

DARPA-PA-24-04-02 Switchable Reactives and Energetics (SeREne)
Frequently Asked Questions (FAQs)
as of 11/12/24

18Q: Will there be a facility provided for performers to test their developed energetic materials?

18A: A facility will not be provided by the Government for performers to test their developed energetic materials. The Government IV&V team will be testing the performance of the materials to see if the metrics are achieved. If additional performance tests are desired by the proposer, the proposer should secure a facility and incorporate any associated costs into their proposal.

17Q: Are there restrictions to foreign nationals (FNs) working on this effort?

17A: Restrictions to FNs depends on the proposed work. If CUI will be generated, FNs do not have authorized access. However, FNs may work on the unclassified, fundamental research aspect of the effort. VOLUME 3: ADMINISTRATIVE & NATIONAL POLICY REQUIREMENTS should outline protocols to communicating unclassified fundamental research with foreign nationals if CUI will be generated in the proposed effort. Please refer to Section 8.2.2. in DARPA-PA-24-04 and the following website for more information: <http://www.darpa.mil/work-with-us/additional-baa>

16Q: Does the effort need to be NIST 800-171 compliant?

16A: Yes, you must ensure that all DARPA CUI is only processed on information technology systems meeting NIST SP 800-171 or DoDI 8582.01 requirements. Please refer to Section 8.2.2. in DARPA-PA-24-04 and the following website for more information: <http://www.darpa.mil/work-with-us/additional-baa>

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15Q: Is cost share required? If so, under what circumstances/conditions?

15A: Section 10 of DARPA-PA-24-04 outlines the conditions that must be met order for an Other Transaction (OT) for Prototype agreement to be awarded. At least one-third of the total cost of the prototype project is to be paid out of funds provided by sources other than the Federal Government if neither if the first two conditions cannot be met.

Additional information on OTs can be found in Section 10 of DARPA-PA-24-04:

<https://sam.gov/opp/cb7a935d59bb4ceeb62b9515f7d9f9b0/view>

14Q: Can a discussion between our team and the DARPA PM(s) occur prior to writing the proposal to ensure applicability, or is that disallowed?

14A: We will not be meeting with individual proposers to discuss ideas during the solicitation period.

13Q: Should we be thinking of switching hypergolicity on and off or changing the performance output of the propellant combination or both?

13A: Per the DO, Phase 1 will focus on on-off switchability while Phase 2 will focus on continuous tuning of propellant performance.

12Q: Could you elaborate what would be deemed a switchable hypergol?

12A: A switchable hypergol is a liquid mixture whose reactivity can be reversibly changed from non-reactive (per the DO sensitivity metrics) to high-performing (per the DO TA2 performance metrics). Out of scope approaches include bipropellant formulations whose components are stored separately.

11Q: Is there a page limit to the proposal?

11A: The Technical and Management Volume shall not exceed a maximum of 10 pages. The instructions for submission are posted under solicitation number DARPA-PA-24-04: <https://sam.gov/opp/cb7a935d59bb4ceeb62b9515f7d9f9b0/view>

10Q: The solicitation states that \$1M is the cap for each phase. Is this amount a cumulative amount of all different groups who are going to be possibly funded in this or represents the individual maximum amount that can be requested by one group. Is there an upper limit to the proposal funds?

10A: As stated in Section C, the Phase 1 (base) award value is limited to \$1,000,000 and the Phase 2 (option) award value is limited to \$1,000,000. Both Phase 1 and Phase 2 award value includes subcontractor(s) proposed to complete the effort.

9Q: Do we need to put up a formal white paper or abstract on our proposed idea before submitting the full proposal on Dec. 2nd?

9A: There is not a white paper or abstract phase for this solicitation. Proposals will be evaluated and selected in accordance with Section 6 of DARPA-PA-24-04.

8Q: Is the SeREne DO looking for a liquid hypergolic mixture (fuel + oxidizer) to be switchable so that the mixture can stay non-reactive for >7 days?

8A: Yes, the SeREne DO soliciting for a switchable liquid hypergolic **mixture**.

7Q: Is there a specific performance prediction software that is more compatible with the Government IV&V team?

7A: There are no restrictions on the performance prediction software used. However, the performance prediction software should demonstrate an accurate portrayal of the predicted performance of the developed energetic material.

6Q: What is the expectation that one of the team members is expected to be computationally focused?

6A: There is no expectation for the skill set of the team members as long as they have the expertise to achieve the goals and metrics of the DO.

5Q: How many team members are expected?

5A: There is no restriction on the number of team members needed for TA1 and TA2. Include as many team members as needed to achieve the goals of the DO.

4Q: Are there any restrictions on the number of proposals from a single institution?

4A: There are no restrictions on the number of proposals from single institution; however, the proposed personnel must be unique for each proposal or proposed levels of effort (LOEs) of personnel must be split to accommodate the multiple proposed efforts (i.e., the LOE of a single proposed team member may not exceed 1 person-year across all proposals).

3Q: Can FFRDCs be a subcontractor on an effort proposed to SeREne?

3A: We strongly advise that U.S. Government, FFRDC, or UARC personnel interested in learning more about SeREne or potentially participating in program activities as primes or subcontractors contact DARPA at SeREne@darpa.mil before submitting a proposal to the solicitation.

2Q: What processing is allowed to achieve switchability? Are there any manufacturing constraints?

2A: There are no explicit constraints as long as the proposed solution can reasonably be expected to achieve the program metrics.

1Q: Are there any constraints/considerations to a proposed material's cost, availability, manufacturability?

1A: Other than restrictions referenced in Article XVI of the Model OT for Prototype document, there are no constraints/considerations for a proposed material's cost, availability, or manufacturability. SeREne is a basic research effort to investigate the potential of tunable switchability for energetic materials.