

RESEARCH AND TECHNICAL ASSISTANCE PROGRAM FOR FOREIGN ENTITIES¹ AT OAK RIDGE NATIONAL LABORATORY (ORNL)

The Department of Energy (DOE) Mission is to Research Science Areas and to Furnish Novel Technologies

The DOE sponsors a research and technical assistance program for foreign entities. Within DOE, this research and technical assistance is called the Work for Others (WFO) program. For foreign entities, DOE is authorized to provide specialized technical assistance and to make arrangements (including contracts and agreements) for conducting research and development activities. This work activity includes participating in joint or cooperative research, developmental, or experimental projects. The U.S. legal authority for such activity comes from statutes such as the Atomic Energy Act of 1954 (as amended), the Energy Reorganization Act of 1974 (Section 107a of Public Law 93-438) and the DOE Organization Act (Public Law 95-91). The DOE utilizes Oak Ridge National Laboratory (ORNL) to supply the requisite expert research talent and unique facilities to meet these technological needs.

Foreign Entity

A foreign entity is (1) a non-U.S. organization based external to the United States; and/or (2) is not principally under the laws and regulations of the United States (even though a subsidiary may be); and/or (3) means any partnership, corporation, association, or institution where 75 percent or more of the voting interest is owned by non-U.S. citizens. A foreign entity falls into one or more of these categories:

1. International Organizations (e.g., International Red Cross)
2. United Nations Organizations (e.g., International Atomic Energy Agency)
3. Foreign Governments (e.g., Canada, Germany, Japan, Brazil, Egypt)
4. Foreign Companies (e.g., Siemens AG in Germany, Phillips Electronics in the Netherlands, Matsushita in Japan)
5. Foreign Government Corporations (e.g., British Petroleum of Great Britain, Thompson-CSF of France, or Korean Atomic Energy Research Institute)
6. Non-Governmental Organizations (i.e., NGO which normally are a voluntary, non-profit type of organization and which have a social service, medical, humanitarian, or environmental objective to accomplish, e.g., “*Doctors Without Borders*” or “*Green Peace*”)
7. Foreign Persons (i.e., the term foreign person means any person who is not a citizen or national of the United States or lawfully admitted to the United States for permanent residence under the Immigration and Nationality Act and includes foreign corporations, international organizations, and foreign governments.) (22 USC Sec. 2778(9) (C))

¹ As of June 17, 2013. Prepared by David W. Bradford, ORNL, at bradforddw@ornl.gov or (865) 574-9798.

Research or Technical Assistance Categories Provided by ORNL for DOE

DOE can furnish specialized help in three domains of expertise. These are:

1. Non-nuclear research or technology assistance.
2. Limited nuclear research or nuclear-related technology assistance. (See 10 Code of Federal Regulation (CFR) 810 for policy and approval requirements.)
3. Visits or assignments of foreign nationals to DOE facilities.

What Does ORNL Bring to the Table?

- Access to DOE's most diverse multi-program research and technical facilities at ORNL for:
 - ◆ Basic Research
 - ◆ Applied Research
 - ◆ Applied Development
- World-class energy research capability
- The world leader in neutron science
- Incredible Biotechnology and Bioengineering expertise
- Environmental security
- World-class materials science research and facilities
- World-class supercomputer computational & network capability
- Specialized consulting in multiple scientific fields
- Access to rest of DOE National Laboratory System
- Access to University Research through University of Tennessee (UT)
- Access to National Transportation Research Center, Inc. (NTRC)
- Access to Battelle Corporation and Affiliates expertise

Legal Parameters

For those activities involving nuclear-related activities, a review will be done for compliance with the Price Anderson Act, as amended and Nuclear Non-Proliferation concerns. This requirement is based on the liability considerations of the Price Anderson Act and Amendments (PAAA - 42 U.S.C. 2282a).

All DOE activities involving foreign entities must also comply with U.S. Export Compliance laws and regulations. Employees and subcontractors who send or personally carry outside the United States any equipment, commodities, information, or computer hardware and software must follow requirements in accordance with U.S. export control² laws and regulations.

² Export Control at ORNL is governed by the U.S. laws and regulations. Contact the Export Compliance Manager, Rolf Migun, at (migunrp@ornl.gov or (865) 576-7230 to determine if any export/import licenses are required. Recognize early any need to export and plan ahead. A license from either the Department of State or Department of Commerce can take several months to process.

Contacts with foreign entities are also covered under the Foreign Corrupt Practices Act (FCPA). Both DOE and ORNL mandate that all professional or business contacts will scrupulously adhere to the letter and spirit of the FCPA. The FCPA prohibits giving any thing of value to a foreign official for the purpose of influencing a foreign government. All transactions involving foreign officials must be coordinated with ORNL and DOE legal departments.

Why should a Foreign Sponsor come to ORNL for research and development or for technical assistance?

The U.S. government's interest in furthering industrial competitiveness and scientific advances encourages innovative approaches and solutions to technical problems facing a foreign sponsor. As such, ORNL furnishes various options in solving issues early in a product or systems developmental life cycle. The U.S. government's considerable investments in basic technology research and development have provided a substantive scientific foundation of knowledge at ORNL.

A foreign sponsor may be trying to develop increased research or technological capabilities to meet their technical shortfalls or to satisfy requirements in their Business Plan. As such, the use of ORNL may be suitable for these initial research efforts and prototype tests where product or scientific feasibility is being established. ORNL can establish the scientific parameters of achievement during this early research phase where subjective evaluations are the rule rather than the objective evaluation of criteria against business strategies. At this research stage, general performance specifications only cover the minimum essential requirements. A foreign sponsor might have only the initial performance specifications available. ORNL can address the sponsor's technical requirements to determine output, function, or operation of items or equipment. This allows an unbiased technical approach in the details of design, fabrication, formulation, and initial pilot or prototype by the ORNL research team.

To reach the stage where design specifications are available for maximum commercial development, a model is developed. To assure adequacy of the performance specifications, the prototype is tested and deficiencies are corrected at minimal cost. Since performance specifications are not restrictive to any particular method or process, this approach permits an objective approach when the sponsor prototypes are finished, conserves sponsoring company's funds, and expedites the system or product when it is ready for final development, manufacturing, and/or marketing.

DOE Administrative Processing

DOE accepts taskings from a foreign sponsor to meet a research or technological requirement. DOE performs work that is consistent with its overall scientific mission, is relevant to the DOE unique capabilities or special competencies, is consistent with U.S. foreign policy objectives, and is in consonance with U.S. laws. Prior to work beginning, ORNL will prepare for DOE approval

a research proposal describing the work to be performed. Upon approval, DOE will formally notify ORNL to begin agreement negotiations with the foreign sponsor so that work can begin.

Some tasks require an approval by DOE-Headquarters in Washington, D.C. Examples of these transactions are:

1. Work directly funded by a foreign sponsor and performed at a DOE facility requires the review and concurrence of the Office of International Science and Technology Cooperation.
2. General Counsel establishes policy on patent and technical data, advises on patent and technical data clauses of contracts, and approves waiver of patent rights for foreign entities.
3. Work for Others activities involving human subjects, including research that is classified and proprietary, whether performed domestically or in an international environment, can begin only if it is conducted in compliance with Federal regulations and DOE requirements for human subject protection.
4. Work that involves a space nuclear reactor or non-commercial power reactor and radioisotope power source projects at DOE facilities requires the concurrence of the Director, Office of Space and Defense Power Systems.
5. DOE Program Secretarial Officers review and concur in foreign-sponsored WFO agreements that use program developed technologies.
6. The DOE Office of Science must initially approve each individual WFO arrangement with a foreign sponsor.

WFO Partnership Agreements

Research or technical assistance efforts at ORNL are performed under one of two agreement mechanisms, either a Material Services Order Form (MSOF) or a DOE WFO Agreement with intellectual property provisions.

The MSOF uses a one page abbreviated agreement format between the requesting foreign sponsor and UT-Battelle, LLC (the DOE performance-based contractor managing and operating the ORNL facility) if there are no intellectual property concerns involved. If the foreign entity has special requirements for proprietary information protection, ORNL will attach a Proprietary Information Agreement to the MSOF. *The sponsor's proprietary information associated with the research or technical development will be protected and safeguarded from inappropriate disclosure.*

Where there items on intellectual information or patent rights involved or that need to be addressed, a DOE WFO standard agreement will be initiated as the preferred form of agreement. If the foreign sponsor cannot accept the DOE agreement language as is, a negotiated agreement is the next step and will be conducted among the foreign sponsor, the local DOE ORNL Site Office (OSO), and ORNL. If the foreign sponsor's concerns cannot be satisfied within the authorized discretionary approval areas of the DOE OSO, all future negotiations will then be conducted by DOE Headquarters in Washington, D.C., and assisted by the U.S. Department of State.

Periodically, there may be minor language sensitivities in abbreviations, form titles, or acronyms used within either a MSOF or a WFO agreement. Where there will be no substantive difference in the meaning of the proposed WFO agreement, DOE may agree to modify language to meet the concerns of the foreign sponsor. However, the English language version of the signed WFO agreement will always take precedence.

Administrative Recovery of DOE Program Costs

Based on U.S. Public Law 105-261, DOE is authorized to levy a flat 3% surcharge to cover DOE administrative processing and overhead costs. This surcharge is called the Federal Administrative Charge (FAC) and the FAC is charged on all non-DOE-funded work.

Foreign sponsors will provide an advance payment in U.S. dollars equal to three months of estimated effort prior to work commencing. This advance funding provision is mandated by U.S. Federal Law and is included in the basic DOE WFO agreement. During the conduct of the project, ORNL will invoice monthly for accumulated expenses (that is, funds spent) plus FAC against the project. It is the responsibility of the foreign sponsor to pay the invoices or work may be stopped.

As an exception to the 90-day advance payment option, DOE may agree to a 30-day advance payment option given the following written assurances or guarantees:

1. No DOE appropriated funds will be used to cover any foreign sponsor's work requirements (unless specifically approved in writing by DOE Chief Financial Officer as part of an U.S. Government or DOE International Voluntary Agreement).
2. The foreign sponsor must provide full funding in advance for all projects with estimated costs up to \$25,000.
3. For project costs exceeding \$25,000 and will take longer than 90 days to complete, a pre-determined partial cash advance³ will be provided by the foreign sponsor by a specific monthly date agreed to in the WFO agreement. This monthly advance payment will be prior to, or in lieu of, receiving an invoice for payment for prior expenditures.
4. During the life of the project, invoice adjustments will be made to reflect actual expenditures versus advance payments⁴. At the end of the project, any surplus funding will be returned to the foreign sponsor.

³ The initial partial cash advance requirement for a project is the sum of the following: (1) estimated total cost for the current business month; (2) estimated in-house cost for the next business month; and (3) estimated outstanding commitments at the end of the current business month.

⁴ Second and subsequent partial advances will represent the sum of the next business month estimated in-house costs plus the change in outstanding commitments for the current business month.

DOE Relationships with its Performance-based Contractors

DOE competitively awards management and operating (M&O) contracts to manage and operate DOE facilities. These M&O contractors are financially integrated with DOE and operate under strict DOE controls and guidelines. The DOE M&O performance-based contractor that operates ORNL is UT-Battelle, LLC, which is a distinct "arms-length" subsidiary of its parent organizations (the University of Tennessee and Battelle Memorial Institute). UT-Battelle, LLC is established exclusively to perform work assigned by DOE, including work which DOE accepts from private companies. A DOE M&O contractor is a financially-integrated contractor of DOE and is vital to understanding the role that DOE plays in technology research and applied development for the potential foreign sponsors by utilizing its network of national laboratories, such as ORNL.

DOE establishes the programmatic controls, oversight functions, customary reporting information, and general categories and procedures for the overhead cost structure for UT-Battelle, LLC. DOE approves all overhead rate categories.