

Cooperative Research and Development Agreement (CRADA) Guidelines

As per [Cooperative Research and Development Agreement \(CRADA\) — DOE Directives, Guidance, and Delegations](#), CRADA is defined as any agreement between one or more Federal facilities and one or more non-Federal parties under which the Government, through its facilities, provides personnel, services, facilities, equipment, intellectual property, or other resources with or without reimbursement (but not funds to non-Federal parties) and the non-Federal parties provide funds, personnel, services, facilities, equipment, intellectual property, or other resources toward the conduct of specified research or development efforts which are consistent with the mission of the facility; except that such terms do not include a procurement contract or cooperative agreement.

PURPOSE

The purpose of a CRADA is to collaborate and share the results of a jointly conducted research and development project. Through a CRADA mechanism, the lab can collaborate with partners from Industry, Academia, Trade associations, and State, local, and international government agencies.

Under the authority of the Stevenson-Wydler Technology Innovation Act of 1980, as amended by the Federal Technology Transfer Act of 1986, a CRADA allows the Federal Government and non-Federal partners to optimize their resources, share technical expertise in a protected environment, share intellectual property emerging from the effort, and speed the commercialization of federally developed technology.

RESEARCH OBJECTIVES

Although there is no restriction on the topic of research appropriate for a CRADA, all CRADA research projects must be highly focused and delineated and each proposed CRADA must be carefully assessed for its overall research objectives. In considering a proposed CRADA, a determination should be made between both parties to determine if the objectives of a proposed collaboration warrant the establishment of a CRADA or if its goals are more appropriately met through a procurement contract, material transfer agreement, cooperative agreement, or other contractual mechanism. The proposed collaborator's scientific and business capabilities will also be assessed.

The Department of Energy (DOE) Strategic Partnership Projects are typically designed to support research efforts of 3rd parties that align with the DOE's mission and strategic goals. These projects aim to address various challenges in energy, environment, and national security. The specific types of research projects that are suitable for DOE CRADA Projects can vary, but here are some examples:

Clean Energy Technologies: Research projects related to the development, optimization, and commercialization of clean and renewable energy technologies. This can include solar, wind, geothermal, hydropower, and advanced energy storage solutions.

Advanced Manufacturing: Projects focused on advancing manufacturing processes and technologies to enhance energy efficiency, reduce waste, and improve the production of energy-related materials and components.

Nuclear Energy: Research efforts related to nuclear energy, including advanced reactor design, nuclear fuel development, waste management, and nuclear safety technologies.

Energy Efficiency: Projects aimed at improving the efficiency of energy use in various sectors, such as buildings, transportation, and industrial processes. This can involve the development of energy-efficient technologies, systems, and practices.

Carbon Capture, Utilization, and Storage (CCUS): Research initiatives focused on capturing carbon dioxide emissions from industrial processes and power plants, as well as developing methods for utilizing or storing captured CO₂ to mitigate its impact on climate change.

Grid Modernization: Projects related to enhancing the resilience, reliability, and flexibility of the electrical grid, integrating renewable energy sources, and developing smart grid technologies.

Environmental Remediation: Research efforts aimed at addressing environmental challenges, such as cleaning up contaminated sites, managing radioactive waste, and restoring ecosystems impacted by energy production activities.

Advanced Materials: Projects focused on the development of novel materials with applications in energy production, storage, and distribution. This could include materials for high-performance batteries, catalysts for fuel cells, and materials for advanced sensors.

Cybersecurity for Energy Systems: Research initiatives aimed at protecting critical energy infrastructure from cyber threats and developing resilient cybersecurity solutions for energy systems.

Energy Policy and Analysis: Research projects that involve policy analysis, energy modeling, and scenario analysis to inform decision-making and guide the development of energy-related policies.

Workforce Development: Initiatives designed to train and educate the next generation of scientists, engineers, and researchers in fields relevant to the DOE's mission.

It is important to note that the suitability of a research project for DOE CRADA Projects will depend on the priorities set by the DOE at any given time. Principal Investigators should carefully review the proposed project to ensure that it aligns with the agency's objectives and priorities.

BENEFITS DISTINCT TO AN SPP MECHANISM

- **Collaboration:** Leverages research efforts by BNL and the Partner. Designed for multi-collaborative research.
- **Inventions:** BNL and the Partner may own their own inventions.
- **Confidentiality:** Generated information can be generated for up to 5 years. Partner proprietary information is protected.
- **License:** Partner has the option to negotiate license to BNL subject inventions.
- **U.S. Competitiveness:** Projects embodying IP from a CRADA shall be substantially manufactured in the United States.
- **Cost:** Lab and Partner may share costs, or the Partner pays 100% Funds-In.

Please reference the **Proposal to Project** homepage: [BNL | Proposal to Project | Home](#)

DOE O 483.1B (with model CRADA) can be referenced at: [DOE Cooperative Research and Development Agreements](#)

Cooperative Research and Development Agreement (CRADA) Contracting Process

Step 1	<p>A.) Partner requests a collaborative engagement with Brookhaven Science Associates, LLC (BSA), the M&O Contractor for Brookhaven National Laboratory (BNL). BSA will request that the partner provide a brief non-proprietary description of the proposed activity to initiate a preliminary discussion.</p> <p>B.) Any BSA Principal Investigator (PI) interested in initiating a potential collaboration with an external partner should first contact the Partnerships Office to arrange an initial meeting with all parties. The BSA PI should provide the Partnerships Office with a non-proprietary description of the proposed activity.</p>
Step 2	The BSA Research Partnerships office will conduct an initial screening of the Partner.
Step 3	Upon Partner or BSA's request, the Research Partnerships Office will provide the potential partner with the BSA approved Non- Disclosure Agreement (NDA).
Step 4	Upon full execution of the NDA, the Research Partnerships Office initiates a meeting with the potential Partner and the BSA affiliated PI whose research background correlates with the proposed activity. A determination will be made as to whether a partnership is viable between both as an outcome of this meeting.
Step 5	The PI will initiate a Risk Assessment in the Proposal Information Management System (PIMS).
Step 6	If both parties agree to move forward with a CRADA, the BSA PI will complete a Joint Work Statement (JWS). The PI will sign the JWS and send it to the Partnerships Office for further internal processing.
Step 7	The PI will in tandem complete the BSA approved Statement of Work (SOW), also referred to as Appendix A of the JWS. The SOW provides a more detailed description of the project's requirements, defining the scope of work being provided, deliverables, timelines, and reporting requirements. It clearly identifies the project roles and responsibilities distinct to each partner.
Step 8	The Research Partnerships Office will secure all remaining internal signature approvals for the JWS. This includes signatures from the Department Business Manager, Department Chair, Associate Laboratory Director, Office of Research Partnerships, the Budget Office, Export Controls, Operations Security (OPSEC) and Counterintelligence (CI).
Step 9	The Research Partnerships Office will provide the PI with the BSA approved Conflict of Interest (COI) form for their signature. In addition, the Manager for Research Partnerships will sign a COI form on behalf of the Partnerships office.
Step 10	During the internal JWS approval process, the Research Partnerships Office will provide the partner with the CRADA mechanism and begin negotiating terms and conditions.

Step 11	Once terms and conditions are deemed satisfactory by both parties, the Research Partnerships Office will provide the BSA Legal department with the CRADA agreement for their review. The DOE Patent Counsel will also be provided with the CRADA for their additional review. Note that any substantive changes requested by the Partner to the CRADA will require a detailed justification (if no changes are requested, this action is not necessary).
Step 12	The Research Partnerships Office will route the signed JWS and SOW and associated documents to Brookhaven Site Office (BHSO) for their review and approval. Once approval is in place, the Partnerships Office will draw up the CRADA and secure signatures via DocuSign. As part of this process, the Research Partnerships Office will prepare the Foreign Sponsor Questionnaire form and request the PI's Curriculum Vitae (CV) if the partner is foreign.
Step 13	The Research Partnerships Office will initiate advance invoices for Funds- In CRADAs.
Step 14	The Research Partnerships Office will ask the Business Office to request an SPP Non-Federal CRADA type project number via PACE. In the PACE comments section, the Business Office will enter the non SPP work the CRADA is related to if applicable (for instance, a BNL DOE funded project).
Step 15	The Budget Office will request a reimbursable work order number (RWON) and process the PACE and will create a project number which will be assigned to this CRADA mechanism. This project number is required so that the CRADA agreement can be entered into the SPP database and to assign work against the project.
Step 16	The Research Partnerships Office will enter the agreement into the SPP database.
Step 17	The Budget Office will approve the agreement entry in the SPP database. If any issues are found they will notify the Partnerships Office, who will rectify them accordingly.
Step 18	The DOE Brookhaven Site Office (BHSO) will approve the CRADA agreement in the SPP database.
Step 19	If the CRADA is in-kind, the Research Partnerships Office will provide the approval for work to commence. If the CRADA requires an advance payment from the Sponsor, the payment will need to be received by Fiscal Services Division for inclusion onto the SPP file submitted to DOE once a month for obligation onto the M&O financial contract. In addition to a payment recorded on the M&O financial contract, the Research Partnerships Office will provide the approval for work to commence.
Step 20	Once all the necessary approvals (and payment if applicable) have been secured, the PI can now initiate work on the project.