Eielson AFB Micro-Reactor - Request for Information – Group 2

1. Section L.4.2.6 states, "The offeror shall cross reference the offer and Section C—Description/specifications/statement of work to where each issue is addressed. “Does this cross referencing to Section C only pertain to narratives in Vol I - Technical Proposal? If so, would the Government consider allotting additional page count for Vol I - Technical Proposal?
    a. The offeror shall cross reference the offer and Section C—Description/specifications/statement of work to where each issue is addressed. A Cross-Reference Matrix will not count against the page limitations for their respective volumes.

2. The Vol. III Price Proposal requires pricing methodology to develop the offered price to include licensing, studies, and construction costs, and Project Pro Forma. It is not clear if the RFP delineates the start of allowed pricing costs. It is recommended that these costs should be allowable at NOITA. Will the Government please clarify the start of allowed pricing costs?
    a. The price proposal should incorporate any costs anticipated in this project and development of the solution to the Government requirements.

3. Regarding the model contract, we note that DD Form 1449 denotes this acquisition correctly as a “Solicitation/Contract/Order for Commercial Items." This is further amplified by RFP Attachment JA6 “FAR and DFAR Clauses in Text," and specifically the inclusion in JA6 of FAR 52.212-3 “Offeror Representations and Certifications-Commercial Products and Services” and FAR 52.212-4 “Contract Terms and Conditions-Commercial Items.” However, RFP Model Contract Section I “Contract Clauses” sets forth an extensive list of other FAR and DFAR provisions generally utilized in a FAR Part 15 acquisition as opposed to this commercial FAR Part 12 acquisition. In addition, there are cases where the terms set forth on JA6 contradict those in Section I. Also, Section I Para (4) notes that the FAR and DFAR clauses can be found in Attachment JA6, as noted, such terms, are for the most part, different than those in Section I. Can the Government please provide clarification as to which terms apply and how should conflicts in terms be viewed?
    a. The Government has determined the appropriate clauses for this project. All exceptions to the terms and conditions of the solicitation shall be submitted to the Government per Section L.4.2.1.0.

4. Why is the government requesting a firm fixed price estimate for the EPF? Is this firm fixed price part of the Price evaluation? Section M of the RFP it appears that the government will make it to valuation based on proposed prices using net present value via Attachment JA7 EPF Production, Hourly Production Data and Pricing Schedule. Please clarify.
    a. The Government has determined the appropriate clauses for this project. All exceptions to the terms and conditions of the solicitation shall be submitted to the Government per Section L.4.2.1.0.

5. Would you prefer the proposal to only include one site or multiple candidate sites?
    a. It’s the determination of the Contractor on how they wish to submit their proposal.

6. Regarding the cost uncertainty and FFP requirements, is DLA/USAF aware that there will be a limited appetite as this isa high risk project with no capital recovery for 7 years? Is the Government aware of the benefits of progress payments?
    a. The Government is aware of the associated risks with the firm fixed price requirement.

7. Why do entities need to have submitted an NRC application before the RFP submission id the NRC public ally states licensing takes less than 36 months?
    a. Per Amendment 0002, the NRC application submission requirement has been revised. Reference Attachment PR1 NRC Regulations and Standard Micro-reactor and Section L.7.1.3 Conceptual Design(3)(i).

8. What does the $ amount in CLIN 0003 actually represent? "Total estimated contract value", where did this come from?
    a. The dollar amount presented in CLIN 0003 is the estimated total rent value of the land for the term of the contract. Per 10 U.S. Code § 2667 , the Government has to attain the Fair Market Value for use of the land. Reference Attachment JA1 DRAFT Lease.

9. 50% of the RFP scoring based is on price. There are two projects: one is steam and one is electricity. How will the price be combined for these two projects?
    a. Per Section M.1.6.1 Fair and Reasonable Price, the Government will evaluate the Financial Plan, pro forma and all related information provided in support of the offered price to determine if the costs reflect a clear understanding of the Government's requirements; are consistent with the various elements of the offer's proposed scope of work and are neither excessive nor insufficient for the work effort to be accomplished. The Offeror's proposed price will be evaluated for price realism and price reasonableness in accordance with FAR Part 15 and determined to be either reasonable or unreasonable.

10. Are offerors required to have submitted design applications for the proposed design to NRC prior to submitting their response to this RFP? Rationale: SMNR section L.7.1.3.1 Part 2. Implementation Plan refers to PR1 NRC Regulations and Standards, which states: the Contractor must have submitted design applications to NRC prior to submitting their response to this RFP in order to ensure the 2027 timeline can be met.
    a. Per Amendment 0002, the NRC application submission requirement has been revised. Reference Attachment PR1 NRC Regulations and Standard Micro-reactor and Section L.7.1.3 Conceptual Design(3)(i).

11. Why is the Government committed to one reactor at 1-5 MW or when 10 reactors at .1-.5 MW would provide the same electrical output in a similar operational envelope?
    a. The Government contemplates a single reactor to provide the requirements contained in the RFP. Reference Section L.4.1.3, If an Offeror chooses to submit more than one offer, it may do so by submitting a separate proposal submittal for each.

12. Does each volume of the response need its own cross-reference matrix, or is there just one overall? To what level does the cross-reference matrix (or matrices) need to go? Is level C.x sufficient?
    a. Per Section L.4.2.6, The offeror shall cross reference the offer and Section C—Description/specifications/statement of work to where each issue is addressed. A Cross-Reference Matrix will not count against the page limitations for their respective volumes.

13. Does JA7 also need to be included in Vol IV?
    a. Attachment JA7 shall be submitted in both Vol. I and Vol. III and will not be counted against the page limitations.

14. Based on the in-person discussion on the Enhanced Use Lease (EUL) program, it appears to be a program for businesses that would like to site on Air Force lands, but are not required to site on Air Force lands. Based on the answers to previous questions, siting on Eielson Air Force base is a mandatory aspect of this RFP. Due to the strategic significance of the fission plant to the base (where the reliable heat and power adds an enhancement to the site) and the RFP requirement to site on base, the use of an EUL may not be the best fit. Is the Air Force open to a different approach?
    a. The Government intends to execute an Outgrant Agreement (Lease) for the utilization of the land for the developer's solution. Reference Attachment JA1 DRAFT Lease.

15. Do the requirements listed in C.17.1.1 extend to the vendors HQ facility supporting this RFP?
    a. The requirements in C.17 pertain only to the generating facility.

16. Section C.3.3.1 states, "Minimum Production. The Contractor shall operate and maintain the EPF whereby the system performance shall result in production of no less than the minimum annual production amount per year, as indicated in Table 5—Electricity Production, provided that the Contractor agrees to maximize its production to the greatest extent possible consistent with applicable laws and the requirements of the contract." The response above infers that only electricity production as stated in Table 5 needs to be achieved. Are the steam quantities listed in Table 5 no longer factored into the minimum production requirement?
    a. Minimum production for steam is not a requirement of the solicitation.

17. Section M.1.4.1 states, "Evaluation of Technical Capability will include review and assessment of an Offeror's production capability, Implementation Plan and Conceptual Design including the feasibility of the proposed solution in meeting the Government's requirements. "Please provide the criterion that will be used to evaluate the feasibility of a proposed solution considering this is a FOAK technology that needs a never before implemented NRC licensing schedule (less than 24 months) in order to execute construction, commissioning, and startup and turnover to operations by 2027.
    a. The Government is making an assessment on the ability of the offeror's intent reflected in their proposal to meet the requirements in this solicitation by addressing Production, Implementation Plan and Conceptual Design.

18. To align with C.11.3 which requires contract unit price for electricity production above minimum production, please modify Table 2-CLIN001, Electricity Pricing and Production by adding a column for "Contract unit price (in kWh) for electricity production above minimum production" for such amounts.
    a. All exceptions to the terms and conditions of the solicitation shall be submitted to the Government per Section L.4.2.1.0.

19. We request the Government delete the 60-day requirement to implement the remedy and 60 days to demonstrate compliance for producing less than 75% of the annual production amount. The plan to remedy the deficiency should include a recovery plan and durations that is agreed with both parties and align with the contractor's technical approach.
    a. All exceptions to the terms and conditions of the solicitation shall be submitted to the Government per Section L.4.2.1.0.

20. Section C.14.3 states, "In the event of a power outage at the substation or from the UDC, the contractor shall disconnect the EPF. Once the power is restored… ensure the EPF automatically reconnects to the installation grid." This negates the opportunity to provide power to the base if the utility goes down. This would also require the EPF to shut down and lose the ability to make money. It is recommended that the EPF not be required to disconnect. If required to disconnect, the contractor should be compensated for this lost opportunity to provide available power.
    a. Per Amendment 0002, Section C.14.3 has been revised.

21. It is recommended that the RFP provide text that clearly identifies excusable delays as stated in CFR 52.249-14 Excusable Delays.
    a. Section B.1.1 Definition, Excusable Delays is ” is a delay or failure in contract performance beyond the reasonable control of the party and without its fault or negligence, such as acts of God or the public enemy, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, unusually severe weather, delays of common carriers, civil disturbance, or transmission failure beyond the interconnection point.

22. Section L.3.1.2 states, "Teaming arrangement documents shall be submitted via use of Attachment JA9.” While we appreciate the Government providing a teaming agreement template (Att JA9), each company has its own company-specific and unique Teaming Agreements, most of which were in place well before the release of the final RFP. These company-specific agreements have been negotiated and reviewed by all parties' legal counsel and have been executed. With that in mind, we have made the following assumptions regarding this RFP clause: JA9 is for example purposes only (a type of placeholder) and that each Offeror can submit its own company-specific Teaming Agreements. Further, if Teaming Agreements are incorporated into the contract, it would be on a “For Information Purposes Only” basis as the Government is not a party to these stand-alone Teaming Agreements. Please confirm our understanding on these two points above is correct. Additionally, please provide clarification on what partners would you like agreements. Do you want to limit the submitted agreements to those companies providing "significant scope" and aligns with the Past Performance requirements? Typically, operations agreements are only required for the LLC/JV/Operating Entity on contracts like the Eielson Micro-reactor project. Finally, considering the page restriction, is it acceptable for Teaming Agreements to be placed within Vol IV - Contract Documentation which has no page limit?
    a. The Government requires Attachment JA9 to be submitted with the proposal if a teaming arrangement is contemplated. If a company has its own unique, company-specific Teaming Arrangement, those supporting documents should be submitted with the proposal as well. Attachment JA9 may be submitted in Vol. IV. Reference Section L.3.1.1 Teaming Arrangements are characterized by two or more business entities that are working together under the representation of one of the existing business entities for the duration of the contract. A teaming arrangement is not a formal merger of two or more business entities. The Government recognizes the validity and integrity of teaming arrangements as detailed in FAR Subpart 9.6. All Contractors are encouraged to review FAR Subpart 9.6 to acquaint themselves with its details. Since the Government can only determine the responsibility of the prime Contractor, per FAR 9.604(b), in accordance with FAR 9.1, Responsible Prospective Contractors, Contractor’s must identify in their offer any teaming arrangement to be considered and completely identify the relationships/responsibilities of the teaming members.

23. Section L.3.1.2 states that, if this is a first-time joint effort, each party to the arrangement must provide a list of past and present relevant contracts within the past five years. Because the 15-page limitation of Volume II would not provide enough room for it there, may we place this information in Volume IV - Contract Documentation?
    a. This information should be factored in the 5-page narrative regarding each partner's nuclear portfolio. Past Performance information shall be contained in Volume II. Per Amendment 0002, each Past Performance reference (Attachment JA8) is allowed up to 5 pages each. Maximum Page Limit for Volume II have increased to 30 pages.

24. The 15-page limit for past performance, with up to 5 pages allotted for the opening nuclear portfolio narrative, leaves room for only two or three completed Attachment 8 projects afterward and nothing more. (We estimate the average project in Attachment 8 format will occupy 4 pages at a minimum when populated to succinctly address relevancy and evaluation criteria.) No offeror will be able to provide a compliant response to meet all past performance requirements within this page restriction. We humbly suggest that you allow a 5-page portfolio narrative followed by team PPQs of up to 4 pages each.
    a. Per Amendment 0002, each Past Performance reference is allowed up to 5 pages each. Maximum Page Limit for Volume II have increased to 30 pages.

25. Please remove current Item H on the PPQ form referencing key personnel as key personnel are not explicitly applicable to this solicitation. It uses up additional page-constrained space that will be required to provide relevancy in several performance areas.
    a. The content of the Past Performance Questionnaire shall not be changed.

26. Section C.19.2 states, "Upon acceptance by the Contracting Officer, the Delay Plan will be incorporated into the contract via modification as Exhibit JE2, Service Interruption and Contingency Delay Plan." The referenced JE2 template which is a contractual requirement is not included in the RFP documents. Could the Government please validate if this is an omission or to be provided later?
    a. It is the Contractors responsibility to develop this document. There is not a template. This document will be required to be submitted prior to the Commercial Operation Date (COD) and is not necessary with the submission of the proposal.

27. It is requested that DOD amend M.2.2.(b) to specify what near term NEPA and NRC license initiation actions are required to be completed prior to award and initiation of the contract, that do not require excessive expenditure of Contractor funds. Significant costs will be incurred in the 3 to 5 years to get licensure and approval from the NRC on the resource design and completion of the NEPA requirements stipulated in L.7.1.3.1.2. (a) and (b), without any commitment or contractual agreement from DOD, which places unreasonable risk on the contractor, should the Government decide not to proceed with the contract (e.g., loss of funding). Per M.2.1, the NOITA does not constitute a commitment by the Government to make award, nor does it constitute a commitment to make any award at all under the solicitation. Per M.2.2, prior to the contract being executed, the following contingencies need to be completed: "Completion of NEPA requirements," stipulated in L.7.1.3.1.2. (a) and (b), and "Licensure and approval from the NRC on the resource design.M.2.2.(b)."Whether the contractor uses 10CFR50 or 10CFR52, current estimates are over 3 years to get Construction Permit (10CFR50) or 5 years to get Combined Operating License issued (10CFR52) with similar timeframes for NEPA requirements.

a. Per Amendment 0002, the NRC application submission requirement has been revised. Reference Attachment PR1 NRC Regulations and Standard Micro-reactor and Section L.7.1.3 Conceptual Design(3)(i). Prior to award, the NRC must complete both the NEPA and Licensing processes. An Environmental Impact Statement will constitute completion of the NEPA process and an issued License to the selected vendor will constitute the completion for the licensing process.

28. We understand that the NDA is provided as a placeholder and that each Offeror could modify it, as appropriate. Please confirm our understanding.
    a. All exceptions to the terms and conditions of the solicitation shall be submitted to the Government per Section L.4.2.1.0.

29. Section M.1.4.1 states, "Evaluation of Technical Capability will include review and assessment of an Offeror's production capability, Implementation Plan and Conceptual Design including the feasibility of the proposed solution in meeting the Government's requirements." Will the Government please define "feasibility" (i.e., feasibility to achieve schedule, technical feasibility, etc.) and provide the evaluation criteria used to determine "feasibility"?
    a. The Government is making an assessment on the ability of the offeror's intent reflected in their proposal to meet the requirements in this solicitation by addressing Production, Implementation Plan and Conceptual Design.

30. Based on commercial experience with newer nuclear reactors and understanding that this is a first of a kind reactor, we would recommend the Government consider the inclusion of a startup period of 6-8 months following initial fuel loading to ensure critical testing is not ignored to meet the operational deadline. Understanding the fixed timeline established by DLA/DOD, can a startup period be included as part of the award process?
    a. Reference Section E.2.1. The Contractor must conduct pre-operational tests through the nuclear licensing process found in 10 CFR Part 50 or as required by the NRC.

31. Please define the Government's definition of Reactor Operations by 2027. Is "Reactor Operations" considering the start or completion of Cold Commissioning, Hot Commissioning, Power Range testing, demonstration of rated capability for specified duration, or licensure by NRC? Please provide explicit clarity to what the Government considers "Reactor Operations" in this case.
    a. Reactor Operations shall commence on the Commercial Operation Date. Reference Section E - Inspection and Acceptance

32. Section C.31.6 Review by Government states, "all facilities, construction, and installation by the Contractor on the premises shall be subject to review by the Government," and "the Contractor shall submit, for review by the Government, detailed designs, drawings and specifications..." Can Offerors assume that these documents are submitted for information only and that no approval is required by the Government for work to continue by the contractor? If approvals are required by the Government for the contractor to proceed, then please provide review and approval times that the Government can commit to for Offerors' planning and estimating purposes.
    a. All deliverables are outlined in Section F are subject for Government review and acceptance. Reference Section F.2.2 Review and Acceptance. When Government acceptance is required under the contract, the Government shall, other than for energy, review and provide acceptance of deliverables if satisfactory to the Government within

fourteen (14) business days of receipt of the item from the Contractor, unless stated otherwise in Table 7—Deliverables.

33. Section C.35.2 Normal Work Hours states, "Unless approved by the COR, all work shall be performed within normal working hours [0700-1700 Mon - Fri] of the installation." With the very shortened schedules to achieve reactor operations by 2027, can Offerors assume that the COR will approve working outside normal work hours?
    a. Eielson AFB is an active military installation with daily operations. Pending those daily operations, the COR must approve/deny request to work outside of normal working hours. Offeror shall not assume otherwise.

34. Section C.11.4 Minimum Purchase Guarantee states, "A curtailment of the EPF either because of an outage by the Utility Distribution Company, if not also the Contractor or an affiliate of the Contractor, that prevents operation of the EPF or because of the need to operate the EPF in accordance with the requirements of the interconnection agreement that leads to the Government's inability to consume the minimum annual production is an excusable delay. " The contractor's contract is with the Government, not with the UDC. An outage of the UDC, or a requirement of the interconnection agreement, represents a loss of ability to provide power that the contractor should be compensated for. We request the Government delete this provision.
    a. All exceptions to the terms and conditions of the solicitation shall be submitted to the Government per Section L.4.2.1.0.

35. Are there any absolutely mandatory ("deal breaker") requirements? For example, if a contractor state they can meet 2027 and another claims an exception and proposes a later timeline, is the contractor with the exception removed from consideration?
    a. The Government will evaluate each individual proposal IAW with Section M of the solicitation. All offerors are subject to the requirements and timelines. Any extensions requests will be published.

36. The CLIN0001 and CLIN0002 tables show there is no payment during construction or decommission. However, the last sentence of C.3.1 states "All Contractor costs and expenses for the EPF, except as otherwise explicitly indicated in the contract, are included in CLIN 0001.". Is the Air Force allowing costs of construction and decommission to be amortized into the cost of power per kWh or are those costs assumed to be funded by the contractor?
    a. All costs incurred by the Contractor are to be amortized in the CLIN 0001.

37. Can the Air Force provide the requirements to be addressed in the cross-reference matrix per L.4.2.6 in tabular format, to ensure consistency and to save the contractors time that would otherwise be spent converting PDF files to a matrix?
    a. Contractor shall develop their own cross reference matrix submitted in their proposal.

38. Because of the wide range of scope necessitating complex, multi-disciplined teams as Offerors, we suggest permitting up to 8 PPQs per team. We believe increasing the maximum number of PPQs will provide you more valuable, complete insight as to each team's full, proven capabilities and experience.
    a. The maximum number of Past Performance Questionaries (PPQ) allowable is five (5).

39. The current wording of L.7.1.3.1.1 infers submitting table JA7 in Volume 1/Factor 1 – Technical Capability. We request clarification that table JA7 only be submitted in the Cost Volume, and that duplicative data that is in JA7 is not required in Volume 1/Factor 1 (absent the cost information). Background: L.7.1.3.1.1 Volume I/Factor 1 - Technical Capability – Production requires submitting "a system output profile in the form of a table, populated with the projected output of the proposed EPF in kilowatt-hours (kWhs) and mass per pound (Mlbs). The Offeror shall use Attachment JA7, EPF Electricity and Steam Production, Hourly Production Data and Pricing Schedules for submission of output data." L.7.3.2.1 Volume III/Factor 4 - Price Proposal – Table of Contents – Section 1, requires "a completed copy of Attachment JA7 EPF Energy and Steam Production Hourly Production Data and Pricing Schedules."
    a. Attachment JA7 shall be submitted in both Vol. I and Vol III., and will not be counted against the page limitations.

40. L.7.1.3.1.2 states that the Offeror's implementation plan "shall include a GANTT style schedule showing the timelines for all stages of development to include the 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." We request that the implementation plan schedule be excluded from the Technical Volume's 50-page limit. The requirements of L.7.1.3.1.2 for an implementation plan schedule demonstrating the level of detail required to demonstrate to the Government that the Offeror has considered all aspects of its approach in a realistic fashion, with critical path elements and task dependencies merit a schedule that will encompass many pages and potentially take up a major portion of the Technical Volume's 50-page limit.
    a. Per Amendment 0002, The GANTT schedule shall not count against the page limitations.

41. Section L.7.4.1 (g) Contracts Documentation Section requires submittal of a "completed and signed Subcontracting Plan." Separately, RFP Attachment JA4 is identified as "Contractors Small Business Subcontracting Plan." Would the Government please confirm these documents are one and the same document (i.e., "Subcontracting Plan" is the "Contractor's Small Business Subcontracting Plan")" In addition, would the Government please confirm that the submittal of this Small Business Subcontracting Plan is on an "as required basis," meaning that if an exemption applies, such as the Offeror is a small business concern, then submittal of the plan is not required?
    a. Attachment JA4 "Small Business Subcontracting Plan" and Subcontracting Plan referenced in Section L.7.4.1 (g) are the same document. Requirements of this completed and signed submission are referenced in DFARS 252.219-7003, Small Business Subcontracting Plan (DoD Contracts)(MAR 2016).

42. Can you please provide a diagram, dimensions, specifications, and images of where the steam system produced from the micro reactor site shown to Pre-Proposal meeting attendees, ties into the cooling pond and steam generator feed system? This information is necessary to estimate the cost of the construction for the micro reactor steam and condensate systems.
    a. Per Amendment 0001, List of attendees was provided. Per Amendment 0002, additional maps/drawings were provided.

43. Can you please help clarify this requirement? 10 CFR - COL/COLA (Combined Leasing Application).
    a. Per Amendment 0002, the NRC application submission requirement has been revised. Reference Attachment PR1 NRC Regulations and Standard Micro-reactor and Section L.7.1.3 Conceptual Design(3)(i).

44. Any possibility of waiving NRC fees?
    a. 10 CFR 170.11 and 10 CFR 171.11 provide the criteria for the NRC to grant a fee waiver. A determination on a waiver request would be made after the waiver request is submitted.

45. What is the realistic expectations of the Air Force for how long the system is going to take to license?
    a. Generic NRC licensing schedules are presented at https://www.nrc.gov/about-nrc/generic-schedules.html. The NRC staff will work with each applicant to establish a specific schedule for the application, which may be shorter or longer than the generic milestone schedule. The Nuclear Energy Innovation and Modernization Act establishes reporting requirements for the NRC in the event the NRC issues a final safety evaluation later than the NRC established milestone schedule date. Recent licensing experience has shown that the licensing review is very dependent upon the maturity of the design and the quality of the application. Application review schedules are also greatly affected by the extent of pre-application activity. The NRC strongly encourages pre-application engagement and has prepared a draft white paper (ADAMS ML21145A106) describing recommended activities.

46. Will there EIS process ever have a chance of being expedited, generalized or applicable to multiple sites?
    a. The NRC is preparing a generic environmental impact statement for Advanced Nuclear Reactors (ANR GEIS). The ANR GEIS and its associated guidance updates can be found at https://www.regulations.gov/docket/NRC-2020-0101/document. The ANR GEIS will streamline the environmental review process by evaluating some environmental impacts using technology-neutral plant and site parameter envelopes. The staff has written the draft ANR GEIS and associated draft proposed rule, and the Commission is considering whether to issue them. If approved, the staff would issue the draft ANR GEIS and an associated proposed rule in 2023. The ANR GEIS still requires an applicant to develop an environmental report. In order to incorporate the analysis for an issue from the ANR GEIS, an applicant would have to demonstrate that the project meets the values and assumptions of the plant and site parameter envelopes for that issue. The NRC staff would publish a project-specific supplemental EIS that would tier off the ANR GEIS. Additionally, the NRC staff in recent years has implemented several lessons learned and innovation efforts to streamline its NEPA process. Efforts include reducing redundancy in Environmental Assessments (EAs)/Environmental Impact Statements (EISs) and increasing the use of incorporation by reference, where appropriate. These efforts are expected to reduce the amount of time needed to issue a Final EIS after the application is accepted. But this reduction is contingent on the quality of the application and associated environmental report (ER) that is submitted. In addition to tiering, NEPA also encourages the incorporation of analyses, where appropriate, from reliable sources (i.e.,

reports, studies, data collection) and other environmental NEPA documentation (EAs/EISs).

47. The critical path of any contractor's schedule goes through NRC licensing. The NRC is going to attempt to accelerate their review times. The Government's response to questions #75 states, "NRC will be able to support the objective of coming online in 2027." In order to make it easier for the Government to evaluate Offerors' schedules against each other, it is suggested that the Government provide uniform expectations for NRC and public review times to level the playing field for realism of schedules with one round of NRC comments for each step of the review process. Therefore, please provide the NRC timelines for review/approval for this FOAK project.
    a. Generic NRC licensing schedules are presented at https://www.nrc.gov/about-nrc/generic-schedules.html. The NRC staff will work with each applicant to establish a specific schedule for the application, which may be shorter or longer than the generic milestone schedule. The Nuclear Energy Innovation and Modernization Act establishes reporting requirements for the NRC in the event the NRC issues a final safety evaluation later than the NRC established milestone schedule date. Recent licensing experience has shown that the licensing review is very dependent upon the maturity of the design and the quality of the application. Application review schedules are also greatly affected by the extent of pre-application activity. The NRC strongly encourages pre-application engagement and has prepared a draft white paper (ADAMS ML21145A106) describing recommended activities.

48. M.2.2 (b) has a contingency, "Licensure and approval form the NRC on resource design," as a prerequisite to issue the contract. If a contractor should follow Part 50, is this contingency satisfied with the Construction Permit or with the Operating License?
    a. Per Amendment 0002, Section M.2.2 (b) has been revised.

49. Is there a POC with Eielson Air Force Base for Geotech or environmental questions?
    a. All questions regarding this RFP must be vetted through DLA Energy. If vendors have questions regarding environmental or siting, vendors must submit their question to dlaenergyresilience@dla.mil. DLA Energy will then work with the Department of the Air Force to provide those answers with the appropriate POC at Eielson AFB. Vendors may not contact the POCs directly.

50. The RFP has placed a high emphasis on the production of electricity and microreactors by design minimized excess high pressure, high volume by-products (i.e., steam). However, Table 3 shows an appreciable estimate of the annual required steam needed. The energy needed to produce the combined steam and electricity will greatly exceed the energy required to produce the electricity listed in CLIN 001. Can the Government provide clarity (quantities and priorities) of what the contractor is expected to achieve regarding electricity and steam production? This information is needed to appropriately size the EPF.
    a. Per Amendment 0002, Reference Section C.14.5.1 General Steam Requirements.

51. Could detailed drawings and potential interconnection points be identified for the steam and electrical systems? Could you include specifications for (a) steam system (pressure, temp, etc.), (b) Eielson T&D specifications (switch yard, transformer types, step-up/step-down requirements, etc.), (c) off-base grid connections, (d) where funding obligations for the bidder and USAF begin and end?

a. Reference Section C.14.5.1 General Steam Requirements. T&D specifications will vary by interconnection point. Drawings, specifications and connection points can be provided based on site of interest. Steam system pressure is 90-100 PSI at 420-450 degrees Fahrenheit. Contractors need to specify which site of interest.

52. Does Eielson AFB currently have health physics and radiation staffing? If yes, could they be used to support the operation of the reactor?
    a. Eielson currently does not have a Health Physicist; however has an Installation Radiation Officer, but will not support the offeror with staffing. All personnel to support the operations of the microreactor must be supplied by the vendor or offeror.

53. What is the current voltage at the connection point?
    a. 7200 Delta

54. Do all potential reactor sites have sewage or would septic need to be included in the RFP scope?
    a. Most available sites have access to the utilidor and the ability to hook up to existing utilities (location dependent).

55. What type of floodplain is the rest of the available area? A 500- or 1000-year floodplain?
    a. Per fema.gov the definition of a 500-year floodplain: This is the boundary of the flood that has a 0.2-percent chance of being equaled or exceeded in any given year. Officially termed the 0.2-percent annual chance floodplain. Per USGS the definition of a 1000-year flood: The term "1,000-year flood" means that, statistically speaking, a flood of that magnitude (or greater) has a 1 in 1,000 chance of occurring in any given year. In terms of probability, the 1,000-year flood has a 0.1% chance of happening in any given year.

56. Describe the lay-down areas and any waste/spoil disposal provisions?
    a. The Air Force will determine a construction lay-down area once a site proposal is approved.

57. Related to C.3.1.1 and C.14.5, where on the site is the preferred steam interconnection point? 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.

58. 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. Per C.18.5, Operational Availability of EPF should meet an annual capacity factor of 90% or greater.

59. Is it possible to tie into the steam system where the temperature is lower than 430-450F?
    a. It is not possible to tie into the steam system. Eielson AFB is supplying steam to individual mechanical rooms at this temperature and to supply it at a lower temp would require Eielson AFB to tie in individual facilities to the SMR. Reference Section C.14.5.1 General Steam Requirements.

60. Annual total kWh is not sufficient to define the system requirements. Can the government provide more detailed load information such as day-night power demand to better understand what load the reactor will see and the transients (movement in power) we will need to plan for?
    a. Maximum output (electricity and steam) of microreactor will be well below base load of installation, therefore EPF will be required to operate at its nominal output consistently to provide base load energy.

61. Is electricity or steam more critical with regard to total output? The maximum peak requirement for steam delivery appear to exceed the MWe required for the solicitation. (i.e., may require additional reactors).
    a. Per Amendment 0002, See revised Table 0003 - CLIN 0002, Steam Pricing and Production.

62. Will the micro reactor be expected to operate at 100% throughout?
    a. Reference Section C.18.5. Minimum Level Availability. Availability is a measure of a system or component being operational and accessible when required for use. Inherent Availability must meet a capacity factor of 80% or greater. Operational Availability of EPF should meet an annual capacity factor of 90% or greater, with nominal (30 days or less) refueling/maintenance outages scheduled no less than every 18 months during minimal demand periods. Contractor shall report on EPF operational availability and inherent availability on a monthly basis to Eielson AFB.

63. Are there any restrictions that would prevent companies and organizations from outside of the US participating in the micro reactor pilot project?
    a. Consistent with the Atomic Energy Act, NRC regulations in 10 CFR 50.38 state: "Any person who is a citizen, national, or agent of a foreign country, or any corporation, or other entity which the Commission knows or has reason to believe is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government, shall be ineligible to apply for and obtain a license." Foreign ownership, control, or domination (FOCD) of an applicant must be identified in accordance with 10 CFR 50.33(d). Guidance is provided in the Standard Review Plan on FOCD, published on September 28, 1999 (64 FR 52355). Also, the Atomic Energy Act and NRC regulations provide that a license will not be issued if this would be inimical to the common defense and security of the United States. Foreign participation in the project would be considered in making this determination.

64. C.15.1 states, "Scheduled outages by the Contractor shall not exceed four (4) hours per event and shall not exceed two (2) events per month." This is not realistic and is inconsistent with C.18.5 allowed 30 day refueling maintenance outages.
    a. All exceptions to the terms and conditions of the solicitation shall be submitted to the Government per Section L.4.2.1.0.

65. Can DLA confirm if American Nuclear Insurers (ANI) will provide insurance for this project? American Nuclear Insurers (ANI) has a clause that excludes government contracts because they expect the government to provide insurance. That is not covered by our existing insurance if we were to contract. They expect it to be provided through the Department of Energy or other government entities.

a. Having the reactor on federal property would NOT prevent the vendor from obtaining nuclear insurance from the American Nuclear Insurers. Since the Government proposes this project under a power purchase agreement, the Government would not be an owner or operator, and the reactor would be licensed under the provisions of section 103 of the Atomic Energy Act (AEA).

66. This section states, "In the event of a power outage at the substation or of the UDC, the contractor shall disconnect the EPF. Once the power is restored…ensure the EPF automatically reconnects to the installation grid." This is in contradiction to the concept expressed in section C.3.2.2 on p. 17 Electricity Order of Priority where the EPF is expected to be the lead. It also appears to defeat the purpose of providing an EPF if it is required to be disconnected at the exact time the other sources are unavailable. Will the Government please clarify what the term "disconnected" means in this scenario? Clarification of this operating concept and details is crucial. It is a key design criteria that will effect multiple design and operational design, testing, and installation details and will need to be understood to provide a fair estimate.
    a. Per Amendment 0002, see updated language in Section C.14.3.

67. Is the purpose of this to have the EPF support the base independent of the UDC? If so, this is contrary to 14.3, which requires the EPF to disconnect from the UDC. Or, is the purpose to demonstrate that the EPF can operate/shutdown without any external supplies or provisions?
    a. Per Amendment 0002, see updated language in Section C.14.3.

68. Specified Testing will require a load bank, + external power and other supplies to operate and shutdown and startup without any external support + ability to go from full operation to shut down and disconnect without operator intervention or controls. What is the value of doing the Black Start and Walk Away Safe Testing if the contractor cannot connect the EPF (per C.18.7) to the base without the UDC?
    a. Per Amendment 0002, see updated language in Section C.14.3. Also reference 10 USC 2920 and AFMA 90-17 for further policy guidance.

69. Steam pricing and delivery minimums are not clear. Portions of RFP imply steam is to be compensated. Will the Government please clarify?
    a. Per Amendment 0001, The Government does not contemplate minimum production quantities for steam. Steam shall be compensation IAW with Table 0003 - CLIN 0002, Steam Pricing and Production.

70. Is the required steam production 508,000,000 lbs. per year, equal to ~58,000 lbs./hr.? Rationale: The definition of Mlbs in Table B.1.2. (“Mlbs” means million pounds) and the numbers in Table 3 would result in 508,000,000,000 lbs. of steam per year but using the amount of lb./hr. in section C.14.5.1 results in a value on the order of 1000x less (508,000,000 lbs. per year).
    a. Per Amendment 0002, the correct requirement is 508 Mlbs.

71. Related to CLIN 0002, is the stated annual steam requirement, correct? 508,000 klbs or 508 Mlbs would appear to be more consistent with the other numbers provided in the RFP and attachments.
    a. Per Amendment 0002, the correct requirement is 508 Mlbs.

72. Are design and construction standards based on UFCs or UFGS?

a. Per Amendment 0002, see Section C.12.1 Industry Standards.

73. 43.8 million kilowatts hours per year equate to exactly 5 MW at 100% capacity factor. 60 kpph of steam equates to 18 mWs. Taken together, this is 23 MWs for a microreactor. Is the AF requesting multiple reactors, or is the steam or electricity requirement incorrect?
    a. The Government intends to award a single generating facility. Per Amendment 0002, the steam and electrical requirements have been revised.

74. Why is there a 7yr construction period and 3 yr. deconstruction period when micro reactors are meant to be rapidly deployable?
    a. Seven (7) years is allotted for construction, three (3) years is allotted for deconstruction if the offeror meets criteria as required. Offerors are not required to use all of the allotted time.

75. What resources will the Air Force provide to assist with the EIS?
    a. The Department of the Air Force will provide access to all necessary environmental and site information, as requested.

76. What takes priority? NRC licensing or meeting the 2027 timeline?
    a. Department of the Air Force requires the offeror to construct a commercially licensed microreactor by December 2027.

77. Section B.2.1 of the Model Contract sets forth an estimated contract value of for the various CLINs, based on a “total estimated quantity as specified.” In particular, for CLIN 0001, for “Delivered Electricity," the aggregate amount of kWh over the period of performance is stated as 788,400,000 over a twenty (20) year period (taking into account construction and decommissioning. This calculates to 39,420,000 kHw per year. However, the text of B.2.2 stipulates an annual amount of 43,800,000 kWh, which equates to an estimated total quantity of 876,000,000 kWh, which is consistent with the annual values set forth in Table 2 CLIN 0001 Electricity Pricing and Production. Given the bearing on the Government’s evaluation of the Offerors’ per kWh prices, could the Government please clarify which “total estimated quantities” should be considered? Can the Government please provide Table 6 that is referenced in the definitions?
    a. Per Amendment 0001, all references to "Table-6 Steam Production" have been deleted. Per Amendment 0002, Section B.2 General Requirements has been revised.

78. What is the anticipated load demand profile over the 20 years of operation that is expected to be met by the micro-reactor?
    a. Per Amendment 0002, See Table 0002 - CLIN 0001 and Table 3 - CLIN 0002.

79. Are there tactile or operational impact loads that have to be considered for the design above what is required by the NRC?
    a. No

80. Will the Government please explain why the construction is blacked out on Attachment 7 (JA7 Production and Pricing Schedule Rev 1)?
    a. There is no production to be purchased in the construction years.

81. To clarify, there is no pathway to contract with Eielson for fire, medical or security response?
    a. Eielson AFB has concurrent jurisdiction. If needed, an Memorandum of Understanding (MOU) would be developed to leverage local emergency response.

82. If there is no emergency contracting pathway, is there a preexisting precedent for off-site emergency response organizations responding to an on base event?
    a. Emergency Services are only available during construction. Post construction, a Memorandum of Understanding (MOU) could be developed to leverage local emergency response.

83. Which Government agency will conduct construction Quality Assurance?
    a. The Nuclear Regulatory Commission (NRC).

84. Describe interconnection on the existing site. Is this powered into switch gear?
    a. The point of interconnection for both steam and electricity are at the Eielson AFB Combined Heat and Power Plant.

85. Please provide a rough order of magnitude of cost based upon a representative location and a cost per square foot. This will drive some of the cost we will charge the Department of Air Force for energy.
    a. The Department of the Air Force is contemplating a Firm Fixed Price Power Purchase Agreement utilizing 10 U.S. Code § 2922a. The Department of the Air Force's objective is to purchase the power produced from the microreactor at a competitive rate against current utility rates. In terms of the land value, price will be determined by the fair market value after an appraisal of the land selected.

86. The document provided in the RFP (PR2 Site Map Micro Reactor Locations v2) conflicts in terms of usable/"green" areas with the map that was provided during the site visit. Please clarify which document takes precedent in terms of available site areas.
    a. Per Amendment 0002, See Attachments PR9, PR10, PR11, PR12 and PR13.

87. Related to C.33.5, are the conditions for US Government design acceptance of fencing the same as the mentioned minimum requirements in Section C.33.2? Are the lighting requirements (per C.33.3) available to review?
    a. Once a sight has been selected, the Air Force will provide all the requirements for fencing and lighting. If the selected sighting is in the Combined Heat and Power Plant compound, there is existing fencing and lighting already installed to SF standards.

88. Related to CLIN 0002, is the stated annual steam requirements correct? 508,000 klbs or 508 Mlbs would appear to be more consistent with the other numbers provided in the RFP and attachments. We understand from “Group 1” of the questions that this is a known issue, this probably the biggest point of clarification required.
    a. Per Amendment 0002, the correct requirement is 508 Mlbs.

89. In order to assist the Government in assessing schedule feasibility of the Offerors, it is requested that the Government provide schedule parameters guidance so that all contractors are using the same assumptions in providing their implementation schedules to demonstrate feasibility.

Background: It will be challenging for the Government to evaluate the feasibility of the contractor's solution in meeting the Government's requirements when:

A. No micro-reactor has ever been designed, licensed and successfully operated

- B. When no conventional reactor has ever achieved the timelines dictated in the RFP for design, build, commission, and NRC license
- C. When there are unknown "accelerated" NRC timelines for licensing
- D. As discussed at the pre-proposal conference, that the RFP schedule is unachievable
- How do Offerors demonstrate feasibility to achieve the RFP schedule, if the RFP schedule is not feasible?

Request:

- Provide guidance on how the contractor should portray the currently unachievable NRC licensing and EIS timelines that support a 2027 reactor operations requirement.
    - Should Offerors show the granularity of all steps in the NRC and NEPA processes?
    - Should Offerors just assume that licensing supports 2027 reactor operations?
    - Under current NRC published guidance, the NRC licensing and EIS schedule do not support 2027 reactor operations. We request that the Government either provide the NRC review response times and public period response times that support a 2027 reactor startup, or provide guidance on how Offerors should show this in their schedules. OR
    - Allow Offerors to provide their best achievable schedules showing realistic timelines but exceeding the 2027 date. Offerors still need the NRC review response times and public period response times to base their schedules on.
    - Note that 1.b and c are RFP compliant but not realistic and all contractors will have compliant but unrealistic schedules. 1.d schedules will be easier for the government to evaluate, but are non-compliant. If 1.d is chosen, we request that the RFP be revised.
    - Can Offerors use existing Metrological data available from the DOD, or need to start new, to support the NRC licensing process?
- Provide guidance on how Offerors should document the realism of the schedule items and durations on their schedule.
    - Should fuel manufacturing or supply schedules have a basis for accomplishment (i.e., quote from vendor, availability of source of fuel stock, etc.)?
    - Should reactor or equipment manufacture or supply schedules have a basis for accomplishment (i.e., quote from vendor, availability of source of fuel stock, etc.)?

    a. The Department of the Air Force will provide the allotted timeline to meet the requirements. It is up to the offeror to provide their plan to meet this timeline, and to meet the requirements within the solicitation.

90. Please provide escalation rates for the term of the contract that Offerors shall use in computing the rate for both steam and electricity.
    a. Contractors should compute and report an average annual escalation rate for the specified time period for both steam and electricity.
    b.
91. C.15.1 reduces the obligation for the Government to consume power during maintenance outages. It is normal practice in other power purchase agreements for planned and unplanned maintenance outages to be embedded in the obligated values of energy to be produced. It is recommended that only when an unplanned outage exceeds the parameters embedded in the values of energy to be produced does the Government get a reduction in its obligation to consume power.

a. All exceptions to the terms and conditions of the solicitation shall be submitted to the Government per Section L.4.2.1.0.

92. We request the Government provide detailed site information including topographical maps, characterization data, etc. for both proposed site options.
    a. Per Amendment 0002, See Attachments PR9, PR10, PR11, PR12 and PR13.

93. Since this reactor will be on a military base, is it possible for the reactor to be authorized by DOE rather than licensed by the NRC?
    a. Based on the current configuration of the electric supply system at Eielson AFB, an NRC license is required for the addition of a nuclear power reactor. If the Eielson electric system were to be isolated from the Golden Valley Electric Association such that the reactor is used solely for military purposes, then the jurisdiction for the reactor might move to DOE or even DoD. The NRC, DOE, and DoD would need to evaluate the appropriate jurisdiction if such a change is pursued.

94. Per Amendment 0001, Mlbs is defined as “mass per pounds”. Please provide clarification on how contractors should interpret the requirements for CLIN0002 steam if Mlbs is intended to represent mass per pounds. A total steam requirement of 10,160,000 “mass per pounds” is not standard usage when specifying steam requirements.
    a. Per Amendment 0002 the acronym Mlbs. has been revised.

95. Section L.7.2.2 states, “The offeror shall provide references for... its largest project(s) of similar scope. This information shall be documented on the Past Performance Information Questionnaire. Project(s) cited and references should be recent (i.e., within 15 years of the date of the proposal), and 5MW or greater in size.” When dealing with such novel technology such as small nuclear reactor design, construction, licensing, and operations, it is unlikely that each individual project submitted by Offerors within the PPQs will cover all scope and requirements set forth in your Past Performance requirements. With such a wide range of scope in your RFP and each PPQ project required to be 5MW in size or greater, is it acceptable for Offerors to submit PPQs with projects that showcase specific relevant scope areas and requirements, with all PPQ projects collectively covering all scope phases?
    a. It is the Contractor's decision on how to showcase their 5 partners/subcontractors. Per Amendment 0002, each Past Performance reference (Attachment JA8) is allowed up to 5 pages each. Maximum Page Limit for Volume II have increased to 30 pages.