



The Deputy Secretary of Energy

Washington, DC 20585

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MESSAGE FROM DAVID M. TURK, DEPUTY SECRETARY OF ENERGY 

SUBJECT: Department of Energy Research, Technology, and Economic Security Framework for Financial Assistance and Loan Activities

America's leadership in science and technology (S&T) is underpinned by the unique strengths of our open scientific enterprise. As a democratic Nation, our ability to maintain scientific and technological standing is dependent on not only preserving but promoting the openness of our scientific ecosystem. In addition, promoting international collaboration is crucial to maintaining U.S. S&T competitiveness and leadership capabilities. We are an open and innovative society and that is a key driver in what attracts the best scientific talent from across the globe to our country.

At the same time, the actions of certain foreign governments pose unacceptable risks to the scientific enterprise of the Department of Energy (DOE) and the National Nuclear Security Administration (NNSA). DOE needs to maintain the benefits of open systems, while fully incorporating research, technology, and economic security considerations into funding decisions. It is important for DOE to understand when competitor nations are seeking to exploit our system and to take an eyes-wide-open, nuanced, and balanced approach to mitigate risks.

With these considerations in mind, DOE designed a framework to minimize, mitigate, and manage risks while maintaining an open, collaborative, and world-leading scientific enterprise. Two important goals of DOE's Office of Research, Technology and Economic Security (RTES) framework are to:

- **Make Risk-Based Investment Decisions.** The Department must continue to evaluate and make risk-based decisions that minimize potential intellectual property loss, supply chain dependencies, and threats to national and economic security. DOE will address the needs of research, technology, and economic security and bolster our overall competitiveness and maintain core scientific principles of openness and collaboration.
- **Ensure Transparency.** Entities applying for DOE support must be fully forthcoming regarding foreign connections associated with individuals¹ and entities participating in a project, particularly connections involving foreign countries of concern. Full disclosures to DOE increase the likelihood that risks can be mitigated. Transparency involves individuals and entities providing necessary information to understand the context behind circumstances to help inform DOE's risk assessment.

¹ For example, see [42 USC 6605\(c\)\(2\)-\(3\)](#).

Background

DOE developed, and will continue to improve upon, an RTES program to mitigate risks that certain foreign governments pose to our scientific and technological development ecosystem, supply chains, and intellectual property. The Department continues to work diligently to adjust and upgrade DOE's current research security posture in response to Congressional direction on research security via various laws such as the CHIPS and Science Act², the National Defense Authorization Acts of 2020 and 2021, and the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Extension Act of 2022, as well as Presidential directives such as [National Security Presidential Memorandum-33 \(NSPM-33\)](#).

DOE is uniquely positioned from other research agencies due to its broad portfolio, which extends beyond research and development to include demonstration and deployment activities. Also, DOE is unique in that critical and emerging technology areas are the focus of many DOE programs, and DOE-supported projects are often private-sector led and/or impact critical U.S. energy infrastructure. As such, DOE continues to strengthen its RTES approach to consider right-sized requirements for early-stage research and development in the academic setting, applied research and development stage projects, and demonstration and deployment stage projects. DOE's approach incorporates best practices based on DOE's experience and best practices from other parts of the Federal Government, to ensure consistency and harmonization as appropriate.

DOE's Risk-Based Review Processes for Financial Assistance and Loan Activities

The risk review and mitigation process is led by DOE's RTES team. The RTES team coordinates with subject matter experts throughout DOE's/NNSA's Program Offices and DOE's Office of Intelligence and Counterintelligence (DOE-IN). The hub-and-spoke approach ensures that DOE's risk assessment and mitigation strategies are applied consistently across DOE and NNSA.

Timing of Review

- **Phase 1:** A review is conducted on Notices of Funding Opportunities (NOFOs), Prize Rules, Partnership Intermediary Agreements (PIAs), Other Transaction Authorities (OTAs), and other such solicitations prior to publication. This ensures that appropriate language is included in the published document, such that potential applicants understand the RTES-related requirements to which their projects will be subject. This review also includes an assessment of the technology risk level of the solicitation.
- **Phase 2:** Before selection, financial assistance projects undergo an RTES due diligence review, with consideration of the technology risk assessment during Phase 1 review. For Loan applications, an RTES due diligence review is conducted prior to finalizing the application's term sheet.

² [The Creating Helpful Incentives to Produce Semiconductors and Science Act of 2022, Public Law 117-167 \(CHIPS and Science Act\)](#).

- **Phase 3:** During the life of a project, additional RTES review may be triggered in situations where there are changes to the project, personnel, or ownership/control that could affect RTES. The entities selected for funding are responsible for notifying DOE of these types of changes, as outlined in their agreements with DOE. DOE, in turn, conducts its own due diligence to verify submitted information and will take a risk-based approach to continuous monitoring.

Information that DOE Reviews

DOE RTES reviews include, but are not limited to: Project Technical Descriptions, Biographical Sketches/CVs/Resumes, Current and Pending Support Disclosures, Transparency of Foreign Connections Disclosures, and relevant publicly-available information. RTES may also request additional information to clarify or explain disclosures it receives (see section on clarifications below). DOE will also draw on classified sources and DOE/NNSA Program Office technical expertise to inform the RTES review.

DOE Commitment to Nondiscrimination

DOE will ensure that RTES due diligence reviews do not target, stigmatize, or discriminate against individuals on the basis of race, color, or national origin, consistent with Title VI of the Civil Rights Act of 1964 and in accordance with CHIPS and Science Act, section 10637 Nondiscrimination. DOE's concern is protecting against the actions of certain nation states, and the Department is committed to addressing those issues without alienating or unfairly targeting international colleagues.

RTES Risk Factors

DOE will use RTES risk factors as guidelines (understanding reviews often require flexibility to evaluate unique threats, vulnerabilities and consequences) when assessing risk levels and to determine mitigation strategies for the individuals and entities participating in DOE/NNSA-funded projects.

- **Risk Factors for Covered Individuals on DOE-funded Proposals or Projects:** DOE may assess ties to malign foreign talent recruitment programs, certain foreign funding sources (both monetary and in-kind), certain concerning behaviors associated with patenting (e.g., transferring to foreign entities after filing), and ties to foreign entities or foreign collaborators on specified lists³ or with specified characteristics. Foreign birth and citizenship do not, in and of themselves, constitute risk factors.
- **Risk Factors for Covered Entities⁴ on DOE-funded Proposals or Projects:** DOE may assess foreign ownership or control, criminal or regulatory issues, the supply chain for any sensitive equipment/supplies, and ties to entities on specified lists.

³ For example, U.S. Bureau of Industry and Security Entity List; [Annex A of Executive Order \(EO\) 14032 or superseding EOs; Section 1260H of the National Defense Authorization Act \(NDAA\) for FY2021; Lists Published in Response to Section 1286 of the NDAA for FY2019 as amended.](#)

⁴ Some of the risk factors are self-deleting for certain entities. For example, "foreign ownership" is not assessed on U.S. institutions of higher education.

- **Risk Factors Tied to Date of Activity or Relationship:** DOE recognizes that the research community is still adjusting to the altered geopolitical landscape, in which certain collaborations that were encouraged prior to 2019 are now recognized for the risks they may pose. DOE takes that into account in the RTES risk assessment. If activities occurred in the past, consideration is given to whether the activity was an isolated incident, or whether it is part of a pattern. Dates and types of activity are weighted in the risk assessment. As a general rule, if DOE sees activities or relationships that pose a risk, DOE may request confirmation that the relationship has ceased. For past affiliations⁵, associations or collaborations with entities on specified lists, DOE will consider the date the entity was added to the lists as part of the risk assessment.
- **Risk Factors Weighed Against Technology Considerations:** If the risk indicators are present on a proposed or existing project, consideration is given to whether the project falls within a critical and emerging technology area, whether the project will have physical or cyber access to critical infrastructure, and any project work with proximity to a military installation. The same type of risk indicator can therefore warrant a different mitigation outcome, depending on the specific technology area and project.
- **Risk Factor Stewardship:** The RTES Office will serve as the steward of the RTES Risk Factors and any subsequent resources (e.g., matrices). The RTES Office will coordinate the publication of subsequent resources with input from the RTES Policy Working Group, and, as appropriate, feedback from stakeholders, including from the scientific community.

Risk Mitigation

To the extent possible, DOE/NNSA will seek to mitigate identified risks through means such as certifications, tailored mitigation agreements, reporting, and special terms and conditions. In some cases, DOE/NNSA may require the removal of an individual, proposed subrecipient, or proposed vendor from a project as a risk mitigation measure.

- **Clarifications:** As part of the risk review and mitigation process, the RTES Office may contact the applicant/recipient and/or proposed project team members to request information to inform the review. To foster transparency, the RTES Office will endeavor to share the basis of the request with the Subject Entity, to the extent practicable. Disclosed activities or relationships are more likely to result in a path forward. Undisclosed activities or relationships will raise additional concerns. *See Attachment 1, Clarifications and Reconsideration Requests.*
- **Privacy and Discretion During Clarifications Process:** To maintain the privacy of the individual(s) or entity(ies) involved, the RTES Office will safeguard the information submitted to the RTES Office. As part of the effort to maintain privacy, the RTES Office will directly contact the Subject Entity as compared to working through another office.

⁵ For definitions of terms, see Attachment 2, Key Definitions.

- **DOE Decision on RTES Risks:** The RTES Office will provide a recommendation to the DOE/NNSA Program Office on how to mitigate any risks uncovered during the due diligence reviews. If risks can be mitigated via additional certifications or mitigation agreements, the RTES Office will coordinate with applicants, and as appropriate, DOE/NNSA Program Office and procurement authority stakeholders. For any final mitigation strategies that include special reporting requirements and award terms, DOE/NNSA will ensure the mitigation strategy is duly incorporated into the agreement and monitoring plans.
- **Process for Requesting Reconsideration of DOE Decisions on RTES Risks:** If DOE/NNSA makes a decision based on RTES risk to remove an individual from a project, DOE/NNSA will allow, to the extent practicable, the Subject Entity an opportunity to request a reconsideration of the decision. Reconsideration requests should be directed to, and handled by, the RTES Office. *See Attachment 1, Clarifications and Reconsideration Requests.*

Opportunities for Dialogue and Community Feedback

DOE strives to work collaboratively with the scientific community, industry and other stakeholders on RTES topics and to provide opportunities for open and engaging dialogue. DOE will schedule webinars and listening sessions to discuss this RTES Framework and related RTES topics. Feedback from stakeholders and lessons learned will be critical to informing the further improvement of DOE's RTES approach.

The first webinars are scheduled for **December 11, 2024 at 3pm ET** ([click here to register](#)) and **December 16, 2024 at 2pm ET** ([click here to register](#)). The registration information for future webinars and listening sessions will be posted at [Research, Technology & Economic Security | Department of Energy](#) and also sent through the RTES stakeholder email distribution list. Parties interested in joining the RTES stakeholder email distribution list are encouraged to send an email with subject line, "Add to RTES Stakeholder List" to: RTESinfo@hq.doe.gov. Feedback and questions on the RTES Framework may also be directed to the same email address.

Attachment 1: Clarification and Reconsideration Process

The Department of Energy (DOE) incorporates transparency and due process in its research, technology and economic security (RTES) due diligence reviews for financial assistance activities via two processes:

- Clarification Process: During the RTES review process, DOE may determine an opportunity to provide additional information to inform the review.
- Reconsideration Request (Administrative Review): If DOE decides to remove an individual based on RTES risk, the Subject Entity may request reconsideration. This results in an Administrative Review. Reconsideration requests are not applicable to any other risk mitigation decisions. Please note, the reconsideration request process described in this document is only used for removal of an individual based on RTES risk assessments.

Removal of an individual based on a RTES review only occurs when DOE determines that the risks cannot be sufficiently mitigated.

Clarification Process

Timing: Clarifications occur during DOE's RTES review, before a risk determination is made.

Process: During the RTES review process, DOE reviews all covered entities and covered individuals participating on DOE applications or projects. DOE may determine additional information is required to complete the review. The clarification process provides the Subject Entity an opportunity to provide additional information to inform DOE's RTES review.

1. Identification of Issue(s) for Clarification: The RTES Office identifies what additional information is needed from the Subject Entity (e.g., a customized disclosure form for this request, a question to answer).
2. RTES Clarification Request Process:
 - a. The RTES Office notifies the DOE/NNSA Program Office point of contact when additional RTES-related clarifications are needed and that an extended review timeline may be necessary. The RTES Office contacts the Subject Entity with a request for supporting documentation and the timeframe for the response. To foster transparency, DOE will endeavor to share the basis for the request with the Subject Entity, as practicable.
 - b. Upon receiving the response from the Subject Entity, the RTES Office considers the additional information as a follow-on to its original review and coordinates with DOE/NNSA program staff and Office of Intelligence and Counterintelligence (DOE-IN) as needed.

- c. During the clarification process, the RTES Office may schedule a meeting with the Subject Entity to discuss the clarification process, obtain any additional clarifications needed to make a determination and/or to discuss potential mitigation options for the identified risk.
 - d. To maintain the privacy of the individual(s) or entity(ies) involved, the RTES Office will safeguard the information submitted to the RTES Office. As part of the effort to maintain privacy, the RTES Office will directly contact the Subject Entity as compared to working through another office.
3. **RTES Office Recommendation:** Upon completion of the review, the RTES Office will provide a recommendation to the DOE/NNSA Program Office on how to mitigate any risks uncovered during the due diligence reviews.

Reconsideration Request (Administrative Review)

Timing: If DOE/NNSA decides to remove an individual from a project due to RTES risk, DOE/NNSA will allow, to the extent practicable, the Subject Entity an opportunity to request a reconsideration of the decision. This results in an administrative review.

Process:

1. If a Subject Entity requests a reconsideration of DOE/NNSA's decision to remove an individual from a project on the basis of RTES risk, the Subject Entity submits the reconsideration requests to the RTES Office at RTESinfo@hq.doe.gov. If a Subject Entity submits a reconsideration request to another DOE/NNSA office, the DOE/NNSA office shall refer the reconsideration request to the RTES Office.
2. Upon receiving a reconsideration request, the RTES Office will review the findings and recommendations from the original due diligence review to validate it is consistent with DOE policies and RTES risk factors.
3. The RTES Office will prepare a recommendation for the DOE Office of the Deputy Secretary, which will make the final decision as to whether to reject or accept the reconsideration.
4. The RTES Office will discuss the reconsideration request and recommendation with the cognizant Program Office Assistant Secretary. The Program Office will have the opportunity to provide written input for the reconsideration request package.
5. The Deputy Secretary will review and render a decision on the reconsideration request. If the review determines that the risk-based security review was conducted in a manner inconsistent with, or based on misinterpretation of, the DOE policies or RTES risk factors, the Deputy Secretary may change the risk determination.

Attachment 2: Key Definitions

Affiliation means academic (not including undergraduate or graduate students), professional, or institutional appointments or positions with a foreign government or a foreign government-connected entity, whether full time, part time, or voluntary (including adjunct, visiting, post-doctoral appointment, or honorary), where monetary reward, non-monetary reward, or other quid-pro-quo obligation is involved⁶.

Association means academic (not including undergraduate or graduate students), professional, or institutional appointments or positions (including adjunct, visiting, voluntary, post-doctoral appointment, or honorary) with a foreign government or a foreign government-connected entity where no monetary reward, non-monetary reward, or other quid-pro-quo obligation is involved⁷.

Covered Individual means an individual who (a) contributes in a substantive, meaningful way to the development or execution of the scope of work of a project funded by DOE or proposed for funding by DOE; and (b) is designated as a covered individual by DOE.

At a minimum, DOE designates as covered individuals any principal investigator (PI); project director (PD); co-principal investigator (Co-PI); co-project director (Co-PD); project manager; and any individual regardless of title that is functionally performing as a PI, PD, Co-PI, Co-PD, or project manager. DOE departmental elements will often expand this list of designated roles, as specified in the applicable Notice of Funding Opportunity (NOFO) and/or terms and conditions of the Federal financial assistance award⁸. Status as a consultant, graduate (master's or PhD) student, or postdoctoral associate does not automatically disqualify a person from being designated as a "covered individual" if they meet the definition in (a) above.

The prime applicant/recipient is responsible for assessing the applicability of (a) against each person listed on the project (i.e., listed by the non-Federal entity in the application for Federal financial assistance, approved budget, progress report, or any other report submitted to DOE by the non-Federal entity regarding the subject project). Further, the prime applicant/recipient is responsible for identifying any such individual to DOE for designation as a covered individual, if not already designated by DOE as described above.

Covered Entity is defined as the prime applicant/recipient and all subrecipients.

⁶ See [Countering Unwanted Foreign Influence in Department-Funded Research at Institutions of Higher Education \(defense.gov\)](https://www.defense.gov), page 13.

⁷ See [Countering Unwanted Foreign Influence in Department-Funded Research at Institutions of Higher Education \(defense.gov\)](https://www.defense.gov), page 13.

⁸ Departmental elements may additionally designate individuals as covered individuals by (a) identifying them by name in the terms and conditions of award or (b) identifying them by role in the terms and conditions of award. Additionally, individuals listed in the "Senior/Key Person" section of an SF-424(R&R) budget in the award documents are designated as covered individuals.

Critical Infrastructure is defined to include systems and assets, whether physical or virtual, so vital to the United States that the incapacity or destruction of such systems or assets would have a debilitating impact on national security. Examples are outlined in [eCFR :: Appendix A to Part 800, Title 31 -- Covered Investment Critical Infrastructure and Functions Related to Covered Investment Critical Infrastructure](#).

Equipment is defined in [2 CFR 200.1 Definitions](#).

In-Kind Support – As defined in the “current and pending (other) support” definition from [National Security Presidential Memorandum-33 Implementation Guidance Appendix: Definitions](#). Per Section 10638(4) of the CHIPS and Science Act of 2022 (Public Law 117-167), in-kind support also includes “complimentary foreign travel,” to include travel support for meetings and conferences in countries of concern, “things of non de minimis value, honorific titles, career advancement opportunities, or other types of remuneration or consideration directly provided by a foreign country at any level (national, provincial, or local) or their designee, or an entity based in, funded by, or affiliated with a foreign country, whether or not directly sponsored by the foreign country, to the targeted individual, whether directly or indirectly stated in the arrangement, contract, or other documentation at issue.”

Malign Foreign Talent Recruitment Program – As defined in Section 10638(4) of the CHIPS and Science Act of 2022 (Public Law 117-167), the term “malign foreign talent program” means:

- Any program, position, or activity that includes compensation in the form of cash, in-kind compensation, including research funding, promised future compensation, complimentary foreign travel, things of non de minimis value, honorific titles, career advancement opportunities, or other types of remuneration or consideration directly provided by a foreign country at any level (national, provincial, or local) or their designee, or an entity based in, funded by, or affiliated with a foreign country, whether or not directly sponsored by the foreign country, to the targeted individual, whether directly or indirectly stated in the arrangement, contract, or other documentation at issue, in exchange for the individual:
 - engaging in the unauthorized transfer of intellectual property, materials, data products, or other nonpublic information owned by a United States entity or developed with a Federal R&D award to the government of a foreign country, or an entity based in, funded by, or affiliated with a foreign country regardless of whether that government or entity provided support for the development of the intellectual property, materials, or data products;
 - being required to recruit trainees or researchers to enroll in such program, position, or activity;
 - establishing a laboratory or company, accepting a faculty position, or undertaking any other employment or appointment in a foreign country or with an entity based in, funded by, or affiliated with a foreign country if such activities are in violation of the standard terms and conditions of a Federal R&D award;
 - being unable to terminate the foreign talent recruitment program contract or agreement except in extraordinary circumstances;

- through funding or effort related to the foreign talent recruitment program, being limited in the capacity to carry out a R&D award or required to engage in work that would result in substantial overlap or duplication with a Federal R&D award;
 - being required to apply for and successfully receive funding from the sponsoring foreign government's funding agencies with the sponsoring foreign organization as the recipient;
 - being required to omit acknowledgment of the recipient institution with which the individual is affiliated, or the Federal research agency sponsoring the R&D award, contrary to the institutional policies or standard terms and conditions of the Federal R&D award;
 - being required to not disclose to the Federal research agency or employing institution the participation of such individual in such program, position, or activity; or
 - having a conflict of interest or conflict of commitment contrary to the standard terms and conditions of the Federal R&D award; and
- A program that is sponsored by:
 - a foreign country of concern or an entity based in a foreign country of concern, whether or not directly sponsored by the foreign country of concern;
 - an academic institution on the list developed under section 1286(c)(8) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 2358 note; Public Law 115-232); or
 - a foreign talent recruitment program on the list developed under section 1286(c)(9) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 2358 note; Public Law 115-232).

Consistent with applicable law (42 U.S.C. 19232), a malign foreign talent recruitment program does not include the following international collaboration activities, unless such activities are funded, organized, or managed by an academic institution or a foreign talent recruitment program on the lists developed under paragraphs (8) and (9) of section 1286(c) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 4001 note; Public Law 115-232)—

- (1) making scholarly presentations and publishing written materials regarding scientific information not otherwise controlled under current law;
- (2) participation in international conferences or other international exchanges, research projects or programs that involve open and reciprocal exchange of scientific information, and which are aimed at advancing international scientific understanding and not otherwise controlled under current law;
- (3) advising a foreign student enrolled at an institution of higher education or writing a recommendation for such a student, at such student's request; and
- (4) other international activities determined appropriate by the Federal research agency head or designee.

Subject Entity is defined as the entity about which a RTES risk has been identified, to include but not limited to, risks identified involving covered individuals employed by the subject entity. Subject entities are a subset of covered entities.