

SOLICITATION NUMBER N6554009QD237

BROAD AGENCY ANNOUNCEMENT – Naval Engineering Education Center (NEEC)

This Broad Agency Announcement is issued per Federal Acquisition Regulation (FAR) 6.102(d)(2): there will neither be a formal Request for Proposals (RFP) nor other solicitation issued in regard to this announcement. This announcement shall not be construed as a commitment or authorization to incur costs in anticipation of an award; the Government is not bound to make any awards under this announcement. and award is subject to the availability of funds.

The US Navy Center for Innovation in Ship Design (CISD) located at the Naval Surface Warfare Center, Carderock Division is soliciting proposals for a Naval Engineering Education Center (NEEC). The mission of the NEEC is to educate and develop world-class naval systems engineers to become a part of the Navy civilian ship engineering and science workforce. Naval Engineering is a field of study and expertise that includes all arts and sciences as applied in the research, development, design, construction, operation, maintenance and logistic support of surface and subsurface ships and marine craft, naval maritime auxiliaries, ocean structures and fixed and mobile shore facilities which are used by the naval and other military forces and civilian maritime organizations for the defense and well-being of the Nation.

The NEEC shall be a university consortium that works with the US Navy to develop trained and educated engineers and scientists (at the bachelor, master and doctorate levels) to become a part of the US Navy civilian workforce. These students would be educated in naval engineering and would be provided learning-by-doing hands-on experience working on undergraduate-graduate-faculty teams addressing actual complex naval ship design, new construction and in service engineering challenges. It is expected that the NEEC will graduate 100 scientists and engineers on an annual basis. Students in the NEEC shall attain an accredited science or engineering degree upon completion. The students shall commit to a multi-year agreement to work for the US Navy in accordance with the terms of the Department of Defense (DoD) Science, Mathematics And Research for Transformation (SMART) scholarship program. Additionally, the NEEC shall offer naval engineering continuing education courses for both Government and industry practicing engineers.

The objectives of the NEEC include the following:

1. Increase the number of students who graduate with an accredited science or engineering degree.
2. Attract engineers with graduate degrees into the Naval Shipbuilding Enterprise (entities that conduct business of ship design, acquisition, construction, major maintenance/modernization/repair and disposal).
3. Recruit and retain world-class faculty specialized in naval engineering.
4. Coordinate employee development opportunities to enhance and retain talent for the Navy.
5. Strengthen and increase the availability of naval engineering programs and courses across universities and colleges including the development of new courses and continuing education courses on naval engineering.
6. Provide project-based education to develop graduates with relevant hands-on naval engineering experience.
 - a. Project teams shall consist of undergraduate and graduate students and faculty members, and a Navy liaison.
 - b. Projects shall be selected based on US Navy research and engineering development needs and challenges including areas such as basic naval architecture, marine engineering and ocean engineering science; advanced computer aided design, analysis, cost estimating tools; ship and ship systems design science and advanced processes; ship and ship systems lifecycle affordability; engineering cost estimation methods; advanced ship power systems, advanced and efficient energy technologies and systems; advanced materials; ship arrangements optimization; naval mission effectiveness analysis methods and tools; advanced hull forms and propulsors; cost effective naval ship production technologies, processes and management techniques; advanced risk assessment and management methods and processes; and other US Navy naval engineering design, manufacturing, operation, in-service support and acquisition challenges.
 - c. Students are expected to successfully complete one complex naval engineering team project.
7. Enhance student knowledge and experience in the following areas:
 - a. Naval architecture and marine engineering, including ship design and ship system integration.
 - b. Naval systems such as combat systems, communications systems, mobility systems, survivability systems, distributed systems, auxiliaries, hull systems, and general arrangements.
 - c. Cost engineering of naval systems.

- d. Systems engineering and systems of systems engineering.
 - e. Systems engineering of naval ship, submarine, unmanned surface & undersea vehicles and their systems and sub-systems.
 - f. Systems architectures and systems architecting.
 - g. Impact of the naval environment on system design.
 - h. Risk analysis, mitigation and management.
 - i. Naval warship production methods, technology and management.
 - j. Different methods for designing complex systems in a multi-organization environment.
 - k. Naval system program and project management.
8. Develop, provide and promote opportunities for participants, including:
- a. At-sea experiences on US Navy ships.
 - b. Internships at US Navy naval research and engineering organizations such as the Naval Surface Warfare Center and Naval Undersea Warfare Center, Naval Shipyards, Supervisors of Shipbuilding and Regional Maintenance Centers.
 - c. Mentorships with faculty, and senior government engineers and scientists.

This proposal shall have a period of performance of 5 years with 5 one year options.

Students and Faculty participating in the NEEC must be U.S. citizens capable of obtaining a security clearance. Facilities and projects shall be capable of handling sensitive unclassified information. The ability to conduct research, handle information, and produce information at the classified level not to exceed Secret is desirable, but not required.

PROPOSAL INSTRUCTIONS

The proposals submitted shall be limited to 30 (thirty) pages including all items required below. The cover page shall include an administrative/business contact (name, phone number and email address), the period of validity of the proposal, and the signature of the authorized representative. All proposals in response to this BAA must remain valid until 30 June 2010. The deadline for responses is 16 November 2009. The Government may also request that an oral presentation of the information submitted in the proposal be provided. Offerors will be notified by email if they have been requested to provide an oral presentation. The oral presentations, if required, are tentatively scheduled for the week of *07 December 2009*.

Proprietary material shall be prominently marked as such. The Government intends to make a single award to the offeror whose proposal provides the best value from a technical and price standpoint. The BAA is an expression of interest only and does not commit the Government to pay any proposal costs for responses submitted. Offerors are advised that only the Contracting Officer is legally authorized to commit the Government to contract. All questions in reference to this BAA should be directed to Ms. Doris Tung at 215-897-8086 or email to doris.tung@navy.mil.

Responses to this BAA announcement shall include a proposed technical plan and cost estimate.

1. The proposed technical plan shall include the following:

- (a) A concept of operations for the NEEC, including a schedule of the major activities, events and milestones for each year. The concept of operations shall discuss the process of student selection, project team topic identification and selection, and project execution including project reporting.
- (b) Curriculum, courses, estimate of number of naval engineers to be a part of the NEEC, plans for the development of new courses, infrastructure, facilities and faculty necessary to support the NEEC.
- (c) Description of the use of US Navy naval engineering and science personnel to provide specialized instruction on naval engineering, naval ship acquisition and other subjects that are part of the proposed curriculum.
- (d) The plan to administer the NEEC and tracking of student's progress through the program, including completion of their multi-year commitment to working for the Government following graduation.
- (e) Description of the proposed metrics (initial and long term) for measuring the performance of the Naval Engineering Education Center in meeting its mission.
- (f) Information on the student recruitment and retention processes and policies.
- (g) Description of the NEEC's reporting methodologies, communication process with NEEC consortium members and performance review process.

- (h) Identification of the faculty members (full and part-time) along with their credentials, and their roles in the NEEC.
- (i) Details on the NEEC's use of the existing Department of Defense (DoD) Science, Mathematics And Research for Transformation (SMART) scholarship program (www.asee.org/fellowships/smart/).
- (j) Identification of the members of the consortium, and their role in the NEEC.
- (k) The graduation rates of students with majors in naval architecture and marine engineering, and ocean engineering at the bachelor, master and doctorate levels for the last five years. The graduation rates for these majors shall be provided for each consortium member proposed.
- (l) Information on the consortium's experience working on naval engineering developmental projects and research & development in naval engineering fields.
- (m) Information on the resources required to establish and operate the NEEC, including the use of Government facilities and personnel to accomplish the objectives.

2. The cost estimate section shall identify a total firm-fixed price associated with the NEEC, and include a breakdown of the price as follows:

- (a) Direct labor: Individual labor category or person with associated labor hours and unburdened direct labor rates
- (b) Indirect Costs: Fringe Benefits, Overhead, G&A, COM, etc (must reflect the indirect rate and base dollar amount)
- (c) Support Costs: These costs reflect all other direct costs which are not labor costs such as material, travel and computer usage. All support costs are non-fee bearing costs. A breakdown of the material and their associated costs must be provided, as well as the number of trips, number of days per trip, number of people that are covered under the proposed travel costs.
- (d) Subcontracts (Consortium Members): The proposal shall include subcontract cost data in the same level of detail as provided for the offeror. Any subcontracting costs shall be supported. The subcontractor's price proposal may be provided in a sealed envelope with the offeror's price/cost proposal or submitted under separate cover directly to the Government by the stated due date.

The proposal shall be typed single space pages and double spaces between paragraphs on 8-1/2" x 11" pages using Times New Roman Font at 12 point pitch for text. Drawings and diagrams are included within the total page count limit. An original copy of the proposal shall be submitted to the following address:

Naval Surface Warfare Center Carderock Division,
ATTN Doris Tung/Code 3353
5001 S. Broad St.
BLDG 4
Philadelphia, PA 19112-1403

An electronic copy of the proposal in PDF format shall also be submitted to the following email addresses:
Doris.tung@navy.mil; Jeffrey.j.hough@navy.mil

PROPOSAL EVALUATION CRITERIA

An evaluation plan has been established to evaluate offers pursuant to the factors set forth below and all offers received will be evaluated by a team of Government personnel in accordance with the plan. Award will be made to the offeror whose proposal is determined to represent the best value based on a tradeoff of technical factors and cost. The proposal submitted under this BAA will be evaluated based on the factors of Accreditation, Experience, Technical Capability, and Cost. The factors of Experience, Technical Capability and Cost are of equal importance. The factor of Accreditation will be evaluated on a Pass/Fail basis, and proposals that fail to meet the requirements under Accreditation will receive a rating of "Unacceptable" regardless of the adjectival ratings assigned under the other factors.

Under the factor of Accreditation, the proposed consortium members of the NEEC shall have existing Accreditation Board for Engineering and Technology (ABET) approved engineering degree programs at the bachelor, master and doctorate level. The proposed consortium members, as a whole, shall also have existing degree programs at the bachelor, master, and doctorate level in the following disciplines: naval architecture and marine engineering, ocean engineering with focus towards ship design, and mechanical engineering. Offerors that include Historically Black

Colleges and Universities, or Minority Serving Institutions [HBCU/MIs] in the consortium will receive a higher rating.

Under the factor of Experience, offerors will be evaluated on the ability to produce graduates in naval engineering at the bachelor, master and doctorate level. Offerors with higher graduation rates for students with degrees in naval architecture & marine engineering, and ocean engineering will receive a higher rating. Offerors will also be evaluated on the extent of their experience in naval engineering fields including recognitions (i.e. professional or other awards), publishing papers, working on ship design or other naval engineering teams, Office of Naval Research (ONR) research projects. Offerors with more recent experience will be rated more highly.

Under the factor of Technical Capability, offerors will be evaluated on the realism of its plan to establish the NEEC, its capability to operate the NEEC, its ability to achieve a graduation rate of 100 students per year, and its use of the SMART program. The plan will also be evaluated on whether it achieves all the objectives of the NEEC listed above. Offerors will be evaluated on the quality and content of the proposed curriculum and courses, and whether it covers the entire breadth of naval engineering disciplines and current state-of-the-art practices in naval engineering. More weight will be given to plans that cover more naval engineering disciplines. The plan must demonstrate that there is an effective approach to developing courses and curriculum, creating/operating/administering the NEEC, recruiting and retaining faculty and students, and utilizing resources. *Offerors who propose the use of a significant number of Government personnel as part of its resource plan will not be rated as highly. Offerors who propose the use of existing Government research facilities as part of its resource plan in lieu of proposing the development of new research facilities will be more highly rated. Offerors should provide a general plan as to what Government research facilities they propose to use. Offerors shall propose when and how Government personnel would be needed to achieve the objectives of the NEEC. Specific plans and specific approval are not required. Offerors should not directly contact the proposed Navy organizations to determine expressions of interest.*

Under the factor of Cost, the determination of the magnitude of the cost proposal will be based on the total of all proposed costs. A cost analysis will be performed to determine whether the proposed price is considered fair and reasonable.