

**THE DEPARTMENT OF ENERGY (DOE)  
RESEARCH AND TECHNICAL  
ASSISTANCE PROGRAM  
FOR THE U.S. COMMERCIAL SECTOR  
AT OAK RIDGE, TENNESSEE<sup>1</sup>**

**DOE is directed to help the U.S. Commercial Sector!**

DOE sponsors a research and technical assistance program, called the Work For Others (WFO) program, for U.S. commercial companies and U.S. research institutions. For these entities, DOE is authorized and encouraged to provide technical assistance and to make arrangements (including contracts, agreements, and loans) for conducting research and development activities with private or public institutions or persons. This work activity includes participating in joint or cooperative research, developmental, or experimental projects. The authority for such activity comes from statutes such as the Energy Reorganization Act of 1974 (Public Law 93-438) and the Department of Energy Organization Act (Public Law 95-91).

**Why come to DOE early in the research and development cycle?**

The U.S. government's interest in furthering industrial competitiveness and scientific advances encourages innovative approaches and solutions to technical problems facing U.S. industry and universities. This U.S. governmental concern 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 in the National Laboratory system.

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<sup>1</sup> As of June 11, 2013. Prepared by David. W. Bradford, ORNL, at [bradforddw@ornl.gov](mailto:bradforddw@ornl.gov) or (865) 574-9798.

A company 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 DOE's Oak Ridge National Laboratory (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 commercial company 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.

**What Does ORNL Bring to the Table?**

1. ORNL is DOE's most diverse multi-program research and technical facilities for:
  - a. Basic Research
  - b. Applied Research
  - c. Applied Development
  - d. Ability to do National Security Classified Work
  - e. Extensive Knowledge of National

## Security or Homeland Security Technology Needs

- f. World leader in Neutron Science
  - g. Most diverse and powerful high performance computing complex in the world.
2. Access to rest of DOE National Laboratory System
  3. Access to the DOE Y-12 National Security Complex's National Prototype Center with its Manufacturing Technology Expertise
  4. Access to the National Transportation Research Center, Inc. (NTRC)
  5. Access to other University Research Centers

## DOE Administrative Processing

The DOE accepts taskings from the US commercial sector to meet a research or technological requirement. DOE executes this work through ORNL by using its unique capabilities, specialized expertise, singular facilities, or derived competencies. Prior to work beginning, ORNL researchers will coordinate with the company's representatives the proposed research or technical assistance and obtain a DOE approval. After a DOE authorization, agreement negotiations can begin.

Research or technical efforts on a project can be done under a Material and Services Order Form (MSOF) which is a one page abbreviated agreement between the requesting U.S. commercial entity and UT-Battelle, LLC (the DOE contractor that manages ORNL) if there are no intellectual property (patents, trademarks, copyrights) concerns involved. If the U.S. commercial sponsor has proprietary information involved that needs to be protected, then a Proprietary Information Agreement disclaimer can be signed and attached to the MSOF. The sponsor's proprietary information associated with the research or technical development will be protected and safeguarded from disclosure.

If there are special requirements for intellectual property information that need to be addressed, a Work For Others standard agreement will normally be used. This is a DOE previously-agreed-to set of uniform contractual clauses for research and development agreements that will expedite arranging the legal commitment between the US commercial company and UT-Battelle, LLC. However, if the DOE standard language is not acceptable to the US commercial company, a negotiated agreement might be considered.

## Payment of Costs

The US commercial company must make an advance payment for ORNL services. This limited advance funding of a project is mandated by Federal Law (for example, the Anti-Deficiency Act) and is included in the basic DOE contract between the DOE ORNL Site Office and UT-Battelle, LLC. The U.S. Congress has directed that a federal agency will not cover a private company's cost obligations for research and development with U.S. appropriated funds. This means that a private sector company must pay for their work in advance increments. All projects costing \$25,000 or under must be completely paid for in advance.

For small businesses and non-profit organizations, DOE uses several flexible advance payment arrangements so that only the monthly-required funds are paid in advance. This minimizes the impact of the DOE costs to the private organization's cash flow. Additionally, DOE by statute, waives the DOE federal administrative charge (FAC) for these organizations along with universities of higher learning in the United States.

Medium or large-scale commercial sector sponsors will provide an advance payment equal to three months of estimated effort prior to work commencing. This allows a routine billing cycle to be established to cover all actual and estimated monthly charges.

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

During the conduct of the project, UT-Battelle, LLC will invoice monthly for accumulated expenses (that is, funds spent) plus FAC, if applicable, against the project. It is the responsibility of the requesting commercial sponsor to pay that invoice.

### **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 U.S. government and the domestic commercial sector 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.

### **DOE Guidance on Subcontracting**

Based on DOE policy and acquisition regulations, UT-Battelle, LLC, in its operation of ORNL, may subcontract a portion of a project that is incidental to the overall performance of the project. UT-Battelle, LLC will retain the management and technical components which are judged to enhance DOE's mission and which reflects UT-Battelle, LLC's special capabilities.

The company may subcontract portions of the tasking to:

- (1) provide flexibility in workload management;
- (2) acquire special areas of expertise not immediately available within the DOE site;
- (3) have cross-fertilization of ideas and technical approaches to solve problems;
- (4) support small business and/or minority enterprises based on DOE guidance and direction as part of the U.S. government's socioeconomic policies;
- (5) show positive community involvement; and,
- (6) transfer technology and management expertise to other firms.

The subcontractors work specifically for UT-Battelle, LLC and the DOE contracting office reviews and approve the awarded subcontracts regardless if awarded as competitively or a sole source award. The commercial entity sponsor can not specify or direct the award to any particular subcontractor and may not operationally direct the subcontractor.