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ANNEX P (REV 5)
Mandatory Technical Criteria

In their technical bid, Bidders should demonstrate their understanding of the requirements contained in the bid solicitation and explain how they will meet these requirements. Bidders should demonstrate their capability in a thorough, concise and clear manner for carrying out the work.

The technical bid should address clearly and in sufficient depth the points that are subject to the evaluation criteria against which the bid will be evaluated. Simply repeating the statement contained in the bid solicitation is not sufficient. In order to facilitate the evaluation of the bid, Canada requests that Bidders address and present topics in the order of the evaluation criteria under the same headings (indicate a Bid Cross Reference page/section in the submission). To avoid duplication, Bidders may refer to different sections of their bids by identifying the specific paragraph and page number where the subject topic has already been addressed.

No.	Requirement	Ref	Evaluation Criteria	Bid Cross-ref.
M1	Shipyard Operational capability	2.7	The Bidder's proposed shipyard must be operational all year and able to accommodate the CCGS Terry Fox.	
			The Bidder must provide: a. a list of all vessel refit projects completed at the proposed shipyard over the last 24 months prior to the date of bid closing; and b. start date and end date (month, year) or indicate in progress, where applicable, for all projects listed in a.	
M1B	Shipyard - Location	6.4	The Bidder's proposed shipyard must be operational in Eastern Canada (ON, QC, NB, NS, NL, PE)	
			The Bidder must supply: a. The name and location of docking facility; and b. The proposed drydock and alongside location.	
M2	Docking Facility Certification	6.4	The Bidder's proposed dry-docking facility must have: a. Valid certification of the capacity and condition of the docking facility to be used for the Work. The certification must be provided by a recognized consultant, professional engineer, or classification society and must have been issued within the past two years prior to the date of bid closing; b. the capacity to remove the CCGS Terry Fox from the water and subsequently return in the water.	
			The Bidder must provide the certificate required in a. and demonstrate compliance with b. in its bid.	
M3	Docking Facility capacity for engine removal and installation	6.4	The Bidder must include an engine removal and installation plan, supported by means of drawings and calculations, that demonstrates: the shipyard's capability to remove the current engines, and to replace them with the proposed engines.	

			The Bidder must demonstrate the docking facility capacity requirements by providing: a. A drawing with the crane location and indicating sufficient access for removal; and b. an engine removal and installation plan	
M4	Docking Facility crane capacity	6.4	The Bidder must provide a crane of sufficient capacity for equipment manipulation, such as engine removal and installation, and any other tonnage required to complete the Work in Annex "A" – Statement of Work. The capacity must be sufficient to handle the Bidder's proposed, noted engine weight.	
			The Bidder must provide: a. the crane specifications indicating capacity and reach capability; and b. A copy of the latest crane inspection certificate.	
M5a	Shipyard Experience	6.4	The Bidder's shipyard must have conducted refits on five vessels of a similar size (vessels' gross tonnage is at least 3800 t) in the last five years prior to bid closing.	
			The Bidder must provide five customer letters of reference, produced on the customers' letterhead and including: a. The vessel name and its gross tonnage; b. a description of the work performed; c. the dates (month and year) in which the contract was awarded and completed; d. relevant customer contact information (i.e. contract name, phone number and email address); and e. the signature of an authorized representative of the customer.	
M5b	Shipyard Experience	6.4	The Bidder's shipyard must have conducted vessel refits valued above \$5M on at least two vessels in the last five years prior to bid closing.	
			The Bidder must provide the following information for each refit: a) The vessel name; b) Brief description of the work performed; c) The start and end date (month and year) of the refit (or in progress, if applicable); and d) The refit value.	
M5c	Shipyard Experience	6.4	The Bidder's shipyard must have conducted vessel refits that lasted at least six months, on two vessels in the last five years prior to bid closing.	
			The Bidder must provide the following information for each refit: a) The vessel name; b) Brief description of the work performed; c) The start and end date (month and year) of the refit (or in progress, if applicable).	

M6 (REV 2, AMD 011)	Proposed VLE Schedule	6.7	The Bidder's proposed Preliminary Work Schedule for the VLE work period must work in cohesion with the dates provided in Annex "H", Appendix 2 – Milestones (Price and Delivery Schedule).	
			<p>The Bidder must provide a Preliminary Work Schedule that must include (as a minimum) target dates for each of the following significant events:</p> <ol style="list-style-type: none"> Commencement date of Vessel Work as defined at Article 7.3.2; Period to be in Dry-Dock; Start and completion dates for each SOW Item in Part B of Annex "A" – Statement of Work; Completion date of Vessel Work as defined at Article 7.3.2; Period of Care & Custody by the shipyard; Resumption of custody by Canada; Dock and Sea Trials Period. <p>For each SOW item in Part B of Annex "A" – Statement of Work, Part B, the Bidder's Preliminary Work Schedule must show:</p> <ol style="list-style-type: none"> the main work breakdown structure (WBS) to the system and component level (WBS 3); the workforce deployment plan, or labour loading, for the following disciplines: <ul style="list-style-type: none"> Steelwork; Piping; Mechanical; Electronics; Controls/Instrumentation. The Bidder must indicate which intended labour resources will satisfy the proposed labour loading for each discipline i.e. are the resources supplied in-house, or from subcontractor(s) and suppliers. Indicate subcontractor names and specify any suppliers. <p>The Bidder must fill in the Annex H, Appendix 2 – Milestones (Price and Delivery) dates, in cohesion with its Preliminary Work Schedule.</p>	
M7	Subcontractors	6.16	List the subcontractors, whose total estimated cost for the duration of the Contract exceeds \$50,000.	
			<p>The Bidder must provide a list of all subcontractors. The list must include:</p> <ol style="list-style-type: none"> The name of the subcontractor; the related SOW item in Part B of Annex "A" – Statement of Work 	

			<p>c. a description of the items to be purchased for the related SOW item, Annex "A" – Statement of Work, Part B;</p> <p>d. a description of the Work to be performed for the related SOW item in Annex "A": – Statement of Work, Part B; and</p> <p>e. the location of the performance of the Work.</p>	
M8	Shipyard Bidder welders and sub-contracted welders	6.14	The shipyard Bidder's welders and any welding sub-contractors must be certified to CSA W47.1 by the Canadian Welding Bureau.	
			<p>The Bidder must provide proof of welding certification, by submitting:</p> <p>a. a current letter of validation for the shipyard welders and for subcontractors performing welding. The Scope on the letter must apply to a marine scope for compliance with Annex M of CSA Standard W47.1 (2019).</p>	
M9	Project Manager (PM)	6.15	The Bidder's proposed PM must be a different individual from the individuals proposed in sections M10 to M16.	
			<p>The Bidder's proposed PM must have :</p> <p>a. a minimum of 10 years of experience as a Project Manager in the last 12 years prior to the date of bid closing;</p> <p>b. completed a minimum of two marine refit or vessel construction projects (or mechanical industrial projects), each valued at greater than \$5,000,000.00, within the last seven years prior to the date of bid closing;</p> <p>c. completed a minimum of two marine refit projects (or mechanical industrial projects), each having lasted a minimum of four months, within the last three years prior to the date of bid closing.</p>	
			<p>The Bidder must provide a CV for the proposed PM which demonstrates compliance with a., b. and c., by identifying each marine refit project (or mechanical industrial project) managed by the proposed PM, and providing, as a minimum, the following information:</p> <ul style="list-style-type: none"> • Project name; • Project value; • Project description, including role and responsibilities as PM, and vessel type; • Project start date and delivery date (month, year). 	
M10 (REV 1, AMD 010)	Single System Supplier Integrator (SSSI) Project Manager	6.15, Annex A – Statement of Work,	The Bidder's proposed SSSI Project Manager must be a different individual from the individuals proposed in sections M9 and M11 to M16.	

		Part A, GR 12.0.		
			<p>The Bidder's proposed SSSI Project Manager must have :</p> <ul style="list-style-type: none"> a. a minimum of five years of experience supervising or managing portions of marine refit or vessel construction projects (or mechanical industrial projects) in the last eight years prior to the date of bid closing; b. completed a minimum of two marine refit or vessel construction projects (or mechanical industrial projects), each valued at greater than \$4,000,000.00, within the last six years prior to the date of bid closing; and c. completed a minimum of two marine refit projects (or mechanical industrial projects), each having lasted a minimum of four months, within the last three years prior to the date of bid closing. 	
			<p>The Bidder must provide a CV for the proposed SSSI Project Manager which demonstrates compliance with a., b. and c., by identifying each marine refit project (or mechanical industrial project) involving the proposed SSSI Project Manager, and providing, as a minimum, the following information:</p> <ul style="list-style-type: none"> • Project name; • Project value; • Project description, including role and responsibilities, and vessel type; • Project start date and delivery date (month, year). 	
M11	Quality Assurance, Inspection and Testing Manager	6.15	<p>The Bidder's proposed Quality Assurance Inspection and Testing Manager must be a different individual from the individuals proposed in sections M9, M10, and M12 to M16. The Work of the Quality Assurance Inspection and Testing Manager is set out in Annex A – Statement of Work .</p>	
			<p>The Bidder's proposed Quality Assurance Inspection and Testing Manager must have:</p> <ul style="list-style-type: none"> a. Valid certificate or diploma of a two year technical program offered by a recognized technical institute or a certificate of registration as a technician with a recognized provincial, state, or federal (national) licensing body; b. Valid certificate or diploma for training related to ISO registered system referenced in section 6.9; and c. a minimum of eight years of experience conducting technical inspections on marine vessels or marine platforms within the last 12 years prior to the date of bid closing. 	

			<p>The Bidder must provide the certificate or diploma required in a. and b., in addition to the CV for the proposed Quality Assurance Inspection and Testing Manager which demonstrates compliance with the requirements found in c., by identifying each project on which testing inspections on marine vessels or marine platforms was conducted, and providing, as a minimum, the following information:</p> <ul style="list-style-type: none"> • Project name; • Project description, including role and responsibilities as Quality Assurance Inspection and Testing Manager; • Project start date and delivery date (month, year). 	
M12	Schedule Planner	6.15	<p>The Bidder's proposed Schedule Planner must be a different individual from the individuals proposed in sections M9 to M11, and M13 to M16. The Schedule Planner is responsible for the production and upkeep of the Work Schedule.</p>	
			<p>The Bidder's proposed Schedule Planner must :</p> <p>a. possess a university degree in engineering or applied science and possess a minimum of five years of experience determining work schedules and work planning for marine refits or for industrial projects within the last 8 years prior to bid closing;</p> <p>—OR—</p> <p>a. possess a minimum of seven years of experience determining work schedules and work planning for marine refits or for industrial projects within the last 10 years prior to bid closing; and</p> <p>b. possess a minimum of three consecutive years of experience in the last 5 years prior to bid closing, utilizing a commercially available project management software to developed work schedules for marine refits or for industrial projects, that break the work down to the system and component level and include the schedule's critical path;</p>	
			<p>The Bidder must provide the certificate or diploma required in a., in addition to the CV for the proposed Schedule Planner which demonstrates compliance with the requirement found in a. and b. by identifying the experienced gained, and providing, as a minimum, the following information:</p> <ul style="list-style-type: none"> • Place of work; • Period of work (month, year); • Description of tasks including role and responsibilities. 	

			In addition, the Bidder must provide an example of a schedule demonstrating the requirements of b. that was created and maintained by the individual.	
M13	Vessel Supervisor/ Superintendent	6.15	The Bidder's proposed Vessel Supervisor/ Superintendent must be a different individual from the individuals proposed in sections M9 to M12, and M14 to M16.	
			The Bidder's proposed Vessel Supervisor/ Superintendent must have : a. a minimum of 10 years of experience as a Vessel Supervisor in the last 12 years prior to the date of bid closing; b. supervised a minimum of three marine refit or vessel construction projects, each valued at greater than \$2,500,000.00, within the last seven years prior to the date of bid closing; c. completed a minimum of two marine refit projects or vessel construction projects, each having lasted a minimum of four months, within the last three years prior to the date of bid closing.	
			The Bidder must provide a CV for the proposed Vessel Supervisor/ Superintendent which demonstrates compliance with a., b. and c., by identifying each marine refit project involving the proposed Vessel Supervisor/ Superintendent, and providing, as a minimum, the following information: • Project name; • Project value; • Project description, including role and responsibilities as Vessel Supervisor/ Superintendent, and vessel type; • Project start date and delivery date (month, year).	
M14	Safety Officer / Occupational Health & Safety Specialist (OHSS)	6.15	The Bidder's proposed OHSS must be a different individual from the individuals proposed in sections M9 to M13, M15 to M16.	
			The Bidder's proposed OHSS must have: a. A university degree from an accredited university or a college diploma from an accredited college in occupational health, safety or a related technical field and a minimum of two years of experience as an OHSS for marine refit projects or mechanical industrial projects, including involvement in at least one formal Safety Analysis; —OR— b. A minimum of four years of experience as an OHSS for marine refit projects or mechanical industrial projects, including	

			involvement in at least one formal Safety Analysis.	
			<p>The Bidder must provide the certificate or diploma or accreditation required in a. (if applicable) in addition to the CV for the proposed OHSS which demonstrates compliance with the requirement found in a. by identifying the experienced gained, and providing, as a minimum, the following information:</p> <ul style="list-style-type: none"> • Place of work; • Period of work (month, year); • Description of tasks including role and responsibilities; • Safety Analysis performed by the proposed individual. 	
M15	Document Control Specialist	6.15	The Bidder's proposed Document Control Specialist must be a different individual from the individuals proposed in sections M9 to M14, and M16.	
			<p>a. The Bidder's proposed Document Control Specialist must have:</p> <p>-a minimum one year diploma in formal secretarial/clerical training offered by a recognized post secondary institute and possess a minimum of one year clerical and document control management experience within the last three (3) years prior to bid closing;</p> <p>—OR—</p> <p>-a high school diploma or equivalent and possess a minimum of three years clerical and document control management experience within the last seven years prior to bid closing.</p>	
			<p>The Bidder must provide the certificate or diploma or accreditation required in a. in addition to the CV for the proposed Document Control Specialist which demonstrates compliance with the requirement found in a. by identifying the experienced gained, and providing, as a minimum, the following information:</p> <ul style="list-style-type: none"> • Place of work; • Period of work (month, year); • Description of tasks including role and responsibilities. 	
M16	Shipyard Cost Estimation Specialist	6.15	The Bidder's proposed Shipyard Cost Estimation Specialist must be a different individual from the individuals proposed in sections M9 to M15.	
			<p>The Bidder's proposed Shipyard Cost Estimation Specialist must:</p> <p>a. possess a university degree in engineering or applied science, or must hold a provincial, state, or federal (national) licence to practice as a professional engineer); and</p>	

			<p>b. possess a minimum of five years of experience performing engineering cost estimates for marine related equipment and/or platforms within the last 10 years; —OR— a. possess a minimum of seven years of experience as a Cost Estimator Specialist; and b. have completed a minimum of three years of marine refit experience.</p>	
			<p>The Bidder must provide the certificate or diploma or accreditation required in a. (if applicable) in addition to the CV for the proposed Shipyard Cost Estimation Specialist which demonstrates compliance with the requirement found in a. and b. by identifying the experienced gained, and providing, as a minimum, the following information:</p> <ul style="list-style-type: none"> • Place of work; • Period of work (month, year); • Description of tasks including role and responsibilities. 	
M17	Engineering capability – Engineering Team	6.15	<p>The Bidder must have an in-house engineering service, or intend to enter into contract with a Canadian Marine Engineering Firm(s) that has (have) developed and implemented one Classification Society Approved vessel integration and installation Package for the renewal or the installation of a new vessel major equipment of a minimum weight of 20 tons.</p>	
			<p>The Bidder must provide for itself or for each firm that it intends to subcontract with, one example of a Classification Society Approved vessel integration and installation package as set out immediately above that must at a minimum include documentation supporting the following:</p> <ol style="list-style-type: none"> 1) Specifications for vessel modifications and major equipment installations with related drawings that address at a minimum the following: <ol style="list-style-type: none"> i. Class Approved Vessel Electrical Integration Packages Specifications; ii. Class Approved Vessel's Structural Modifications Specifications; iii. Class Approved Equipment installation Specifications; and iv. Class Approved Inspections, Set to Work Test and Trial Plans, Procedures and Reports. 2) Review of the vessel's stability with major equipment installed, the required structural modifications made and 	

			<p>production of a new Intact Stability Book for the vessel.</p> <p>Where the Bidder intends to enter into contract with Canadian Marine Engineering Firm(s), the Bidder must provide in addition to the information required immediately above, the following information on each of the Engineering Firm(s):</p> <p>1) Marine Engineering Firms' name(s).</p>	
<p>The Bidder must provide names and CVs of the eight key individuals that form part of the Engineering Team who will do design Work as set out in Annex "A" – Statement of Work .</p> <p>The key individuals are the names expected to be on deliverables such as drawings, specifications, manuals, reports, and instructions.</p> <p>The Bidder's Team must include a minimum of eight key individuals identified in M17a to M17h. The eight individuals must all be different from those proposed in sections M9 to M16.</p>				
M17a	1) Senior Naval Architect Engineer	6.15	<p>The Bidder's proposed Senior Naval Architect Engineer must:</p> <p>a. Possess a university degree in naval architecture engineering;</p> <p>b. Hold a provincial, state, or federal (national) licence to practice as a professional engineer; and</p> <p>c. Possess a minimum of 10 years of experience in naval architecture within the last 15 years prior to bid closing.</p>	
			<p>The Bidder must provide a copy of the certificate or diploma and accreditation required in a. and b., in addition to the CV for the proposed Senior Naval Architect Engineer which demonstrates compliance with the requirement found in c. by identifying the experienced gained, and providing, as a minimum, the following information:</p> <ul style="list-style-type: none"> • Place of work; • Period of work (month, year); • Description of tasks including projects worked on, role and responsibilities. 	
M17b	2) Senior Marine Systems Engineer	6.15	<p>The Bidder's proposed Senior Marine Systems Engineer must:</p> <p>a. Possess a university degree in mechanical or marine systems engineering;</p> <p>b. Hold a provincial, state, or federal (national) licence to practice as a professional engineer; and</p> <p>c. Possess a minimum of 10 years of experience in marine systems within the last 15 years prior to bid closing.</p>	
			<p>The Bidder must provide a copy of the certificate or diploma and accreditation required in a. and b., in addition to the CV for the proposed Senior Marine Systems Engineer which demonstrates compliance with the requirement found in c. by identifying the experienced gained, and providing, as a minimum, the following information:</p> <ul style="list-style-type: none"> • Place of work; • Period of work (month, year); 	

			<ul style="list-style-type: none"> Description of tasks including projects worked on, role and responsibilities. 	
M17c	3) Senior Marine Engineer	6.15	<p>The Bidder's proposed Senior Marine Engineer must:</p> <ul style="list-style-type: none"> a. Possess a Transport Canada certificate of competency as a First Class Marine Engineer; and b. Possess a minimum of five years of experience in a shore-based establishment within the 10 years prior to bid closing. 	
			<p>The Bidder must provide a copy of the certificate required in a., in addition to the CV for the proposed Senior Marine Engineer which demonstrates compliance with the requirement found in b. by identifying the experienced gained, and providing, as a minimum, the following information:</p> <ul style="list-style-type: none"> • Place of work; • Period of work (month, year); • Description of tasks including projects worked on, role and responsibilities. 	
M17d	4) Senior Electrical Engineer	6.15	<p>The Bidder's proposed Senior Electrical Engineer must:</p> <ul style="list-style-type: none"> a. Possess a university degree in electrical engineering; b. Hold a provincial, state, or federal (national) licence to practice as a professional engineer; and c. Possess a minimum of 10 years of experience in electrical engineering within the last 15 years prior to bid closing. 	
			<p>The Bidder must provide a copy of the certificate or diploma and accreditation required in a. and b., in addition to the CV for the proposed Senior Electrical Engineer which demonstrates compliance with the requirement found in c. by identifying the experienced gained, and providing, as a minimum, the following information:</p> <ul style="list-style-type: none"> • Place of work; • Period of work (month, year); • Description of tasks including projects worked on, role and responsibilities. 	
M17e	5) Senior Controls and Instrumentation Engineer	6.15	<p>The Bidder's proposed Controls and Instrumentation Engineer must:</p> <ul style="list-style-type: none"> a. Possess a university degree in electrical, instrumentation or electronics engineering; b. Hold a provincial, state, or federal (national) licence to practice as a professional engineer; and c. Possess a minimum of 10 years of experience in controls and instrumentation within the last 15 years prior to bid closing. 	
			<p>The Bidder must provide a copy of the certificate or diploma and accreditation required in a. and b.,</p>	

			<p>in addition to the CV for the proposed Senior Controls and Instrumentation Engineer which demonstrates compliance with the requirement found in c. by identifying the experienced gained, and providing, as a minimum, the following information:</p> <ul style="list-style-type: none"> • Place of work; • Period of work (month, year); • Description of tasks including projects worked on, role and responsibilities. 	
M17f	6) Senior Mechanical Draftsperson	6.15	<p>The Bidder's proposed Senior Mechanical Draftsperson must:</p> <p>a. Possess a minimum two year technical program diploma offered by a recognized technical institute;</p> <p>–OR–</p> <p>a. Be registered as a technician with a recognized provincial, state, or federal (national) licensing body;</p> <p>–AND–</p> <p>b. Possess a minimum of three years of mechanical engineering drafting experience within the last five years prior to bid closing;</p> <p>c. Possess a minimum of one year of drafting experience within the marine field within the last five years prior to bid closing; and</p> <p>d. Possess a minimum of one (1) year of experience in Computer Aided Design (CAD) within the last three (3) years prior to bid closing.</p>	
			<p>The Bidder must provide a copy of the certificate or diploma or accreditation required in a., in addition to the CV for the proposed Senior Draftsperson which demonstrates compliance with the requirements found in b., c. and d. by identifying the experienced gained, and providing, as a minimum, the following information:</p> <ul style="list-style-type: none"> • Place of work; • Period of work (month, year); • Description of tasks including projects worked on, role and responsibilities. 	
M17g	7) Senior Electrical Draftsperson	6.15	<p>The Bidder's proposed Senior Electrical Draftsperson must:</p> <p>a. Possess a minimum two year technical program diploma offered by a recognized technical institute;</p> <p>–OR–</p> <p>a. Be registered as a technician with a recognized provincial, state, or federal (national) licensing body;</p> <p>–AND–</p> <p>b. Possess a minimum of three years of electrical engineering drafting experience within the last five years prior to bid closing;</p>	

			<p>c. Possess a minimum of one year of drafting experience within the marine field within the last five years prior to bid closing; and</p> <p>d. Possess a minimum of one year experience in Computer Aided Design (CAD) within the last three years prior to bid closing.</p>	
			<p>The Bidder must provide a copy of the certificate or diploma or accreditation required in a., in addition to the CV for the proposed Senior Draftsperson which demonstrates compliance with the requirements found in b., c. and d. by identifying the experienced gained, and providing, as a minimum, the following information:</p> <ul style="list-style-type: none"> • Place of work; • Period of work (month, year); • Description of tasks including projects worked on, role and responsibilities. 	
M17h	8) Cost Estimation Specialist	6.15	<p>The Bidder's proposed Cost Estimation Specialist must:</p> <p>a. Possess a university degree in engineering or applied science, or hold a provincial, state, or federal (national) licence to practice as a professional engineer; and</p> <p>b. Possess a minimum of five years of experience performing engineering cost estimates for marine or industrial related equipment or platforms within the last 10 years;</p> <p>—OR—</p> <p>a. Possess a minimum of seven years of experience as a Cost Estimator Specialist; and</p> <p>b. Have completed a minimum of three years of marine refit experience.</p>	
			<p>The Bidder must provide the certificate or diploma or accreditation required in a. (if applicable) in addition to the CV for the proposed Document Control Specialist which demonstrates compliance with the requirement found in a. and b. by identifying the experienced gained, and providing, as a minimum, the following information:</p> <ul style="list-style-type: none"> • Place of work; • Period of work (month, year); • Description of tasks including role and responsibilities. 	
M18 (REV 3 AMD 018, REV 5 AMD 038)	Procurement Team	6.15	<p>The Bidder must provide two Procurement Specialists who will be purchasing equipment itemized in Annex "H" – Appendix 2 -Milestones (Price and Delivery), as specified in Annex "A" - Statement of Work. Each individual must:</p> <p>a. Possess a university degree in any field or a college program in procurement, finance, economics, commerce, accounting or materiel management and a minimum of two years of marine or industrial experience in a procurement</p>	

			<p>and finance related activity within the last five years prior to bid closing; –OR– a. Possess a minimum of eight years of marine or industrial experience in a procurement and finance related activity within the last 10 years prior to bid closing. –AND– b. have handled the procurement of a component or a system comprised of multiple components valued at a minimum of 10 million dollars, during their experience (may consist of parts and labour hours). –OR– b. have handled, during their experience, the procurement of two different 1 million dollar purchases, consisting of: i) a single component item (one part number that may or may not be comprised of multiple items); or ii) labour hours related to a project.</p>	
			<p>The Bidder must provide the certificate or diploma or accreditation required in a. (if applicable) in addition to the CV for each proposed Procurement Specialist which demonstrates compliance with the requirement found in a. by identifying the experienced gained, and providing, as a minimum, the following information:</p> <ul style="list-style-type: none"> • Place of work; • Period of work (month, year); • Description of tasks including role and responsibilities, <p>In addition, the Bidder must provide a copy of the Purchase Orders (customer information redacted) for each of the proposed Supply Specialists, as demonstration of requirement b.</p>	
M19a	Proposed Main Engine service	Annex "A" – Statement of Work, Part B, item 12.1	The Bidder's proposed Main Engine must have experience on a rough service vessel (i.e. on and off shore tug, ice breaker, or ferry) for at least five consecutive years in the last 10 years.	
			The Bidder must provide a copy of the proposed engine certification from a Class Society recognized by Canada and a letter of reference from a purchaser of the proposed engine, indicating that the engine is being used in rough service for five consecutive years in the last 10 years prior to bid closing.	
M19b (REV 4,	Propulsion Machinery Equipment	Annex "A" – Statement	The following PME component parts: the four main engines and clutches (12.1), the two gearboxes (12.1), and any intermediate	

AMD 031)	(PME) component parts	of Work, Part B, item 12.1, 13.1, 14.2A, 14.2B, 19.1, 19.2	connections (12.1), shaft generator (13.1), switchboards (14.2A and 14.2B), associated control system (19.1) and alarm & monitoring system (19.2), must all have their mechanical parts available for a minimum of 15 years.	
			The Bidder must provide, from each different component manufacturer, a letter indicating a guarantee of provision of all associated mechanical parts for the components listed above for 15 years after bid closing.	
M19c (REV 4, AMD 031)	PME (components listed in 19b) manufacturer experience	Annex "A" – Statement of Work, Part B, item 12.1, 13.1, 14.2A, 14.2B, 19.1, 19.2	PME equipment component manufacturer must have a minimum of 10 years of experience in the designing, manufacturing and commissioning of the Marine Propulsion equipment component.	
			The Bidder must provide a reference from each different PME component manufacturer (i.e. a link from their website, a manufacturer brochure document, or a letter directly from the manufacturer on their letterhead) confirming a minimum of 10 years of experience supplying PME prior to bid closing, in the designing, manufacturing and commissioning of the Marine Propulsion equipment component.	
M19d (REV 4, AMD 031, REV 5, AMD 036)	PME (components listed in 19b) supplier after service and support	Annex "A" – Statement of Work, Part B, item 12.1, 13.1, 14.2A, 14.2B, 19.1, 19.2	The Bidder must demonstrate that the proposed PME manufacturer (or manufacturers) is (are) capable of providing after service support specific to the make and model of the proposed PME components.	
			The Bidder must provide evidence from each different component PME Manufacturer, in the form of a letter with the supplier's letterhead, that it can provide the following support: 1. Provide 24 hours/7 days phone technical support for the PME in English; 2. Provide workshop services for overhaul, calibration and testing of components within Eastern Canada (NS, NB, PE, NL); 3. Provide technicians' presence within 24 hours of Newfoundland and their workshop, to assist	

			<p>with repairs, maintenance and training;</p> <p>4. Provide supplier parts' storage for one set of International Association of Classification Societies (IACS) spare parts and frequently used items, such as fuel and lube oil filters, fuel injector nozzles, and seal kits;</p> <p>5. Provide all other major overhaul parts, not stored, within 90 calendar days of order (provide a list of major overhaul parts accounted for in Table 3 of Annex H, appendix 1: Total Life Cycle Cost) ; and</p> <p>6. Provide logistical support chains (sales office) within Canada.</p>	
M19e (REV 4, AMD 031)	Classification Society for PME (components listed in 19b) and associated systems	Annex "A" – Statement of Work, Part B, item 12.1, 13.1, 14.2A, 14.2B, 19.1, 19.2	The Bidder must provide the name of the Classification Society that will provide the Approval Certificates for design and fabrication according to the Class Rules and Regulations applicable to the PME and to any Auxiliary Machinery purchases, Controls and Safety systems listed in Annex A- Statement of Work.	
			The Bidder must indicate the Classification Society, which must be an approved classification society as listed in Section 2 (1) of the Marine Machinery Regulations, Canada Shipping Act, 2001.	
M19f (REV 4, AMD 031)	New Auxiliary Machinery (AM) Systems' proposed components or instruments manufacturers' experience	Annex "A" – Statement of Work, Part B, item 12.1	<p>The Bidder's proposed new Auxiliary Machinery (AM) Systems components or instruments</p> <p>a. must be manufactured by manufacturers having a minimum of 10 years of experience designing, producing and selling each specific component type; and</p> <p>b. must have all mechanical parts or kits or subcomponents available for a minimum of 15 years unless the item is of low complexity, whereby the item itself must be available for at least 15 years, or as an upgraded compatible version.</p>	
			<p>The Bidder must provide an AM list of any new pumps, compressors, prefabricated tanks, and receivers (information for filters, general valves, regulators, relief valves, and general instrumentation is optional).</p> <p>The AM list must include the following specified columns and indicate the relating information for each proposed component's or proposed instrument's:</p> <p>a. Manufacturer;</p> <p>b. web site link;</p> <p>c. general model number (an exact part number is not mandatory).</p>	

			<p>The Bidder must include a separate letter from each different listed manufacturer, demonstrating the requirements found in a., b. and c. by identifying:</p> <ol style="list-style-type: none"> the number of years that they have been manufacturing and designing their proposed listed components and instruments ; a minimum guarantee of fifteen (15) years supply after bid closing, of subcomponent parts and kits, or a complete replacement for smaller, less complex items. 	
M19g (REV 4, MOD 031)	New Auxiliary Machinery (AM) Systems' proposed components or instruments manufacturers' after service support	Annex "A" SOW, PART B, item 12.1	<p>The Bidder's proposed new Auxiliary Machinery (AM) Systems components, including pumps, compressors, prefabricated tanks and receivers:</p> <ol style="list-style-type: none"> must have vendor support as follows: <ul style="list-style-type: none"> 24 hours/7 days phone technical support (for pumps, compressors, and filters, only); logistical support chains (sales and technical office) available within North America for all components/items; supplier technicians within 24 hours of Newfoundland to assist with repairs, and maintenance. 	
			<p>The Bidder must include a separate letter from each different listed manufacturer, demonstrating the requirements found in a., b. and c. by identifying the provided vendor support.</p>	
M19h (REV 1, AMD 010, REV 4 AMD 031))	Proposed propulsion machinery, (engines and gearboxes), applications	Annex "A" SOW, PART B, item 12.1	<p>The Bidder must demonstrate that the proposed PM equipment (for M19h, only, engines and gearboxes) be of proven performance in comparable vessel services (ice breaking, off-shore service vessel, dredges or ferry applications), of comparable vessel arrangement (4 engine, 2-shaft direct drive with CPP, contraolable pitch propeller arrangement) and comparable total power (a minimum of 15.5 MW).</p>	
			<p>The Bidder must include five installation references wherein, the proposed PM (for M19h, engines and gearboxes; note that each component must have 5 references in total, hence there could be up to a total of 10 references required to be submitted) has been applied; each reference must demonstrate the installation to be of comparable:</p> <ol style="list-style-type: none"> service (an ice breaking vessel, off-shore service vessel, dredges, or ferry service vessel); arrangement (an arrangement of 4 engines, 2-shaft direct drive with controlable pitch propeller, CPP); and total power (a minimum of 15.5 MW). 	

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ANNEX Q (REV 2)

ADDITIONAL INFORMATION ON SELECTED EQUIPMENT*

*The bidder must provide the requested information.

Information to provide in support of selected critical equipment.

Equipment	Propulsion Machinery Engines (four units)
SOW reference	12.1
Proposed Equipment (Indicate information below):	
Supplier	
Make	
Model	
Indicate Equipment Website Link --OR-- Include and indicate an Equipment Brochure Title (i.e. datasheet, specifications) and indicate the bid cross-reference.	

Equipment	Propulsion Machinery Clutches (four units)
SOW reference	12.1
Proposed Equipment (Indicate information below):	
Supplier	
Make	
Model	
Indicate Equipment Website Link --OR-- Include and indicate an Equipment Brochure Title (i.e. datasheet, specifications) and indicate the bid cross-reference.	

Equipment	Propulsion Machinery Gearboxes (two units)
SOW reference	12.1
Proposed Equipment (Indicate information below):	
Supplier	
Make	
Model	
Indicate Equipment Website Link --OR-- Include and indicate an Equipment Brochure Title (i.e. datasheet, specifications) and indicate the bid cross-reference.	

Equipment	Propulsion Machinery Shaft Alternators (two units)
SOW reference	13.1
Proposed Equipment (Indicate information below):	
Supplier	
Make	
Model	
Indicate Equipment Website Link --OR-- Include and indicate an Equipment Brochure Title (i.e. datasheet, specifications) and indicate the bid cross-reference.	

Equipment	Switchboard equipment
SOW reference	14.2
Proposed Equipment (Indicate information below):	
Supplier	
Make	
Model	
Indicate Equipment Website Link --OR-- Include and indicate an Equipment Brochure Title (i.e. datasheet, specifications) and indicate the bid cross-reference.	

Equipment	Motor Control Centers Equipment
SOW reference	14.3
Proposed Equipment (Indicate information below):	
Supplier	
Make	
Model	
Indicate Equipment Website Link --OR-- Include and indicate an Equipment Brochure Title (i.e. datasheet, specifications) and indicate the bid cross-reference.	

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Equipment	Mooring Winches (two units)
SOW reference	17.5
Proposed Equipment (Indicate information below):	
Supplier	
Make	
Model	
Indicate Equipment Website Link --OR-- Include and indicate an Equipment Brochure Title (i.e. datasheet, specifications) and indicate the bid cross-reference.	

Equipment	Start and aux air compressors replacement
SOW reference (AMD 23, Rev 1)	12.1 (sections 3.5.5 and 3.5.7), and 15.12 (section 3)
Proposed Equipment (Indicate information below):	
Supplier	
Make	
Model	
Indicate Equipment Website Link --OR-- Include and indicate an Equipment Brochure Title (i.e. datasheet, specifications) and indicate the bid cross-reference.	

Equipment	40 tonne Deck Crane
SOW reference	17.1
Proposed Equipment (Indicate information below):	
Supplier	
Make	
Model	
Indicate Equipment Website Link --OR-- Include and indicate an Equipment Brochure Title (i.e. datasheet, specifications) and indicate the bid cross-reference.	

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Equipment	Mooring Winches (two units)
SOW reference	17.5
Proposed Equipment (Indicate information below):	
Supplier	
Make	
Model	
Indicate Equipment Website Link --OR-- Include and indicate an Equipment Brochure Title (i.e. datasheet, specifications) and indicate the bid cross-reference.	

Equipment (AMD 031, REV 2)	Tow Pins/ Shard Jaw/ Karm Forks
SOW reference	17.12
Proposed Equipment (Indicate information below):	
Supplier	
Make	
Model	
Indicate Equipment Website Link --OR-- Include and indicate an Equipment Brochure Title (i.e. datasheet, specifications) and indicate the bid cross-reference.	

Equipment	Internal Communication System
SOW reference	18.1
Proposed Equipment (Indicate information below):	
Supplier	
Make	
Model	
Indicate Equipment Website Link --OR-- Include and indicate an Equipment Brochure Title (i.e. datasheet, specifications) and indicate the bid cross-reference.	

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Equipment	Propulsion Machinery Controls System Upgrade
SOW reference	19.1
Proposed Equipment (Indicate information below):	
Supplier	
Make	
Model	
Indicate Equipment Website Link --OR-- Include and indicate an Equipment Brochure Title (i.e. datasheet, specifications) and indicate the bid cross-reference.	

Equipment	Alarm and Monitoring System
SOW reference	19.2
Proposed Equipment (Indicate information below):	
Supplier	
Make	
Model	
Indicate Equipment Website Link --OR-- Include and indicate an Equipment Brochure Title (i.e. datasheet, specifications) and indicate the bid cross-reference.	