BROAD AGENCY ANNOUNCEMENT

FA9451-22-S-0001
Air Force Research Laboratory
Directed Energy Directorate

ANNOUNCEMENT OVERVIEW

21 December 2021

NAICS CODE: 541715 – Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology). The NAICS small business size standard is 1000 employees, please refer to www.sba.gov for any changes.

FEDERAL AGENCY NAME: Air Force Research Laboratory Directed Energy Directorate (AFRL/RD)

BROAD AGENCY ANNOUNCEMENT TITLE: High Power Electromagnetics (HPEM) Modeling and Effects

BROAD AGENCY ANNOUNCEMENT TYPE: This is the initial announcement of a Closed Broad Agency Announcement (BAA) with CALLs. This BAA will remain open for a period of five (5) years from the date of publication.

PROPOSAL DUE DATE AND TIME: NO PROPOSALS SHALL BE SUBMITTED AGAINST THIS BASELINE BAA. Proposal due dates and times will be specified in each CALL. Proposals received after the due date and time specified in the Call shall be governed by the provisions of Federal Acquisition Regulation (FAR) 52.215-1(c)(3). Proposals shall be submitted via the DoD SAFE website. If the offeror does not have a Common Access Card (CAC), the offeror shall email the Contracting Points of Contact to request a "drop off" link to the DoD SAFE website. The offeror shall then use this link to "drop off" their proposal. Offerors are required to email the Contracting Points of Contact to request the link with enough time to upload the proposal by the stated date and time. Proposals received after the stated date and time as a result of security delays or delays in requesting the DoD SAFE link will be considered "late." Early proposal submission is encouraged. This BAA will be reviewed no less frequently than annually and updates will be published in SAM.gov. Any changes or cancellation of the BAA will be posted as amendments to this BAA. An annual review and any subsequent amendments to the BAA shall meet the requirement of FAR 35.016.

BRIEF PROGRAM SUMMARY: This is a five (5) year Closed One-Step BAA with CALLs that will be utilized to solicit proposals for the Air Force Research Laboratory (AFRL), Directed Energy Directorate (DE), High Power Electromagnetic Division (RDH), for research areas of interest for High Power Electromagnetics (HPEM) Modeling and Effects. This closed BAA approach allows for proposal submission at a specified date and time, which will be posted through the issuance of CALLs at various times against this BAA. As requirements within the technical topic areas are identified, CALLs will be issued in SAM.gov to request proposals for specific research efforts. Multiple subsequent CALLs are anticipated and may be announced sequentially or concurrently in SAM.gov. CALLs will be issued unrestricted. The Government reserves the right to re-issue previously announced CALL areas with a second, subsequent submittal period. The Government also reserves the right to issue no CALLs for any given technology area.

GENERAL INFORMATION: This acquisition is **UNRESTRICTED**. Small businesses are encouraged to propose. This BAA is issued under the provisions of FAR 6.102(d)(2) that provides for the

competitive selection of research proposals. Proposals submitted in response to any CALL issued under this BAA and are selected for award are considered to be the result of full and open competition and in full compliance with the provisions of Public Law 98-369, the Competition in Contracting Act of 1984.

Offerors MUST monitor SAM.gov (https://www.sam.gov/content/home) in the event this announcement is amended and for the posting of CALLs.

CALLs: A CALL is a required posting, issued through SAM.gov (https://sam.gov/content/home) citing a specific/targeted response and/or proposal for specific research efforts. A CALL will contain a specific description of the research effort to be addressed, the anticipated period of performance, and any other information particular to the specific requested effort. CALLs are published independently at various times during the open period of the BAA.

SYSTEM FOR AWARD MANAGEMENT REGISTRATION: FAR 52.204-7 System for Award Management (SAM) (OCT 2018) and FAR 52.204-8 Annual Representations and Certifications (NOV 2021) are hereby incorporated into and will be made a part of any award(s) based on this BAA. If potential offerors are notified to be eligible for an award, they must be registered in SAM and submit annual electronic Representations and Certifications via the System for Award Management (SAM) website at https://sam.gov/content/home. These FAR and Defense Federal Acquisition Regulation Supplement (DFARS) level representations and certifications are required in addition to the representations and certifications that will be attached to each CALL. Before submitting the Electronic Representations and Certifications, offerors must be registered in the System for Award Management (SAM) Database. By submission of an offer, the offeror acknowledges the requirement that a prospective awardee shall be registered in the SAM database prior to award, during performance, and through final payment of the contract.

TYPE OF CONTRACTS: The Government anticipates that a mix of contract types will be used throughout the life of this BAA. Generally, awards under this BAA may be Cost-Plus-Fixed-Fee (Completion and Term), Cost Contract, and Firm Fixed Price. No opportunities for other transactions, or assistance instruments, including grants, cooperative agreements, or technology investment agreements exist under this announcement.

Cost type contracts will require successful Offerors to have an accounting system deemed adequate by Defense Contract Audit Agency (DCAA) for tracking costs under a cost reimbursable contract (DFARS 242.75). If an Offeror does NOT have a DCAA approved accounting system, a Cost Plus Fixed Fee or Cost Contract cannot be awarded.

ANTICIPATED NUMBER OF AWARDS: The Air Force anticipates awarding a minimum of one contract per specific CALL. However, the Air Force does reserve the right to make multiple awards or no awards pursuant to a CALL.

Technical Point of Contact: afrl.rdh.acquisitionsmailbox@us.af.mil

Contracting Point of Contacts:

Contract Specialist: Mr. Adan Dominguez, AFRL/RDKP,
Email: adan.dominguez.2@us.af.mil
Contracting Officer: Mr. Julian Landavazo, AFRL/RDKP,
Email: julian.landavazo@us.af.mil
Each Call will include specific Contracting Points of Contact

BROAD AGENCY ANNOUNCEMENT

FA9451-22-S-0001
Air Force Research Laboratory
Directed Energy Directorate

FULL TEXT ANNOUNCEMENT

21 December 2021

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I. PROGRAM DESCRIPTION

a. Overview: The Air Force Research Laboratory (AFRL), Directed Energy Directorate (RD), High-Powered Electromagnetics Division (RDH), located at Kirtland AFB, is the Air Force's Center of Excellence for research in High-Powered Electro-Magnetic (HPEM) technology and functions as the Air Force Material Command's (AFMC) center for HPEM technology development, acquisition, transformation, and support. AFRL/RDH is composed of highly specialized research facilities and HPEM scientists and engineers that work in close partnership with the Air Force (AF), Department of Defense (DoD), and industry to provide innovative technologies. The Air Force Research Laboratory (AFRL), Directed Energy Directorate's (RD), High-Power Electromagnetics Division (RDH) is interested in innovative and varying approaches to advance the state-of-the-art and scientific knowledge under the HPEM Modeling and Effects Program.

The mission of the HPEM Effects Program is to characterize the effectiveness of

potential HPEM weapons systems by developing and running effectiveness tools and generating vulnerability data to feed those tools. The vulnerability data consists of Probability of Effect (Pe) curves for electronic systems when subjected to an HPEM waveform that results in disruption to or failure of normal operation of the systems. In addition, the HPEM Effects Program investigates the fundamental mechanisms resulting in these disruptions or failures, in order to predict and model the effects.

The mission of the HPEM Numerical Simulations Program is to develop, improve, and utilize the world-class simulation tools within RDH, which enable the effective development and analysis of modern HPEM systems.

b. CALLs: This five (5) year Closed BAA approach allows for submittals at a specified date and time, which will be posted through the issuance of CALLs at various times against this BAA. Periodically over the 5-year period (calculated from the baseline BAA publication date), CALLs under the BAA will be issued in SAM.gov to request proposals for specific research efforts as requirements within the technical areas identified. These subsequent CALLs will contain specific descriptions of the research effort to be addressed, anticipated period of performance, information pertaining to the specific research technical area, and the estimated funding profile for the CALL. Each CALL will specify a due date and time. Submittals received after the stated due date and time will be governed by FAR 52.215-1(c)(3). Multiple subsequent CALLs are anticipated and may be announced sequentially or concurrently in SAM.gov. CALLs will be issued unrestricted. The Government reserves the right to re-issue previously announced CALL areas with a second, subsequent submittal period. The Government also reserves the right to issue no CALLs for any given technology area.

c. Topic Areas: The HPEM Modeling and Effects BAA encompasses fourteen (14) technical areas which may be used in any combination per CALL. These technical areas are as follows:

Effects Program

- **i.** Empirical effects testing
- **ii.** HPEM weapons effectiveness modelling
- **iii.** Fundamental HPEM Effects Research
- **iv.** Battle damage assessment and recuperation time
- **v.** Emerging technologies, including but not limited to HPEM sources, diagnostics, and sensors
- **vi.** Development of evaluation tools for Effects databases

Numerical Simulation Program

- **vii.** Development of simulation codes for HPEM systems and components modeling
- **viii.** Use of codes in development and optimization of HPEM systems and components
- **ix.** Development of simplified high performance computing and analysis tools
- **x.** Digital Engineering of HPEM systems and components
- **xi.** Multi-scale materials modelling
- **xii.** Development of HPEM Engagement level codes
- **xiii.** Engagement and mission level modeling of HPEM systems
- **xiv.** Validation/verification of all software

d. **Deliverable Items:** Hardware, software, or data will be identified at the CALL level. The following Contract Data Requirements List's (CDRL) are representative of the types that may be required (Attachment 2):

i. CDRL A001 - Presentation Materials
ii. CDRL A002 - Status Report
iii. CDRL A003 - Contract Funds Status Report (CFSR)
iv. CDRL A004 - Government Property Inventory Report
v. CDRL A005 - Technical Report – Study/Services
vi. CDRL A006 - Scientific and Technical Report (S&T)
vii. CDRL A007 - Software Development Plan
viii. CDRL A008 - Software User's Manual
ix. CDRL A009 - Computer Software Product
x. CDRL A010 - Developmental Design Drawing and Associated Lists
xi. CDRL A011 - Test Plan
xii. CDRL A012 - Operations and Maintenance Instructions for R&D Equipment
xiii. CDRL A013 - System Safety Hazard Analysis Report (SSHAR)
xiv. CDRL A014 - Safety Assessment Report (SAR)
xv. CDRL A015 - Programmatic Environmental Safety and Health Evaluation Plan (PESHE)
xvi. CDRL A016 - Interface Control Document (ICD)

Data deliverables are subject to negotiations on each individual CALL.

e. **Schedule:** The period of performance will be stated in the CALL.

f. **Organizational Conflict of Interest (OCI):** OCI may apply to individual efforts, but cannot be determined at the issue of this announcement. ***If applicable, OCI concerns will be addressed at the Call level.*** Any OCI issues and the need for applicable clauses will be resolved prior to the award of any contract.

g. **System for Award Management (SAM):** Unless exempted by 2 CFR 25.110 all offerors must (1) Be registered in the System for Award Management (SAM) prior to submitting an application (for an award) or proposal; (2) Maintain an active SAM registration with current information at all times during which it has an active Federal award or an application or proposal under consideration by an agency; and (3) Provide its DUNS number in each application or proposal it submits to the agency. On-line registration instructions can be accessed from the SAM home page at https://www.sam.gov/content/home

Potential offerors that are notified to be eligible for an award must submit annual Electronic Representations and Certifications via the System for Award Management (SAM) website at https://www.sam.gov/content/home. These FAR and DFARS level representations and certifications are required in addition to the representations and certifications that will be attached to each CALL. Before submitting the Electronic Representations and Certifications, contractors must be registered in the Systems for Award Management (SAM) Database.

II. AWARD INFORMATION

a. Anticipated Funding: Anticipated funding for the program (not per contract or award):

FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31
$5.7M	$7.7M	$8.0M	$6.8M	$6.9M	$6.9M	$6.7M	$5.4M	$3.8M	$2.3M

The estimated ceiling for this BAA is $80M. This funding profile is an estimate only and not a contractual obligation for funding. All funding is subject to change due to Government discretion and availability. Potential offerors should be aware that due to unanticipated budget fluctuations funding in any or all areas may change with little or no notice.

b. Anticipated Number of Awards: The Air Force anticipates awarding a minimum of one contract per specific CALL. However, the Air Force does reserve the right to make multiple awards or no awards pursuant to a CALL.

c. Anticipated Period of Performance: The period of performance will be determined for each contract award based on the requirements of the effort.

d. Cost Sharing or Matching: The Government is not considering a cost sharing or matching arrangement.

e. This announcement and all associated CALLs are an expression of interest only and do not commit the Government to pay for proposal preparation cost. The cost of preparing a proposal in response to a CALL is not considered an allowable direct charge to any resulting contract or to any other contract. It may however, be an allowable indirect expense as specified in FAR 31.205-18 Independent Research and Development and Bid and Proposal Costs.

III. ELIGIBILITY INFORMATION

a. Eligible Offeror/Applicants: This acquisition is unrestricted. All responsible sources capable of satisfying the Government's needs are encouraged to submit a proposal. All responsible sources capable of satisfying the Government's needs may submit a proposal. Small Businesses, Historically Black Colleges (HBCU), Minority Institutions (MI), Small Disadvantaged Businesses (SDB), Woman-Owned Small Businesses (WOSB), and Service- Disabled Veteran-Owned Businesses (SDVOB) are encouraged to submit proposals; however, no part of this BAA is a set-aside.

b. Federally Funded Research and Development Centers: The following guidance is provided for Federally Funded Research and Development Centers (FFRDCs) contemplating submitting a proposal, as either a prime or subcontractor, in response to a CALL against this BAA. FAR 35.017-1(c)(4) prohibits an FFRDC from competing with any non-FFRDC concern in response to a federal agency request for proposal for other than the operation of an FFRDC (with exceptions stated in DFARS 235.017-1(c)(4)). There is no regulation prohibiting an FFRDC from responding to a solicitation. However, the FFRDC's sponsoring agency must first make a determination that the effort being proposed falls within the purpose, mission, general scope of effort, or special competency of the FFRDC, and that

determination must be included in the FFRDC's proposal. In addition, the non-sponsoring agency must make a determination that the work proposed would not place the FFRDC in direct competition with domestic private industry. Only after these determinations are made would a determination be made concerning the FFRDC's eligibility to receive an award.

c. **Government Agencies:** If a government agency is interested in performing work, please contact the Program Office identified in the CALL. If those discussions result in a mutual interest to pursue your agency's participation, the effort will be pursued independent of this broad agency announcement.

d. **Security Classification:** Depending on the work to be performed, the Offeror may require a classified facility clearance and safeguarding capability; therefore, personnel identified must be cleared for access to information at the equivalent level of security at the time of award. In addition, the Offeror may be required to have, or access to, a certified and Government-approved facility to support work under a CALL. If a DD Form 254 is applicable, it will be specified in the individual CALL with the applicable FAR clause. Offerors must verify their Cognizant Security Office information is current with Defense Security Service (DSS) at www.dss.mil.

   CALLs are anticipated to be unclassified. For CALLs requiring access to classified information, offerors must have a valid U.S. security clearance of SECRET or higher in order to respond to the CALLs because the CALLs may include information classified at the SECRET or higher level which will be released only to offerors possessing the appropriate clearance. All classified material will be handled in accordance with E.O. 13526, National Industrial Security Program Operating Manual (NISPOM) DoD 5220.22-M, DoDM Industrial Security Program 5200.01 Volume 1 through 4, and AFI 16-1406.

e. **Foreign Participation:** Foreign participation is not authorized.

   AFRL Policy on Employment of Non-US Citizen Contractors applies to this BAA. Contractor employees requiring access to USAF bases, AFRL facilities, and/or access to U.S. Government Information Technology networks in connection with the work awarded from this solicitation must be U.S. citizens. Possession of a permanent resident card ("Green Card") does not equate to U.S. citizenship. This requirement does not apply to foreign nationals approved by the U.S. Department of Defense or U.S. State Department under international personnel exchange agreements with foreign governments. Any waivers to this requirement must be granted in writing by the Contracting Officer prior to providing access. The above requirements are in addition to any other contract requirements related to obtaining a Common Access Card (CAC).

   This acquisition involves data that are subject to export control laws and regulations. Only contractors who are registered and certified with the Defense Logistics Services Center (DLSC) and have a legitimate business purpose may participate in this solicitation. Contact the Defense Logistics Services Center, 74 Washington Avenue N., Battle Creek, Michigan 40937-3084 (1-877-352-2255) for further information on the certification process. You must submit a copy of your approved DD Form 2345, Militarily Critical Technical Data Agreement, with your proposal.

f. Export Control DD Form 2345 (Militarily Critical Technical Data Agreement): Information involved in this research effort is subject to U.S. Export Control laws (International Traffic in Arms Regulation (ITAR) 22 CFR 120-131 or Export Administration Regulations (EAR) 15 CFR 710-774). Foreign participation is prohibited at the prime contractor level. U.S.-based offerors must disclose any proposed use of foreign nationals (FNs), their country(ies) of origin, the type of visa or work permit possessed, and the statement of work tasks intended for accomplishment by the FN(s). Offerors are advised FNs proposed to perform may be restricted under U.S. Export Control Laws due to the nature of the technical data.

Only offerors who are registered and certified with the Defense Logistics Services Center (DLSC) and have a legitimate business purpose may participate in this BAA. For further information on the certification process, contact the DLSC at 74 Washington Avenue N., Battle Creek, MI 40917-3084, 1-800-352-3572. For questions, contact the Defense Logistics Information Service (DLIS) on-line at http://www.dlis.dla.mil/jcp or at DLIS, US/Canada Joint Certification Center, Federal Center, 74 North Washington, Battle Creek, MI 49017-4312, 1-800-352-3572. Defense Federal Acquisition Regulation Supplement (DFARS) 252.225-7048 Export Controlled Items (JUN 2013) is hereby incorporated into and will be made a part of any award(s) based on this BAA. Offerors are required to submit a Certified DD Form 2345, Militarily Critical Technical Data Agreement, in the Business Volume of the proposal.

IV. COMMUNICATIONS

a. The acquisition team intends to manage communications in a manner best designed to facilitate the submittal of optimal proposals while not providing any unfair competitive advantages.

b. Dialogue between prospective offerors and Government representatives is encouraged until submission of proposals. Questions must be submitted in writing to the Technical and Contracting Points of Contact. The deadline for submitting questions will be specified at each CALL. Any answers from questions submitted by prospective offerors will be posted to SAM.gov. Dialogue with any of the points of contact shall not constitute a commitment by the Government to subsequently fund or award any proposed effort. Any dialogue that takes place will not be taken into consideration during the evaluation of proposals. Only Contracting Officers are legally authorized to commit the Government.

c. After proposal receipt, all communication will be in writing to the contracting office. Only the Contracting Officer or Contract Specialist will discuss pricing and/or contractual issues.

d. The Government may contact offerors to clarify certain aspects of the proposal. In the event the Government is unable to conclude negotiations with the apparent successful offeror, it reserves the right to conduct negotiations with another acceptable offeror.

V. OTHER:

a. Government Furnished Property (GFP)/Government Furnished Information (GFI)/Contractor Acquired Property (CAP):

i. Government Furnished Property (GFP): Any scheduled GFP will be specified on each individual CALL.

ii. The Government will provide maximum accommodation possible for requests of GFP, GFI or other permitted assistance that arise during the performance of the contract. In accordance with FAR 45.201(b), the contractor is responsible for all costs related to making the property available for use, such as payment of all transportation, installation or rehabilitation costs.

iii. In accordance with FAR 45.201(c), if GFP is requested, offerors shall submit the following information with their offer:

1. A list or description of all Government property that the offeror or its subcontractors propose to use on a rent-free, non-interference basis. The list shall identify the accountable contract under which the property is held and the authorization for its use (from the Contracting Officer having cognizance of the property);

2. The dates during which the property will be available for use (including the first, last, and all intervening months) and, for any property that will be used concurrently in performing two or more contracts, the amounts of the respective uses in sufficient detail to support prorating the rent;

3. The amount of rent that would otherwise be charged in accordance with FAR 52.245-9 Use and Charges (APR 2012); and

4. A description of the offeror's property management system, plan, and any customary commercial practices, voluntary consensus standards, or industry-leading practices and standards to be used by the offeror managing Government property.

iv. Contractor Acquired Property (CAP): The offeror may propose CAP as necessary to fulfill the proposed objectives. Offerors should be aware that the Government will cross-check any CAP proposed with AFRL/RVOI/LMCA for availability.

v. **Clauses:** The following clauses will be incorporated into any contract(s) resulting from this BAA: FAR 52.245-1 Government Property (SEP 2021) or Alternate I (APR 2012), FAR 52.245-9 Use and Charges (APR 2012), DFARS 252.211.7007 Reporting of Government-Furnished Property (AUG 2012), DFARS 252.245-7001 Tagging, Labeling, and Marking of Government-Furnished Property (APR 2012), DFARS 252.245-7002 Reporting Loss of Government Property (JAN 2021), DFARS 252.245-7003 Contractor Property Management System Administration (APR 2012), DFARS 252.245-7004 Reporting, Reutilization, and Disposal (DEVIATION 2022-O0006)(NOV 2021).

b. **Base Support/Network Access:** Base support/Network Access may be provided under any resulting contract and will be specified in the individual CALL.

c. **Data Rights:** The Air Force Research Laboratory is engaged in the discovery, development, and integration of warfighting technologies for our air, space, and cyberspace forces. As such, rights in technical data and Non-Commercial Software (NCS) developed or delivered under this contract are of significant concern to the Government. The Government will therefore carefully consider any restrictions on the use of technical data, NCS, and NCS documentation which could result in transition difficulty or less-than full and open competition for subsequent development of this technology.

Per DFARS 227.7103-1, DoD policy is to acquire only the technical data and the rights in that data, necessary to satisfy Government needs. Technical data, NCS and NCS documentation developed with mixed funding are expected to be delivered with at least Government Purpose Rights. Offerors that propose delivery of technical data, NCS, or NCS documentation subject to Government Purpose Rights should fully explain what technical data, NCS, or NCS documentation developed with costs charged to indirect cost pools and/or costs not allocated to a government contract will be incorporated, how the incorporation will benefit the project, and address whether those portions or processes are segregable.

Offerors that propose delivery of technical data, NCS, or NCS documentation subject to Limited Rights, Restricted Rights, or Specifically Negotiated License Rights will be considered. Proposals should fully explain what technical data, NCS, or NCS documentation developed with costs charged to indirect cost pools and/or costs not allocated to a government contract will be incorporated and how the incorporation will benefit the project.

Offerors are reminded that completion of DFARS 252.227-7017 Identification and Assertion of Restrictions on the Government's Use, Release or Disclosure of Technical Data or Computer Software is required under DFARS 252.227-7013 Rights in Technical Data - Noncommercial Items (FEB 2014) and DFARS 252.227-7014 Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation (FEB 2014). Data rights offered other than "Unlimited Rights," as defined in DFARS 227.7103-5, should be identified in DFARS 252.227-7017 (refer to Page K-26 of the Section K, included as Attachment 4 to this BAA). If no data rights are being asserted state "none" in the assertions. Assertions must be completed at the Task Order level with specificity with regard to each item, component or process listed. Nonconforming assertions lists will be rejected.

DFARS clause 252.227-7014(d) describes requirements for incorporation of third-party computer software (commercial and noncommercial). Any commercial software to be incorporated into a deliverable must be clearly identified in the proposal. Many commercial software licenses may not be acceptable to the Government, therefore commercial software licenses proposed for delivery to the Government must be approved by the Contracting Officer prior to award.

The terms Unlimited Rights, Government Purpose Rights, Specifically Negotiated License Rights, and Limited Rights in technical data are as defined in DFARS 252.227-7013. The terms Unlimited Rights, Government Purpose Rights, Specifically Negotiated License Rights, and Restricted Rights in noncommercial computer software and noncommercial software documentation are as defined in DFARS 252.227-7014. The term Commercial Computer Software is as defined in DFARS clause 252.227-7014.

Data Rights Desired:

Technical Data: Government Purpose Rights or Unlimited Rights

Non-Commercial Software (NCS): Government Purpose Rights or Unlimited Rights

NCS Documentation: Government Purpose Rights or Unlimited Rights

Commercial Computer Software Rights: Customary License, etc.

In exchange for paying for development of the data, the Government expects technical data, NCS, and NCS documentation developed entirely at Government expense to be delivered with Unlimited Rights.

The Government expects that delivery of technical data, NCS, and NCS documentation subject to Government Purpose Rights will fully meet program needs.

VI. PROPOSAL APPLICATION AND SUBMISSION INFORMATION

a. Application Package: NO PROPOSALS SHALL BE SUBMITTED AGAINST THIS BASELINE BAA. Only one proposal per offeror will be accepted for each CALL.

When a one-step process is utilized by the Government, proposals submitted in response to CALLs should be submitted in accordance with this BAA announcement and CALL instructions. The Government reserves the right to select all, part, or none of the proposals received in response to a CALL, subject to the availability of funds and without negotiation/discussion; however, the Government reserves the right to negotiate with those offeror(s) whose proposal is selected for funding.

Offerors should monitor SAM.gov regularly for any BAA and/or CALL amendments that may permit extensions to the proposal submission date or make other changes. Offerors are advised that only contracting officers are legally authorized to contractually bind or otherwise commit the Government.

This announcement and all associated Calls are an expression of interest only and do not commit the Government to pay for proposal preparation cost. The cost of preparing a response to CALLs issued under this BAA are not considered an allowable direct charge to any resulting or any other contract; however, it may be an allowable expense to the normal bid and proposal indirect costs as specified in FAR 31.205-18.

DO NOT SUBMIT CLASSIFIED INFORMATION IN THE PROPOSAL. IF NECESSARY, CLASSIFIED MATERIAL SHALL BE SUBMITTED AS A SEPARATE ADDENDUM. SPECIFIC INSTRUCTIONS FOR SUBMITTING A CLASSIFIED ADDENDUM, UP TO SECRET, WILL NEED TO BE COORDINATED AND ARRANGED WITH THE TECHNICAL POCs FOR EACH CALL PRIOR TO SUBMISSION

b. Content and Form of Submission for Proposal: The following paragraphs identify proposal format and content. Proposals should be delivered as specified in the CALL.

i. General Instructions Proposals: Offerors should apply the restrictive notice prescribed in the provisions of FAR 52.215-1(e) Instructions to Offerors—Competitive Acquisition (NOV 2021). Properly marked proprietary information will be treated in accordance with DFARS Clause 252.227-7016 Rights in Bid or Proposal Information (JAN 2011).

ii. Technical and cost/business volumes should be submitted in separate volumes and must be valid for 180 days from proposal due date identified in the CALL. Proposals must reference the BAA announcement number **FA9451-22-S-0001**, CALL number, and relevant research topic area(s).

iii. Cover Letter: A cover letter shall accompany each proposal. The cover letter should identify the BAA and CALL number under which the proposal is submitted, a statement that the proposal is valid for 180 days (from the due date specified in the CALL), provide technical and contracting points of contact, Commercial and Government Entity (CAGE) codes (Prime and proposed subcontractors), Data Universal Numbering System (DUNS) number, and a statement indicating if the firm is a small business, veteran-owned small business, service-disabled veteran- owned small business, HUBZone small business, small disadvantaged business, 8(a), or women-owned small business concern. The proposal must be signed and dated by an authorized official of the organization.

iv. Proposal Format:

1. Proposal shall be prepared and submitted in Microsoft Word or Adobe Acrobat (PDF) format.

2. Pages shall be single-spaced, 8.5 by 11 inches, with at least one-inch margins on all sides. Pages shall be numbered starting with the cover page being page 1.

3. Font – Legible font in the Sans Serif family (such as Calibri or Arial) 11+ point font or equivalent, to include tables, diagrams, and charts. Any other information (e.g., captions, restrictive markings) shall not be smaller than Calibri 10-point font or equivalent.

4. Character spacing must be "normal," not condensed in any manner.

5. All text, including text in tables and charts, must adhere to all font size and line spacing requirements listed herein.

6. **Technical Volume**:

    a. Contain a Technical Proposal and a Contractor's Statement of Work (CSOW).

    b. The Technical Proposal shall be limited to thirty (30) pages unless otherwise stated in the CALL. The page limitation covers all information including indices, photographs, tables, charts, appendices, attachments, blank pages, title pages, tables of content, lists, tabs or cover sheets. Resumes **are not included** in the page count.

    c. The CSOW **does not count** against the page limit.

    d. The Government will check the Technical Volume for conformance to the stated requirements. Any pages in excess of the stated page limitations will not be considered for evaluation purposes.

7. Cost/Business proposals have no page limitations; however, offerors are requested to keep cost proposals under 100 pages as a goal (Cost breakouts should be submitted in Microsoft Excel with the formulas).

v. **Technical Volume:**

1. **Technical Proposal Content:** Each Technical Proposal shall include a discussion of the nature and scope of the research and the technical approach. Each Technical Proposal must address the problems or limitations of the technical area and the intended application(s). Each Technical Proposal shall include (at a minimum) the following items:

    a. **Executive Summary:** Describe the proposed program objectives and approach. A description of the innovation and benefits of the proposed approach and relationship to previous efforts should be discussed. It should summarize the technical issues addressed by the offeror's proposal without repeating the objectives. This should provide a vision of what will ultimately be achieved and what solution this effort will produce.

b. **Program Description:** Describe the techniques, methods, materials, or ideas that will be addressed in the proposal, their innovativeness, and to what degree they advance the state-of-the-art. The Program Description should convey to the Government that the offeror has a credible plan and can achieve the SOO(s).

c. **Program Plan:** Describe in detail the planned approach and how it will be executed. This section should include all technical aspects of the approach. Provide technical detail and analysis necessary to support the technical approach proposed. Clearly identify the core of the intended approach. The “new and creative” solution to the problem(s) should be developed and analyzed in this section. Include a risk assessment of key technical, schedule or cost areas and their potential impact on the program. If subcontractors are involved, identify why the proposed subcontractors are selected and what tasks they are to perform.

d. **Milestone Chart:** A Milestone Chart should indicate when specific objectives are expected to be met in the overall schedule and should identify the specific accomplishments necessary to proceed to the next task. Provide a schedule of when deliverable items identified in each CALL are to be delivered.

e. **Facilities and Equipment description:** Describe the facilities that will be used to achieve the goals of the program, in terms of manufacturing capability, testing facilities, and/or any relevant specialized equipment. Identify any Government facilities which may be utilized.

f. **Summary of Relevant Prior Work:** Provide a brief summary of the results of related previous or current Government, commercial, or internally funded work performed during the past five (5) years.

g. **Management Plan:** Offerors should provide an approach that demonstrates the ability to effectively and efficiently manage and administer the research program to a successful conclusion, to include:

    i. Schedule, cost, and risk management approach
    ii. Subcontractor management and quality control
    iii. Safety
    iv. Security
    v. Proposed level of interaction with the Government Team

h. Resumes of Key Individuals: Include resumes for all proposed key personnel, consultants or subcontractors. Include the full time equivalent (FTE) percent (%) of their time commitment to this effort. Although determined at the CALL level, suggested key personnel are: Program Manager, Principal Investigators, Senior Engineers and additional individuals deemed key to the successful execution of the proposed work per task. Provide position descriptions for any positions not filled at the time of proposal submittal. Resumes can be attached to the Technical Volume, are limited to one (1) page each, and **DO NOT** count toward the Technical Volume page limit.

2. Contractor's Statement of Work (CSOW):

a. Each CSOW (non-proprietary, stand-alone document) should detail the research to be accomplished under each CALL and should be suitable for incorporation into the awarded document. **Do not include any proprietary information in the CSOW.** Each proposed CSOW should summarize the technical methodology and the task description, but not to the extent making the awarded instrument inflexible. Each CSOW should address/include:

i. The anticipated deliverables (data and reports, hardware, software, etc.) and submission dates
ii. The Supplemental Requirements included as Attachment 1 to this BAA

For additional assistance in preparing the CSOWs, refer to the following guidance (paragraphs b. - d. below) and the "Guide to Preparing Contractor Statements of Work" included as Attachment 3 to this BAA.

b. The SOO at each CALL will provide the Government's objectives. Offerors shall use the SOO, together with other applicable portions of this BAA and CALL (including all attachments), as the basis for preparing their proposals. Offerors shall ensure all aspects of the SOO are addressed. The CSOWs should specify in clear, understandable terms the work to be done or services to be performed by the contractor.

c. Preparation of an effective CSOW requires both an understanding of the work to be done that is needed to meet a particular objective and an ability to define what is necessary in specific, performance based and quantitative terms. The offeror's understanding of the work required to accomplish the objectives should be fully demonstrated in the offeror's proposal.

d. The data deliverables listed in the SOO are representative of the type of data that is necessary for the effort. The offeror may propose additional data items. Any additional data items shall be selected from DoD 5010.12- M and specified on DD Form 1423. The Contract Data Requirements List (CDRL), DD Form 1423, A001-A016 is included as Attachment 2 to this BAA.

3. Any questions concerning the technical proposal or CSOW preparation shall be referred to the Technical POC cited in Section IX.

vi. Business/Cost Volume:

1. The Cost Section shall be submitted in accordance with the applicable Cost Proposal Instructions (provided with the Call). Determination of Adequate Price Competition (APC) will be made at the Call level. Should the Contracting Officer determine APC does not exist; certified cost and pricing data will be required in accordance with FAR 15.403-4 Requiring Certified Cost or Pricing Data. The Cost Section has no page limitations.

2. Separate the proposal into a cost section and business section. The business section should contain all business aspects to each proposed contract such as: contractual instrument type, and any exceptions to terms and conditions of the announcement, any information not technically related, etc. Provide rationale for exceptions. Identify any technical data that will be delivered with less than unlimited rights. Cost proposals have no page limitations; however, offerors are requested to keep cost proposals under one hundred (100) pages as a goal. The proposal shall be furnished with supporting schedules and shall contain a labor hour breakdown per task.

3. Unless an exemption applies, small business subcontracting plans are required for efforts expected to exceed the thresholds in FAR 19.702 Statutory Requirements shall be submitted along with the technical and cost proposals. Reference FAR 19.704, and DFARS 219.704. Small businesses are exempt from this requirement.

4. For any subcontractors proposed, a subcontractor analysis in accordance with FAR 15.404-3(b) Subcontract Pricing Considerations. Include the CAGE code and DUNS number for all proposed subcontractors.

5. All direct costs (labor, material, travel, computer, etc.) as well as labor and overhead rates should be provided by contractor fiscal year (CFY). A separate breakout by Government Fiscal Year (GFY) is not required.

6. Submit fully-disclosed electronic cost spreadsheets with formulas. Include rate table for all direct and indirect rates that feed into the cost element summaries.

vii. **Proposal Submission Dates and Times:** Proposals submitted shall be in accordance with this announcement and any instructions in the individual CALL for proposals. Proposals should be submitted in accordance with any modifications or amendments of the full text BAA and individual CALL. Proposals received after the due date and time specified shall be governed by the provisions of FAR 52.215-1(c)(3).

VII. EVALUATION CRITERIA AND APPLICATION REVIEW INFORMATION

a. **General Information:** Evaluation of proposals will be conducted by a peer or scientific review process using the criteria described below.

b. **Proposal Evaluation Criteria:** The following criteria, which is listed in descending order of importance, will be used to determine whether one or more sources should be recommended for award. The Government reserves the right to select all, part, or none of the proposal received in response to a CALL for award subject to the availability of funds.

i. **Criteria:** The technical aspect is first order of priority and shall be evaluated based on the following criteria that are in descending order of importance:

1. Creative or innovative approach proposed to accomplish the technical objectives and/or advances in knowledge, understanding, technology, and state-of-the-art,

2. Soundness of the offeror's technical approach and

3. Relevance and/or importance to Air Force Research Laboratory mission areas.

***Cost/Price:** Once selected for possible award, price will be analyzed for Cost Realism and Price Reasonableness. Cost/Price is considered, but not an evaluation criterion. (If the offeror proposes the use of GFP other than any GFP identified in this BAA, and that proposed GFP provides the offeror an unfair competitive advantage, then FAR 45.202 requires rental equivalent be applied to the Cost Factor for analysis purposes only).

c. **Proposal Review and Selection Process:** Proposals will be reviewed against the evaluation criteria listed above. Based on peer and scientific review and funds availability proposal will be categorized as follows:

i. **Highly Recommended:** Well-conceived scientifically and technically sound proposal pertinent to accomplish goals and objectives. Proposals are recommended for acceptance (subject to availability of funds) and normally are displaced only by other Highly Recommended proposals.

ii. **Selectable:** Scientifically or technically sound proposals that may need additional development. Proposals are recommended for acceptance if sufficient funding is available, but at a lower priority than Highly Recommended proposals. To ensure a diversity of approaches, a Selectable proposal may be prioritized over a Highly Recommended proposal if the Selectable proposal presents a unique approach unlike any of the Highly Recommended proposals.

iii. **Not Selectable:** Overall scientific and technical merits of the proposal do not meet the AFRL/RDH Requirements, or the technology/development path chosen is not applicable and not important to AFRL/RDH programs. Even if sufficient funding exists, proposal should not be funded.

***Note:** The Government reserves the right to award some, all, or none of proposals. When the Government elects to award only a part of a proposal, the selected part may be categorized as Selectable, though the proposal as a whole may not merit such a categorization.

VIII. AWARD ADMINISTRATION INFORMATION

a. **Award Notices**: Offerors will be notified whether their proposal is recommended for award in writing by letter from the Contracting Officer. The notification of recommendation for award is not to be construed to mean the award of a contract is assured, as availability of funds and successful negotiations are prerequisites to any award.

b. **Debriefings**: When requested, a debriefing will be provided. The debriefing process will follow the guidelines set out in FAR 15.505 Pre-award Debriefing of Offerors and 15.506 Post-award Debriefing of Offerors. Debriefing content may vary to be consistent with the procedures that govern BAAs (FAR 35.016).

IX. AGENCY CONTACTS:

Any correspondence must reference the BAA and CALL number under which the proposal is intended to be submitted. Questions of a technical nature shall be directed to the technical point of contact, as specified below:

Technical Point of Contact: afrl.rdh.acquisitionsmailbox@us.af.mil

Questions of a contractual/business nature shall be directed as specified below:

Name: Mr. Adan Dominguez, Contract Specialist, AFRL/RDKP
Email: adan.dominguez.2@us.af.mil

Name: Mr. Julian Landavazo, Contracting Officer, AFRL/RDKP
Email: julian.landavazo@us.af.mil

Each CALL will also include specific technical and contracting points of contact.

Ombudsman: The Ombudsman clause, AFFARS 5352.201-9101 Ombudsman (OCT 2019) will be contained in any contracts or agreements resulting from this Solicitation. The AFRL Ombudsman is:

Mr. Steven Ewers, AFRL/PK 1864 Fourth Street, Wright Patterson AFB, OH 45433-7130, Phone: (937)-904-9700, Email: afrl.pk.workflow@us.af.mil

X. OTHER INFORMATION

a. **Support Contractors:** The AFRL Directed Energy (RD) Directorate has contracted for various business and staff support services, some of which require contractors to obtain administrative access to proprietary information submitted by other contractors. Administrative access is defined as "handling or having physical control over information for the sole purpose of accomplishing the administrative functions specified in the administrative support contract, which do not require the review, reading, or comprehension of the content of the information on the part of non-technical professionals assigned to accomplish the specified administrative tasks." These contractors have signed general non-disclosure agreements and organizational conflict of interest statements. The required administrative access will be granted to non-technical professionals. Examples of the administrative tasks performed include: i) Assembling and organizing information for R&D case files; ii) Accessing library files for use by Government personnel; and iii) Handling and administration of proposals, contracts, contract funding and queries. Any objection to administrative access must be provided in writing to the Contracting Officer within ten (10) days of BAA issuance.

b. **Wide Area Work Flow Notice:** Any award resulting from this BAA will contain the clause at DFARS 252.232-7003, Electronic Submission of Payment Requests and Receiving Reports (DEC 2018), which requires electronic submission of all payment requests. Any contract award(s) resulting from this BAA will establish a requirement to use WAWF-RA for invoicing and receipt/acceptance and provide coding instructions applicable to awards made under this solicitation. Contractors are encouraged to take advantage of available training (both web- based and through the cognizant Defense Contract Management Agency (DCMA) office), and to register in the WAWF-RA system. Information regarding WAWF-RA, including the web-based training and registration, can be found at https://piee.eb.mil/. Note: WAWF-RA requirement does not apply to offerors that are audited by an agency other than the Defense Contract Audit Agency (DCAA).

c. **Forward Pricing Rate Agreements:** Offerors who have forward pricing rate agreements (FPRA's) and forward pricing rate recommendations (FPRR's) should identify them in their proposal.

d. **Pre-Award Clearance:** Pursuant to FAR 22.805, a pre-award clearance must be obtained from the U.S. Department Of Labor, Employment Standards Administration, Office of Federal Contract Compliance Program's (OFCCP) prior to award of a contract (or subcontract) of $10,000,000 or more unless the contractor is listed in OFCCP's National Pre-award Registry https://ofccp.dol-esa.gov/preaward/pa_reg.html. This registry indicates that the contractor has been found to be "in compliance" within the past two years with The Equal Employment Opportunity (EEO) regulations that the OFCCP is mandated to enforce. The registry is updated nightly, and facilities reviewed more than two years ago are removed and

new ones are added. Award may be delayed if you are not currently listed in the registry and the contracting officer must request a pre-award clearance from the OFCCP.

e. **Limitations on Pass-Through Charges:** Any award resulting from this BAA may contain FAR 52.215-22 Limitations on Pass-Through Charges – Identification of Subcontract Effort (OCT 2009) and FAR 52.215-23 Limitations on Pass-Through Charges (JUN 2020) or Alternate I. The offeror shall identify in its proposal the total cost of the work to be performed by the offeror, and the total cost of the work to be performed by each subcontractor under the contract. If the offeror intends to subcontract more than seventy (70) percent of the total cost of work to be performed under the contract, the offeror shall identify in its proposal: i) The amount of the offeror's indirect costs and profit/fee applicable to the work to be performed by the subcontractor(s); and ii) A description of the added value provided by the offeror as related to the work to be performed by the subcontractor(s). If any subcontractor proposed under the contract intends to subcontract (to a lower-tier subcontractor) more than seventy (70) percent of the total cost of work to be performed under its subcontract, the offeror shall identify in its proposal: i) The amount of the subcontractor's indirect costs and profit/fee applicable to the work to be performed by the lower-tier subcontractor(s); and ii) A description of the added value provided by the subcontractor as related to the work to be performed by the lower-tier subcontractor(s).

f. **Post-Award Small Business Program Representation:** Any awards resulting from this announcement may contain FAR Clause 52.219-28 Post-Award Small Business Program Representation (SEP 2021). This clause requires a contractor to represent its size status when certain conditions apply. The clause provides detail on when the representation must be completed and what the contractor must do when a representation is required.

g. **Small Business Subcontracting Plans:** Unless an exemption applies, small business subcontracting plans are required for efforts expected to exceed the thresholds in FAR 19.702. Prospective offerors shall submit applicable subcontracting plans in accordance with the requirements set forth in FAR 19.704 and DFARS 219.704. The subcontracting plan shall be submitted with the Business Section of the Business/Cost Volume and should be suitable for incorporation into the awarded contract (no proprietary information or markings). If a company has a master subcontracting plan, as described in FAR 19.701 or a comprehensive subcontracting plan, as described in DFARS 219.702-70, a copy of the master/comprehensive plan shall be submitted with the proposal.

   For proposed subcontracting plans with goals below the current DoD goals (https://www.sba.gov/document/support-agency-contracting-goals), the offeror shall provide additional information demonstrating how it intends to provide meaningful subcontracting opportunities and rationale as to why the goals were not attainable. In accordance with FAR 19.702 Statutory Requirements, if the apparent successful offeror fails to negotiate a subcontracting plan acceptable to the Contracting Officer within the time limit prescribed by the Contracting Officer, the offeror will be ineligible for award.

h. **Associate Contractor Agreements (ACAs):** ACAs are agreements between contractors working on Government contracts that specify requirements for them to share information, data, technical knowledge, expertise, or resources. The Contracting Officer may require ACAs when contractors working on separate Government contracts must cooperate, share resources or otherwise jointly participate in working on contracts or projects. Prime contractor to subcontractor relationships do not constitute ACAs. ***If applicable, each Call will identify associate contractors with whom agreements are required.***

i. **Item Identification and Valuation:** Any awards resulting from this announcement may contain DFARS Clause 252.211-7003 Item Unique Identification and Valuation (MAR 2016), which requires unique item identification and valuation of any deliverable item for which the Government's unit acquisition cost is $5,000 or more; subassemblies, components, and parts embedded within an item valued at $5,000 or more; or items for which the Government's unit acquisition cost is less than $5,000 when determined necessary by the requiring activity for serially managed, mission essential, or controlled inventory. Also included are any DoD serially managed subassembly, component, or parts embedded within a delivered item and the parent item that contains the embedded subassembly, component, or part. Per DFARS 211.274-3 Policy for Valuation, it is DoD policy that contractors shall be required to identify the Government's unit acquisition cost for any deliverable end items to which item unique identification applies. Therefore, proposals must clearly break out the unit acquisition cost for applicable deliverable items (per DFARS 211.274-3 "for cost-type or undefinitized line, subline, or exhibit line items, the contractor's estimated fully burdened unit cost to the Government at the time of delivery"). Per DoD, "fully burdened unit costs" would include all direct, indirect, general and administrative costs, and an appropriate portion of fee. For more information, visit: http://www.acq.osd.mil/dpap/pdi/uid/index.html.

j. **Contractor Performance Assessment Reports System (CPARS):** The Government may conduct, document, track, and analyze Contractor performance via periodic surveillance. This determination will be made at the CALL level. If the use of CPARS is applicable the surveillance results will be maintained and utilized to prepare an annual CPARS assessment. Assessments will be conducted in accordance with 48 CFR Subpart 42.15 – Contractor Performance Information. See http://www.cpars.gov for more details.

k. In accordance with Federal Acquisition Regulation (FAR) 35.002, Research and Development (R&D) contracts are directed towards objectives for which the work or methods cannot be precisely described in advance. It is difficult to judge the probabilities of success or required effort for technical approaches, some of which offer little or no early assurance of full success. Due to the nature of R&D, improvements in technology may result in possible changes to the contractor's technical proposal or statement of work, prior to award or after technical performance has commenced. Offerors are advised that additional latitude for changing a contract may exist when the contract is for R&D, noting that the scope of such contracts is often flexible, to all unanticipated changes due to lack of definitiveness of the Government's objectives.

XI. ATTACHMENTS

1. Supplemental Statement of Work (Supplemental SOW)
2. Contract Data Requirements List (CDRL), DD Form 1423, A001-A016
3. Guide to Preparing Contractor Statements of Work (CSOW)
4. Section K Representations and Certifications
5. Cost Proposal Instructions (Non-APC), dated 27 March 2020
6. Proposal Adequacy Checklist
7. Broad Agency Announcement (BAA) Guide for Industry, March 2020