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**SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION**

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

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

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K1A 0S5

Title - Sujet RFI - MSMM Vessels Request for Information - Mid-Shore Multi-Mission (MSMM) Vessels	
Solicitation No. - N° de l'invitation F7013-190110/A	Amendment No. - N° modif. 003
Client Reference No. - N° de référence du client F7013-190110	Date 2021-04-14
GETS Reference No. - N° de référence de SEAG PW-\$\$MB-007-28096	
File No. - N° de dossier 007mb.F7013-190110	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM Eastern Daylight Saving Time EDT on - le 2021-06-30 Heure Avancée de l'Est HAE	
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Martin, Erik	Buyer Id - Id de l'acheteur 007mb
Telephone No. - N° de téléphone (613) 296-7863 ()	FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: Specified herein. Précisé dans les présentes.	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
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Signature	Date

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This Amendment number 003 is raised in order to (1) extend the Request for Information (RFI) closing date to June 30, 2021, (2) answer questions from the industry and (3) modify the RFI as follows:

QUESTIONS AND ANSWERS:

Question #2:

Is it the intent for Canada to own the Intellectual Property (IP) created under the design contract for the MSMM vessel?

Answer #2:

With regard to the Intellectual Property (IP), Canada's intent is to use Standard Acquisition Clause and Condition # 4006 for the MSMM Design Request for Proposal (RFP).

<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/4/4006/3>

Please note however that prior to publishing the RFP, Canada may modify condition # 4006 to better represent its needs.

Question #3:

There is mention of a Single System integrator (SSI) in the process. Can you elaborate on how the SSI will fit in to the procurement process and is the intent to generate a separate RFP specifically for the SSI?

Answer #3:

At this time, Canada has not made any decision regarding the way forward for procurement activities. As stated in RFI Annexes A & B, Canada is considering the possibility of using SSIs in the procurement process. The intent of this RFI is to gather information from industry to assist Canada in developing a viable path for the delivery of the MSMM vessels and in determining how the SSI process could be successfully integrated in the procurement process. Canada would welcome your input on this matter through your answers of questions number 18 and 30 of Annex C of the RFI documents.

Question #4:

For which Systems does Canada envision the use of an SSI or multiple SSI's?

Answer #4:

At this time, Canada has not made any decision regarding the way forward for procurement activities. As stated in RFI Annexes A & B, Canada is considering the possibility of using SSIs in the procurement process. The intent of this RFI is to gather information from industry to assist Canada in developing a viable path for the delivery of the MSMM vessels and in determining how the SSI process could be successfully integrated in the procurement process. Canada would welcome your input on this matter through your answers of questions number 18 and 30 of Annex C of the RFI documents. In developing the idea, Canada has estimated that SSIs could potentially be used for the selection major systems such as the propulsion system, deck equipment, bridge integration, HVAC, etc.

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Question #5:

If a company is under contract to the Government during the Concept or Contract design phases and contributes to the formulation of the concept design or the contract design package, are they precluded from joining a mid-size Canadian shipyard-led contractor team during the Vessel Construction phase?

Answer #5:

Canada would like to hear the industry's thoughts and recommendations on this matter.

Canada is soliciting input from industry regarding the procurement strategy and has not yet made any decision regarding the way ahead. From this RFI, Canada seeks to understand the challenges and hurdles associated with the proposed procurement strategies and insight on alternative procurement strategies that would be acceptable to industry.

Question #6:

Will the Indigenous Participation Component (IPC) apply to all phases of the program (concept design, contract design, vessel construction) or is it only envisioned to apply to the vessel construction phase?

Answer #6:

The intent of the RFI is to gather information – industry responses from questions 43-49 of the RFI will be analyzed, and ultimately, better enable Canada to decide where and how the IPC may be applied.

Question #7:

The schedule is spread over 2021 to 2029. This schedule is too long in terms of International Shipbuilding Standards for the design and construction of 6 MSMM vessels. Our design team is ready to complete MSMM vessels' concept design by Dec 2021 and Detail design and modelling by Dec 2022. We propose to build the first vessel in Europe so that the delivery is guaranteed for the first vessel by Dec 2024 or earlier. The next five vessels to be built in Canada. A selected shipyard in Canada will be able to run a training period during the first vessel construction in Europe and organize and learn from the building there. Is this approach acceptable to Canada?

Answer #7:

All MSMM vessels will be competed and built in Canada in accordance with the National Shipbuilding Strategy.

Question #8:

As an alternative from above we can provide technical assistance, etc. to build all the vessels in Canada in a selected shipyard. Our team can provide Canada a comprehensive solution from concept to delivery by selecting and supervising a shipyard for the fast delivery of all the vessels. Does Canada prefer the alternate approach?

Answer #8:

Canada is soliciting input from industry regarding the procurement strategy and has not yet made any decision regarding the way ahead. From this RFI, Canada seeks to understand the challenges and hurdles associated with the proposed procurement strategies and insight on alternative procurement strategies that would be acceptable to industry.

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Question #9:

In a quickly changing world of ship building technology, to develop the concept design in 2021 for a vessel to be delivered in 2029 may not be realistic, because at the time the vessel 'starts to build' a new concept with a new state of the art technology situation may arise and that may be absolutely necessary to incorporate in the vessel. Does Canada want to design the vessel now and then correct the design close to the year 2028/2029?

Answer #9:

Canada would welcome input from industry on how this challenge could be successfully addressed.

Question #10:

From our experience of NSS programs in Canada, our design team anticipates that the first vessel would cost at 50% levels of the Canadian cost when build the vessel in Europe (based on 2021 Canadian price levels published by the common media outlets in the net). We believe that the 50% offset (between Europe and Canada) would address the IRB issues in Canada. By splitting the vessels' (one vessel in Europe and the rest in Canada) constructions in Europe and Canada is expected to bring in a win-win situation for Canada and Canadian shipbuilding industry. Is Canada willing for such an approach for the MSMM vessels' constructions, split between Europe and Canada?

Answer #10:

All MSMM vessels will be competed and built in Canada in accordance with the National Shipbuilding Strategy.

Question #11:

Since the MSMM vessels are much smaller and of a different class vessel compared to the vessels being constructed currently in Canada, is Canada willing to construct all six vessels in Europe at a more competitive price and schedule. Our team can guarantee that all the vessels be delivered to Canada before Dec 2025/2026.

Just for your information, UK, Australia, and New Zealand are building their fleet in Europe and in Korea apparently for the above reasons.

Is Canada willing for such an approach for the MSMM vessels' design and constructions completely in Europe?

Answer #11:

All MSMM vessels will be competed and built in Canada in accordance with the National Shipbuilding Strategy.

Question #12:

Please confirm that the six MSMM vessels will have an identical base platform or there should be differences based on geographical operation locations?

Answer #12:

As indicated in the MSMM Industry Day presentation, the MSMM vessels will be built as a National asset. Therefore, it is intended that all vessels would be of identical design.

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Question #13:

Our team has an agreement with a Canadian company manufacturing type approved innovative super capacitor batteries. Is Canada willing to go for a hybrid LNG Electric (c/w batteries for peak loads) propulsion with two azimuth thrusters and a bow thruster? Please note that in this matter the new technologies are advancing really fast.

Answer #13:

The RFI is intended to solicit industry feedback on a number of innovations for ship systems including the use of alternate power sources for the MSMM vessels. The current phase of the project is called concept exploration and Canada will review and consider all inputs and suggestions for innovative new technologies. Making a decision at this preliminary stage is very premature; however, we would welcome your input through answers to RFI questions number 14 and 15. See Annex C of the RFI documents.

Question #14:

This question is related to previous one: Is Canada looking for a more conventional Diesel Electric propulsion with the thrusters or, with conventional propellers with two shaft lines and a stern and a bow thruster?

Answer #14:

Canada is open to considering a wide variety of propulsion options and Canada welcomes inputs based on industry experience and knowledge of current technology and systems.

Question #15:

For the MSMM vessels major equipment, is Canada going to propose preferred vendors and manufacturers or the selected brands? Or, is Canada going to allow our design team to propose the equipment based on the requirements and acceptance criteria only?

Answer #15:

For the MSMM project, Canada has no arrangements with preferred vendors and manufacturers of major equipment.

The objective of this RFI is to garner experience and recommendations from industry with respect to procurement options in order to formulate a strategy to make informed decisions.

As indicated in RFI questions 18 and 30 regarding SSIs, Canada is soliciting input regarding whether an SSI process would be applicable and if it could be successfully integrated in the MSMM procurement.

Question #16:

How much involvement and/or subcontracting should be done to indigenous companies in Canada?

Answer #16:

The intent of the RFI is to gather information – industry responses from questions 43-49 of the RFI will be analyzed, and ultimately, better enable Canada to decide where and how the IPC may be applied.

Question #17:

In case the Canadian Coast Guard (Canada) develops the concept design, is it be mandatory to follow the concept on the basic design? Or, will it be possible to include modifications to the concept design, in order to have a more advanced vessel?

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Answer #17:

Canada would be open to incorporating design improvements as the design advances. Our intent is to have the most advanced vessel possible for the MSMM. The concept design is intended as a preliminary high-level design that provides sufficient information for further assessment. During the contract design phase (detailed in Annex B: Proposed Procurement Strategies and Scenarios) the designer will have the necessary freedom to incorporate changes, modifications, and optimizations.

As indicated in RFI questions 38 to 42 regarding Design Procurement Options, Canada is soliciting input regarding the proposed procurement options and how they could be successfully integrated in the MSMM procurement.

Question #18:

Referencing SLIDE # 48, it is our understanding that CCG will complete the Concept Design. At that point, CCG will source a Ship Design Firm to bring the design to a Preliminary Stage. It is also understood that a SSI will be involved at some stage.

Will the SSI be brought in at the same time as the Ship Design Firm? In our experience, the ship designer working in tandem with the Propulsion SSI yields the most optimal vessel/hull design taking into account the best match for vessel performance, power plant configuration and weight.

Answer #18:

At this time, Canada has not taken any decision regarding the way forward for procurement activities. As stated in RFI Annexes A & B, Canada is considering the possibility of using SSIs in the procurement process. The intent of this RFI is to gather information from industry to assist Canada in developing a viable path for the delivery of the MSMM vessels and in determining how the SSI process could be successfully integrated in the procurement process. Canada would welcome your input on this matter through your answers of questions number 18 and 30 of Annex C of the RFI documents.

Question #19:

As a Propulsion System Designer and Supplier, will CCG consider such firms as candidates for the SSI or will CCG be specific about the SSI not having any affiliation to equipment manufacturing and supply?

Answer #19:

At this time, Canada has not made any decision regarding the way forward for procurement activities. As stated in RFI Annexes A & B, Canada is considering the possibility of using SSIs in the procurement process. The intent of this RFI is to gather information from industry to assist Canada in developing a viable path for the delivery of the MSMM vessels and in determining how the SSI process could be successfully integrated in the procurement process. Canada would welcome your input on this matter through your answers of questions number 18 and 30 of Annex C of the RFI documents.

Question #20:

Section 3 of Annex B states that concept design will be done internally by CCG; however, the timeline table in Section 2 of Annex B has an item for "RFP for Concept Design". Can you please clarify whether Canada considers an option of contracting the industry to complete concept design?

Answer #20:

As described in the RFI, Canada has proposed 3 procurement options for the MSMM Options 1 and 2 for instance would have the concept design done internally, but option 3 would see a large portion of the concept design done by a contractor. That contractor would be selected through a competitive process.

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However, as noted in RFI question 38 to 42, Canada is open to considering additional procurement options proposed by industry.

Question #21:

Currently there is no specific requirement for Canadian content for vessel design, is there plans to introduce it? What percentage of Canadian content would Canada find acceptable?

Answer #21:

Once all the information is received by the stipulated closing date, Canada will analyze all information received before taking any decision including Canadian content.

Question #22:

5.5 Noise & Vibration: Minimizing underwater radiated noise (URN) is a design cost factor. What standard(s) and criteria will Canada use to define the requirements for noise and vibration? Will they be mandatory, rated, or desired criteria?

Answer #22:

Canada is focused on reducing the negative impacts of noise on Oceans and the Environment. At this stage we have yet to develop the standards and criteria to minimize the effects of noise and vibration. The impact to other design parameters and requirements must be taken into consideration.

Question #23:

6.2 Estimated MSMM Vessel Particulars: Per IMO SOLAS, if the total number of passenger/special person numbers are restricted to twelve (12) or less then the ship can be classified as a cargo ship. This reduces the overall cost for design, equipment and outfit specification. Has Canada considered the total passenger (or special person) requirement within the context of this criteria? Is the total passenger (or special person) numbers fixed at fourteen (14), or is it possible to reduce to twelve (12)?

Answer #23:

The vessel particulars in the RFI document list the crew and supernumerary requirements and Canada is not contemplating changes to this parameter, at this time.

Question #24:

Is it possible to get more information of the vessel's expected operational profile? Especially division of the occupation for the targeted main tasks

Answer #24:

At this stage of the project all relevant information is included in the RFI documentation that has been issued.

Question #25:

Mission Modularity. Would you kindly let us know in which extent you have already used the MM in the existing fleet as requested for the MSMM's secondary missions? Are these solutions the base or is there expected or is there any freedom to variations on these?

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Answer #25:

Canada intends to apply the modular approach to the MSMM vessel design and would welcome input from industry to identify where Mission modularity may provide an appropriate solution.

Mission Modularity currently exists within Coast Guard Fleet however not in a formal structured format across all categories of vessels which often creates operational challenges. Canada intends to apply the modular approach interchangeably across future CG vessel classes such as Multi-Purpose and Mid-Shore Multi-Mission vessels and would welcome input from industry to identify where Mission modularity may provide an appropriate solution.

Please refer to slide number 33 of the Industry Day presentation for more details which is available in Amendment 001 of the RFI/A.

As indicated in RFI questions 14 regarding green technology, innovation and Mission Modularity, Canada is soliciting input regarding how industry thinks modularity would be applicable and successfully integrated in the MSMM design.

Question #26:

Concept design, options. The concept design phase, which is allocated to CCG, do not give the design offices very much opportunities to propose any novel solutions. For our understanding the concept includes them. However, in option 3 CCG will develop a high-level concept. Would you specify more detailed the extent of it and the freedom to introduce new technologies e.g. regarding the powering and choice of fuel?

Answer #26:

The concept design is intended as a preliminary high-level design that provides sufficient information for further assessment. Option 3 (detailed in Annex B: Proposed Procurement Strategies and Scenarios) will have the necessary freedom to incorporate changes, modifications, and optimizations to the concept design. Canada welcomes your input on introducing new technologies and how these challenges can be addressed with respect to the proposed or new procurement options.

Canada would welcome industry's input regarding proposed procurement options through responses to RFI questions #38 and #42.

Question #27:

Concept design, scope. You stress very heavily the importance of weight control during the design and construction process. If going forward with concept design option 1 or 2, we expect that the weight with CoG as well as performance are already fixed. The contract design should be developed without any change of main particulars or of hull form. Would you kindly confirm?

Answer #27:

The concept design is intended as a preliminary high-level design that provides sufficient information for further assessment. Once the Contract Design phase is entered, further optimization of the main particulars can be expected.

As indicated in RFI questions 14 regarding green technology, innovation and Mission Modularity, Canada is soliciting input regarding how these elements could be applicable and successfully integrated in the MSMM design. Canada would be open to ideas proposed by industry for the MSMM design.

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Question #28:

Emissions. There has been quick progress in the field of marine fuels in order to cut emissions. There are already several LNG based solutions. Methanol and ammonia are considered, too. Hydrogen based solutions are in the early development stage. Will you already have considerations if one of those or any other choice would be preferable in your project?

Answer #28:

The RFI is intended to solicit industry feedback on a number of innovations for ship systems including the use of alternate fuel sources for the MSMM. The current phase of the project is called concept exploration and Canada will review and consider all inputs and suggestions for innovative new fuel technologies. At this preliminary stage, making a decision on any specific technology is very premature. We welcome your input through our established process of industry engagements.

As indicated in RFI questions 14 and 15 regarding green technology, innovation and Mission Modularity, Canada is soliciting input regarding how these elements could be applicable and successfully integrated in the MSMM design. Canada would be open to ideas proposed by industry for the MSMM design.

Question #29:

Innovation and leading-edge technologies vs. proven design. The energy efficient and emissions are one of the main considerations in the design of powering. You also stress to go for leading edge technologies. However, you also point out that the technologies must be proven. There is very quick progress in the green fuels and corresponding powering solutions. How do you consider the term proven technologies in this rather long lead time to vessels' commissioning (years 2029-2034)?

Answer #29:

Canada recognizes the challenges associated with the rapid evolution of innovative and leading-edge technologies versus the lead time for the MSMM vessels. We welcome your input on introducing new technologies, given the timelines, and how these challenges can be addressed with respect to the proposed or new procurement options.

We would welcome your input through answers to RFI questions number 14 and 15. See Annex C of the RFI documents.

Question #30:

Noise. Is there any quantitative limit for underwater noise such as DNV's silent class notation? Or for internal noise such as a comfort class notation?

Answer #30:

Canada is focused on reducing the negative impacts of noise on Oceans and the Environment as well as for crew comfort. At this stage we have yet to develop the standards and criteria for internal and radiated underwater noise.

Question #31:

Can we submit in total e.g. 10 design houses 6/7 from overseas, separate bidding, 1 or 2 alternates proposals? or combined proposals/bidding etc. Please let me know the provision.

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Answer #31:

The goal of the RFI/A is to receive comprehensive feedback from the industry on various subject including this one. Once all the information is received by the stipulated closing date, Canada will analyze all information received before taking a final decision for the Design RFP.

Question #32:

Is the construction to be done in Canadian Shipyards?

Answer #32:

All MSMM vessels will be competed and built in Canada in accordance with the National Shipbuilding Strategy.

Question #33:

If Construction is done in overseas, should it be in same shipyards, same country or region? Do we have provision for wet tow? or Dry Tow?

Answer #33:

All MSMM vessels will be competed and built in Canada in accordance with the National Shipbuilding Strategy.

Question #34:

Can we engage other Classification Society, e.g. Class NK, or Indian Ship Classification Society?

Answer #34:

Only Transport Canada recognized Classification Societies will be accepted:

1. American Bureau of Shipping (ABS);
2. Bureau Veritas (BV);
3. Nippon Kaiji Kyokai;
4. Det Norske Veritas Germanischer Lloyd (DNV GL);
5. Korean Register;
6. Lloyd's Register;
7. Registro Italiano Navale (RINA Services, SpA).

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MODIFICATION TO THE RFI:

Modification #2:

Delete:

8.0 Submission of Responses

8.1 Final responses to Phase 1 of this RFI should be provided by e-mail to the Contracting Authority (erik.martin@pwgsc-tpsgc.gc.ca) on or before **May 14th, 2021.**

Insert:

8.0 Submission of Responses

8.1 Final responses to Phase 1 of this RFI should be provided by e-mail to the Contracting Authority (erik.martin@pwgsc-tpsgc.gc.ca) on or before **June 4th, 2021.**

NOTE: The Request for Information (RFI) closing date is extended to June 30th, 2021.

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.