



DEPARTMENT OF THE NAVY

NAVAL SURFACE WARFARE CENTER
DAHLGREN DIVISION
6149 WELSH ROAD, SUITE 203
DAHLGREN, VIRGINIA 22448-5117

IN REPLY REFER TO
CS10
N00178-13-R-4461
08 May 2013

**JUSTIFICATION AND APPROVAL
FOR OTHER THAN FULL AND OPEN COMPETITION**

JUSTIFICATION

1. Contracting Activity

The Naval Sea Systems Command, Naval Surface Warfare Center, Dahlgren Division, Contracts Division.

2. Description of the Action Being Approved

Award of a firm fixed priced contract on a sole source basis for Electron Tubes, Coaxial Magnetrons in order to fill frequency gaps and provide direct replacements in existing radar simulating transmitting systems from Communications and Power Industries, LLC located in Beverly, MA.

3. Description of Supplies/Services

Communications and Power Industries, LLC will be providing four (4) magnetron electron tubes, one each of VML2032, VMS1197B, VMU1379, and VMS2071. The required delivery date is six (6) months from manufacture.

The Government's minimum needs have been verified by the certifying technical and requirements personnel.

The estimated value of this acquisition is _____ Funding will be provided as follows:

TYPE	Y1	Y2	TOTAL
Total			

4. Statutory Authority Permitting Other Than Full and Open Competition

10 U.S.C. 2304(c)(1) - Only one responsible source and no other supplies or services will satisfy agency requirements.

5. Rationale Justifying Use of Cited Statutory Authority

The Electromagnetic Effects Division (Q50) has been providing electromagnetic (EM) mission assurance for over 50 years and provides a full-spectrum of services to meet the global electromagnetic challenges that face our Navy and nation. Q50 is leading the Navy in E³ test and evaluation, and the Hazards of Electromagnetic Radiation to Ordnance (HERO) System Certification Group performs test and evaluation of ordnance systems in complex EM environments (EME) worldwide to determine compliance with applicable E³ and safety standards, identifies and incorporates engineering solutions, and establishes administrative controls for weapon systems to preclude HERO. Q50 is responsible for providing the test EMEs, which simulate operational tactical EMEs, that a system is expected to encounter during its cradle-to-grave mission.

Electron Tube, Coaxial Magnetrons (magnetrons) are a critical part of the E³ test and evaluation testing process, as defined in MIL-STD-464C, as they are used in radar systems which can be found aboard all Navy ships. Q50 uses these radar system magnetrons to generate Radio Frequency (RF) energy. During HERO and EMV testing this RF energy is used to radiate weapon systems to simulate shipboard EMEs. The magnetrons are required for Q50 to be able to utilize the high-power radar environment, covering the 1.0 - 18.0 GHz frequency bands. The requested magnetrons will fill frequency gaps and provide replacements needs to the MIL-STD-464C test environment.

These magnetron tubes are direct replacements in existing radar simulating transmitting systems. The magnetrons have a unique design and are built to exact specifications, physically and electrically. Because of this, they are very expensive to build. They must be manufactured to the same exact size to fit into their current configuration.

Communications and Power Industries LLC is the OEM for these replacement magnetrons. They possess the proprietary design drawings, manufacturing setup and processes, and integration/test procedures necessary to produce these items. Only an exact match will satisfy the unique specifications for configuration compatibility.

Extensive Market research was conducted on-line and over the phone with other manufacturers, distributors, and dealers of magnetrons and no other manufacturer makes a similar compatible version. New versions would require the current transmitting systems to be modified physically to except the different version of the electron tube and would require different

electrical components necessitating a change or redesign of the voltage supplies. Additional Non-Recurring Engineering fees would be assessed resulting in the estimated additional cost of \$250,000 to \$400,000 per magnetron. Incidentally, the time to produce each magnetron would range from one to three years depending on model.

6. Description of Efforts Made to Solicit Offers from as Many Offerors as Practicable

This Justification and Approval document will be posted alongside the Combined Synopsis/Solicitation document on FEDBIZOPPS and NECO for a total of thirty (30) days. All responsible sources may submit a capability statement, proposal, or quotation which shall be considered by the agency.

7. Determination of Fair and Reasonable Costs

The Contracting Officer has determined that the anticipated cost to the Government for the equipment covered by the J&A will be fair and reasonable.

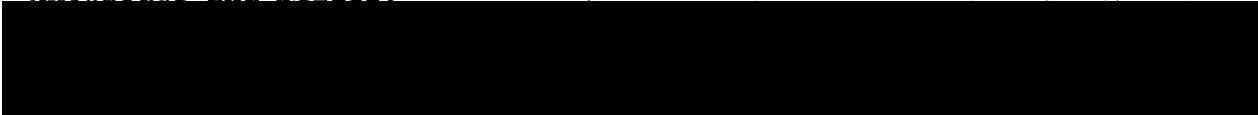
8. Actions to Remove Barriers to Competition

If the magnetrons are required to be purchased again in the future, new market research will be conducted. Magnetron manufacturers, distributors, and suppliers will be contacted in an effort to purchase under a competitive contract. If another potential source emerges, Dahlgren Contract Division will assess whether competition for future requirements is feasible.

CERTIFICATIONS AND APPROVAL

TECHNICAL/REQUIREMENTS CERTIFICATION (FAR 6.303-2(b))

I certify that the facts and representations under my cognizance, which are included in this justification and its supporting data, are complete and accurate to the best of my knowledge and belief.



LEGAL SUFFICIENCY REVIEW (NMCARS 5206.303(90))

I have determined this justification is legally sufficient.



CONTRACTING OFFICER CERTIFICATION (FAR 6.303-2(a) (12))

I certify that this justification is accurate and complete to the best of my knowledge and belief.



APPROVAL BLOCK (FAR 6.304 for Approval Official)

Upon the basis of the above justification, I hereby approve, as Competition Advocate for the Contracting Activity the solicitation of the proposed procurement described herein using other than full and open competition, pursuant to the authority of 10 U.S.C. 2304 (c) (1).



Competition Advocate CD1TP Phone No. Date

5/22/13