implement requirements that set limits on GHG emissions for construction steel products following the approach set out by the U.S. General Services Administration Interim Inflation Reduction Act Low Embodied Carbon Material Requirements.

GHG emission limits would be set for construction steel product categories based on the distribution of their emissions related to primary manufacturing. A product is eligible for procurement if the GHG emissions associated with its primary manufacturing are in the best performing 20 percent (i.e., lowest 20 percent in embodied greenhouse gas emissions) and is available to be sourced for a specific project. If products in the best performing 20 percent cannot be sourced, then a product qualifies if its GHG emissions are in the best performing 40 percent (i.e., lowest 40 percent in embodied greenhouse gas emissions). If products in the best performing 40 percent cannot be sourced, then a product qualifies if its GHG emissions are better than the estimated industry average (i.e., lower than average GHG emissions). Procurement shall be conducted in a manner consistent with Canada's international trade obligations.

The Standard would identify the maximum GHG limit to be considered in the best performing 20 percent, the best performing 40 percent and above the industry average for applicable product categories.

3.4 Scope of Application:

Starting in 2025, all federal government construction projects that purchase eligible steel products covered by the standard will be subject to the proposed additions to the Standard on Embodied Carbon in Construction.

ANNEX 1 - RFI Questions for designers, architects, engineers, steel producers, fabricators & suppliers, EPD and LCA practitioners, general contractors, construction managers and all other interested parties.

Optional – please provide information about your organization:

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

Respondent - Please indicate your discipline:

	Steel Supplier		Civil Engineer
	Steel Producer		Steel Installer
	Steel Fabricator		Project Owner (Government)
	Industry Representative		Project Owner (Private Sector)
	Architect		Civil Technologist
	Architectural Technologist		Marine Engineer
	Structural Engineer		Marine Technologist
	Construction Project Manager		EPD / Material LCA Practitioner / Developer
	Other (please specify):		

To assist the GC in the potential development of these requirements interested parties are invited to answer the following questions and provide feedback from their sector's perspective.

Respondents may respond to any/all questions below.

Question 1: Environmental Product Declarations (EPDs) provide a standard way to quantify environmental information on the life cycle of a product, including GHG emissions.
a. Does your organization currently have EPDs (or equivalent) available for some or all the steel products you produce, specify, or supply? If yes, please identify the product category rules (PCR) or other methodologies that are followed to produce the EPD (or equivalent). Please indicate whether the EPD (or equivalent) is facility-specific (i.e., where the environmental impacts can be attributed to a single manufacturer and manufacturing facility).
b. Please list any risks or barriers (technical and financial) your organization faces in developing them or accessing them, including any feedback on recommended support in developing/accessing them? Can you suggest any other actions that could reduce these barriers?

c. Where EPDs do not exist for the products your organization supplies or specifies, would your organization be able to provide information about these products such as a mill certificate, country of origin, production process and/or percentage of scrap content?
d. Where EPDs do not exist for the products your organization supplies or specifies, would your organization be able to demonstrate the provenance of your feedstock? Does your organization have a mechanism in place to trace which feedstock material goes into the manufacture, supply, or specification of products?

Question 2: GC is evaluating the potential impact of setting requirements for the disclosure of embodied carbon for construction steel specified and supplied to major GC construction projects. General contractors or construction managers would be required to submit a Bill of Materials (BOM) and substantiate the GHG emissions of eligible steel products with facility-specific EPDs or third-party verified LCI data.
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.

Question 3: GC is evaluating the potential impact of setting requirements for the maximum greenhouse gas emissions (GHGs) for construction steel specified and supplied to major GC construction projects. GC intends to collaborate with the architectural and engineering communities, as well as the steel sector to set GHG limits on common steel construction products. If these requirements were put in place, designers for federal projects would be required to specify that steel products must not exceed the maximum GHG limit or provide a written rationale for why the requirements could not be achieved. General contractors or construction managers would be required to submit a Bill of Materials (BOM) and substantiate the carbon footprint of steel products with facility-specific EPDs or third-party verified LCI data.
a. What is your level of readiness to support these requirements? What knowledge or resources would you need to be compliant with these requirements?
b. Would the requirements 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. Would the requirements affect the typical design and/or construction of the structure? If so, please describe the effects and offer any suggestions on how to mitigate the effects.
e. Please identify any other 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 these GHG limits.

Question 4: The Office of the United States Trade Representative (USTR) has a product categorization list for steel products. Section 332 Request Letter Steel and Aluminum GHG Emissions.docx.pdf (ustr.gov)
a. Please provide any comments on the product categorization set out by USTR (Annex 2), and any concerns or considerations should GC follow this categorization model.

Question 5: The U.S. General Services Administration (GSA) ran an Inflation Reduction Act (IRA) Pilot Program, which set interim IRA Low Embodied Carbon Material Requirements to IRA-funded purchases of steel. Limits were set to accept materials/products if their GWP was within the top 20 percent of materials available. If materials/products in the Top 20 percent were not available in a project's location, then a

material/product qualified if its GWP is in the Top 40 percent (lowest 40 percent in embodied greenhouse gas emissions). If materials/products in the Top 40 percent were not available in a project's location, then a material/product qualified if its GWP was better than the estimated industry average. The GSA IRA Limits for Low Embodied Carbon Steel are summarized in Annex 3 and at the following links: Fact Sheet - LEC pilot May 2023 (gsa.gov). Interim IRA LEC Material Requirements - used in Pilot May 2023 (gsa.gov)
a. Do you have any concerns about GC developing a similar approach? What issues (if any) do you anticipate might arise should GC develop a similar approach?
b. Do you have any comments on the process and/or methodology developed to determine the limits?
c. Please provide any other comments on the tiered-limit approach developed by the GSA.

Question 6: Do you have any other comments, suggestions, or feedback on the specification of steel with low-embodied carbon that you would like to share?

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

ANNEX 2: USTR Product Categorization

Flat Products	
Hot-Rolled	Hot Rolled Sheet
	Hot Rolled Strip
	Hot Rolled Plate in Coils

Cold-Rolled	Cold Rolled Sheet	
	Cold Rolled Strip	
	Cold Rolled Black Plate	
Plate Cut Lengths	Hot-Dipped	All Other Metallic Coated
Tin Products	Tin Plate	
	Tin Free Steel	
Sheets and Strip Electrical	Sheets & Strip Galv Electrolyt	
Pipe and Tube Products		
Oil Country Goods		
Line Pipe	< 16 in. diameter	
	> 16 in. diameter	
	Not Specified	
Structural Pipe & Tube	Pipe and Tube Non-Classified	
Mechanical Tubing	Pressure Tubing	
Standard Pipe	Pipe for Piling	
Stainless		
Hot Rolled Sheet	Hot Rolled Strip	Hot Rolled Plate in Coils
Cold Rolled Sheet	Cold Rolled Strip	Cold Rolled Plate in Coils
Ingots for Steel & Castings	Stainless Pipe and Tube	Line Pipe
Bars – Cold Finished	Bars – Hot Rolled	Blooms, Billets & Slabs
Oil Country Goods	Wire Drawn	Plate Cut Lengths
Wire Rods	Structural Shapes Heavy	
Long Products		
Bars – Hot Rolled	Wire Rods	Wire Drawn
Structural Shapes Heavy	Bars – Cold Finished	Bars - Light Shaped
Steel Piling	Bars - Reinforcing	Tool Steel
Rails Standard	Rails All Other	Railroad Accessories
Semi-Finished Products		
Blooms, Billets and Slabs		Ingots for Steel & Castings

ANNEX 3: GSA GWP Limits

	GSA IRA Limits for Low Embodied Carbon Steel – May 16, 2023 (EPD-Reported GWP's, in kilograms of carbon dioxide equivalent per metric ton – kgCO2e/ t)		
Steel Product Category	**Top 20% Limit**	**Top 40% Limit**	**Better than Average Limit**
Rebar (fabricated)	728	794	850
Rebar (unfabricated)	611	716	760
Hollow Structural Sections (fabricated)	1778	1854	1898
Hollow Structural Sections from Electric Arc Furnaces (unfabricated)	1580	1620	1652
Hollow Structural Sections from Integrated Mills (unfabricated)	TBD	TBD	TBD
Hot-Rolled Sections (fabricated)	1022	1128	1163
Hot-Rolled Sections (unfabricated)	686	713	869
Cold-Formed and Galvanized	2228	2324	2408
Structural Steel Plate from Electric Arc Furnaces (unfabricated)	987	1152	1190
Structural Steel Plate from Integrated Mills (unfabricated)	TBD	TBD	TBD