

Eielson AFB Micro-Reactor - Request for Information – Group 3

1. Detailed site geotechnical data is required to properly estimate construction and any design requirements that could impact facility design. Is there any further information regarding the below ground site characteristics? Can the AF share any CHPP engineering documents?
 - a. Per Amendment 0002, See Attachments PR9, PR10, PR11, PR12 and PR13. Per Amendment 0003, See Attachment PR14, for Boring and Soil information. If additional Controlled Unclassified Information (CUI) is being requested, this information will not be available until after down-selection.
2. Is water supplied?
 - a. Most available sites have access to the utilidor and the ability to hook up to existing utilities (location dependent). Subject to utility reimbursement, reference RFI Group #3, Question #4.
3. C15.1 states, "A scheduled outage of the EPF for maintenance shall constitute an excusable delay sufficient to excuse the Government, on a pro-rata basis, from its obligation to consume energy from the EPF during the length of the outage." Similarly, it is recommended that the Government should excuse the contractor, on a pro-rata basis, from its obligation to produce energy from the EPF for any non-contractor caused disruptions from delivering power to the CHP (e.g., outages, black start testing, etc.).
 - a. The microreactor must support the 99.9% minimum availability requirement of 10 U.S. Code § 2920 and affirm that all planning requirements of 10 U.S. Code § 2920 are taken into account.
4. Will the government provide power, water, sewer services during construction phase??
 - a. All exceptions to the terms and conditions of the Lease shall be submitted to the Government per Section L.4.2.1.0 of the solicitation. Reference Lease Section 10.1. Sale of Utility Service by the Government, the Government provided utility services may be available to the Lessee at the Leased Premises pursuant to the Contract, section C.37. Any sale of utility services to Lessee by the Government and associated reimbursement calculations will be in accordance with Air Force Instruction 32-1061, "Providing Utilities to U.S. Air Force Installations," as the same may be amended, modified or superseded from time to time.
5. Related to C.33 and C.55.5, is there a pathway to working with or contracting Eielson Air Force Base personnel for emergency response (medical and fire) or security?
 - a. Emergency Services are available during construction. Post construction, a Memorandum of Agreement (MOA) could be developed to leverage local emergency response. Any discussions shall occur after down-selection.
6. Does Eielson AFB personnel that support fire, security, hazmat, and other auxiliary services be available to support the operation of the reactor?
 - a. Emergency services can be provided during construction; however, nuclear power incident response is currently outside of Eielson AFB's capability to provide. The Lessee shall pay for incident response outside of services furnished by the Government.

7. Have taxes been discussed with FSNB? Please clarify if land will/will not be exempt from local tax basis. (i.e. housing was required to pay local FNSB property taxes. How does the proposer plan for this for 30 years?
 - a. Government land is exempt from local taxes however, any improvements to the land is subject to taxation. The Lessee must determine any improvements to the land and cost of taxes by contacting North Star Borough after down-selection.
8. Has anyone contacted the North Star Borough about the cost of taxes?
 - a. Government land is exempt from local taxes however, any improvements to the land is subject to taxation. The Lessee must determine any improvements to the land and cost of taxes by contacting North Star Borough after down-selection.
9. The steam production request is at 430-450 F, 100 psi. Microreactor designs with high electrical output efficiency have low temperature waste heat which may be more effectively recovered as pre-heating in the existing CHPP feedwater system. Would such an approach be acceptable?
 - a. The Government will assess the offeror's intent reflected in their proposal to meet the requirements in this solicitation by addressing Production, Implementation Plan and Conceptual Design.
10. Any available soil profiles and soil boring data from industrial areas at the base (we understand that these are the areas allowed for siting the microreactor) – soil profiles should show the description and composition of soil layers and geological conditions, elevation of water table, presence of existing engineered backfill if any, lab test data. In general, any geotechnical information readily available for the industrial (green areas) sites at the base will be very helpful.
 - a. Per Amendment 0003, See Attachment PR14, for Boring and Soil information.
11. The electrical tie-in was identified as the spare breaker in the switchgear building during the onsite event. Can existing electrical drawings (single lines) for the switchgear building be provided?
 - a. Per Amendment 0002, See Attachments PR9, PR10, PR11, PR12 and PR13. If additional Controlled Unclassified Information (CUI) is being requested, this information will not be available until after down-selection.
12. The small fission plant sited at Eielson Air Force base should be sited to support the mission of the base through providing reliable heat and electricity to facilities that are most strategically important to mission of the base. In order to identify the optimal sites for the small fission plant, it would be helpful to have some indications of which facilities are in greatest need of reliable heat and electricity. Could the DAF please provide resources indicating which facilities are most important to provide reliable heat and electricity?
 - a. The Government provided the requirements that the microreactor must meet within the Statement of Work. No additional requirements for critical facilities will be provided until after down-select.
13. Related to C.36.3, are cameras not allowed to monitor activity or persons approaching the EPF site, thereby effectively limiting them to only looking at the required perimeter fence or inwards?
 - a. The Pan-Tilt-Zoom (PTZ) cameras that have connectivity to the Base Defense Operations Center (BDOC) at Security Forces are all full motion. This gives the controllers the ability to observe all avenues of approach to a restricted facility. No limitations other than

those imposed by the owner of the asset will limit the ability of the controller from observing movement.

14. Also related to C.36.3, is there flexibility to allow pan-tilt-zoom cameras which respond to alarm initiation and support compliance with NRC physical security regulation to visually assess initiated alarms? Fixed view cameras would be burdensome for exterior monitoring.
 - a. Pan-Tilt-Zoom (PTZ) cameras may be incorporated into the security system.
15. Related to C.36.1, where can we review the approved Eielson installation security regulations related to compliance with 50 USC 797? Are there restrictions on the types of physical protection systems and methods that a vendor may employ at the Energy Production Facility beyond what is stated in the Request for Proposals?
 - a. All Intrusion Detection System (IDS) devices on Eielson AFB utilize the Honeywell Vindicator and can be incorporated into the base IDS at the Base Defense Operations Center (BDOC). All devices will connect from the facility to the Security Forces system via fiber connectivity. Also, the Physical security would be a fence line that would meet UFC requirements and electric gates that are compatible with the existing base infrastructure. This facility will be a restricted area and will be incorporated into the priority response listing with Security Forces.
16. Related to C.17.6, because the EPF cannot sell power to the commercial grid, is it by definition supplying power to the on-installation micro-grid? Are there any further installation information assurance requirements for micro-grids beyond the requirements already listed in the RFP?
 - a. Eielson AFB can island itself as a micro-grid; however, there are no additional requirements beyond what is listed in the RFP.
17. Related to C.3.1.1 and C.14.5 Can the Air Force share existing mapping data or GIS files for the location of steam piping? This type of information would facilitate more efficient site selection.
 - a. Per Amendment 0002, See Attachments PR9, PR10, PR11, PR12 and PR13.
18. Related to C.18.7 and C.18.8, how do the annual black start and walk away safe tests impact capacity factor calculations? Should the cost of the associated down time be priced into the contract prices for CLIN 0001 and CLIN 0002?
 - a. The price proposal should incorporate any costs anticipated in this project and development of the solution to the Government requirements.
19. Related to C.33 and C.55.5, is there a pathway to working with or contracting Eielson Air Force Base personnel for emergency response (medical and fire) or security? For small fission power plants, such as the one that will be sited at Eielson, the consequences of any emergency often do not warrant having onsite emergency personnel. This is the case for research and test reactors for example. If the emergency plans for an applicant require local response organizations (e.g., local law enforcement and local fire departments), is there a way of contracting with Eielson Air Force base for these services? If there is no way to contract with Eielson Air Force base for these services, then there may be a need to contract with local response organizations that are not on the base. Are there existing mutual aid programs in place between Eielson Air Force base with local emergency response organizations? If so, can the DAF share information on the mutual aid programs that

currently exist? If there are no mutual aid programs, can the DAF share information on if there are any limitations to contracting with local emergency response organizations.

- a. Emergency Services are available during construction. Post construction, a Memorandum of Agreement (MOA) could be developed to leverage local emergency response. Any discussions should occur after down-selection.
20. For small fission power plants, such as the one that will be sited at Eielson, the consequences of any emergency often do not warrant having onsite emergency personnel. This is the case for research and test reactors for example. If the emergency plans for an applicant require local response organizations (e.g., local law enforcement and local fire departments), is there a way of contracting with Eielson Air Force base for these services?
 - a. Lease Section 10.2. Sale of Emergency Services by the Government. The Government will provide first response, fire, and law enforcement services to the Project. Lessee shall pay for any firefighting, fire protection, and police protection services furnished by the Government for the benefit of the Project during the Lease Term. Reimbursement for such services will be calculated as outlined in Exhibit I (Emergency Services Plan).
Note: Emergency services can be provided during construction; however, nuclear power incident response is currently outside of Eielson AFB's capability to provide. The Lessee shall pay for incident response outside of services furnished by the Government.
21. If there is no way to contract with Eielson Air Force base for these services, then there may be a need to contract with local response organizations that are not on the base. Are there existing mutual aid programs in place between Eielson Air Force base with local emergency response organizations? If so, can the DAF share information on the mutual aid programs that currently exist? If there are no mutual aid programs, can the DAF share information on if there are any limitations to contracting with local emergency response organizations.
 - a. Emergency Services are available during construction. Post construction, a Memorandum of Agreement (MOA) could be developed to leverage local emergency response. Any discussions should occur after down-selection.
22. Special Contract Requirement section H.4 "Excusable Delay" contains an error in subparagraph H.4.2. Clearly, the Contractor should not be terminated for default for a stated lengthy Excusable Delay. The language, highlighted in red below for ease of view, "...terminate the contract for default...", should be replaced with "...terminate the contract for convenience...." As noted in the other underlined sections below, of the complete text of H.4 Excusable Delay, it is clear and conventionally customary, and by definition, that a party is not held in default due to excusable delays, processed in accordance with the contract terms. This is further amplified within the text of H.4 as underlined. Please confirm that this change will be made via an amendment to the RFP. Full text below:
H.4. Excusable Delay. The Contractor shall be liable for default for nonperformance unless the nonperformance is caused by an excusable delay
H.4.1. Excused Performance.
Except as otherwise specifically provided in the contract, neither party shall be considered in breach of the contract or liable for any delay or failure to comply with the contract, if and to the extent that such delay or failure is attributable to the occurrence of excusable delay; provided that the party claiming relief immediately (a) notifies the other party in writing of the existence of the excusable delay, (b) exercises all reasonable efforts necessary to minimize delay caused by such excusable

delay, (c) notifies the other party in writing of the cessation or termination of said excusable delay, and (d) resumes performance of its obligations hereunder as soon as practicable after the cessation or termination of the excusable delay. Contract performance shall not be excused for any event for which the Contractor is required to carry insurance under the contract, if and to the extent that payments received under such Eielson AFB SMR RFP SP0604-22-R-0421 74 coverage ameliorated the impact of the excusable delay. If the Contractor claims relief due to excusable delay, the obligation of the Government to make payments to the Contractor for the period of time during which the Contractor is unable to perform shall be canceled to the extent of the excusable delay and shall not resume until the Contractor resumes performance of its obligations under the contract at which time the Government payment obligation will also resume; provided, however that the Government shall not be excused from making any payments due with respect to energy delivered to the Government prior to the excusable delay performance interruption or from portions of the EPF not adversely affected by excusable delay.

H.4.2. Effects of Excusable Delay. In no event will any delay or failure of performance caused by excusable delay extend the contract beyond its stated term. In the event that the Contractor's delay or failure of performance attributable to excusable delay continues for an uninterrupted period of ninety (90) days from its inception (with respect to excusable delay occurring prior to COD) or three hundred and sixty-five (365) days from its inception (with respect to excusable delay occurring after COD), the Government may, at any time following the end of such period, terminate the contract for default. However, nothing herein shall be interpreted to limit the Government's right to terminate the contract for convenience at any time for reasons other than excusable delay.

- a. All exceptions to the terms and conditions of the solicitation shall be submitted to the Government per Section L.4.2.1.0.
23. The Government stated at the pre-proposal conference and in the most recent answers to questions that the 2027 operations date for the Eielson reactor is fixed and cannot be changed. However, the Government did not change the RFP Tables that allow 7 years for construction. We request the Government amend the RFP to reflect a 2027 operations date and reduce the construction schedules in the Tables or clarify the required 2027 reactor operations date.
- a. The mandated date is 2027. The timeline comes from an Executive Order. If we are to make any changes to the timeline, the plan would first have to be approved by the Department of the Air Force and then have to be resubmitted to Congress and the White House. The Department of the Air Force needs to be able to show rationale, roadblocks, and incremental progress to support an extension.
24. With changes to the RFP and questions still being created is the last date to submit new questions still November 19, 2022?
- a. The last day to submit questions is 14 calendar days prior to solicitation closing, reference section L.1 Inquires to Offerors.
25. What is the FFP from the US Nuclear Regulatory Commission (NRC) for qualifying the nuclear fuel?
- a. Determination of these amounts is the responsibility of the offeror in building its proposal.
26. What is the FFP from the NRC for certifying the chosen micro reactor?

- a. Determination of these amounts is the responsibility of the offeror in building its proposal.
- 27. What is the FFP from the NRC for certifying operators of the chosen micro reactor?
 - a. Determination of these amounts is the responsibility of the offeror in building its proposal.
- 28. What is the FFP from the NRC for certifying the site agreed to between the USAF and chosen micro reactor provider?
 - a. Determination of these amounts is the responsibility of the offeror in building its proposal.
- 29. What is the FFP from the NRC for each of the 30-years of the contract awarded?
 - a. Determination of these amounts is the responsibility of the offeror in building its proposal.
- 30. What is the FFP from the NRC for decommissioning the micro reactor?
 - a. Determination of these amounts is the responsibility of the offeror in building its proposal.
- 31. What is the FFP from the NRC for decommissioning the site for the micro reactor?
 - a. Determination of these amounts is the responsibility of the offeror in building its proposal.
- 32. What is the FFP from the NRC for any costs over 30-years not heretofore identified?
 - a. Determination of these amounts is the responsibility of the offeror in building its proposal.
- 33. What is the FFP from the USAF for leasing over 30-years of the 5-acres identified for placement the micro reactor?
 - a. CLIN 0003 is not considered a FFP. The Fair Market Value of the lease shall be determined through an appraisal process.
- 34. What is the FFP from the USAF for armed security forces over each of the 30-years?
 - a. Emergency Services are only available during construction. Post construction, a Memorandum of Agreement (MOA) could be developed to leverage local emergency response.
- 35. What is the FFP from the USAF for providing emergency medical services to the site of the micro reactor site for operating and maintenance personal for each of the 30-years?
 - a. Emergency Services are only available during construction. Post construction, a Memorandum of Agreement (MOA) could be developed to leverage local emergency response.
- 36. Emergency Services are only available during construction. Post construction, a Memorandum of Agreement (MOA) could be developed to leverage local emergency response.

- a. Emergency Services are only available during construction. Post construction, a Memorandum of Agreement (MOA) could be developed to leverage local emergency response.
- 37. Is the USAF going to pay for the remaining years on the FFP contract if Eielson AFB is put out of commission by an EMP attack?
 - a. See Section H.4 Excusable Delay. In the event of an Excusable Delay or Termination, a Contractor can claim relief of the contract according to its terms and conditions.
- 38. Is the USAF going to pay for the remaining years on the FFP contract if Eielson AFB is put out of commission by a cyber-attack?
 - a. See Section H.4 Excusable Delay. In the event of an Excusable Delay or Termination, a Contractor can claim relief of the contract according to its terms and conditions.
- 39. Is the USAF going to pay for the remaining years on the FFP contract if Eielson AFB is put out of commission by extreme weather?
 - a. See Section H.4 Excusable Delay. In the event of an Excusable Delay or Termination, a Contractor can claim relief of the contract according to its terms and conditions.
- 40. Is the USAF going to pay for the remaining years on the FFP contract if Eielson AFB is put out of commission by a physical attack?
 - a. See Section H.4 Excusable Delay. In the event of an Excusable Delay or Termination, a Contractor can claim relief of the contract according to its terms and conditions.
- 41. See Section H.4 Excusable Delay. In the event of an Excusable Delay or Termination, a Contractor can claim relief of the contract according to its terms and conditions.
 - a. See Section H.4 Excusable Delay. In the event of an Excusable Delay or Termination, a Contractor can claim relief of the contract according to its terms and conditions.
- 42. Is the USAF going to pay for the remaining years on the FFP contract if Eielson AFB is put out of commission by changes in public policy?
 - a. See Section H.4 Excusable Delay. In the event of an Excusable Delay or Termination, a Contractor can claim relief of the contract according to its terms and conditions.
- 43. Has the USAF obtained from the United States Congress changes to the Price-Anderson Act (PAA)?
 - a. The Department of the Air Force has the changes to the Price-Anderson Act; however, the Department of the Air Force will not be a NRC license holder for the microreactor. The license holder, or offeror, must obtain insurance for the microreactor in accordance with the Price Anderson Act and Atomic Energy Act.
- 44. Has the USAF obtained from an alternative for insurance for the successful micro reactor supplier and operator?
 - a. Installment of the microreactor on Federal property would NOT prevent the vendor from obtaining nuclear insurance from the American Nuclear Insurers. Since the Department of the Air Force proposes this project under a Power Purchase Agreement, the Department of the Air Force would not be an owner or operator, and the reactor would be licensed under the provisions of Section 103 of the Atomic Energy Act.

45. In the response to questions (Group 1) it was stated that: "The effective cut-off date to submit questions to the Government is 29 November 2022. Per Amendment 0001, proposals are due 31 January 2023." The RFP still states that questions can be submitted "up to 14 calendar days prior to solicitation closing date." Could you clarify whether the AF intends to continue answering questions into December and the first half of January?
- a. The last day to submit questions is 14 calendar days prior to solicitation closing, reference section L.1 Inquires to Offerors.
46. In Volume I Factor II, the AF states "the Offeror shall provide audited financial statements for its most recently completed fiscal year." When the deadline for the RFP response was the end of November, this could be interpreted as CY2021, but with the deadline shifting to early 2023 would the AF expect audited financial statements to be completed and submitted for CY2022? This will be a tough deadline to achieve and may require an exception.
- a. If CY2022 financial statements are not complete, submission of the most recent audited financial statements is acceptable.
47. In reference to a MOU for emergency response, is there a liaison with local law enforcement around Eielson AFB that can discuss emergency response capabilities?
- a. Emergency Services are available during construction. Post construction, a Memorandum of Agreement (MOA) could be developed to leverage local emergency response. Any discussions should occur after down-selection.
48. Does Eielson AFB have a base vulnerability assessment that it can share with vendors so that physical security plans can consider existing threats and crime trends in the surrounding area?
- a. Controlled Unclassified Information (CUI) will not be available until after down-selection.
49. In C.35, work hours are discussed as during regular working hours. The EPF will be staffed at all times. Is C.35 meant to apply to working hours during operation, or just during construction?
- a. During construction, the Government understands that requests will be submitted to work outside normal working hours and is prepared to route those requests through coordination with the Contracting Officer Representative (COR). During performance, the Government envisions that the 24-hour staff will have access to the site that they have leased anytime with the proper credentials.
50. Section L.7.1.3.1.2, Implementation Plan states, "The Offeror's implementation plan shall include a GANTT style schedule showing the timelines for all stages of development to include design, design review, licensing, environmental assessment, permitting, refueling, financing, interconnection steps, if applicable, and timeline, procurement of materials, construction of the EPF, meter installation, commissioning, and testing. The schedule shall indicate the critical path elements and task dependencies. "It is requested that the Government remove the word "financing" from Section L.7.1.3.1.2. Financing aspects are addressed in section L.7.3.2.4 – Project Financial Plan. If the Government elects to not delete financing from L.7.1.3.1.2, please clarify what financing items should be shown in the GANTT schedule.
- a. During construction, the Government understands that requests will be submitted to work outside normal working hours and is prepared to route those requests through coordination with the COR. During performance, the Government envisions that the 24-

hour staff will have access to the site that they have leased anytime with the proper credentials

51. In view of the RFP requirement to develop an integrated schedule, and the very challenging goal of reactor operations in 2027, the Offerors need to assume a date for NOITA to base their implementation schedule start date. It is requested that the Government provide a date for NOITA.
 - a. The Government does not have a definitive date for NOITA issuance. Target issuance is CY 2023.
52. The current RFP scope is for 7 years of construction and 20 years of reactor operation. The Government has established a requirement to meet the Congressional commitment of reactor operations by 2027, which allows approximately 4 years for construction. We request the Government revise the RFP to reflect the lesser years of construction and indicate if the RFP will still require 20 years of reactor operation or an increase in years of reactor operation.
 - a. All exceptions to the terms and conditions of the solicitation shall be submitted to the Government per Section L.4.2.1.0.