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BID SOLICITATION AMENDMENT MODIFICATION DE LA DEMANDE DE SOUMISSIONS

The referenced Bid Solicitation is revised in this document; unless otherwise indicated, all other terms and conditions of the Bid Solicitation remain the same.

La demande de soumissions citée en référence est modifiée dans ce document; sauf indication contraire, les modalités de la demande de soumissions demeurent les mêmes.

Issuing Office - Bureau de distribution

ENVIRONNEMENT ET CHANGEMENT CLIMATIQUE **CANADA**

Title - Titre

RETOURNER LES SOUMISSIONS À: Study on Cost of Hydrogen Production for Power Generation in Canada

> **EC Bid Solicitation No./SAP** PR No. - N° de la demande de soumissions EC / N° SAP PR

Amendment No. - N° de modif.

003

5000075825

Date of Bid Solicitation (YYYY-MM-DD) - Date de la demande de soumissions (AAAA-MM-JJ)

2023-10-31

Bid Solicitation Closes (YEAR-MM-DD) - La demande de soumissions prend fin (AAAA-MM-JJ)

at - à 2:00 P.M. on - le 2023-12-08 Time Zone - Fuseau horaire

Eastern Standard Time (EST)

F.O.B - F.A.B Destination

Address Enquiries to - Adresser toutes questions à Carolyne Chénier carolyne.chenier@ec.gc.ca

Delivery Required (YEAR-MM-DD) - Livraison exigée (AAAA-MM-JJ) 2024-03-31

Destination of Services / Destination des services National Capital Region (NCR)

Security / Sécurité

There is no security requirement associated with this requirement.

Amendment 003

This amend	nent 002	is r	raised	to:
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- a) Answer questions 6 to 7;
- b) Modify Answer to question #3;

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a) Questions and Answers

Q1: The RFP requires the proponent's team to have at least one "Project Engineer resource". Would ECCC please clarify whether a Canadian engineering license (P.Eng., P.L.Eng., etc.) is required for such resource? Or this resource can be a professional that does not hold a Canadian engineering license but has sufficient engineering experiences relevant to the proposed work.

A1: The Project Engineer must meet the academic requirement of having a university degree in engineering. Canadian engineering license (P.Eng.) is not mandatory.

Q2: We understand cooperate reference contracts are required to demonstrate bidder's experience. For each team member in the proposed project team (Team Lead, Project Engineer, Project Financial Analyst), can individual CVs and references (previous employers and projects) be used in lieu of corporate reference contracts to demonstrate his/her relevant experiences? Or is the requirement that each team member's experiences must be demonstrated in the corporate reference contracts submitted?

A2: For each team member in the proposed project team (Team Lead, Project Engineer, Project Financial Analyst), <u>individual CVs and references</u> (previous employers and projects) <u>may be used</u> in lieu of corporate reference contracts to demonstrate his/her relevant experiences.

Q3: Would ECCC please confirm the cost analysis will exclude the cost of hydrogen conversion (e.g., ammonia, liquid H2), transportation (e.g., truck, pipeline), and power generation end-use (e.g., H2-fired boilers, solid oxide fuel cells) downstream of the hydrogen production plant gate?

A3: The cost analysis will <u>include</u> cost of hydrogen conversion (e.g., ammonia, liquid H2), and transportation (e.g., truck, pipeline) of hydrogen from hydrogen production facility exit gate to the power generation (e.g., H2-fired boilers, solid oxide fuel cells) facility gate downstream of the hydrogen production plant gate.

Q4: Do you have a budget in mind?

A4: There is no defined budget and no mandatory financial criteria associated with this requirement.

Q5: To support assessing and placing the best possible resources on this project. Is there an alternative criterion that ECCC will consider for the Education Competency criterion that is based on experience and capability - particularly for the "Team Lead" and "Financial Analyst" positions where PhD education is not necessarily as relevant to the position requirements?

A5: The education criteria for each resource have been removed from the Point Rated Criteria

Q6: RM2 requires a proposed project engineer, which implies the costing exercise will need to be at a detailed and specified project level. Can ECCC explain the required or desired costing details for hydrogen production?

- a. Is the expectation a component level analysis?
- b. Are elements of the supply chain for hydrogen production, storage and transport required?

A6: Storage and transportation elements are not required to be considered. Only production element is to be considered.

Q7: If a detailed engineering lens is not required, is a techno-economic analysis sufficient relying on public and pre-existing data available to cost major hydrogen value chain elements, such as electricity source costs, electrolyzer costs, compression costs, storage type and formation cost, cost of CCS technologies, etc?

- a. Major production and handling component costs are typically available for economic analysis purposes. Is an analysis that provides ECCC with a levelized cost per m3 of hydrogen for conceptual technologies deployed in specific provinces sufficient?
- b. In this case, reliance on engineering expertise would not seem required. Can mandatory and rated requirements be adjusted to streamline and broaden the participation of potential proponents?

A7: An analysis that provides ECCC with a levelized cost per m3 of hydrogen for conceptual technologies deployed in specific provinces would generally be sufficient. However, any unique insight brought in by the Project Engineer will add value to the analysis. Thus, it is not necessary to adjust the mandatory and rated requirements.

B) Modify Answer to question #3;

Delete

"The cost analysis will <u>include</u> cost of hydrogen conversion (e.g., ammonia, liquid H2), and transportation (e.g., truck, pipeline) of hydrogen from hydrogen production facility exit gate to the power generation (e.g., H2-fired boilers, solid oxide fuel cells) facility gate downstream of the hydrogen production plant gate."

Insert

"The cost analysis will <u>exclude</u> the cost of hydrogen conversion (e.g., ammonia, liquid H2), transportation (e.g., truck, pipeline), and power generation end-use (e.g., H2-fired boilers, solid oxide fuel cells) downstream of the hydrogen production plant gate."