

CCGS 1100 Class Propulsion Renewal

Q1. Can you clarify and confirm the delivery requirements/Installation schedule for all of the 1100 class vessels. The SOW states that “The Contractor shall deliver all equipment to the Canadian Coast Guard for installation into the specified vessel no later than 48 weeks of contract award.” If this is the case, how can the CG have a July 2017 installation start date for CCGS Harvey? For a Contract start date of 5 Dec 2016, the beginning of July 2017 is 31 weeks after contract award. 48 weeks after contract award would be the first week of Nov 2017. The delivery schedule indicates that the majority of the installations would occur in 2018 and many of the ships would overlap. See comments below:

Vessel #1 - CCGS Ann Harvey: Installation Schedule - July 2017 (this date is significantly before the 48 week equipment delivery)

Vessel #2 - CCGS Alexander: Installation Schedule - Nov 2017 (this date would be acceptable for Vessel #1 if a contract is awarded 5 Dec 2016)

Vessel # 3 – CCGS George R Pearkes: Installation Schedule - August 2018 (vessels 3 and 4 would overlap for installation)

Vessel # 4 – CCGS Edward Cornwallis: Installation Schedule – July 2018 (vessel 3 and 4 and 4 and 5 would overlap for installation)

Vessel # 5 – CCGS Martha L Black: Installation Schedule – October 2018 (vessel 4 and 5 would overlap for installation)

Vessel # 6 – CCGS Sir Wilfred Laurier: Installation Schedule – January 2019

A1. Original development of the SOR did permit to begin installation in July 2017. Due to delays experienced, the first installation will commence OCT / NOV 2017 and followed by the Alexander in JAN 2018, Cornwallis in JUL 2018, Black in SEP 2018, Laurier in JAN 2019, and Pearkes in AUG 2019. Overlap will still occur between Cornwallis and Black and between Black and Laurier with the modified schedule. Overlapping is acceptable to CCG and many tasks of installation can be performed simultaneously given the geographical locations and separation utilizing subcontractors in these areas with OEM site supervision. Removal tasks can also be performed prior to final arrival of equipment when scheduled by the OEM appropriately permitting these installation begin dates. An amendment will be posted showing updated installation timelines.

Q2. Classification costs: Can you confirm that the Coast Guard will cover all Class certification and TCMS costs? SOW Para 1.1.7, Refit Period states “The contractor shall provide an onsite class surveyor to verify the installations were completed to the class society’s approval.” Does the Coast Guard pay for this onsite class surveyor?

A2. Classification costs for the equipment and design approval shall be borne by the OEM and not CCG. Classification Societies shall be used exclusively for the design approvals and TCMS will only receive the Class approved package. CCG shall cover the Class and TCMS Surveyor costs during installation only.

Q3. Alongside Installation period responsibilities (SOW 1.1.4 and elsewhere in the document): Can you clarify the Alongside Installation period responsibilities and what is required to be included in the bid for installation costs. This section of the SOW states that the “Bidder” is responsible for work listed in 1.1.4.2. The “Subcontractors” are responsible for the work listed in para1.1.4.1. The “Contractor” (who is the Contractor?) is responsible to contract the sub trades in para 1.1.4.1. The “Bidder” also has to provide a detailed costs and a list of subcontractors for work items listed in para1.1.4.1 and these costs will be a part of the evaluated and awarded totals. Can you provide a clear definition of the Bidder, the Contractor and the Subcontractors and what their responsibilities for this SOW. Can you also provide further details of what is to be included in the “Installation line” for each ship in Annex E of the RFP and what in the “installation line” is scope and what is included for bidding evaluation purposes only.

A3. In this solicitation, Bidder and Contractor are equivalent terms and refer to the party / parties submitting the bid. Contractor shall be the term used for the successful. Clear responsibilities are defined in the SOR for the Bidder / Contractor and Subcontractors. In Annex E, the

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installation line is to include the installation costs for the equipment as listed / defined above that particular column. Installation costs to be captured are those by the Contractor and any Subcontractors used for that activity. Both the Contractor and Sub Contractor costs shall be paid through this contract to the winning bidder.

Q4. Harmonic Filters: SOW para 1.1.3.2 indicates that new harmonic filters are required for each of the 1100 class vessels. Para 2.3.10 states that "The contractor shall provide port and starboard replacement harmonic filters for the CCGS Ann Harvey" and implies only for the CCGS Harvey. The Annex E Price breakdown has a line for each ship for harmonic filters. Can you confirm that new passive harmonic filters are required for each ship and that we are to provide similar units to the existing (see para 2.3.10)?

A4. New passive harmonic filters will be included for the CCGS Ann Harvey. Prices shall be included for identical units for the remaining T1100 vessels. The CCG may choose to purchase filters for the remaining vessels.

Q5. Harmonic Filters: Para 2.3.2, subpara 24 states that the bidder is to "Utilize passive harmonic filters to limit voltage distortion caused by the cycloconverters on the main power bus to 5% or less". This is impossible to price without a detailed analysis and a simulation to determine the harmonic levels in all possible propulsion modes of operation. In fact we do not know if passive filters are the only solution and whether active filters are also required. Recommend that this work be deferred until after the harmonic study is complete and a detailed analysis is done.

A5. Bids submissions are to be priced on using the equivalent means of harmonic filtration as currently installed. The existing configuration is adequate for limiting the voltage distortion caused by the thyristers to 5% or less with the existing cycloconverter. The actual values for each vessel shall be measured during the baseline sea trials. The baseline value obtained shall be recreated or improved upon during the commissioning sea trials. Bidders are to include for the harmonic study in their bid packages. The contractor is exempt from the 5% THD requirement for the CCGS Ann Harvey due to no available data.

Q6. Insurance: RFP page 17/32, subpara 12 states that "The Contractor must, if requested by the Contracting Authority, forward to Canada a certified true copy of all applicable insurance policies". Can we remove this requirement in this instance? We consider this information highly sensitive and it is not normally shared.

A6. This is a usual requirement for refit / repair type contracts and has been obtained from other companies in the past. The requirement stands.

Q7. RFP Section 3.1 of the Bid Preparation Instructions. Para 1 of this section omits the requirement for a Technical Bid submission which is detailed below in this same section

A7. This is an apparent typo and an amendment will be issued to clarify this point. However, a Technical Bid is still required as defined on page 7/32.

Q8. We request clarification of the following specification. We are aware that the existing system has operated properly for 30 years with the water to air exchanger. The requirement for a water cooled drive is not consistent with the original system configuration and eliminates air cooled drives that are entirely adequate for the purpose. The elimination of air cooled drives could discourage bidders and trigger "no-bid" decisions that will reduce the number of bidders.

A8. A proposed system utilizing an air to water heat exchanger is an acceptable design. By definition, this constitutes a water cooled design. This SOR does not dictate the internal cooling medium but that all heat removal from the unit shall be accomplished through the ship's central cooling system and all equipment must fit within the existing footprint.