

VI. Application Review Information

A. Responsiveness Review

Prior to a comprehensive merit evaluation, DOE will perform an initial review in accordance with 10 C.F.R. § 605.10(b) to determine that (1) the applicant is eligible for the award; (2) the information required by the RFA has been submitted; (3) all mandatory requirements are satisfied; (4) the proposed project is responsive to the objectives of the RFA; and (5) the proposed project is not duplicative of programmatic work. Applications that fail to pass the initial review will not be forwarded for merit review and will be eliminated from further consideration.

B. Review Criteria

Applications will be subjected to merit review and will be evaluated against the following criteria, listed in descending order of importance:

1. **Scientific and/or Technical Merit and Impact**
2. **Technical Approach, Methods, and Feasibility**
3. **Team, Resources, and Management**
4. **Commercialization Potential for Energy Applications** (Criteria 4 will only be considered by applied technology development applications.)
5. **Budget and Cost-Effectiveness**

Note that reviewers are selected regarding both their expertise and the absence of conflict-of-interest issues. Both Federal and non-Federal reviewers may be used, and submission of an application constitutes agreement that this is acceptable to the investigator(s) and the submitting institution.

The questions below are provided to the merit reviewers to elaborate the criteria. For applications that span from fundamental research to applied technology development both review criteria apply.

Criterion 1: Scientific and/or Technical Merit and Impact

For Fundamental Research Applications:

- What is the scientific innovation of the proposed research?
- How well does the proposed research achieve AI advantage?
- What is the likelihood of achieving valuable results?
- How might the results of the proposed work impact the direction, progress, and thinking in relevant scientific fields of research?
- How original and innovative is the proposed scientific approach, or concept?
- How well does the proposed work articulate its contribution to the related scientific community or mission application?

For Applied Technology Development Applications:

- What is the technical readiness level (TRL) of the proposed materials/technology, and how will the project advance it? (e.g., from TRL 3 to TRL 5)
- Does the application demonstrate a clear path toward improving key performance indicators (KPIs) for mission applications (e.g., cost reduction, improved safety, enhanced efficiency) compared to current state-of-the-art technologies?
- How well does the proposed technology align with the focus area specific objectives cited in the RFA?
- Are the proposed technical goals measurable, achievable, and impactful for real-world or commercial deployment?

Criterion 2: Technical Approach, Methods, and Feasibility**For All Applications:**

- How logically sound, well justified, and appropriate is the proposed methodology for achieving the stated objectives?
- Does the proposed research employ innovative concepts or methods?
- Are the experimental design, theoretical models, and/or computational simulations robust and adequately detailed?
- Have potential challenges and risks been identified, and are the proposed mitigation strategies reasonable and comprehensive?
- Does the application provide a clear and realistic timeline for key project activities and milestones?

For Applied Technology Development Applications:

- Does the application address potential scalability issues?
- Are the proposed testing and validation protocols rigorous and representative of realistic operating conditions?
- Does the project incorporate considerations for environmental impact and safety relevant to mission application lifecycle?

Criterion 3: Team, Resources, and Management**For All Applications:**

- How well qualified is the research team to carry out the proposed work?
- Does the project team possess the necessary expertise across all relevant disciplines to be successful?
- To what extent does the application demonstrate a clear, well-coordinated collaboration among partnering institutions, with appropriately balanced responsibilities, synergistic contributions, and clearly defined roles for each team member?

- Are the proposed facilities, equipment, and other resources, including access to data and AI models, adequate and appropriate for conducting the research/development?

Criterion 4: Commercialization Potential for Energy Applications

For Applied Technology Development Applications:

- Does the application articulate a credible strategy for technology transfer and/or commercialization beyond the project's duration?
- Are there identified market opportunities, and does the application present a preliminary techno-economic analysis or market assessment supporting the potential impact?
- What is the potential for the materials/technology to be adopted by industry, and what barriers to adoption are addressed?

Criterion 5: Budget and Cost-Effectiveness

For All Applications:

- Is the proposed budget reasonable, well-justified, and appropriate for the scope and scale of the proposed work?
- Does the cost share meet the RFA requirements and reflect a strong commitment from the applicant or team?
- Does the application demonstrate efficient use of resources and provide good value for the federal investment or foster collaboration with DOE/NNSA National Laboratories, academia, and relevant industries to leverage collective expertise for mission applications?

C. Review and Selection Process

1. Merit Review

Applications that pass the initial review will be subjected to a formal merit review and will be evaluated based on the criteria codified at 10 C.F.R. § 605.10(d).

2. Program Policy Factors

The Selection Official may consider any of the following program policy factors in making the selection, listed in no order of significance:

- Availability of funds
- Relevance of the proposed activity to DOE priorities
- Ensuring an appropriate balance of activities within DOE programs
- Performance under current awards
- Strengthening partnerships between DOE/NNSA laboratories, universities, non-profits, and industry.

- Commitment to sharing the results of research

3. Selection

The Selection Official will consider the findings of the merit review and may consider any of the Program Policy Factors described above and/or the review of risk described below.

4. Discussions and Award

The Government may enter into discussions with a selected applicant for any reason deemed necessary, including but not limited to the following: (1) the budget is not appropriate or reasonable for the requirement; (2) only a portion of the application is selected for award; (3) the Government needs additional information to determine that the recipient is capable of complying with the requirements in 2 C.F.R. § 200 as modified by 2 C.F.R. § 910 (DOE Financial Assistance Regulation); and/or (4) special terms and conditions are required. Failure to resolve satisfactorily the issues identified by the Government will preclude award to the applicant.

5. Risk Review

Pursuant to 2 C.F.R. § 200.206, DOE will conduct a review of any potential risks posed by the applicant. Such review of risk will include:

- Quality of the application,
- Reports and findings from audits performed under 2 C.F.R. § 200 and/or 2 C.F.R. § 910, and
- Systems maintained under 2 C.F.R. § 180.

DOE may make use of other publicly available information and the history of an applicant's performance under DOE or other Federal agency awards.

Applicants with no prior performance of DOE awards may be asked to provide information about their financial stability and/or their ability to comply with the management standards of 2 C.F.R. § 200.

6. Due Diligence for Research, Technology, and Economic Security

All applications submitted to DOE are subject to a due diligence review.

As DOE invests in critical infrastructure and funds critical and emerging technology areas,¹⁵ DOE considers possible threats to United States research, technology, and economic security from undue foreign government influence when evaluating risk. If high risks are identified and cannot be sufficiently mitigated, DOE may elect to not fund the applicant. As part of the research, technology, and economic security risk review, DOE may contact the applicant and/or proposed project team members for additional information to inform the review. This risk review is conducted separately from the technical merit review.

¹⁵ See [Critical and Emerging Technologies List Update \(whitehouse.gov\)](https://www.whitehouse.gov).

The due diligence review of covered individuals includes but is not limited to the review of resumes and disclosures, as required in the RFA. DOE reserves the right to ask for disclosures on project participants not defined as covered individuals. The Applicant need not submit any additional information on non-covered individuals, unless requested by DOE. The volume and type of information collected may depend on various factors associated with the award. Users requiring access to DOE computing facilities, information, and systems may require individual vetting before being granted access.

Note this review is separate and distinct from DOE Order 142.3B “Unclassified Foreign National Access Program.”

In the event an RTES risk is identified, DOE may require risk mitigation measures, including but not limited to, requiring that an individual or entity not participate in the award. If significant risks are identified and cannot be sufficiently mitigated, DOE may elect to not fund the applicant.

Consistent with section 4(e) of the Presidential Memorandum on United States Government-Supported Research and Development National Security Policy-33 (NSPM-33), DOE may share information regarding the risks identified as part of the RTES due diligence review process or monitoring with other Federal agencies.

DOE’s decision regarding a due diligence review is not appealable.