

**IMPORTANT NOTICE: THIS SYNOPSIS AND MARKET RESEARCH/REQUEST FOR INFORMATION ARE INFORMATIONAL AND FOR PLANNING PURPOSES ONLY. THIS IS NOT A REQUEST FOR PROPOSAL AND A SOLICITATION WILL NOT BE ISSUED AT THIS TIME.**

A contract will not be awarded from this announcement and no reimbursement will be made for any costs associated with providing information in response to this notice. This notice is a market research tool used to obtain information only and to identify contractors who possess the capabilities to provide services as specified below. The Naval Facilities Engineering Command (NAVFAC) Atlantic is performing this market research to aid in the development of its acquisition approach.

**N62470-16-R-5013: MARKET RESEARCH/ REQUEST FOR INFORMATION FOR GEOTHERMAL SYSTEM FOR NAVAL AIR STATION (NAS) CORPUS CHRISTI.**

As permitted by FAR Part 10, NAVFAC is requesting responses, comments, recommendations and suggestions as Market Research and Request for Information (RFI) to assist in the development of our acquisition strategy. The intent is to identify potential proposers and collect information that will help to develop a possible request for proposal. NAVFAC Atlantic desires to solicit maximum industry participation, which will allow NAVFAC Atlantic to formulate an acquisition process in a concise and timely manner. The Navy is considering contractual vehicles such as a third party Power Purchase Agreement (PPA) where a geothermal system will be privately owned, designed, constructed, operated, maintained (which may include replacement or repair) and removed at the conclusion of the contract. One of the main functions of this synopsis is also to assist the Contracting Officer in determining whether any type of small business set-aside (SB, 8(a), HUBZoneSB, Woman-Owned Small Business, or Service Disabled Veteran Owned Small Business) is an acceptable strategy for this procurement. If a full and open competition is ultimately pursued, responses to this synopsis will be used to aid in establishing small business subcontracting goals.

A single award Firm Fixed Price (FFP) Power Purchase Agreement (PPA) of up to 30 years is anticipated. The contract will be executed using the authority of 10 U.S.C. 2922a.

This Request for Information shall not be construed as a Request for Proposal or as an obligation on the part of the Government. The Government does not intend to award a contract on the basis of this request or otherwise pay for the information obtained via this RFI.

The results of this Sources Sought notice will assist in the developing a possible RFP to be issued at a later date. It is not mandatory to submit a response to this notice to participate in any formal request for proposal process that may take place in the future. ANY RECOMMENDATIONS OR SUGGESTIONS PROVIDED IN RESPONSE TO THE SOURCES SOUGHT MAY BE UTILIZED WITHOUT ANY RESTRICTIONS WHATSOEVER OR COST TO THE GOVERNMENT.

Respondents will not be notified of the results of this market research.

The North American Industry Classification Standard (NAICS) code for this procurement is 221116 Geothermal electric power generation.

### **SYNOPSIS OF RELEVANT CONDITIONS AT NAS CORPUS CHRISTI**

NAS Corpus Christi currently operates with a total average monthly demand of approximately 23.1 MW and a peak load of roughly 27.168 MW. Specifically, NAS Corpus Christi consumes an average of 133.96 GWh per year. Attachment 1 is a map showing the location of the potential facilities.

Historically energy projects on DoD installations have taken several years to develop from initial concept to energy production. The Navy's goal is to greatly improve upon this timeline so developers can monetize all incentives and the Navy can begin reducing energy costs as soon as possible.

All areas for development are subject to the Site Approval Process in accordance to NAVFACINST 11010.45 – Site Approval and the NAS Corpus Christi Site Approval Process.

This RFI is currently focused on geothermal technology. Other renewable generation technologies may be considered in future RFI's.

### **SCOPE & OBJECTIVES – GEOTHERMAL GENERATION PROJECT:**

The Navy will provide access to approximately fifty nine (59) acres of land at NAS Corpus Christi for a geothermal generation system that will be designed, constructed, owned, operated, maintained (which may include replacement or repair) and removed by a private entity. The areas may not be developed in multiple stages. Objectives for such a project include:

- Installation of a geothermal system for electricity production sized sufficiently to provide approximately 10 MW for NAS Corpus Christi.
- Minimize land used for the energy production by taking advantage of advancements in geothermal technology.
- Maintaining the existing power quality on the installation electrical distribution grid and be able to provide comparable power quality to the installation electrical distribution system in the absence of grid power from the commercial utility.
- Purchasing electricity produced from the geothermal system at a lower lifecycle cost than the Navy's projected cost over the same period.
- The Navy will not retain nor purchase the RECs from the project. The developer may sell these RECs.

### **SUBMITTAL REQUIREMENTS:**

As permitted by FAR Part 10, the Government is requesting that interested parties submit a brief capabilities statement package, on company letterhead, responding to the information requested below to assist in the development of our acquisition strategy and demonstrating the firm's qualifications to perform the work described within. The capability package must be complete and sufficiently detailed to allow the Government to determine the firm's qualifications to perform the defined work. Responses shall not exceed 30 single pages. Submit your completed responses no later than 16 August 2016 to the Contract Specialist, Ms. Erin Quimby, via email to [erin.quimby@navy.mil](mailto:erin.quimby@navy.mil). The Government is not obligated to and will not pay for any information received from the potential sources as a result of this synopsis. The documentation shall address, at a minimum, the following:

**A. COMPANY PROFILE:** to include

1. Company Name;
2. Address;
3. Point of Contact/Title (including telephone number & email address);
4. DUNS & Cage Code;
5. Small Business designation/status (Small Business (SB), Small Business Administration (SBA) certified 8(a) participant, Historically Underutilized Business Zone (HUBZoneSB), Woman-Owned Small Business (WOSB), Economically Disadvantaged Woman-Owned Small Business (EDWOSB), Small Disadvantaged Business (SDB), Veteran-Owned Small Business (VOSB), and/or Service-Disabled Veteran Owned Small Business (SDVOSB).

**B. RELEVANT EXPERIENCE:** to include experience in performing efforts of similar value, size, and scope within the last ten (10) years. The following Government or commercial information shall be provided for each of your references: (1) Contract Number and Project Title; (2) Name of Contracting Activity; (3) Administrative Contract Officer's Name, Telephone Number and Email; (4) Contracting Officer's Technical Representative or Primary Point of Contact, telephone and email; (5) Indication of whether your firm acted as a prime or subcontractor, (6) Contract Period of Performance and Contract Value, (7) Brief summary of work performed and how it relates to the technical services described herein.

C. If a small business respondent; please provide a narrative description detailing how your firm would comply with FAR Clause 52.219-14 Limitations on Subcontracting, Construction by special trade contractors, if the project was ultimately set-aside for small business concerns.

**D. ADDITIONAL INFORMATION:** Please provide a narrative description for each of the below questions below.

1. Project economics.

- a. Provide indicative, non-binding pricing (cents/kWh) based on rough cost estimates and a 20-30 year contract length. Detailed cost estimates are not required or desired.
  - b. What is the minimum size system that should be considered to provide approximately 10 MW and stay with the constraints of the economics? Energy price per kWh must be less than or equal to the current cost of energy when projected over the same period.
  - c. What are characteristics of the site that would increase pricing compared to a typical project of this size? How could these impacts be mitigated?
  - d. Identify what actions the Navy could take to reduce risk and cost for this project?
  - e. Identify all potential financial incentives that may be applied to this project?
2. Provide a description of the land needs that would be anticipated in order to develop the possible geothermal resource at NAS Corpus Christi during development (i.e., drilling and construction) and plant operations and maintenance (O&M) the minimum topics to address include, but are not limited to:
- a. The need (if any) and scope for non-invasive (i.e., geophysical) and invasive (test boreholes/wells) investigation of the potential geothermal resource, with description of necessary land access, equipment, and timeframe to complete site investigation.
  - b. A description of anticipated drilling technology that would be used to access the potential geothermal resource, to include:
    - i. Type of drilling technology to be utilized (e.g., rotary) and its capabilities
    - ii. The size (length, width, height) of the drill rig
    - iii. Land requirements for the rig and support equipment?
      1. What would the well pad(s) dimensions requirements be?
      2. Would there be a need for a laydown area, if so what are its dimensions and how close to active drilling locations must it be?
    - iv. Dimensions of the well pad after drilling is complete
    - v. Well separation at the surface
    - vi. The number of anticipated production and injection well heads
  - c. A description of land requirements to support the power plant and its support equipment/infrastructure, to include:
    - i. Type of geothermal power plant (binary, flash, etc.) anticipated to be deployed
      1. Number of turbine generation units
      2. Cooling technology - evaporative, air, water, other
        - a. Could the cooling system cause turbulence?

3. Emissions
    - ii. Other ancillary equipment
    - iii. Pipelines from the production well(s) to the power plant and then to the injection well(s), with discussion of construction techniques/practices that will not cause other infrastructure (i.e., roads, utility lines) to be impacted. Note: It is preferred that any pipelines or electric lines be installed underground vs. surface mount or overhead.
  - d. A description of land requirements to support O&M of the entire geothermal facility and how this is different (if at all) from the development/construction phase
    - i. Power plant
    - ii. Ancillary equipment (including pipelines)
    - iii. Well field
  - e. Any permits required for the project.
3. Provide a description of the geothermal resource/reservoir based on available information and your expert knowledge. The minimum topics to address include, but are not limited to:
    - b. Target geologic formation(s)
    - c. Anticipated completion depth interval of production well(s)
    - d. Anticipated resource temperature and geothermal brine flow rate
      - i. What is the minimum temperature needed to make a viable project?
      - ii. What is the minimum brine flow rate needed to make a viable project?
    - e. What is the potential nameplate capacity (in MW AC) of the anticipated geothermal power plant?
  4. Provide a description of the anticipated well completion strategy based on available information and your expert knowledge. The minimum topics to address include, but are not limited to:
    - a. Drilling technology
      - i. Well type - vertical, sub-vertical, direction
        1. How would this (if at all) change for production vice injection wells?
    - b. Completions technology
      - i. Type(s) of material used to complete the well(s), with explanation as to why a particular material would be employed.
      - ii. Production and/or injection well(s) completion technology (e.g., open hole) across the production/injection interval

- iii. The potential need for reservoir stimulation and to what extent
        - 1. Would this be completed during initial well drilling or late in a given production/injection well service lifespan?
      - iv. Separation distance between production wells at the at the resource depth
      - v. Separation distance between production wells and injection well(s) at depth, if completed in same formation interval.
    - c. Well Field O&M
      - i. Anticipated life of a given well
        - 1. When is it anticipated that re-drilling may need to commence during the project life cycle?
5. Provide a list of questions/concerns you may have regarding development of the potential geothermal resource as NAS Corpus Christi. Examples:
- a. This will likely be a “behind the meter” application, with no export of excess power to the grid. What concerns/questions/information would you need regarding the installation electrical infrastructure?
  - b. NAS Corpus is an active training base for Navy pilots and there will be height restrictions associated with the airfield. What issues may this pose with drill rig selection?
6. In addition to the NEPA that will be completed by the Navy, are there any other environmental requirements the Navy should be aware of for a project of this nature?
7. What geotechnical studies or investigations should the Navy perform, and what results or data should be provided with the RFP, in order to encourage the most participation by industry in the procurement?
8. Additional information, if any, that the responder believes is relevant.

**RESPONSES ARE DUE NLT DAY, 16 AUGUST 2016.**

Questions or comments regarding this notice may be addressed in writing to Erin Quimby via email at erin.quimby@navy.mil.

NOTE: THE GOVERNMENT RESERVES THE RIGHT TO CANCEL THIS NOTICE AT ANYTIME. THE GOVERNMENT IS NOT RESPONSIBLE FOR ANY COSTS INCURRED IN ORDER TO PARTICIPATE IN THIS PROCESS. ALL INFORMATION SUBMITTED IS AT THE RESPONDENT’S OWN EXPENSE. BECAUSE RESPONSES TO THIS RFI MAY BE USED TO STRUCTURE A FUTURE SOLICITATION FOR GEOTHERMAL ENERGY AT NAS CORPUS CHRISTI, ANY INFORMATION, RECOMMENDATIONS OR SUGGESTIONS PROVIDED IN RESPONSE TO THIS SOURCES SOUGHT MAY BE UTILIZED WITHOUT ANY RESTRICTIONS WHATSOEVER OR COST TO THE GOVERNMENT. WRITTEN

ITEMS MAY NOT BE SUBMITTED IN REFERENCE TO THIS MARKET RESEARCH MARKED WITH RESTRICTIONS OR MARKED AS PROPRIETARY.

**Notice**

The Government uses support contractor/non-Government personnel from Booz Allen Hamilton (BAH) and National Renewable Energy Laboratory (NREL) to help collect and review market information. BAH and NREL are contractually bound with respect to proprietary information by organizational conflict of interest and non-disclosure clauses. Supporting contractor personnel are procurement officials within the meaning of the Office of Procurement Policy Act (41 U.S.C. 423) and as implemented in the FAR. By submitting a response to this RFI, respondents consent to the review of their submissions by these support contractors/non-Government personnel.

We appreciate your interest and thank you in advance for responding to this Market Research/Request for Information.