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<b>Title - Sujet</b> RFI LCIF Marine Fuel	
<b>Solicitation No. - N° de l'invitation</b> 24062-220076/A	<b>Date</b> 2022-05-02
<b>Client Reference No. - N° de référence du client</b> 24062-220076	<b>GETS Ref. No. - N° de réf. de SEAG</b> PW-\$\$HL-654-81175
<b>File No. - N° de dossier</b> hl654.24062-220076	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> Eastern Daylight Saving Time EDT <b>on - le 2022-05-30</b> Heure Avancée de l'Est HAE	
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<b>Signature</b>	<b>Date</b>

**Title: Request for Information on the procurement of marine fuels containing a low-carbon intensity synthetic hydrocarbon component for the Government of Canada's marine fleet**

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## **PART 1 – PURPOSE AND NATURE OF THE REQUEST FOR INFORMATION**

### **1.1 Purpose of the Request for Information**

Public Services and Procurement Canada (PSPC) is launching this Request for Information (RFI) to engage industry, through consultation, on its capacity and ability to supply marine fuels, including those that contain a low-carbon intensity, synthetic hydrocarbon component, for use by the Government of Canada's federal marine fleet.

The objectives of this RFI are to:

- a. Request detailed information and feedback from potential suppliers;
- b. Determine the capability of potential suppliers to satisfy the requirements;
- c. Allow potential suppliers to assess and comment on the adequacy and clarity of the requirements as currently expressed;
- d. Allow potential suppliers to offer suggestions regarding potential alternative solutions that would meet the requirements; and
- e. Allow potential suppliers to comment on the proposed procurement approaches.

Respondents are requested to provide answers and feedback related to Part 3 – Preliminary Procurement Strategy, and Part 5 – Related Documents, which contains questions for specific information being sought by Canada. For the purposes of this RFI, the primary target audience is potential suppliers for this requirement, including fuel producers and distributors.

### **1.2 Nature of the Request for Information**

This is not a bid solicitation. This RFI may not result in issuance of a solicitation and will not result in the award of any contract. As a result, interested suppliers of any goods or services described in this RFI should not reserve stock or facilities, nor allocate resources, as a result of any information contained in this RFI. Nor will this RFI result in the creation of any source list. Therefore, whether or not any interested supplier responds to this RFI, this will not preclude that supplier from participating in any future procurement. This RFI is simply intended to solicit information and feedback from industry with respect to the matters described in this RFI.

Nothing in this RFI will be construed as a commitment from PSPC to issue a solicitation for this requirement. PSPC may use non-proprietary information provided in this review and/or in the preparation of any formal solicitation document.

PSPC will not be bound by anything stated herein and reserves the right to change at any time, any or all parts of the requirement, as it deems necessary. PSPC also reserves the right to revise its procurement approach, as it considers appropriate, either based upon information submitted in response to this RFI or for any other reason it deems appropriate.

## **PART 2 – RESPONSE INSTRUCTIONS AND INFORMATION**

### **2.1 Nature and Format of Responses Requested**

Canada's current view of its requirements for the purchase of finished marine fuels containing synthetic hydrocarbon components for use by the federal marine fleet are detailed at Annex B. Background information is provided in Annex A.

Respondents are invited to provide input and comments regarding the content of any elements of Annex A and Annex B and respond to questions listed at Annex C – Technical and Procurement Questions. Respondents should explain any assumptions they make in their interpretation of the requirements and/or proposed procurement strategy.

Respondents are invited to provide comments regarding the content of any elements of Part 3 and related annexed documents included in this RFI. Respondents can comment directly on and return an electronic copy of the applicable Annex(es) listed at Part 5 – Related Documents.

Alternatively, Respondents can comment on a different media and format by appropriately referencing the document and section commented on. Respondents should explain any assumptions they make in their interpretation of the requirements and/or proposed procurement strategy.

Respondents are invited to provide the name(s) of the person(s) who will participate to prepare supplier's responses.

### **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 strategies or any draft documents contained in this RFI. 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 Review Team**

A review team composed of representatives of PSPC, Treasury Board Secretariat (TBS), the Department of National Defence (DND) and the Canadian Coast Guard (CCG), will review the responses and representatives will participate in all industry engagement activities.

Canada has contracted the services of Torag Energy to assist in the formulation of technical

specification and they may participate in the industry engagement activities and technical evaluation, as necessary.

Canada reserves the right to hire any independent consultant or use any Government resources that it considers necessary to review any response. Not all members of the review team will necessarily review all responses.

### **2.3.3 Confidentiality**

Respondents should indicate and mark any portions of their response that they consider proprietary or confidential. Canada will handle these portions in a confidential manner in accordance with the Access to Information Act of Canada.

### **2.3.4 Follow-up Activity**

PSPC may, at its discretion, contact any respondents to follow up with additional questions or for clarification of any aspect of a response. PSPC may, at its discretion agree to meet with respondents to provide respondents with the opportunity to present and/or demonstrate their capabilities in relation to this RFI.

Respondents' presentations are at no obligation to PSPC and respondents will be responsible for all costs associated with PSPC's invitation to make a presentation.

## **2.4 Contents of this RFI**

This RFI contains preliminary draft technical requirements and procurement information. Comments regarding any aspect of this RFI are requested. This RFI also contains specific questions addressed to the industry.

## **2.5 Format of Responses**

### **2.5.1 Response Preparation**

PSPC requests that respondents submit their responses electronically in MS Office, PDF or compatible formats. Responses can be provided by email. Medium such as CD, DVD or USB key are acceptable. Hardcopy responses will also be accepted but is not the preferred option.

### **2.5.2 Response Content**

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

- a) The RFI number;
- b) The name of the company that the respondent is representing;
- c) The title, the name, and the contact information of the respondent; and
- d) The date of submission of the documents.

All pages should be identified with the company's name along with page numbers.

## **2.6 Enquiries**

PSPC 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:

Bobbi MacLeod  
Supply Team Leader  
Public Works and Government Services Canada  
Acquisitions Branch  
Industrial Products and Vehicles Procurement Directorate  
L'Esplanade Laurier, East Tower, 4th Floor  
140 O'Connor Street  
Ottawa, ON K1A 0R5  
Telephone: 873-354-1451  
E-mail address: [bobbi.macleod@tpsgc-pwgsc.gc.ca](mailto:bobbi.macleod@tpsgc-pwgsc.gc.ca)

## **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 the time and the date on page 1 of the RFI 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. Any future procurement actions undertaken in support of this requirement might require a government security clearance.

Suppliers interested in being sponsored should begin the process to obtain their security clearance by contacting the Contracting Authority.

## **2.9 Official Languages**

Responses to this RFI are requested to be presented in either of the Official Languages of Canada.

## **2.10 Industry Day and Consultations**

During this RFI period, the following activities will take place:

- Industry Day;
- One-on-One sessions, as required; and
- Additional One-on-One sessions, as required

Canada will not reimburse any respondent for expenses incurred in relation to the attendance of any of the above activities.

Following the industry consultation period, the Government of Canada will review the responses received and update the provided information as applicable. This RFI will be amended with updated documents as appropriate.

Depending on the content of the additional responses, Canada may engage in additional one-on-one industry consultation sessions.

## **PART 3 –PROCUREMENT STRATEGY**

### **3.1 Proposed Strategy**

The Government of Canada intends to purchase marine fuels, including those that contain a synthetic hydrocarbon component for use by the federal marine fleet. The feedback received through this RFI will be used to inform the procurement strategy. Background information is provided in Annex A and additional information on the proposed procurement strategy, including mandatory requirements and evaluation criteria, is provided in Annex B.

The Government of Canada intends to issue one or more Request for Standing Offers (RFSO) through a competitive process that will result in one or more standing offers to be issued for select consolidated requirements listed at Annex D for fuel deliveries starting on June 1, 2023. The duration of these standing offers is expected to be a two (2) year term.

The resulting standing offers would include options for purchasing conventional marine fuels as well as marine fuels with a synthetic hydrocarbon component and would operate in parallel to the National Master Standing Offer (NMSO) for Marine Fuels (E60HL-210051). Consequently, the consolidated requirements included in the new standing offer would be excluded from the NMSO for Marine Fuels, to ensure that there is only one supplier per consolidated requirement.

As outlined in section 1.2 above, nothing in this RFI will be construed as a commitment from PSPC to issue a solicitation for this requirement. The resulting procurement mechanism will be based on information gathered from this RFI and various factors such as the cost, carbon-intensity, logistics and the availability of fuels in the market.

#### **3.1.1 Approximate Procurement Schedule**

<b>Deliverable</b>	<b>Timeline</b>
Tender RFSO	Summer 2022
Issue standing offer(s)	Fall 2022
Term of standing offer(s)	June 1, 2023 to May 31, 2025

#### **3.1.2 Trade Agreements**

Unless specified otherwise, the requirement is subject to the provisions of the World Trade Organization Agreement on Government Procurement (WTO-AGP), the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), the Canada-European Union Comprehensive Economic and Trade Agreement (CETA) and the Canadian Free Trade Agreement (CFTA).



### **3.2 Preliminary Requirements and Questions**

Annex A provides background information and Annex B describes the proposed procurement approach, mandatory requirements and evaluation criteria. Respondents to this RFI are requested to answer the questions listed in Annex C — Technical and Procurement Questions.

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## **PART 4 – INDUSTRY DAYS AND ONE-ON-ONE SESSIONS**

Canada seeks to engage industry through an Industry Day and one-on-one sessions, as required, with interested suppliers as part of this RFI process.

### **4.1 Invitation to Industry Days and One-on-One Sessions**

A virtual Industry Day is planned for May 18, 2022 from 12:30 to 3:30pm Eastern time. The login information will be published in an amendment to this RFI. The objective of the Industry Day is to review the scope of the requirement outlined in the RFI and to answer questions. It is recommended that suppliers who intend to submit a response to the RFI attend or send a representative.

Virtual One-on-One sessions are planned for the week of June 6, 2022. Registration, as well as the date, time, and login information, will be coordinated via e-mail with the Contracting Authority.

Suppliers are requested to confirm their attendance at the Industry Day and One-on-One sessions by providing, in writing, to the Contracting Authority, the name(s) of the person(s) who will be attending and their title, the invitation form detailed at Annex H, and a list of potential items they wish to discuss no later than May 16, 2022.

Suppliers who do not attend will not be precluded from submitting a response to the RFI.

#### **4.1.1 Industry Day**

The Industry Day is intended to be an open forum. It will allow Canada representatives to present industry representatives with information about the procurement of marine fuels, including those that contain a synthetic hydrocarbon component. It will also provide a venue for industry representatives to ask questions and seek information required to gain a sound understanding of Canada's business needs.

Representatives from PSPC and TBS will lead Industry Day presentations and discussions on procurement requirements and technical requirements.

#### **4.1.2 One-on-One Sessions**

One-on-one sessions will take place, as required, the week of June 6, 2022 and will allow interested suppliers to present their companies, solutions, pose their questions, and raise their concerns.

#### **4.1.3 Additional One-on-One Sessions**

If required, additional one-on-one sessions will be offered later during the RFI to allow interested suppliers to refine their solutions and clarify additional information.

Attendance to the one-on-one sessions and additional one-on-one sessions are voluntary and suppliers can attend one or both sessions. While Canada does not plan to provide new information during one-on-one sessions, any new information discussed will be posted through an update to the RFI on Buy and Sell.

## **PART 5 – RELATED DOCUMENTS**

Related documents are posted as attachments on [www.buyandsell.gc.ca](http://www.buyandsell.gc.ca) or in annex as per below.

Annex A – Background Information

Annex B – Proposed Procurement Approach, Mandatory Requirements and Evaluation Criteria

Annex C – Technical and Procurement Questions

Annex D – Table of Consolidated Requirements (see attached file on [www.BuyandSell.gc.ca](http://www.BuyandSell.gc.ca) )

Annex E – Department of Fisheries and Oceans: Inspection and Supplementary Conditions of Supply

Annex F – Department of National Defence: Inspection and Supplementary Conditions of Supply

Annex G – Sample Financial Offer, Evaluation and Payment Template (see attached file on [www.BuyandSell.gc.ca](http://www.BuyandSell.gc.ca) )

Annex H – Invitation Form for Industry Day and One-on-one sessions

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## **ANNEX A – BACKGROUND INFORMATION**

Annex A provides background information pertinent to this RFI. It is divided into six sections:

- A1 – The Greening Government Strategy and the Low-carbon Fuel Procurement Program
- A2 – Low-carbon intensity fuels and synthetic hydrocarbons
- A3 – The Clean Fuel Regulations and other drivers for low-carbon intensity fuels
- A4 – Book and Claim models for low-carbon intensity fuels
- A5 – Federal marine fuel use and National Master Standing Offers

### **A1 THE GREENING GOVERNMENT STRATEGY AND THE LOW-CARBON FUEL PROCUREMENT PROGRAM**

The Government of Canada has committed to transition to low-carbon and climate-resilient operations while also reducing environmental impacts beyond carbon. Led by the Centre for Greening Government (CGG) of the Treasury Board of Canada Secretariat (TBS), the Government of Canada will ensure that Canada is a global leader in government operations that are net-zero, resilient and green. For additional information on Canada's commitments to greening its operations please see the Greening Government Strategy.<sup>1</sup>

The federal air and marine fleets were responsible for almost 45% of the Government of Canada's operational greenhouse gas (GHG) emissions in fiscal year 2019-2021. This includes aircraft and marine vessels from National Defence (DND), the Canadian Coast Guard (CCG), Transport Canada (TC) and the Royal Canadian Mounted Police (RCMP). Additional information on the federal fleet's fuel consumption and emissions is available through the Government of Canada's Greenhouse Gas Emissions Inventory Open Data Portal.<sup>2</sup>

A key part of Canada's emissions reductions strategy for the federal air and marine fleets is the purchase of certified drop-in, low-carbon intensity liquid fuels. These are fuels that are compatible with existing fuel infrastructure, distribution systems and marine internal combustion diesel engines. In June 2020, PSPC issued an RFI on the purchase of low-carbon-intensity fuels made from renewable feedstocks (e.g. biomass) for the federal air and marine fleets (24062-210076/B)<sup>3</sup>. Respondents to that RFI signaled their interest, ability and capacity to supply these fuels for the Government of Canada's federal air and marine fleet.

Budget 2021 allocated \$227.9 million in funding over eight years (fiscal years 2023-24 to 2030-31) to the TBS CGG to establish a Low-Carbon Fuel Procurement Program (LCFPP) to support the purchase of drop-in, low-carbon intensity liquid fuels for the federal air and marine fleets. The LCFPP will provide funding to federal air and marine fleet departments to help offset the cost premium for purchasing these fuels. The LCFPP will support the purchase of more than 300 million litres of neat drop-in-low-carbon-intensity fuels by the end of fiscal year 2030-31.

This RFI and proposed procurement process only addresses marine fuels; the Government of Canada will launch a separate process in fiscal year 2022-23 to address aviation fuels.

### **A2 LOW-CARBON-INTENSITY FUELS AND SYNTHETIC HYDROCARBONS**

In general, a "low-carbon-intensity fuel" is one that releases fewer greenhouse gas emissions over its life cycle than the conventional fossil-based fuel that it replaces or is blended with. This is assessed using life cycle carbon intensity which is a measure of all of the greenhouse gas emissions released throughout the full life cycle of a fuel, from resource extraction and feedstock processing to fuel production, transportation and

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<sup>1</sup> <https://www.canada.ca/en/treasury-board-secretariat/services/innovation/greening-government/strategy.html>

<sup>2</sup> <https://open.canada.ca/data/en/dataset/6bed41cd-9816-4912-a2b8-b0b224909396>

<sup>3</sup> The RFI for Low-carbon-intensity fuels for the federal air and marine fleets (24062-210076/B), is available at <https://buyandsell.gc.ca/procurement-data/tender-notice/PW-HL-675-78874>.

use (combustion). Carbon intensity is expressed in grams of carbon dioxide equivalents per unit of energy in megajoules (gCO<sub>2e</sub>/MJ).<sup>4</sup>

The life cycle carbon intensity of a fuel varies depending on the feedstock and the fuel production and feedstock conversion processes (e.g. transesterification, hydroprocessing, pyrolysis). Low-carbon-intensity liquid fuels can be made from non-renewable feedstocks (such as natural gas and coal) or renewable feedstocks such as agricultural primary materials and residues (e.g. animal fats, vegetable oils, sugars) and forestry residues.

Low-carbon-intensity liquid fuels can be placed in two categories based on their compatibility with conventional fuels and systems: drop-in fuels, such as synthetic hydrocarbons, and non-drop-in fuels.

- Drop-in low-carbon-intensity fuels are substitutes for conventional petroleum-based fuels which are chemically similar to their conventional petroleum counterparts and are completely interchangeable and compatible with existing fuel infrastructure, distribution systems and engines when blended with conventional fuel.<sup>5</sup>

They are typically synthetic hydrocarbon fuels that are derived from non-petroleum sources (e.g. biomass) through a variety of industrial processes (e.g. Fischer-Tropsch synthesis, hydroprocessing).

Drop-in fuels must meet requirements such as: miscibility with petroleum fuels, performance specifications, good storability, transportability with existing logistics structures, usability within existing engines, and compatibility with fuel injection systems already in place. Depending on the application, these fuels may be used in their neat form or, more commonly, blended with conventional petrochemical fuels. Hydrogenation-derived renewable diesel (HDRD) and hydrotreated vegetable oil (HVO) are examples of drop-in synthetic hydrocarbon fuels.

Note that the specific definitions, requirements and permitted uses for synthetic hydrocarbon fuels vary depending on the applicable fuel standard, as outlined in Table A1 below.

- Non-drop-in low-carbon-intensity fuels are non-hydrocarbon fuels that require different or modified engines, fuel infrastructure systems and/or distribution networks to function (e.g. hydrogen, ammonia, biodiesel, ethanol). Depending on the application, some standards permit the use of low levels of non-drop-in fuels in conventional engines when blended with petrochemical fuels (e.g. the use of 1 to 5% biodiesel in automotive diesel under CAN/CGSB-3.520). However, the use of higher blends of these fuels requires adaptation of the engine, fuel system and/or the fuel distribution network.

Non-drop-in low-carbon intensity fuels, in particular biodiesel, are not being considered for this RFI.

For this RFI, the Government of Canada is only considering the purchase of drop-in, synthetic hydrocarbon fuels for diesel engines that are made from renewable feedstocks (e.g. biomass). This includes all renewable fuel feedstocks listed under the *Renewable Fuel Regulations*<sup>6</sup> as well as fuels derived from carbon capture and renewable electricity (e.g., electrofuels).

Table A1 below presents the definitions and permitted synthetic hydrocarbon uses for the main fuel standards used by the federal marine fleet.

<sup>4</sup> Adapted from Canada Gazette, Part I, Volume 154, Number 51: Clean Fuel Regulations, Published December 19, 2020. Available at <https://gazette.gc.ca/rp-pr/p1/2020/2020-12-19/html/reg2-eng.html>

<sup>5</sup> Definition adapted from the International Civil Aviation Organization (ICAO) Sustainable Aviation Fuels Guide available at [https://www.icao.int/environmental-protection/knowledge-sharing/Docs/Sustainable%20Aviation%20Fuels%20Guide\\_vf.pdf](https://www.icao.int/environmental-protection/knowledge-sharing/Docs/Sustainable%20Aviation%20Fuels%20Guide_vf.pdf)

<sup>6</sup> <https://laws-lois.justice.gc.ca/eng/regulations/SOR-2010-189/index.html>

- It is important to emphasize that Fatty Acid Methyl Esters (FAME) (commonly referred to as biodiesel) is not a synthetic hydrocarbon fuel. Biodiesel consists of esters derived from vegetable oils (e.g., palm oil, soybean oil, rapeseed oil), animal fats (e.g., tallow oil) and waste material and covered by the FAME specifications CAN/CGSB 3.524. Biodiesel is currently used in the marine sector under a variety of standards, such as ISO.8217 which permits blending levels of up to 7% by volume under the DF (Distillate FAME) grades DFA, DFZ and DFB. However, FAME content is restricted to less than 0.5% by volume for the ISO.8217 DMA grade used by the Government of Canada fleet. Similarly, FAME content is restricted under AFLP 1385 and CAN/CGSB-3.11 to 0.1% volume contamination limits and under CAN/CGSB-3.517 to concentrations below 1%. For diesel fuels containing 1% or more biodiesel refer to CAN/CGSB-3.520 and CAN/CGSB-3.522.

**Table A1: Definitions and permitted synthetic hydrocarbon use for the main fuel standards used by the federal marine fleet**

Fuel standard	Key definitions	Permitted synthetic hydrocarbon use
North Atlantic Treaty Organization (NATO) AFLP 1385 <sup>7</sup> (ED C Version 1, August 2020) <ul style="list-style-type: none"> <li>Specifications for F-76 naval distillate fuels</li> </ul>	<ul style="list-style-type: none"> <li>FT- A catalysed chemical reaction in which synthesis gas, a mixture of carbon monoxide and hydrogen, is converted into liquid hydrocarbons of various forms</li> <li>HRD - Fuel produced from mono-, di- and triglycerides, free fatty acids and fatty acid esters from plant, algae oils or animal fats that have been hydroprocessed to remove essentially all oxygen.</li> <li>Synthesized isoparaffins (farnesane) produced by obtaining farnesene from the fermentation of sugars, and sequentially hydro-processing and fractionation to farnesane.</li> </ul>	<ul style="list-style-type: none"> <li>Allows the use of synthesized paraffinic diesel derived from Fischer-Tropsch (FT) or Hydroprocessed Renewable Diesel (HRD) methods at blends of up to 50%</li> <li>Allows the use of synthesized isoparaffins as drop-in fuels at blends of up to 20%.</li> </ul>
Naval Distillate Fuel (CAN/CGSB-3.11-2022) <ul style="list-style-type: none"> <li>Type 11 (max. -6°C pour point); and</li> <li>Type 15 (max. -18°C pour point)</li> </ul>	<ul style="list-style-type: none"> <li>Synthetic hydrocarbon components: synthesized paraffinic diesel or synthesized iso-paraffins (farnesane).</li> <li>Synthesized iso-paraffins (farnesane): product from the fermentation of sugars derived from lignocellulosic biomass or sugarcane (farnesene), and sequential hydroprocessing and fractionation.</li> <li>Synthesized paraffinic diesel: diesel fuel derived from biomass, coal or natural gas. In this standard, the term is used specifically to refer to Fischer-Tropsch diesel and hydroprocessed renewable diesel.</li> </ul>	<ul style="list-style-type: none"> <li>Type 15: None permitted.</li> <li>Type 11: Synthesized paraffinic diesel at blends of up to 50% and Synthesized iso-paraffins at blends of up to 20%</li> </ul>
Marine Diesel: ISO.8217:2017, DMA	<ul style="list-style-type: none"> <li>The term “fuels” is currently used to include the following: <ul style="list-style-type: none"> <li>hydrocarbons from petroleum crude oil, oil sands and shale;</li> <li>hydrocarbons from synthetic or renewable sources, similar in composition to petroleum distillate fuels.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Allows use of hydrocarbons from synthetic or renewable sources that are similar in composition to petroleum distillate fuels.</li> <li>Allows use of fuels derived from the co-processing of renewable feedstocks with conventional petroleum hydrocarbons.</li> </ul>

<sup>7</sup> Fuels used in DND vessels must comply with the applicable standard for the specific vessel and with NATO specifications for F-76 naval distillate fuels as articulated under AFLP 1385.

Fuel standard	Key definitions	Permitted synthetic hydrocarbon use
Diesel Fuel Containing Low Levels of Biodiesel (B1-B5), Type B CAN/CGSB-3.520 - 2020 except minimum flash point of 60°C	<ul style="list-style-type: none"> <li>Synthetic hydrocarbons: Hydrocarbons derived from non-petroleum sources such as biomass, natural gas, coal, fats and oils by processes such as gasification, reforming, Fischer-Tropsch synthesis, hydroprocessing or hydrocracking (including co-processing with petroleum).</li> </ul>	<ul style="list-style-type: none"> <li>Synthetic hydrocarbons may be present in any concentration in the diesel fuel component of fuel complying with these standards.</li> </ul>
Diesel Fuel, Type B CAN/CGSB-3.517 - 2020 except minimum flash point of 60°C		

### A3 THE CLEAN FUEL REGULATIONS AND OTHER DRIVERS FOR LOW-CARBON-INTENSITY FUELS

The demand for low-carbon-intensity fuels is driven by both domestic and international regulations. Domestically these include the various federal, provincial and territorial greenhouse gas pollution pricing policies, such as the federal *Greenhouse Gas Pollution Pricing Act (GGPA)*<sup>8</sup>, that put a price on the greenhouse gas emissions from fossil fuels such as gasoline and diesel, as well as the *Renewable Fuels Regulations (RFR)*<sup>9</sup>, which create requirements for the use of renewable content in gasoline and diesel. These policies are reducing the cost difference between conventional fossil fuels and lower-carbon alternatives.

The federal *Clean Fuel Regulations (CFR)*<sup>10</sup> will also drive domestic demand for low-carbon-intensity fuels in the future. The CFR will require liquid fossil fuel primary suppliers (i.e., producers and importers) to reduce the carbon intensity of their liquid fossil fuels used in Canada from 2016 carbon intensity levels. The proposed regulations for the *Clean Fuel Standard* were published in Canada Gazette, Part I, on December 19, 2020.<sup>11</sup> Final regulations are targeted for publication in spring 2022.

To drive innovation at the lowest cost, the CFR will establish a credit market. Regulated parties (producers and importers of gasoline and diesel) must create or buy credits to come into compliance with the reduction requirements.

- Producers or importers of low-carbon-intensity liquid fuels will be able to create and sell compliance credits under the CFR. These credits will represent the avoided tonnes of CO<sub>2</sub>e emissions released during the lifecycle of the low-carbon-intensity fuel compared to the baseline liquid fossil fuel that it is replacing.
- The carbon intensity values of the fuels will be determined using the *Government of Canada's Fuel Life Cycle Assessment Model* in accordance with the *Clean Fuel Regulations (CFR) Specifications for Fuel LCA Model Carbon Intensity Calculations*.<sup>12</sup>

<sup>8</sup> *Greenhouse Gas Pollution Pricing Act* (S.C. 2018, c. 12, s. 186) is available at <https://laws-lois.justice.gc.ca/eng/acts/G-11.55/index.html>

<sup>9</sup> *Renewable Fuels Regulations* (SOR/2010-189) are available at <https://laws-lois.justice.gc.ca/eng/regulations/SOR-2010-189/index.html>

<sup>10</sup> Information on the *Clean Fuel Regulations* is available at <https://www.canada.ca/en/environment-climate-change/services/managing-pollution/energy-production/fuel-regulations/clean-fuel-standard.html>

<sup>11</sup> Canada Gazette, Part I, Volume 154, Number 51: Clean Fuel Regulations, Published December 19, 2020. Available at <https://gazette.gc.ca/rp-pr/p1/2020/2020-12-19/html/reg2-eng.html>

<sup>12</sup> Government of Canada's Fuel Life Cycle Assessment Model allows users to calculate the life cycle carbon intensity of specific fuels and energy sources. It is robust, transparent, and representative of Canadian fuel production pathways. The proposed Clean Fuel Regulations (CFR) use the Fuel Life Cycle Assessment Model to determine the carbon



In addition, the Government of Canada is supporting the development of the clean fuels sector in Canada through a series of significant investments and initiatives that complement the CFR regulation. These measures include the recent investment of \$1.5B towards a Clean Fuels Fund which will increase support for domestic production of low-carbon-intensity fuels and their adoption.<sup>13</sup>

Internationally, the demand for low-carbon-intensity fuels is driven by a variety of factors, including commitments from industry associations and organizations such as the International Civil Aviation Organization (ICAO), International Air Transport Association (IATA) and the International Maritime Organization (IMO) to significantly reduce greenhouse gas emissions by 2050. The use of low-carbon-intensity fuels is one of the measures identified by these organizations for reducing emissions.

#### **A4 BOOK AND CLAIM MODELS FOR LOW-CARBON INTENSITY FUELS**

Book and claim models allow organizations to separate the environmental benefit of a particular good (e.g. renewable electricity) from the physical flow of that good. These models are commonly used in energy systems with shared distribution infrastructure where it is not feasible or possible to control and track the flow of individual units of energy from a producer to an end-user, such as electricity grids, natural gas pipelines and shared liquid fuel storage tanks.

Technically, a book and claim model is defined as “a chain-of-custody where the administrative record flow does not connect to the physical flow of material or product throughout the supply chain” (ISO 22095:2020). Book and claim models ‘de-couple’ specific attributes (e.g. lifecycle greenhouse gas emissions) from a physical product and transfer them separately via a dedicated system (or registry) using a certificate that represents that attribute. These certificates are generated (or booked) when a product unit is added to the supply chain (e.g. one megawatt hour of renewable electricity added to the grid) and claimed when an end-user purchases the equivalent unit of product from another point in that supply chain (e.g. one-megawatt hour of electricity from the another point of the grid).

While Renewable electricity certificates (RECs) are the most common example of a book and claim model, these systems are also being developed for the use of sustainable aviation fuel (or biojet) by airlines and airports.

For more information on the general Book and Claim process for liquid fuels refer to the guidance from the Roundtable on Sustainable Biomaterials.<sup>14</sup>

For this RFI, the Government of Canada is considering the use of a book and claim model for the purchase of neat synthetic hydrocarbon fuel in locations where the blending, storage and/or distribution infrastructure for this fuel either does not exist at the point of refueling or is prohibitively expensive or complicated to implement. In this scenario:

1. The Government of Canada would agree to purchase (or claim) the environmental attributes (reduced lifecycle emissions) of a specified volume of neat synthetic hydrocarbon fuel at a firm price (\$ per litre) based on the carbon intensity of the fuel. The Offeror would agree not to sell the environmental attributes to any other client.
2. The Offeror would be required to source the neat synthetic hydrocarbon fuel and add it to the closest possible point in the marine fuel supply chain from which the Government is purchasing fuel. The fuel would need to be blended and tested in accordance with the relevant fuel standards.
3. When the neat synthetic hydrocarbon fuel is added to system, it would be entered (or booked) in an agreed-upon accounting log that tracks inputs by the Offeror and claims by the client.

intensity of fuels and energy sources for credit creation. The model is available at <https://donnees.ec.gc.ca/data/regulatee/climateoutreach/government-of-canadas-fuel-life-cycle-assessment-model/en/?lang=en>

<sup>13</sup> Clean Fuels Fund is available at <https://www.nrcan.gc.ca/climate-change-adapting-impacts-and-reducing-emissions/canadas-green-future/clean-fuels-fund/23734>

<sup>14</sup> See <https://rsb.org/book-claim/> for more information.



4. The Government of Canada would then claim the reduced emissions from the synthetic hydrocarbon fuel through two separate transactions.
  - a. First they would purchase the desired volume of conventional fuel from the Offeror.
  - b. Second, they would claim the environmental attributes from an equivalent volume of synthetic hydrocarbon fuel from the Book and Claim system by paying the agreed upon firm unit price. Once claimed, this volume would then be removed from the accounting system.

The book and claim accounting system could be managed by the Offeror, the Government of Canada or a third party. For this RFI, it is proposed that the Offeror manages the book and claim system. It would consist of an agreed-upon set of forms, signing requirements and substantiating paperwork and certifications. The accounting system would be subject to the Government of Canada's verification and auditing requirements to ensure transparency, full traceability and no risk of double counting.

## A5 FEDERAL MARINE FUEL USE AND NATIONAL MASTER STANDING OFFERS

The Government of Canada operates a diverse fleet of marine vessels that consumed approximately 124 million litres of fuel in 2018-2019 and generated almost 278 kilotonnes of CO<sub>2</sub>e emissions. An approximate breakdown of annual fuel use by fuel type is provided in Table A2 below, based on 2018-19 federal fuel use reported under the Greening Government Strategy.

**Table A2: Federal Marine Fuel Use in 2018-19**

	Approximate Total Marine Fuel Use by Type in 2018-19*	
	Total (million L)*	Percentage
Diesel Fuel (Type A and Type B), CAN/CGSB-3.517-2020 or CAN/CGSB-3.520-2020	13	10%
Marine Diesel - ISO.8217:2017, DMA	15	13%
Naval Distillate Fuel CAN/CGSB-3.11-2022**	96	77%
* Includes fuel procured domestically and internationally. Fuel consumption data for 2019-2021 is not included due to irregular fuel consumption during COVID-19.		
** Fuels used in DND vessels must comply with the applicable standard for the specific vessel and also with the NATO specification for F-76 naval distillate fuels as articulated under AFLP 1385. Under this RFI, DND will only procure fuel meeting CAN/CGSB-3.11 and AFLP 1385 standards.		

Currently, the Government of Canada procures most of its fuel for marine use through the National Master Standing Offer (NMSO) for Marine Fuels (E60HL-210051).<sup>15</sup> The NMSO supply marine fuel as and when requested to various Federal departments and Crown Corporations in various locations across Canada. These NMSO are renewed every two years; the current NMSO cover the period from June 1, 2021 up to and including May 31, 2023.

Table A3 below summarizes the key terminology and features of the NSMO procurement process and resulting Standing Offers.

<sup>15</sup> The RFSO for Marine Fuels (E60HL-210051/A) is available at <https://buyandsell.gc.ca/procurement-data/tender-notice/PW-HL-654-79761>.

**Table A3: Overview of the current NMSO for Marine Fuels (E60HL-210051)**

Element	Description
Consolidated Requirements	<p>Separate standing offers are established for each consolidated requirement which consists of one or more individual requirements:</p> <ul style="list-style-type: none"> <li>Individual requirement: Are identified for each product type (e.g. Naval Distillate Fuel), delivery method (e.g. Tank Wagon) and delivery address (e.g. Dept of National Defence, Dartmouth Halifax Co, NS) within a geographic zone (e.g. NS221).</li> <li>Consolidated requirement: Where there is more than one individual requirement for a product type with the same delivery method within a zone (geographical area), the quantity of each individual requirement has been combined into one consolidated requirement. In such instances, Offerors must submit an individual unit price for each consolidated requirement they wish to compete for.</li> </ul>
Estimated Quantities	Estimated quantities of fuel required for two years are provided for each individual requirement.
Product types	<p>The three main marine fuel types purchased under the current NMSO are:</p> <ul style="list-style-type: none"> <li>Naval Distillate Fuel: CAN/CGSB-3.11-2022* Type 11 (max. -6°C pour point) and Type 15 (max. -18°C pour point)</li> <li>Marine Diesel: ISO.8217:2017, DMA</li> <li>Diesel Fuel (CAN/CGSB-3.520-2020 or CAN/CGSB-3.517-2020 except minimum flash point of 60°C)</li> </ul> <p><i>* This standard was updated in February 2022. The previous version was CGSB-3.11-2017.</i></p>
Delivery Methods	The delivery methods are i) Tank Wagon, ii) Pipeline iii) Barge and iv) Into-vessel.
Firm Unit Price	<p>Offerors submit an individual firm unit price, subject to adjustment, for each consolidated requirement they wish to compete for.</p> <ul style="list-style-type: none"> <li>All applicable delivery charges, Canadian customs duties and Incoterms 2000 DDP Delivered Duty Paid must be included in the firm unit prices.</li> <li>Applicable taxes are excluded.</li> <li>The requirement does not provide for exchange rate fluctuation protection.</li> </ul> <p>Offers are based on the Reference Marker Price at the time of bidding for the Designated Centre (e.g. Vancouver) for that consolidated requirement.</p> <ul style="list-style-type: none"> <li>The Reference Marker Price is based on the "Kalibrate Group Ltd" (<a href="https://charting.kalibrate.com">https://charting.kalibrate.com</a>) (Kalibrate) Wholesale by Marketer Rack Prices for ultra low sulfur (ULS) diesel fuel as detailed in Appendix B-Basis of Payment in the NMSO for Marine Fuel.</li> </ul>
Basis of Selection	An offer must comply with the requirements and meet all mandatory technical and financial evaluation criteria to be declared responsive. The responsive offer with the lowest evaluated price per consolidated requirement is recommended for issuance of a standing offer. More than one standing offer may be issued for the RFSO, however, each consolidated requirement will be issued to one supplier only.
Basis of Payment	The basis of payment is the firm unit price subject to weekly upward or downward adjustment using the Reference Marker price that is effective on the day of delivery as detailed in Appendix B-Basis of Payment in the NMSO for Marine Fuel.

Element	Description
Call up procedure	<p>Call-ups must be made by Identified Users' authorized representatives under the Standing Offer at the prices and in accordance with the terms and conditions specified in the Standing Offer.</p> <p>The times of fueling and the quantity and type of fuel required will be relayed to the Contractor by email, telephone, or facsimile at a reasonable period of time prior to the estimated time of arrival of the ship. Call-up is to be confirmed in writing, either on form PWGSC-TPSGC 942, or on another appropriate document.</p> <p>Some zones and consolidated requirements have additional conditions for advanced notice and availability (e.g. delivery is required on a 24 hour basis, seven days a week including holidays; maximum lead time is four hours; minimum quantity available; etc.).</p>

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## **ANNEX B – PROPOSED PROCUREMENT APPROACH, MANDATORY REQUIREMENTS AND EVALUATION CRITERIA**

The Government of Canada is seeking industry input on their capacity and ability to supply marine fuels, including those that contain a synthetic hydrocarbon component, for use by the federal marine fleet. The feedback received through this RFI will be used to inform the final procurement strategy and solicitation documents.

Annex B is divided into the following sections

- B1 – Overview of proposed procurement approach
- B2 – Proposed technical requirements and evaluation procedures
- B3 – Proposed approach for streams
- B4 – Proposed financial offer, evaluation and basis of payment
- B5 – Tracking and reporting requirements
- B6 – Certifications and additional information

Respondents should explain and demonstrate how they propose to meet the requirements and provide input on the federal procurement by responding to the questions listed at Annex C.

### **B1 OVERVIEW OF PROPOSED PROCUREMENT APPROACH**

The Government of Canada intends to issue one or more Request for Standing Offers (RFSO) for the purchase of marine diesel fuels containing synthetic hydrocarbon components made from renewable feedstocks for delivery to select locations. The objective is to reduce the lifecycle greenhouse gas emissions from federal marine fleet operations.

This RFSO would use a competitive process that is modelled after the current National Master Standing Offer (NMSO) for Marine Fuel (E60HL-210051) ("NMSO for Marine Fuel"); an overview of the current NMSO for Marine Fuel process is provided in section A5 above.

The proposed new RFSO would:

- Be issued in Summer 2022 with standing offers issued in the Fall of 2022. The RFSO would be posted on the Government Electronic Tendering System, Buy and Sell, for a minimum of 40 calendar days.
- Cover a two (2) year term for fuel deliveries starting on June 1, 2023 and ending on May 31, 2025. This is the same term as the next NMSO process.
- Cover a subset of zones and consolidated requirements in the current NMSO for Marine Fuel. As described in section A5 above, the requirements in each zone are organized by product type, delivery method and delivery address. Where there is more than one individual requirement for a particular product type with the same delivery method within a zone, the quantity of each individual requirement will be consolidated into one requirement. The short-listed consolidated requirements under consideration are listed in Annex D and fall within the following zones:
  - PQ351 – Quebec City, PQ,
  - NS221 – Dartmouth / Halifax, NS,
  - NL001 – St. John's, NL,
  - BC251 – Esquimalt / Victoria, BC, and
  - BC442 – Port Hardy, BC
- Result in a separate Standing Offer for each consolidated requirement that would operate in parallel to the next iteration of the NMSO for Marine Fuel. The resulting standing offers would include options for purchasing conventional marine fuel as well as marine fuel with a synthetic hydrocarbon component and would operate in parallel to the National Master Standing Offer (NMSO) for Marine Fuel (E60HL-210051). Consequently, the consolidated requirements included in the new standing offer would be excluded from the NMSO for Marine Fuel, to ensure that there is only one supplier

per consolidated requirement.

These new standing offers will need to accommodate the Government of Canada's needs for both conventional marine fuel (diesel) and fuel that includes a synthetic hydrocarbon component from renewable sources. Consequently, the proposed approach is to identify up to three distinct supply options (or streams) for each consolidated requirement, each with their own terms, conditions and call-up procedures. Table B1 below summarizes the three proposed streams.

**Table B1: Overview of streams 1, 2 and 3**

Stream	Description
1. Delivery of finished conventional fuel (Conventional Fuel)	The delivery of conventional fuel following the same conditions and procedures as the existing NMSOs.
2. Delivery of finished blended fuel (Blended Fuel)	This would be for the delivery of a 40:60 blend by volume of synthetic hydrocarbon fuel and conventional diesel fuel. <sup>16</sup> The Government recognizes that more lead time will likely be required for suppliers to provide finished blended fuels. Consequently, a more flexible set of call-up procedures are proposed that allow for additional advanced notice.
3. Claiming the environmental attributes of synthetic hydrocarbon fuels (Book and Claim)	Under this option, the Government of Canada would pay a firm price to claim the environmental attributes of a specific volume of neat synthetic hydrocarbon fuel through a Book and Claim accounting system. In order to claim fuel under stream 3, the Government of Canada would first have to take delivery of an equivalent volume of conventional fuel under stream 1.

## B2 PROPOSED TECHNICAL REQUIREMENTS AND EVALUATION PROCEDURES

In their technical offer, Offerors will need to explain and demonstrate how they propose to meet the requirements and how they will carry out the work for each of the consolidated requirements they are submitting an offer for. The proposed short-listed consolidated requirements are listed in Annex D, including equally acceptable products.

### B2.1 TECHNICAL REQUIREMENTS

The finished fuel products that are supplied to the federal marine fleet must:

- Conform to the latest issue of the applicable Canadian General Standards Board (CGSB) Standard and ISO standards, as stipulated in the product description related to each requirement as shown in Annex D.
- Meet all inspection and supplementary conditions set out by DFO-CCG and DND as detailed in Annexes E and F.

Any synthetic hydrocarbon components in these finished fuel products must meet the following requirements for each product type:

- Conform with the relevant requirements in the latest issue of the applicable CGSB and ISO Standards, as stipulated in the product description related to each requirement, shown at Annex D. As noted in section A3 above, each fuel standard has its own definitions and restrictions on the use

<sup>16</sup> Note that CAN/CGSB-3.11 has a 20% blend limit on synthetic hydrocarbon components from synthesized iso-paraffins (SIP) (farnesane).

of synthetic hydrocarbon fuels. Some fuel standards restrict the feedstocks, production processes and/or blending volumes. For DND, the synthetic hydrocarbon fuel must also meet NATO AFLP 1385 Section 4A or 4B for testing of the neat synthetic hydrocarbon fuel prior to blending, as detailed in Annex F.

- Be made from renewable feedstocks. This includes all renewable fuel feedstocks listed under the *Renewable Fuel Regulations*<sup>17</sup> as well as fuels derived from carbon capture and renewable electricity (e.g., electrofuels).
- Have a carbon intensity equal to or lesser than 37 gCO<sub>2</sub>e/MJ. This represents a reduction of at least 60% compared to the *Clean Fuel Regulations* baseline reference carbon intensity value for diesel fuel (93 gCO<sub>2</sub>e/MJ). Note that:
  - The carbon intensity value must be calculated using the *Government of Canada's Fuel Life Cycle Assessment Model* in accordance with the *Clean Fuel Regulations (CFR) Specifications for Fuel LCA Model Carbon Intensity Calculations*.<sup>18</sup>
  - The carbon intensity calculations must include emissions associated with the transportation, blending and delivery of the fuel to each consolidated requirement. For consolidated requirements with more than one delivery address, the Offeror must use the address that has the largest volume of estimated fuel requirements.

To demonstrate compliance with the above requirements for the synthetic hydrocarbon components, the Offeror must:

- Demonstrate that the carbon intensity calculation provided at the time of offer has been reviewed by a life cycle assessment expert in accordance with ISO Standard 14044 and 14071. Any changes to default values must be indicated and explained.
  - Note that at the time of delivery, the Offeror must provide an updated carbon intensity value for the actual fuel delivered that is based on the approved carbon intensity value for that fuel under the *Clean Fuel Regulations*.
- Demonstrate at the time of offer that they have secured access to a suitable source of synthetic hydrocarbon fuel that i) uses a production process that is permitted under the applicable CGSB and ISO Standards for the product type, and ii) is produced from renewable feedstocks as defined above. Suitable evidence could include, for example, a letter of intent from the fuel producer.
- For stream 3 only, provide a high-level process diagram or map that indicates where the synthetic hydrocarbon fuel provided will be added to the marine fuel supply chain. The Offeror must demonstrate that:
  - The fuel will be added to the same supply chain that is used to provide conventional marine fuel to the government of Canada under stream 1.
  - The fuel will be added in the same province as the consolidated requirement and at a point that is as close as possible to the delivery address in that requirement with the largest estimated required volume of fuel.

## Mandatory Technical Criteria

The following factors will be taken into consideration in the evaluation of each offer:

- Offerors must provide the requested product or equally acceptable product at each consolidated requirement for which they provide a price:
- Offerors who are submitting an offer for a consolidated requirement must agree to supply all delivery addresses and all streams identified under the consolidated requirement;
- When alternate products or equally acceptable products are being offered, the Offeror must clearly

<sup>17</sup> <https://laws-lois.justice.gc.ca/eng/regulations/SOR-2010-189/index.html>

<sup>18</sup> Government of Canada's Fuel Life Cycle Assessment Model allows users to calculate the life cycle carbon intensity of specific fuels and energy sources. It is robust, transparent, and representative of Canadian fuel production pathways. The proposed Clean Fuel Regulations (CFR) use the Fuel Life Cycle Assessment Model to determine the carbon intensity of fuels and energy sources for credit creation. The model is available at <https://donnees.ec.gc.ca/data/regulatee/climateoutreach/government-of-canadas-fuel-life-cycle-assessment-model/en/?lang=en>

indicate the alternate product offered for each applicable consolidated requirement;

Offers not meeting these mandatory technical criteria will be declared non-responsive.

### **B3 PROPOSED APPROACH FOR STREAMS**

As noted above, the proposed approach is to identify up to three distinct streams for each consolidated requirement, each with their own firm-unit price and call-up procedure.

Every consolidated requirement would include stream 1 (Conventional Fuel). Then, depending on the market conditions in their zone, each consolidated requirement may also include stream 2 (Blended Fuel) and/or stream 3 (Book and Claim).

A single Standing Offer encompassing all of the applicable delivery locations and streams would be issued for each consolidated requirement. An offer contingent on supplying only a portion of the delivery locations or streams in a consolidated requirement will result in the offer being declared non-responsive. Any other conditional offers will be declared non-responsive.

Additional details on the approach and call-up procedures for each stream is provided below.

#### **B3.1 STREAM 1: CONVENTIONAL FUEL**

The approach and call-up procedures under the current NMSO for Marine Fuels<sup>19</sup> would continue to apply for the purchase of the finished conventional fuel under stream 1.

The times of fueling and the quantity, type of fuel required and amount of advanced notification vary by consolidated requirement, and would need to meet all of the inspection and supplementary conditions of supply set out by DFO-CCG and DND as detailed in Annexes E and F.

#### **B3.2 STREAM 2: BLENDED FUEL**

Under this stream, the Offerors would supply a finished fuel that meets the applicable fuel standard and is comprised of a 40:60 blend by volume of synthetic hydrocarbon fuel and conventional diesel.

The finished fuel would need to meet all applicable inspection and supplementary conditions of supply set out by DFO-CCG and DND as detailed in Annexes E and F.

The Government recognizes that supplying these blended fuels may require additional advanced notice and modifications to the Offeror's blending, storing and delivery process. Consequently, a more flexible call-up approach is proposed with the following elements:

- For each consolidated requirement, the RFSO will identify the estimated total volume of orders over the two-year period as well as a minimum volume per call-up.
- The call up process will involve multiple steps to provide the Offeror with sufficient lead time to source, blend and deliver the finished fuel. Minimum timelines are proposed for each step below.

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<sup>19</sup> The RFSO for Marine Fuel (E60HL-210051/A) is available at <https://buyandsell.gc.ca/procurement-data/tender-notice/PW-HL-654-79761>.



- Offerors will submit a firm unit Blended Fuel Markup price based on the minimum volume that represents the costs associated with the delivery of the blended finished fuel that are additional to the firm unit Conventional Fuel price submitted under stream 1. The Blended Fuel Markup price will be based on the carbon intensity of the synthetic hydrocarbon fuel in the Offer. Offerors will be paid the firm unit Conventional Fuel price plus the Blended Fuel Markup price, adjusted based on the carbon intensity of the actual synthetic hydrocarbon fuel delivered. See section B4 for details.
- As with stream 1, payment will be made upon taking delivery of the product.

The proposed call-up procedures for stream 2:

**1. Determine call-up parameters.**

- The end-user will inform the Offeror that they would like to issue a call-up and provide them with the estimated volume of blended fuel and timeline for taking delivery.
- The Offeror would have up to two (2) weeks to respond to the end-user and confirm i) the synthetic hydrocarbon fuel source and carbon intensity, and ii) the timelines for delivering the product.

**2. Issue call-up**

- After receiving the requested information from the Offeror, the end-user will have up to one (1) month to issue the call-up with the volume (L) of blended fuel required and timeline.
- At the time of call-up end-users must provide at least two (2) months advanced notice with a delivery window of up to one (1) month. Offerors would be required to have the fuel available for delivery at any time during that one (1) month period.
- The end-user will then confirm the delivery date and volume of fuel required at least seven (7) days prior to taking delivery of the product. Note that in some cases, end-users may require a higher volume of fuel than what was specified in the call-up. In this situation, the Offeror would provide Conventional Fuel per the conditions of stream 1 to make up any difference.
- The timelines above can be modified on mutual agreement of the end-user and Offeror.

**3. Receive fuels**

- The Offeror can invoice the end-user upon delivery of the product and provide supporting documentation as outlined in section B5 below.

**B3.3 STREAM 3: BOOK AND CLAIM**

Book and claim models allow organizations to separate the environmental benefit of a particular good (e.g. renewable electricity) from the physical flow of that good. A definition and overview of Book and Claim systems is provided in section A5 above.

Under this option the Government of Canada would purchase (claim) the environmental attributes (e.g. reduced lifecycle emissions) of a specified volume of neat synthetic hydrocarbon fuel without taking physical delivery of that fuel. In this system:

1. For each consolidated requirement:
  - The RFSO will identify the estimated total volume of fuel claims under stream 3 over the two-year period as well as a minimum volume per call-up. The intention would be to issue two to three call-ups for relatively large volumes of fuels over the two-year Standing Offer.
  - Offerors will submit a firm unit Book and Claim Price in dollars per litre (\$/L) that represents the cost of claiming the environmental attributes of the synthetic hydrocarbon fuel under this stream. This price is tied to the carbon intensity value provided by the Offeror for the synthetic hydrocarbon fuel (see section B4 below).
2. The Offeror would agree to:
  - Purchase a specified volume of synthetic hydrocarbon fuel and blend it into the marine fuel supply chain that provides conventional fuel of that product type (e.g. naval distillate) to the



Government of Canada under stream 1. The Offeror would blend the fuel in accordance with the appropriate fuel standard.

- Add the synthetic hydrocarbon fuel to a point in the supply chain that is i) in the same province as the consolidated requirement and ii) as close as possible to the delivery address with the largest estimated required volume of fuel. The Offeror would need to provide this information as part of its technical offer for the RFSO. (See section B2 above).
- Not sell or provide the environmental attributes associated with the synthetic hydrocarbon fuel to any other fuel end-users in that supply chain. These end-users would only be able to claim and report on the emissions associated with the use of the conventional marine fuel in that system. Note that this does not prevent the Offeror from claiming or using the synthetic hydrocarbon fuels for regulatory compliance purposes, such as generating credits under the federal *Clean Fuel Regulations*.
- Manage and implement the Book and Claim accounting system specified by the Government of Canada (see Section B5.3 below). In this system, the Offeror would:
  - Track and report on when the synthetic hydrocarbon fuel is added to their supply chain and provide information on the source, carbon intensity and chain-of-custody of the fuel. Once the fuel is added it would be entered (or booked) into the accounting system.
  - Track and report on purchases of conventional fuel made under stream 1, and issue quarterly invoices to the Government of Canada to claim the environmental attributes of an equivalent volume of synthetic hydrocarbon fuel. The volume of fuel claimed would be removed from the volume of fuel booked in the system.

3. The Government of Canada would:

- Purchase and take delivery of a specified volume of conventional fuel under stream 1 and purchase (claim) the environmental attributes from an equivalent volume of synthetic hydrocarbon fuel under stream 3 by paying the agreed upon firm unit price. (See section B4 below).
- Report the reduced lifecycle emissions from this fuel in its voluntary corporate emissions reporting under the Greening Government Strategy.<sup>20</sup>

It is important to note that:

- The Government of Canada prefers to purchase blended fuels rather than using a book and claim system. The use of book and claim is only being considered for the purchase of neat synthetic hydrocarbon fuel in locations where i) the blending, storage and/or distribution infrastructure for this fuel either does not exist at the point of refueling or is prohibitively expensive or complicated to implement, and/or ii) the end-user's operational requirements for refueling do not allow for sufficient advance notice to secure blended fuels. One of the purposes of this RFI is to assess if there are locations that meet these criteria.
- Where book and claim systems are required, the Government of Canada's priority is to design the system to maximize the probability that some of the synthetic hydrocarbon fuel molecules will end up in federal marine vessels. This is the rationale for requiring Offerors to add the synthetic hydrocarbon fuel to the closest points in the marine supply chains that provide conventional fuel to federal end-users under stream 1.

The proposed call-up procedures for stream 3:

1. **Determine call-up parameters**

- The end-user will inform the Offeror that they would like to issue a call-up and provide them with the estimated volumes and timelines.

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<sup>20</sup> The Government of Canada's GHG inventory and reporting is available at <https://www.canada.ca/en/treasury-board-secretariat/services/innovation/greening-government/government-canada-greenhouse-gas-emissions-inventory.html>.

- The Offeror would have up to two (2) weeks to respond to the end-user and confirm i) the synthetic hydrocarbon fuel source and carbon intensity, and ii) the timelines for adding the product to the supply chain.

## **2. Issue call-up**

- After receiving the requested information from the supplier, the end-user will have up to one (1) month to issue the call-up. The call-up will stipulate
  - i. The volume of synthetic hydrocarbon fuels required based on the source and carbon intensity information provided by the Offeror,
  - ii. The timeframe for the Offeror to add the synthetic hydrocarbon fuel to the agreed upon point in their marine fuel supply chain, and
  - iii. The timeframe for the end-user to purchase the agreed-upon volume of fuels under stream 1 and claim the equivalent volume under stream 3. At the end-user's discretion, purchases made before the call-up is issued can be counted towards this requirement as long as they have not already been accounted for under another stream 3 call-up.
- The proposal is that at the time of call-up the Offeror would have up to four (4) months to add the synthetic hydrocarbon fuel to their system, and the end-user would have up to six (6) months to purchase an equivalent volume of conventional fuel and claim the environmental attributes of the synthetic hydrocarbon fuel.
- The timelines above can be modified on mutual agreement of the end-user and Offeror.

## **3. Receive the finished conventional fuel (diesel) and claim synthetic hydrocarbon fuel**

- After the call-up is issued, the Offeror will start entering and tracking transactions using the Book and Claim accounting system.
- Once the Offeror has added the synthetic hydrocarbon fuel to their supply chain, they will enter it in the Book and Claim accounting system and provide the end-user with the supporting documentation as stipulated in section B5.3 below.
- The end-user will purchase and pay for conventional fuel using stream 1; however, all purchases between the start and end date of the call-up will also be tracked in the Book and Claim system.
- The Offeror will issue quarterly invoices to the Government of Canada to claim the environmental attributes of the synthetic hydrocarbon fuel. These invoices will be based on the Book and Claim unit price and the volume of purchases made during that quarter under stream 1. Note that end-users can only claim environmental attributes after they have taken delivery of an equivalent volume of conventional fuel. Supporting documentation must be provided with the invoice as stipulated in section B5.3 below.
- The call-up for stream 3 will remain in place until the end-user has i) purchased a volume of conventional fuel equivalent to the volume of synthetic hydrocarbon fuel in the call-up, and ii) claimed all of this fuel through the Book and Claim system.

# **B4 PROPOSED FINANCIAL OFFER, EVALUATION AND BASIS OF PAYMENT**

## **B4.1 CONSOLIDATED REQUIREMENT INFORMATION PROVIDED**

Offerors will be provided with a table of consolidated requirements that presents the Government of Canada's estimated fuel purchase requirements. The table will be organized by zone, delivery method, fuel product, department and delivery address. The table will include the total estimated quantity of fuel required for each delivery address as well as the estimated quantities under each stream at the consolidated requirement level.

Every consolidated requirement will include stream 1 (Conventional Fuel). Depending on the market conditions in their zone, each consolidated requirement may also include stream 2 (Blended Fuel) and/or stream 3 (Book and Claim).

Annex D provides a consolidated requirements table with all of the locations under consideration for this RFI. Table B2 below provides an illustrative example of the information for two consolidated requirements in the NS221 zone in Nova Scotia: 93/PI (pipeline delivery) and 93/TW (tank wagon delivery). Note that:

- Not all streams will be required for each consolidated requirement. In this table, streams 1 and 3 are required for 93/PI while streams 1 and 2 are required for 93/TW.
- The quantities under streams 1 and 2 reflect actual fuel deliveries. In this table, an estimated 26 million litres of fuel will be required for 93/PI and 11 million litres for 93/TW.
- The quantities under stream 3 reflect the volume of synthetic hydrocarbon fuel that will be added to the conventional marine fuel supply chain for stream 1. As this supply chain services multiple end users, only a portion of these synthetic hydrocarbon molecules will end up in federal vessels. However, the Government of Canada will have the exclusive right to claim the environmental attributes of this fuel through the book and claim accounting system. In this table, an estimated 4 million litres of synthetic hydrocarbon fuel will be added and claimed for 93/PI.

**Table B2: Examples of Consolidated Requirements**

Zone	Product	Delivery Method	Consolidated Requirement Number	Delivery Address	Estimated Volume of Fuel Delivered			Est. volume of fuel claimed under SO3 (Book & Claim) (L)
					Est. Total (SO1 & 2) (L)	Est. under SO1 (L)	Est. under SO2 (L)	
NS221	Naval Distillate Fuel CAN/CGSB-3.11-2022 Type 11 (max. -6°C pour point) Apr 1 - Oct 31, Type 15 (max. -18°C pour point) Nov 1 - March 31	Pipeline	93 / PI	Department of National Defence, Dartmouth Halifax Co, NS	25,000,000	26,000,000	None	4,000,000
				Fisheries & Oceans/ Coast Guard, Dartmouth, NS	1,000,000			
	Naval Distillate Fuel CAN/CGSB-3.11-2022 Type 11 (max. -6°C pour point) Apr 1 - Oct 31, Type 15 (max. -18°C pour point) Nov 1 - March 31	Tank Wagon	93 / TW	Fisheries & Oceans/Coast Guard, Dartmouth, NS	6,000,000	8,000,000	3,000,000	None
				Department of National Defence, Into DND Vessels, Halifax Dartmouth, NS	5,000,000			

#### B4.2 FINANCIAL OFFER INFORMATION REQUIRED

Offerors will be invited to submit firm unit prices (in CDN\$/litre) for all of the streams in each consolidated requirement they wish to compete for. These prices must be in Canadian dollars per litre of fuel and must not exceed four decimal places.

Offerors will be provided with a Microsoft Excel-based Offer template for their financial offer; a draft example of this template is provided in Annex G: Sample Financial Offer, Evaluation and Payment Template. The information required at the time of offer for each stream is summarized in the table below.

Note that:

- As with the current NMSO, a Reference Marker Price will be provided for conventional diesel fuel; however, given the wide variety of production methods and feedstocks, no reference marker price is proposed for the synthetic hydrocarbon component, just a firm unit price.
- The offer prices for streams 2 and 3 reflect the carbon intensity value for the synthetic hydrocarbon fuel provided at the time of offer. Consequently, they are subject to adjustment if the actual synthetic hydrocarbon fuel provided at the time of purchase has a different carbon intensity value. See B4.3

below for details.

- For each consolidated requirement, Offerors will have to provide financial offer information for those streams with estimated volumes. For example, in Table B2, Offerors would provide financial offers for streams 1 and 3 for requirement 93/PI and for streams 1 and 2 for requirement 93/TW.

**Table B3: Financial Offer Information Required**

Stream	Financial Offer Information Required
1. Conventional Fuels	<p>1. A firm unit Conventional Fuel Price in dollars per litre (\$/L) for each consolidated requirement based on the Reference Marker Price provided at the time of offer. This firm unit Conventional Fuel Price;</p> <ul style="list-style-type: none"> <li>• Must include all applicable delivery charges and customs duties.</li> <li>• Must exclude all applicable taxes.</li> <li>• Must reflect the estimated volume of fuel required for each consolidated requirement.</li> <li>• Is subject to weekly adjustment using Reference Marker Price based on the "Kalibrate Group Ltd" (<a href="https://charting.kalibrate.com">https://charting.kalibrate.com</a>) (Kalibrate) Wholesale by Marketer Rack Prices for ultra low sulfur diesel fuels for the Designated Centre (e.g. Vancouver) for that consolidated requirement, as detailed in Appendix B-Basis of payment in the NMSO for Marine Fuels.</li> </ul>
2. Blended Fuels	<p>2. The carbon intensity of the neat synthetic hydrocarbon fuel sourced by the Offeror (gCO<sub>2</sub>e/MJ) calculated in accordance with section B3 (Technical Offer) above.</p> <p>3. A firm unit Blended Fuel Markup Price in dollars per litre (\$/L) for each consolidated requirement that reflects the carbon intensity value of the synthetic hydrocarbon component. This price represents the costs associated with the delivery of the blended finished fuel that are additional to the firm unit Conventional Fuel price submitted under stream 1.</p> <p>The firm unit Blended Fuel Markup Price:</p> <ul style="list-style-type: none"> <li>• Must include any and all charges (e.g. fuel cost, delivery, customs) that are additional to the firm unit Conventional Fuel price.</li> <li>• Must exclude all applicable taxes.</li> <li>• Must reflect the estimated volume of fuel required for stream 2 in the consolidated requirement.</li> <li>• Is subject to adjustment if the carbon intensity value of the synthetic hydrocarbon fuel delivered is different from the value provided at the time of offer. (See B4.3 Basis of Payment below).</li> </ul> <p>Note that payment for the fuels purchased under stream 2 will be based on the sum of the Blended Fuel Markup Price plus the Conventional Fuel Price provided under stream 1.</p>

3. Book and Claim	<p>4. The carbon intensity of the neat synthetic hydrocarbon fuel sourced by the Offeror (gCO<sub>2e</sub>/MJ) calculated in accordance with section B3 above.</p> <p>5. A firm unit Book and Claim Price in dollars per litre (\$/L) for each consolidated requirement. This price represents costs associated with claiming the environmental attributes of each litre of synthetic hydrocarbon fuel that the Offeror adds to the marine fuel supply chain for that consolidated requirement. The firm unit Book and Claim Markup price:</p> <ul style="list-style-type: none"> <li>• Must be in Canadian dollars per litre of fuel and must not exceed four decimal places.</li> <li>• Must exclude all applicable taxes.</li> <li>• Must reflect the estimated volume of fuel required for stream 3 in the consolidated requirement.</li> <li>• Is subject to adjustment if the carbon intensity value of the synthetic hydrocarbon fuel delivered is different from the value provided at the time of offer. (See B4.3 Basis of Payment below).</li> </ul> <p>Note that payment for the synthetic hydrocarbon fuels claimed under stream 3 will be based on the Book and Claim Price; however, the Government of Canada will not take delivery of those fuels. Instead, for every litre of fuel claimed under stream 3, the Government of Canada will purchase and take delivery of an equivalent volume of conventional fuel under stream 1. Consequently, for every litre of synthetic fuel that Offerors add to their supply chain under stream 3, the Offerors will effectively receive the sum of the Book and Claim Price plus the Conventional Fuel Price from stream 1.</p>
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#### B4.3 FINANCIAL CALCULATIONS FOR EVALUATION AND PAYMENT

Using the information provided in the Financial Offer, the Offer Template will automatically calculate the key values needed for the financial evaluation and basis of payment. These include the avoided GHG emissions per litre of fuel supplied; the cost per tonne of avoided emissions; and the adjusted firm unit prices used for evaluation and payment.

These calculations enable the direct comparison of offers as they account for the variability in price and carbon intensity of the different synthetic hydrocarbon fuels sourced by each Offeror. This is important as the Government of Canada is interested in reducing GHG emissions at the lowest cost per tonne.

Table B4 presents each variable and its definition, unit and formula, along with the reference values used in the calculations. For additional details, see the Annex G: Sample Financial Offer, Evaluation and Payment Template which is provided as an Excel workbook.

**Table B4: Financial Offer Calculations for Evaluation and Payment**

Variable	Definitions, units and formulas
<b>1. Calculations for stream 1</b>	
FC-ACT	<p>Firm unit Actual Conventional Fuel Price for the basis of payment in dollars per litre (\$/L) for the conventional fuel based on the Reference Marker Price on the date of delivery. This is calculated for the basis of payment using the formula:</p> $FC-ACT = RM_B - RM_A + FC$ <p>Where:  <math>RM_B</math> = Reference Marker Price on the date of delivery (\$/L)  <math>RM_A</math> = Reference Marker Price at the time of Offer (\$/L)  <math>FC</math> = The firm unit Conventional Fuel Price at the time of Offer (\$/L)</p>
<b>2. Calculations for streams 2 and 3</b>	
CI	<p>Carbon intensity of a liquid fuel in grams of carbon dioxide equivalent per megajoule (gCO<sub>2</sub>e/MJ). Two reference values are used in the calculations:*</p> <ul style="list-style-type: none"> <li>Carbon intensity for conventional diesel: 93 gCO<sub>2</sub>e/MJ</li> <li>Maximum carbon intensity for synthetic hydrocarbon carbon fuels (as defined in section B2): 37 gCO<sub>2</sub>e/MJ</li> </ul>
D	<p>Energy density of a liquid fuel in megajoules per cubic metre (MJ/M<sup>3</sup>). Two reference values are used in the calculations:*</p> <ul style="list-style-type: none"> <li>Energy density for conventional diesel: 38,352 MJ/M<sup>3</sup></li> <li>Energy density for synthetic hydrocarbon fuel: 34,921 MJ/M<sup>3</sup></li> </ul>
Q	Quantity of liquid fuel purchased or used in litres (L)
E	<p>Greenhouse gas (GHG) emissions from the use of a liquid fuel in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) which is determined using the variables defined above and the formula:</p> $E = CI \times D \times Q \times 10^{-9}$
AE	<p>Avoided GHG emissions from the use of neat or blended synthetic hydrocarbon fuel instead of conventional diesel. This is measured in tonnes of carbon dioxide equivalent per litre (tCO<sub>2</sub>e/L) and is determined using the formula:</p> $AE = E_1 - E_2$ <p>Where:  <math>E_1</math> = Emissions (tCO<sub>2</sub>e) from the use of one <u>litre</u> of conventional diesel  <math>E_2</math> = Emissions (tCO<sub>2</sub>e) from the use of one <u>litre</u> of neat or blended synthetic hydrocarbon fuel</p>

Variable	Definitions, units and formulas
EC	<p>Cost of avoided GHG emissions from the use of neat or blended synthetic hydrocarbon fuel instead of conventional diesel. This is measured in dollars per tonne of carbon dioxide equivalent (\$/tCO<sub>2</sub>e) and is determined using the formula:</p> $EC = FC \div AE$ <p>Where:</p> <p>FC = The firm unit cost per litre (\$/L) provided at the time of offer for the neat or blended synthetic hydrocarbon fuel in dollars</p> <p>AE = The avoided emissions per litre (tCO<sub>2</sub>e/L) from the use of the neat or blended synthetic hydrocarbon fuel</p>
FC-EVAL	<p>Evaluated firm unit cost in dollars per litre (\$/L). This is used to compare each Offeror's cost to deliver a standard quantity of avoided emissions per litre of fuel. The standard quantity is calculated using the reference carbon intensity value of 37 gCO<sub>2</sub>e/MJ for the synthetic hydrocarbon fuel, which is the proposed maximum value permitted for the RFSO under section D2. It is determined using the formula:</p> $FC-EVAL = EC \times AE$ <p>Where:</p> <p>EC = The cost per tonne of avoided emissions (\$/tCO<sub>2</sub>e) for the neat or blended synthetic hydrocarbon fuel based on the information provided at the time of offer</p> <p>AE = The avoided emissions per litre (tCO<sub>2</sub>e/L) of the neat or blended synthetic hydrocarbon fuel based on the maximum carbon intensity value allowed under the RFSO which is 37 gCO<sub>2</sub>e/MJ</p>
TC-EVAL	<p>Evaluated total offer cost in dollars (\$) for each consolidated requirement based on providing the estimated volumes of fuel in each stream. For evaluation purposes this process will use the adjusted firm unit cost (FC-EVAL) described above. It is calculated using this formula:</p> $TC-EVAL = (Q_1 \times FC_1) + [ Q_2 \times (FC_1 + FC-EVAL_2) ] + (Q_3 \times FC-EVAL_3)$ <p>Where:</p> <p>Q<sub>1</sub>, Q<sub>2</sub> and Q<sub>3</sub> = The estimated quantities (L) of fuel required for stream 1, 2 and 3 respectively.</p> <p>FC<sub>1</sub> = The firm unit Conventional Fuel Price per litre (\$/L) provided at the time of offer for stream 1.</p> <p>FC-EVAL<sub>2</sub> = The Evaluated Blended Fuel Markup price per litre (\$/L) for stream 2</p> <p>FC-EVAL<sub>3</sub> = The Evaluated Book and Claim price per litre (\$/L) for stream 3</p>



Variable	Definitions, units and formulas
FC-ADJ	<p>Adjusted firm unit cost for the basis of payment in dollars per litre (\$/L) based on the actual carbon intensity of the synthetic hydrocarbon fuel supplied. This is used for the basis of payment and accounts for any difference between the carbon intensity values provided at the time of offer and the actual fuel supplied. This provides Offerors with the flexibility to change their source of synthetic hydrocarbon fuel if necessary, with payment based on the cost per tonne of avoided emissions provided at the time of offer. It is calculated using the following formula:</p> $\text{FC-ADJ} = (\text{FC} \div \text{AE}_1) \times \text{AE}_2 \text{ which is equivalent to } = \text{EC} \times \text{AE}_2$ <p>Where:</p> <p>FC = The firm unit cost per litre (\$/L) provided at the time of offer for the neat or blended synthetic hydrocarbon fuel</p> <p>AE<sub>1</sub> = The avoided GHG emissions per litre (tCO<sub>2</sub>e/L) of the neat or blended synthetic hydrocarbon fuel based on the carbon intensity values provided at the time of offer</p> <p>AE<sub>2</sub> = The avoided GHG emissions per litre (tCO<sub>2</sub>e/L) of the neat or blended synthetic hydrocarbon fuel based on the actual carbon intensity value of the fuel supplied.</p> <p>EC = The cost per tonne of avoided emissions (\$/tCO<sub>2</sub>e) for the neat or blended synthetic hydrocarbon fuel based on the information provided at the time of offer which is calculated by dividing FC by AE<sub>1</sub>.</p>
<p>Notes:</p> <p><i>*The carbon intensity reference value for conventional diesel fuel and the energy density reference values for conventional diesel and synthetic hydrocarbon diesel have been obtained from the Clean Fuel Regulations. The maximum carbon intensity value for synthetic hydrocarbon fuel of 37 gCO<sub>2</sub>e/MJ is based on a 60% reduction from the reference value for conventional diesel.</i></p>	

Table B5 presents a summary of the information required in the Financial Offer, the financial calculations that are used and their application in the basis of evaluation and payment.

**Table B5: Summary of Financial Offer information, calculations and use**

Stream	Information provided by Offeror for each Consolidated Requirement	Calculations based on Offer information and reference values	Calculations for Evaluation	Unit Price for Basis of Payment
1: Conv. Fuel	1. Firm unit Conventional Fuel Price (\$/L) based on the Reference Marker Price	<ul style="list-style-type: none"> <li>Emissions per litre of conventional diesel* (tCO<sub>2</sub>e/L)</li> </ul>	<ul style="list-style-type: none"> <li>Stream 1 evaluated total cost (\$) = Estimated quantity of fuel times the conventional fuel price</li> </ul>	<ul style="list-style-type: none"> <li>Conventional Fuel Price (\$/L) adjusted for the Reference Marker Price on the delivery date</li> </ul>
2: Blended Fuel	2. Synthetic hydrocarbon fuel carbon intensity of the fuel sourced by the Offeror (gCO <sub>2</sub> e/MJ). 3. Firm unit Blended Fuel Markup Price (\$/L)	<ul style="list-style-type: none"> <li>Emissions per litre of blended fuel (tCO<sub>2</sub>e/L)**</li> <li>Avoided emissions from using the blended fuel (tCO<sub>2</sub>e/L)</li> <li>Cost per tonne of avoided emissions from using the blended fuel (\$/tCO<sub>2</sub>e)</li> <li>Evaluated Blended Fuel Markup Price (\$/L)***</li> </ul>	<ul style="list-style-type: none"> <li>Stream 2 evaluated total cost (\$) = Estimated quantity of fuel times the Conventional Fuel Price plus the Evaluated Blended Fuel Markup Price</li> </ul>	<ul style="list-style-type: none"> <li>Conventional Fuel Price (\$/L) adjusted for the Reference Marker Price on the delivery date PLUS</li> <li>Adjusted Blended Fuel Markup Price (\$/L) based on the actual fuel supplied.</li> </ul>
3: Book and Claim	4. Synthetic hydrocarbon fuel carbon intensity of the fuel sourced by the Offeror (gCO <sub>2</sub> e/MJ). 5. Firm unit Book and Claim Price (\$/L)	<ul style="list-style-type: none"> <li>Emissions per litre of synthetic hydrocarbon fuel (tCO<sub>2</sub>e/L)**</li> <li>Avoided GHG emissions from claiming the synthetic hydrocarbon fuel (tCO<sub>2</sub>e/L)</li> <li>Cost per tonne of avoided emissions from claiming the synthetic hydrocarbon fuel (\$/tCO<sub>2</sub>e)</li> <li>Evaluated Book and Claim Price (\$/L)***</li> </ul>	<ul style="list-style-type: none"> <li>Stream 3 evaluated total cost (\$) = Estimated quantity of fuel times the Evaluated Book and Claim Price</li> </ul>	<ul style="list-style-type: none"> <li>Adjusted Book and Claim Price (\$/L) based on the actual fuel supplied.</li> </ul>
<b>Notes:</b> * Calculated based on the reference carbon intensity and energy density values for diesel ** Calculated based on the carbon intensity value provided in the Offer and the reference energy density value for synthetic hydrocarbon fuel *** Calculated based on the Offer cost per tonne of avoided emissions and the reference maximum carbon intensity value for synthetic hydrocarbon fuel				

#### B4.4 FINANCIAL EVALUATION AND BASIS OF SELECTION

This section presents the mandatory financial criteria, the evaluation process and the basis of selection.

##### Mandatory Financial Criteria

The Mandatory Financial criteria for the evaluation of each offer are:

- The Offeror must offer a firm unit price(s), subject to adjustment, in Canadian funds, Applicable Taxes excluded, DDP Delivered Duty Paid to destination(s) Incoterms 2000, Customs Duties included for each consolidated requirement offered; and
- The Offeror's financial offer must be in accordance with the Basis of Payment as detailed in B4.3 below.

Offers not meeting these mandatory financial criteria will be declared non-responsive.

##### Evaluation

The objective of this procurement is to reduce the lifecycle GHG emissions from the federal marine fleet while maintaining the accessibility, affordability and performance of the marine fuels required for operations. Consequently, the evaluation methodology is designed to select the offer that minimizes fuels costs while delivering emission reductions at the lowest cost per tonne.

To compare offers in a fair and transparent manner, the Government of Canada proposes to calculate the Evaluated Total Offer Cost (or TC-EVAL) for each consolidated requirement based on the Offeror's price information and the estimated volume of fuel required under each stream.

- The Evaluated Total Offer Cost is the sum of the Evaluated Total Cost for each of the streams in that consolidated requirement and will be assessed using the variables and calculations presented in section B4.3 Financial Calculations above.
- Note that for fuels with a synthetic hydrocarbon component, the evaluation methodology uses each Offeror's calculated emission cost per tonne of avoided emissions (\$/tCO<sub>2</sub>e) and the avoided emissions value from the use of a synthetic hydrocarbon fuel with a carbon intensity of 37 gCO<sub>2</sub>e/MJ. This allows for the fair comparison of offers that have different synthetic hydrocarbon fuel carbon intensity values

##### Basis of Selection

Offerors must comply with the requirements of the RFSO and meet all mandatory technical and financial evaluation criteria to be declared responsive. The responsive offer with the lowest Evaluated Total Offer Cost in each consolidated requirement will be recommended for issuance of a standing offer for that consolidated requirement.

More than one standing offer may be issued for the RFSO. However, each consolidated requirement will be issued to one supplier only.

#### B4.5 BASIS OF PAYMENT

In consideration of the Offeror satisfactorily completing all of its obligations under the Contract, the Offeror will be paid a firm unit price per litre for each requirement as specified in Table B5 below based on the calculations shown in B4.3 above. Customs duties are included and Applicable taxes are extra.

**Table B5: Basis of Payment by Stream**

Stream	Basis of Payment
1. Conventional Fuel	<ul style="list-style-type: none"><li>• The quantity of fuel delivered (L) times the firm unit Actual Conventional Fuel Price (FC-ACT) in dollars per litre (\$/L).</li></ul> <p>FC-ACT is the firm unit Conventional Fuel Price (\$/L) provided at the time of offer</p>

	adjusted based on the Reference Marker Price on the date of delivery. The calculation for this adjustment is shown in Table B4 above.
2. Blended Fuel	<ul style="list-style-type: none"> <li>The quantity of fuel delivered (L) times the firm unit Actual Conventional Fuel Price (FC-ACT) in dollars per litre (\$/L) plus the firm unit Adjusted Blended Fuel Markup Price (FC-ADJ) in dollars per litre (\$/L).</li> </ul> <p>FC-ACT is the firm unit Conventional Fuel Price (\$/L) provided at the time of offer adjusted based on the Reference Marker Price on the date of delivery.</p> <p>FC-ADJ is the firm unit Blended Fuel Markup Price (\$/L) provided at the time of offer adjusted based on difference between the carbon intensity value for synthetic hydrocarbon fuel provided at the time of offer and the value of the actual fuel delivered.</p> <p>The calculations for these adjustments are shown in Table B4 above.</p>
3. Book and Claim	<ul style="list-style-type: none"> <li>The quantity of fuel claimed (L) times the firm unit Adjusted Book and Claim Price (FC-ADJ) in dollars per litre (\$/L).</li> </ul> <p>FC-ADJ is the firm unit Book and Claim Price (\$/L) provided at the time of offer adjusted based on difference between the carbon intensity value for synthetic hydrocarbon fuel provided at the time of offer and the value of the actual fuel added under the Book and Claim system.</p> <p>The calculations for these adjustments are shown in Table B4 above.</p>

## B5 TRACKING AND REPORTING REQUIREMENTS

The Offeror will be required to track all call-ups and invoices made under the RFSO, as well as required supporting documentation, and provide quarterly reports to the Government of Canada. This includes the maintaining a Book and Claim accounting system for call-ups under stream 3.

A summary of the information required for tracking, reporting, and invoicing for each stream is outlined below. The Government of Canada will provide templates for this process.

### B5.1 STREAM 1: CONVENTIONAL FUELS

For stream 1, Offerors will be required to maintain a fuel consumption log with the following information for each call-up:

#### Generic Information

- The geographic zone (e.g. BC 442), delivery address, the location and estimated total volume of fuel required for this location
- The product name, product code, delivery method and end-user (e.g. Department of Fisheries and Oceans, Department of National Defence)

#### Call-up Information

- The call-up number and the date the call-up was issued
- The total volume of finished fuel purchased in litres (L) and the date the fuel was delivered

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Invoice information

- The firm unit Conventional Fuel Price in dollars per litre (\$/L), adjusted for the Reference Marker Price effective on the date of delivery, as detailed in Appendix B – Basis of Payment in the NMSO for Marine Fuels
- The invoice number and the total value of invoice in dollars (\$)

Suppliers will be required to provide a copy of the log every quarter for review and verification by the Government of Canada. Invoicing requirements are as detailed in Appendix B-Basis of Payment in the NMSO for Marine Fuels.

**B5.2 STREAM 2: BLENDED FUELS**

For stream 2, Offerors will be required to maintain a fuel consumption log with the following information for each call-up:

Generic Information

- The geographic zone (e.g. BC 442), delivery address, the location and estimated total volume of fuel required for this location,
- The product name, product code, delivery method and end-user (e.g. Department of Fisheries and Oceans, Department of National Defence).

Call-up Information

- The call-up number, the date the call-up was issued, timelines to fulfill the call-up and the anticipated delivery date,
- The estimated volume of fuel requested at the time of call-up in litres (L),
- The total volume of finished fuel purchased in litres (L) and the date the fuel was delivered.

Synthetic Hydrocarbon Components Information

- The carbon intensity value for the neat synthetic hydrocarbon fuel (gCO<sub>2</sub>e/MJ), provided at the time of offer and at the time of call-up,
- The producer's name, feedstock source, percent (%) blend by volume and the carbon intensity value (gCO<sub>2</sub>e/MJ) of the actual fuel delivered,
- The certificate of analysis for the finished fuel

Invoice Information

- The total price per litre (\$/L) based on:
  - The firm unit Conventional Fuel Price in dollars per litre (\$/L), adjusted for the Reference Marker Price effective on the date of delivery, as detailed in Appendix B-Basis of Payment in the NMSO for Marine Fuels, plus
  - The Adjusted Blended Fuel Markup Price in dollars per litre (\$/L) based on the carbon intensity value of the synthetic hydrocarbon component of the fuel delivered, calculated as detailed in B4.2.
- The invoice number and the total value of invoice in dollars (\$)

Offerors will be required to provide a copy of the log every quarter along with associated documentation to substantiate the information above. For the synthetic hydrocarbon fuel components this includes the chain of custody information and the carbon intensity value (gCO<sub>2</sub>e/MJ) approved by the *Clean Fuel Regulations*.

The fuel consumption log and associated documentation will be subject to verification and auditing requirements by the Government of Canada. Offerors will be required to retain all information and relevant documentation for a period of up to six years.

### **B5.3 STREAM 3: BOOK AND CLAIM**

For stream 3, Offerors will be required to maintain a Book and Claim accounting system that is comprised of a call-up log, a Book and Claim log and supporting documentation. The accounting system would be subject to the Government of Canada's verification and auditing requirements to ensure transparency, full traceability and no risk of double counting.

The call-up log will contain information on every call-up made under the standing offer. This includes the call-up number, the date the call-up was issued, timelines to fulfill the call-up, the total volume of neat synthetic hydrocarbon fuel requested at the time of call-up, its carbon intensity value (gCO<sub>2</sub>e/MJ), the Adjusted Book and Claim Fuel Markup Price (\$/L) and other generic information.

The Book and Claim log will contain the following information for each call-up:

#### For each booked entry

- The total volume of neat synthetic hydrocarbon fuel in litres (L) that was added to the marine fuel supply chain, the location it was added to and the date it was added,
- The producer's name, feedstock source and documentation to substantiate the booked entry (e.g. chain of custody information, blending in the supply chain and the carbon intensity value (gCO<sub>2</sub>e/MJ)),
- The certificate of analysis for the finished fuel at the time of blending.

#### For each claimed entry

- The total volume of neat synthetic hydrocarbon fuel in litres (L), claimed by the end-user and the date it was claimed
- The total equivalent volume in litres (L) of finished fuel purchased under stream 1 to substantiate the claim and the invoice numbers and dates associated with these purchases,
- The invoice number associated with this claim and the total value invoiced in dollars (\$) and the Adjusted Book and Claim Markup Price in dollars per litre (\$/L), calculated as detailed in B4.

Offerors will be required to provide a copy of the call-up log and the Book and Claim log every quarter. The logs and associated documentation will be subject to verification and auditing requirements by the Government of Canada. Offerors will be required to retain all information and relevant documentation for a period of up to six years.

### **B6 CERTIFICATIONS AND ADDITIONAL INFORMATION**

The standard conditions and certification requirements in the current NMSO for Marine Fuel would apply to this new RFSO; except for the general environmental and social criteria certification requirements which would be replaced with the criteria detailed in B6.1 below.

Offerors must provide the required certifications and additional information to be issued a standing offer.

#### **B6.1 GENERAL ENVIRONMENTAL AND SOCIAL CRITERIA CERTIFICATION**

Offerors must select and complete one of the following four certification statements.

**Option A:** The offeror certifies that they are registered with or meets ISO 14001; OR

**Option B:** The offeror certifies that they meet and will continue to meet throughout the duration of the standing offer, a minimum of four (4) out of eight (8) criteria identified in Table B6 below. The Offeror must indicate which four (4) criteria, as a minimum, are met.

**Table B6: Proposed Environmental Criteria Certification**

<b>Environmental criteria within the Offerors' organization</b>	
A)	Promotes a paperless environment through directives, procedures and/or programs
B)	All documents are printed double sided and in black and white for day to day business activity unless otherwise specified by your client
C)	Paper used for day to day business activity has a minimum of 30% recycled content and has a sustainable forestry management certification
D)	Utilizes environmentally preferable inks and purchase remanufactured ink cartridges or ink cartridges that can be returned to the manufacturer for reuse and recycling for day to day business activity.
E)	<p>Recycling programs or policies on, but not limited to, the following:</p> <ul style="list-style-type: none"> <li>– Greenhouse Gas (GHG) Reduction</li> <li>– GHG inventory</li> <li>– eWaste</li> <li>– Waste audits</li> <li>– Energy efficiency</li> <li>– Green procurement</li> <li>– Fleet requirements (green vehicles, vehicle tracking, low resistance tires, tire recycling, emission reduction, etc.)</li> <li>– LED lighting</li> <li>– Recycling bins for paper, newsprint, plastic and aluminum containers available and emptied regularly in accordance with local recycling program</li> <li>– Motion-sensored lighting</li> <li>– Solar/wind programs</li> </ul>
F)	A minimum of 50% of office equipment has an energy efficient certification.
G)	<p>Other Environmental or Green Registration or Certification.</p> <p>The Offeror should provide a brief description of the program in place in their offer.</p>
H)	Other environmental initiatives and programs in place. The Offeror should provide a brief description of the program in place in their offer.

**Option C:** The Offeror certifies that it manages and encourages targeted underrepresented suppliers, supplier ownership and groups (i.e., visible minorities, women, youth, and veterans of the Canadian Armed Forces) through the use of Human Resource (HR) policies, training or skills development policies or program, employment, scholarships, etc.; OR

**Option D:** The Offeror certifies that it manages and encourages indigenous suppliers, supplier ownership and groups through the use of Human Resource (HR) policies, training or skills development policies or program, employment, scholarships, etc.

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## **ANNEX C – TECHNICAL AND PROCUREMENT QUESTIONS**

### **1) Overall requirement**

Is your organization interested in, and capable of, providing finished fuels containing synthetic hydrocarbon components made from renewable feedstocks (e.g. biomass) to the Government of Canada's marine fleet? Why or why not? If not, what conditions are needed by your organizations to fulfill this requirement?

If yes, please explain how you propose to meet the mandatory requirements detailed in ANNEX B by responding to the questions listed below.

### **2) Synthetic hydrocarbon component requirements in finished fuel products**

Section B2 outlines technical requirements for finished fuels containing synthetic hydrocarbon components supplied to the Government of Canada, including the requirements for the carbon intensity calculations.

- a. Please describe your organization's current and/or planned involvement with the production and/or distribution of marine fuels containing synthetic hydrocarbon components.
- b. Have you already identified synthetic hydrocarbon fuel source(s) that could be used for this procurement process? If yes, please provide the following information:
  - i. The name of the producer(s) and their production and refining facilities, including their location,
  - ii. The feedstock(s) used and the fuel production process(es),
  - iii. The estimated life cycle carbon intensity value of synthetic hydrocarbon fuel (in g CO<sub>2</sub>e/MJ). If possible, please provide registered carbon intensity values from an existing regulatory system (e.g. *British Columbia Low Carbon Fuel Standard*<sup>21</sup>).
- c. Under the proposed procurement process, standing offers would be issued by November-December 2022 and fuel deliveries would occur between June 1, 2023 and May 31, 2025. Please answer the following questions for that timeframe:
  - i. How many days or weeks of advance notice is needed by your organization to:
    1. Source, purchase and receive neat synthetic hydrocarbon fuels; and
    2. Blend the synthetic hydrocarbon fuels with conventional fuels in order to supply a finished fuel to the Government of Canada?
  - ii. Do you anticipate being able to source neat synthetic hydrocarbon fuels from the same producer for the entire 2-year duration of the resulting standing offer? Please explain.
  - iii. Would you be able to provide documentation demonstrating that you have secured a source of synthetic hydrocarbon fuel at the time of offer (e.g. a letter of intent from the fuel producer)? Please explain.
- d. Do you have any comments related to the synthetic hydrocarbon fuel carbon intensity and feedstock requirements outlined in section B2 of the RFI?
  - i. In particular, do you anticipate any issues with meeting the maximum carbon intensity value of 37 gCO<sub>2</sub>e/MJ using the Government of Canada's *Fuel Life Cycle Assessment Model*?
- e. Do you have any other comments related to meeting the Government of Canada's requirements for synthetic hydrocarbon fuel?

The Government of Canada understands that Offerors may require additional lead time and/or infrastructure

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<sup>21</sup> See *British Columbia Clean Fuel Standard* publications available at <https://www2.gov.bc.ca/gov/content/industry/electricity-alternative-energy/transportation-energies/renewable-low-carbon-fuels/fuel-lifecycle-assessment>.



(e.g. storage, blending, distribution) to provide finished blended fuels to shortlisted locations, shown at Annex D. The Government is therefore proposing a flexible procurement approach that could include up to three distinct streams – 1) Conventional Fuel, 2) Blended Fuel and 3) Book and Claim – for each consolidated requirement, each with their own terms, conditions, and call-up procedures.

The resulting standing offers would operate in parallel to the National Master Standing Offer (NMSO) for Marine Fuels (E60HL-210051). Consequently, the consolidated requirements included in the new standing offer would be excluded from the NMSO for Marine Fuels, to ensure that there is only one supplier per consolidated requirement.

The Government is seeking feedback on the questions below:

**3) Overall proposed procurement approach**

- a. Do you have any general comments on the overall proposed procurement approach and streams presented in section B1 and described in detail in B3, B4 and B5?
- b. Do you have any alternative streams to recommend in addition to those proposed? If yes, please describe them and explain why they should be considered.
- c. Do you have any concerns with the proposal that the resulting standing offers would operate in parallel to the NMSO for Marine Fuels (E60HL-210051) and locations included in the new standing offers would be excluded from the NMSO for Marine Fuels? If yes, please explain.

**4) Stream 2 (Blended Fuel): Delivery of a finished fuel comprised of a 40:60 blend by volume of synthetic hydrocarbon fuel and conventional fuel.**

- a. Annex D identifies a short-list of regions and locations (consolidated requirements) where the Government of Canada is considering procuring fuels under this RFI. Please review this list and indicate which consolidated requirements you would be able to provide blended fuels to under stream 2. For each consolidated requirement please describe:
  - i. The existing capacity for receiving, storing, blending and distributing fuels with synthetic hydrocarbon components in that region,
  - ii. Any additional infrastructure or equipment (e.g. storage tanks, blending and testing) that would be needed to supply blended fuel to the Government of Canada, and any associated cost or logistical implications.
  - iii. In zones PQ351, NS221 and NL001, the Government of Canada procures CGSB 3.11-2022 Type 11 between April 1 and October 31<sup>st</sup> and Type 15 for the remainder of the year. The use of fuels with synthetic hydrocarbon components is not permitted under Type 15; consequently, stream 2 could only be used in these locations between April 1 to October 31 each year. Does this restriction create any additional logistical, supply chain or infrastructure considerations?
- b. Do you have any comments related to:
  - i. The call-up and delivery procedures for stream 2 as detailed in B3.2?
  - ii. The proposed financial offer, evaluation and basis of payment calculations for stream 2 as detailed in B4? In particular, do you have any concerns with
    1. The basis of evaluation which takes into account the calculated cost per tonne of avoided GHG emissions (\$/tonne of CO<sub>2</sub>e).
    2. The basis of payment whereby the firm unit price provided at the time of offer is adjusted for the carbon intensity value that is provided at the time of delivery.
  - iii. The tracking and reporting requirements for stream 2 as detailed in B5.2?
- c. As noted in B4.2, Offerors would be required to provide a firm unit Blended Fuel Markup price (\$/L) for each consolidated requirement that is tied to the carbon intensity of the fuel. This price represents the costs for providing the blended fuel that are additional to the firm unit Conventional Fuel price under stream 1.
  - i. Do you have any comments on this approach?
  - ii. Can you provide an estimate of the Blended Fuel Markup for each consolidated requirement you've identified under question 4a above?

d. Do you have any other comments on stream 2?

**5) Stream 3 (Book and Claim) — Claiming the environmental attributes of synthetic hydrocarbon fuels.** Under stream 3, the Government of Canada would purchase (claim) the environmental attributes (e.g. reduced lifecycle emissions) of a specified volume of neat synthetic hydrocarbon fuel without taking physical delivery of that fuel. Offerors would be required to purchase the synthetic hydrocarbon fuel and blend it into the same marine fuel supply chain that provides conventional fuel of that product type (e.g. naval distillate) to the Government of Canada under stream 1.

a. Annex D identifies a short-list of regions and locations (consolidated requirements) where the Government of Canada is considering procuring fuels under this RFI. Please review this list and indicate which consolidated requirements you would be able to provide fuels to through stream 3. For each consolidated requirement please describe:

- i. The existing capacity for receiving, storing and blending synthetic hydrocarbon fuels in that region,
- ii. The point(s) in the supply chain where you would add the synthetic hydrocarbon fuel, using a process map or diagram if possible. As described in B3.3, Offerors would be required to add the fuel to a point in the supply chain that is i) in the same province as the consolidated requirement and ii) as close as possible to the delivery address with the largest estimated required volume of fuel.
- iii. Any additional infrastructure or equipment (e.g. storage tanks, blending and testing) that would be needed to meet the Government of Canada's Book and Claim requirements, and any associated cost or logistical implications.

b. Do you have any comments related to:

- i. The call-up and delivery procedures for stream 3 as detailed in B3.3?
- ii. The proposed financial offer, evaluation and basis of payment calculations for stream 3 as detailed in B4? In particular, do you have any concerns with
  1. The basis of evaluation which takes into account the calculated cost per tonne of avoided GHG emissions (\$/tonne of CO<sub>2</sub>e).
  2. The basis of payment whereby the firm unit price provided at the time of offer is adjusted for the carbon intensity value that is added (or booked) in the system.
- iii. The tracking and reporting requirements for stream 3 as detailed in B5.3?

c. As noted in B4.2, Offerors would be required to provide a firm unit Book and Claim price (\$/L) for each consolidated requirement that is tied to the carbon intensity of the fuel. This price represents the costs for claiming the environmental attributes of the synthetic hydrocarbon fuel without taking physical delivery of it.

- i. Do you have any comments on this approach?
- ii. Can you provide an estimate of the Book and Claim price for each consolidated requirement you've identified under question 5a above?

d. Do you have any other comments on stream 3?

**6) Financial Evaluation and Basis of Selection.** As detailed in B4.4, the responsive offer with the lowest Evaluated Total Offer Cost in each consolidated requirement will be recommended for issuance of a standing offer for that consolidated requirement.

a. Do you have any comments on the financial evaluation and basis of selection?

**7) Credits for Low-carbon Fuels.** Under the federal *Clean Fuel Regulations*, fuel producers and distributors will be able to generate compliance credits from the production or import of low-carbon fuels, including synthetic hydrocarbon fuels. Some other Canadian jurisdictions also offer credits for these fuels (e.g. *British Columbia Low Carbon Fuel Standard*). These credits reduce the costs associated with purchasing these low-carbon fuels.

- a. The Government of Canada expects that Offerors will provide synthetic hydrocarbon fuels at a discounted price based on the value of the credits they receive for the fuel. How will you account for these credits in the pricing you offer to the Government of Canada under streams 2 and 3?

The Government is also seeking feedback on the questions below related to other aspects of the proposed procurement process:

**8) General environmental and social criteria certification**

- a. Will your organization be able to meet the environmental and social criteria certification requirements for Option A or Option B or Option C or Option D, detailed in B6.1 at the time of offer? Please explain.

**9) Additional requirements for fuels**

- a. CGSB-3.11-2022 — Naval Distillate includes a new testing requirement for determining the total aromatic hydrocarbons present when synthetic hydrocarbon components are blended. Please explain how your organization will be able to meet this requirement.
- b. Co-processed diesel. Some production facilities co-process small volumes of renewable feedstocks (e.g. animal fats, used cooking oil) with conventional petroleum hydrocarbons to produce a lower carbon-intensity diesel fuel. Co-processing is not included in CAN/CGSB-3.11-2022 – Naval Distillate and therefore does not conform to this standard.
  - i. Do you currently produce or source fuels from co-processing facilities, and do you have any concerns related to this requirement?

**10) Do you have any other comments related to this RFI?**

## **ANNEX D – TABLE OF CONSOLIDATED REQUIREMENTS**

See attached Microsoft Excel file on [www.buyandsell.gc.ca](http://www.buyandsell.gc.ca) .

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**ANNEX E – DEPARTMENT OF FISHERIES AND OCEANS: INSPECTION AND SUPPLEMENTARY CONDITIONS OF SUPPLY**

1. The times of fueling, quantity and type of fuel required will be relayed to the Contractor by Fisheries and Oceans/Canadian Coast Guard by email, telephone, or facsimile at a reasonable period of time prior to the estimated time of arrival of the ship. Call-up is to be confirmed in writing, either on form PWGSC-TPSGC 942, or on another appropriate document. Since the application of certain taxes is determined on the product end use, the end use must be stated at the time of call-up.
2. **For Stream 1 (Conventional Fuel)**  
The Contractor must provide bunkering services during buoy recovery, ice-breaking and search and rescue operation periods which may result in necessitating unpredictable fuel requirements within 4 hours of call-up.
3. **FOR REQUIREMENT NUMBER (PQ351 47/TW): Stream 1 (Conventional Fuel)**  
Delivery may be required on a 24 hour a day basis, in order to load a large amount of fuel within a short period of time, 2 - 4 times per year. Contractor is to indicate its normal delivery hours and the charge, if applicable for delivery outside of normal delivery hours.
4. **FOR REQUIREMENT NUMBERS (NS221 93/PI) / (NS221 93/TW) / (NL001 93/PI) / (NL001 93/TW): Stream 1 (Conventional Fuel)**  
The Contractor must provide bunkering services 24 hours a day, 7 days a week including holidays. The Contractor must have ability to deliver fuel within 48 hours of call-up.

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**ANNEX F – DEPARTMENT OF NATIONAL DEFENCE: INSPECTION AND SUPPLEMENTARY  
CONDITIONS OF SUPPLY**

**1. WARNING FOR INSPECTION**

**1.A** The Contractor will provide the Identified User Representative with a copy of each marine delivery receipt immediately after delivery is made.

**1.B FOR REQUIREMENT ITEMS (NL001 93/PI) AND (NS221 93/PI)**

Filter Plugging Tendency (FPT)

A Contractor guarantee that the fuel will have a maximum Filter Plugging Tendency (FPT) of 1.56, or a final volume filtered of 250ml minimum when tested in accordance with the standard test method ASTM D2068 is NOT a prerequisite to having its offer accepted. However, DND may require fuel that can pass this test. Consequently, DND may request a fuel sample from the supplier at least 24 hours prior to making a call-up under stream 1 or prior to taking delivery under stream 2. DND shall be responsible for performing this test. Should the test result reveal that the fuel does not meet the FPT limits that DND requires, DND may opt not to proceed with making a call-up, at that time.

A Contractor guarantee that finished fuel containing synthetic hydrocarbon components will conform to the requirements in either NATO AFLP 1385 Section 4A or 4B is a prerequisite to having its offer accepted. The contractor is responsible for this testing and providing results to DND. Should the NATO AFLP 1385 Section 4A or 4B results reveal that the fuel does not meet the limits, DND will not proceed with making a call-up, at that time.

**2. U.S. MILITARY SHIPS: Stream 1 (Conventional Fuel)**

The Contractor will provide product, if required, to visiting U.S. Navy, U.S. Coast Guard and U.S. Marine Corps in accordance with the NATO STATUS Forces Agreement and the United States Navy/Department of National Defence Memorandum of Understanding. Prices are to include Excise Tax.

**3. FOR REQUIREMENT ITEM (NS221 93/PI): Stream 1 (Conventional Fuel)**

The Contractor will have the capability of making available a minimum quantity of 5,500,000 litres at all times. The only exception will be immediately following a heavy lifting by ships (approx. 3,000,000 litres). In such instance, the minimum quantity to be made available will be restored to its original quantity within three days.

**4. FOR REQUIREMENT ITEMS (NS221 93/PI) AND (NS221 93/LT): Stream 1 (Conventional Fuel)**

(a) The Contractor must provide 24 hours a day, 7 day week service including holidays.

(b) Notwithstanding the need for the Contractor to have the capability to deliver the fuel within 24 hrs from time of a call-up, in the event of an emergency invoked by the Department of National Defence, the Contractor will endeavor to supply the fuel sooner.

**5. FOR REQUIREMENT ITEM (NS221 93/PI)**

(a) Length of jetty minimum 600 feet or a minimum bearing surface of 200 feet.

(b) Minimum depth of water (extreme low tide) 25 feet to accommodate HFX class ships. Length of jetty minimum 200 feet.

(c) Approach and departure paths will be clear of obstructions with sufficient manoeuvring room for the Operational Support Ships in all weather states to berth with the aid of tugs.

- (d) Pumping capacity will be 500,000 litres per hour or better for supply of Operational Support Ships. In the case of an absolute emergency product can be supplied faster via tank gauge.
  - (e) The Contractor will provide line handlers for berthing ships, at no additional charge, as follows:
    - (i) HFX Class Ships (fair weather: 3 hands and foul weather: 6 hands);
    - (ii) Arctic Offshore Patrol Ships (fair weather: 3 hands and foul weather: 6 hands); and
    - (iii) The definition of fair/foul weather will be at the discretion of naval authorities.
  - (f) For Auxiliary Operational Replenishment ships a minimum of two (2) dolphins/bollards or mooring buoys (approx. 700 feet apart) each capable of accepting a 50 ton strain for securing eight (8) inch bow and stern lines. The Supplier must provide a crane or gantry capable of lifting a fuelling hose and coupling to the onboard fuelling position.
6. **FOR REQUIREMENT ITEM (NS221 93/LT)**  
The minimum pumping capacity for fuel delivered by lighter or barge is 120,000 litres per hour.
7. **FOR REQUIREMENT ITEMS (NS221 93/TW), (NS221 93/PI), (BC251 71/BG) AND (NL001 93/PI)**  
"CAN/CGSB-3.11-2022, Naval Distillate Fuel" options 8.1.c and 8.1.d shall apply as follows:
- 8.1
    - c. Requirement for purchaser pre-approval of additives
    - d. Requirement to report on additive usage and dosage to purchaser
8. Fuel sold in the province of British Columbia for the use of The Department of National Defence may in some cases be excluded under the *British Columbia Renewable and Low Carbon Fuel Requirements Regulation* or the *Greenhouse Gas Reduction (Renewable and Low Carbon Fuel Requirements) Act*. Contact the Government of British Columbia for more information.

**ANNEX G – SAMPLE FINANCIAL OFFER, EVALUATION AND PAYMENT TEMPLATE**

See attached Microsoft Excel file on [www.buyandsell.gc.ca](http://www.buyandsell.gc.ca).



## **ANNEX H – INVITATION FORM FOR INDUSTRY DAY AND ONE-ON-ONE SESSIONS**

Please fill out the invitation form in order to confirm your attendance to the Industry Day and the One-on-One sessions by checking or indicating your order of preference of date and time and the number of participants that will be attending the sessions.

Canada will make every effort to satisfy your preferred date and time, however should many suppliers request the same time, Canada will proceed on a first come, first served basis.

<b>Company's name</b>	
<b>Point of contact</b>	
<b>Address</b>	
<b>Email</b>	
<b>Telephone number</b>	

Industry Day			
Date	Time	Availabilities	# of attendees
18 May 2022	12:30-3:30pm EDT	Industry Day	

One-on-one Sessions						
Preference*	Date	Time** (EDT)				
	June 6, 2022 (Monday)	9:30 am – 10:15 am	10:45 am – 11:30 am	12:45 pm – 1:30 pm	2:00 pm – 2:45 pm	3:15 pm – 4:00 pm
	June 7, 2022 (Tuesday)	9:30 am – 10:15 am	10:45 am – 11:30 am	12:45 pm – 1:30 pm	2:00 pm – 2:45 pm	3:15 pm – 4:00 pm
	June 8, 2022 (Wednesday)	9:30 am – 10:15 am	10:45 am – 11:30 am	12:45 pm – 1:30 pm	2:00 pm – 2:45 pm	3:15 pm – 4:00 pm
	June 9, 2022 (Thursday)	9:30 am – 10:15 am	10:45 am – 11:30 am	12:45 pm – 1:30 pm	2:00 pm – 2:45 pm	3:15 pm – 4:00 pm
	June 10, 2022 (Friday)	9:30 am – 10:15 am	10:45 am – 11:30 am	12:45 pm – 1:30 pm	2:00 pm – 2:45 pm	3:15 pm – 4:00 pm

\*Suppliers must choose 3 dates and rank by preference (1, 2, 3).

\*\*Suppliers must choose 3 time slots (encircle choices) for each chosen date.

Note: Suppliers chosen dates and times are not guaranteed, however, Canada will try its best to accommodate all requests.

### **List of attendees**

	Names	Position	Attendance to Industry Day (Yes/No)	Attendance to One-on-one sessions (Yes/No)
1				
2				
3				
4				