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CONTRACT REFORM

DOE's Policies and Practices in Competing Research Laboratory Contracts

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Highlights of [GAO-03-932T](#), testimony before the Subcommittee on Energy, Committee on Science, House of Representatives

Why GAO Did This Study

DOE is the largest civilian-contracting agency in the federal government, and relies primarily on contractors to operate its sites and carry out its diverse missions. For fiscal year 2003, DOE will spend about 90 percent of its total annual budget, or \$19.8 billion, on contracts, including \$9.4 billion to operate 16 of its research laboratories (called federally funded research and development centers). Since 1990, GAO has identified DOE's contract management as high-risk for fraud, waste, abuse, and mismanagement. In 1994, DOE began reforming its contracting practices to, among other things, improve contractor performance and accountability. As part of that effort, DOE has at times used competition in awarding contracts to manage and operate its research laboratories. In September 2002, GAO reported on the status of contract reform efforts in DOE. (*Contract Reform: DOE Has Made Progress, but Actions Needed to Ensure Initiatives Have Improved Results*) [Sep. 2002, GAO-02-798]

This testimony discusses some of the findings in that report. GAO was asked to testify on DOE's rationale for deciding whether to compete a laboratory research contract, the extent to which DOE has competed these contracts, and the role of competition and other mechanisms in improving contractor performance.

www.gao.gov/cgi-bin/getrpt?GAO-03-932T.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Robin M. Nazzaro (202) 512-3841 or nazzaror@gao.gov.

CONTRACT REFORM

DOE's Policies and Practices in Competing Research Laboratory Contracts

What GAO Found

DOE has competed its research laboratory contracts in three main situations—when the contractor operating the laboratory is a for-profit entity, when mission changes warrant a review of the capabilities of other potential contractors, or when the incumbent contractor's performance is unsatisfactory. DOE guidance requires that to extend a contract noncompetitively, the department must present a convincing case for doing so to the Secretary of Energy. Among other things, DOE must certify that competing the contract is not in the best interests of the government and must describe the incumbent contractor's past successful performance.

Of the 16 research laboratory contracts currently in place, DOE has competed 6. The remaining 10 contracts have not been competed since the contractors began operating the sites—in some cases, since the 1940s. DOE recently decided to compete 2 of the 10 contracts that had never before been competed—contracts to operate the Los Alamos National Laboratory in New Mexico and the Argonne West Laboratory, located at the Idaho National Laboratory. DOE decided to compete the Los Alamos contract because of concerns about the contractor's performance, and to compete the Argonne West contract as part of an overall effort to separate the Idaho National Laboratory's nuclear energy research mission from the environmental cleanup mission at the Idaho site.

Competing contracts is one of several mechanisms DOE can use to address contractor performance problems or strengthen contract management. However, just competing a contract does not ensure that contractor performance will improve. Other aspects of DOE's contract reform initiative intended to improve contractor performance included greater use of fixed-price contracts instead of cost-reimbursement contracts and establishing or strengthening performance-based incentives in existing contracts. In addition, GAO has reported that DOE must (1) effectively oversee its contractors' activities in carrying out projects and (2) use appropriate outcome measures to assess overall results and apply lessons learned to continually improve its contracting practices. GAO's recent evaluation of DOE's contract reform efforts indicates that DOE is still working to put these management practices and outcome measures in place.

Madam Chairman and Members of the Subcommittee:

We are pleased to be here today to discuss the Department of Energy's (DOE) use of competition and other mechanisms to help ensure effective contractor performance in managing and operating its research laboratories. DOE is the largest civilian-contracting agency in the federal government, relying primarily on contractors to operate its sites and carry out its diverse missions. These missions include not only conducting research but also maintaining the nuclear weapons stockpile, and cleaning up radioactive and hazardous waste. For fiscal year 2003, DOE will spend about 90 percent of its total annual budget, or \$19.8 billion, on contracts, including \$9.4 billion to operate 16 of its research laboratories.

For over a decade, we, DOE's Office of Inspector General, and others have criticized DOE's contracting practices, including its failure to hold its contractors accountable for results. DOE's longstanding approach had been to develop a broadly defined statement of work, provide considerable direction to the contractor, and reimburse virtually all costs. This approach placed limited emphasis on cost control or accountability for results. Furthermore, poor contractor performance led to schedule delays and cost increases on many of the department's major projects. Since 1990, such problems have led us to designate DOE contract management—defined broadly to include both contract administration and management of projects—as a high-risk area for fraud, waste, abuse, and mismanagement.

In 1994, DOE began its contract reform initiative to improve contractors' performance. Through this initiative DOE intended, among other things, to strengthen contracting practices, hold contractors more accountable for their performance, and demonstrate progress in achieving the agency's missions. DOE implemented numerous changes, such as performance based-contracts with results-oriented measures and a greater use of competition in awarding contracts, including contracts to manage and operate its research laboratories known as Federally Funded Research and Development Centers (FFRDC). According to the Federal Acquisition Regulation, FFRDCs are entities that engage in activities sponsored by a government agency or agencies to conduct or manage basic or applied research and development. Contracts to operate such facilities differ from other contracts because the government contemplates a long-term relationship with the FFRDC contractor and the contractor has access to government data, employees, and facilities beyond that common in a normal contractual relationship.

My testimony today will discuss (1) DOE's rationale for deciding whether to compete a FFRDC contract, (2) the extent to which DOE has competed these contracts, and (3) the role of competition and other mechanisms in improving contractor performance. Although we have not conducted a review solely related to FFRDC contracts, our past work on DOE's contract reform initiative, especially our September 2002 report,¹ focused in part on DOE's use of competition as a tool to improve contractor performance, including the contractors that manage and operate DOE's laboratories. My testimony today is based on the findings in that report as well as related information we have developed as part of our ongoing oversight of DOE's contracting activities.

In summary we found the following:

- DOE has competed its FFRDC contracts in three main situations: when the contractor operating the laboratory is a for-profit entity, when mission changes warrant a review of the capabilities of other potential contractors, or when the incumbent contractor's performance is unsatisfactory. DOE guidance on contracting reflects a strong emphasis on competition that exists, in part, as a result of its contract reform initiative. Statutes and regulations give DOE considerable flexibility in deciding whether to compete or noncompetitively extend a FFRDC contract. However, for noncompetitive extensions, DOE guidance requires the department to present a convincing case to the Secretary. Among other things, DOE must certify that competing the contract is not in the best interests of the government and must describe the incumbent contractor's past successful performance.
- Of the 16 FFRDC contracts in place, DOE has competed 6. It has not competed the remaining 10 contracts since the contractors began operating the sites—in some cases, since the 1940s. DOE recently decided to compete 2 of the 10 contracts that had never before been competed—contracts to operate the Los Alamos National Laboratory in New Mexico and the Argonne West Laboratory, located at the Idaho National Laboratory. DOE decided to compete the (1) Los Alamos contract because of concerns about the contractor's performance and (2) Argonne West contract as part of an overall effort to separate the Idaho National Laboratory's ongoing research mission from the environmental cleanup

¹U.S. General Accounting Office, *Contract Reform: DOE Has Made Progress, but Actions Needed to Ensure Initiatives Have Improved Results*, [GAO-02-798](#) (Washington, D.C.: Sept. 13, 2002).

mission at the Idaho site.

- Competing contracts is one of several mechanisms DOE can use to address contractor performance problems or strengthen contract management. However, just competing a contract does not ensure that contractor performance will improve. Other aspects of DOE's contract reform initiative intended to improve contractor performance included greater use of fixed-price contracts instead of cost-reimbursement contracts and establishing or strengthening performance-based incentives in existing contracts. In addition, we have reported that DOE must (1) effectively oversee its contractors' activities in carrying out projects and (2) use appropriate outcome measures to assess overall results and apply lessons learned to continually improve its contracting practices. Our recent evaluation of DOE's contract reform efforts indicates that DOE is still working to put these management practices and outcome measures in place.

Background

DOE has a large complex of sites around the country dedicated to supporting its missions: sites that were used to produce or process materials and components for nuclear weapons and laboratories that conduct research on nuclear weapons, defense issues, basic science, and other topics. These sites and laboratories are often located on government-owned property and facilities, but are usually operated by organizations under contract to DOE, including universities or university groups, non-profit organizations, or other commercial entities.

DOE contracting activities are governed by federal laws and regulations. Although federal laws generally require federal agencies to use competition in selecting a contractor, until the mid-1990s, DOE contracts for the management and operation of its sites generally fit within an exception that allowed for the use of noncompetitive procedures. Those contracts were subject to regulation that established noncompetitive extensions of contracts with incumbent contractors as the norm and permitted competition only when it appeared likely that the competition would result in improved cost or contractor performance and would not be contrary to the government's best interests. In the mid-1990s, DOE began a series of contracting reforms to improve its contractors' performance. A key factor of that initiative has been the increasing use of competition as a way to select management and operating contractors for DOE sites. Although DOE initially focused the increased use of competition on its contracts with for-profit organizations, the laboratories

operated by universities and other nonprofit organizations have not been completely insulated from these changes.

Contract administration in DOE is carried out by the program offices, with guidance and direction from DOE's Office of Procurement and Assistance Management. The management and operating contracts at DOE's FFRDC laboratories are administered primarily by the National Nuclear Security Administration, a semi-autonomous agency within DOE; or DOE's Offices of Science, Environmental Management, or Nuclear Energy, Science, and Technology.

DOE Has Competed FFRDC Contracts for Three Main Reasons

DOE has had three main reasons for competing its FFRDC contracts instead of extending the contracts noncompetitively: when the contractor operating the laboratory is a for-profit entity, when mission changes warrant a review of the capabilities of other potential contractors, or when the incumbent contractor's performance is unsatisfactory. Without one of these conditions, DOE has generally extended these contracts without competition.

DOE has considerable flexibility in deciding whether to compete a management and operating contract for one of its FFRDC laboratories. Although federal procurement law specifies a clear preference for competition in awarding government contracts, the Competition in Contracting Act of 1984 provided for certain conditions under which full and open competition is not required. One of these noncompetitive conditions occurs when awarding the contract to a particular source is necessary to establish or maintain an essential engineering, research, or development capability to be provided by an educational or other nonprofit institution or a FFRDC.

The Federal Acquisition Regulation, which implements federal law, defines government-wide policy and requirements for FFRDCs, including the establishment, use, review, and termination of the FFRDC relationship. Under this regulation (1) there must be a written agreement of sponsorship between the government and the FFRDC; (2) the sponsoring governmental agency must justify its use of the FFRDC; (3) before extending the agreement or contract with the FFRDC, the government agency must conduct a comprehensive review of the use and need for the FFRDC; and (4) when the need for the FFRDC no longer exists, the agency may transfer sponsorship to another government agency or phase out the FFRDC.

DOE's 1996 acquisition guidance describes the procedures DOE program offices must follow to support any recommendation for a non-competitive extension of any major site contract, including a FFRDC contract. This guidance indicates a clear preference for competition and requires DOE program offices to make a convincing case to the Secretary before a noncompetitive contract extension is allowed. This preference for competition is an outcome of DOE's contract reform initiative, which concluded that DOE needed to expand the use of competition in awarding or renewing contracts. Among other things, the 1996 guidance specifies that, before a noncompetitive contract extension can occur, DOE must provide

- a certification that full and open competition is not in the best interest of the department,
- a detailed description of the incumbent contractor's past performance,
- an outline of the principal issues and/or significant changes to be negotiated in the contract extension, and
- in the case of FFRDCs, a showing of the continued need for the research and development center in accordance with criteria established in the Federal Acquisition Regulation.

In November 2000, DOE's Office of Procurement and Assistance Management issued additional guidance on how to evaluate an incumbent contractor's past performance when deciding whether to extend or compete an existing contract. The guidance states that DOE contracting officers must review an incumbent contractor's overall performance including technical, administrative, and cost factors, and it outlines the information required to support the performance review and the expected composition of the evaluation team. When reporting the results of a performance evaluation, the team should address all significant areas of performance and highlight the incumbent contractor's strengths and weaknesses. The evaluation team's report serves as the basis for determining whether extending a contract is in the best interests of the government and is subject to review and concurrence by the responsible assistant secretary and DOE's Procurement Executive.

DOE Has Competed
or Plans to Compete
Half of Its 16 FFRDC
Contracts

In September 2002, we reported that DOE had taken several steps to expand competition for its site management and operating FFRDC contracts. First, DOE reassessed which sites it should continue to designate as federally funded research and development centers. As a result of the reassessment, DOE removed 6 of the 22 sites from the FFRDC designation. DOE subsequently competed the contracts for two of these—the Knolls and Bettis Atomic Power Laboratories in New York and Pennsylvania. DOE restructured the other four contracts and, because of the more limited scope of activities, no longer regards them as major site contracts. The six site contracts that DOE has dropped from FFRDC status since 1992 are listed in table 1.

Table 1: Sites Where DOE Has Eliminated the FFRDC Designation

Site	Year FFRDC status terminated
Bettis Atomic Power Laboratory, Pennsylvania	1992
Hanford Engineering Development Laboratory, Washington	1992
Inhalation Toxicology Research Institute, New Mexico	1995
Energy Technology Engineering Center, California	1995
Knolls Atomic Power Laboratory, New York	1992
Oak Ridge Institute of Science and Education, Tennessee	1999

Source: GAO analysis of DOE data.

For the 16 remaining FFRDC contracts that DOE sponsors, DOE has competed 6 of them and is planning to compete two additional contracts in 2004 and 2005. The 16 current FFRDC sites and the competitive status of the site contract are shown in table 2.

Table 2: DOE's FFRDC Sites and Contract Status

Site	Site contractor	Contract status
Sites with contracts that have not been competed:		
Ames National Laboratory, Iowa	Iowa State University	Initiated in 1943.
Argonne National Laboratory, Illinois	University of Chicago	Initiated in 1946. DOE plans to compete the Argonne West (Idaho) portion of the contract in 2004.
Fermi National Laboratory, Illinois	Universities Research Association	Initiated in 1967.
Jefferson Laboratory, Virginia	Southeastern Universities Research Association	Initiated in 1984.
Lawrence Berkeley National Laboratory, California	University of California	Initiated in 1947.
Lawrence Livermore National Laboratory, California	University of California	Initiated in 1952.
Los Alamos National Laboratory, New Mexico	University of California	Initiated in 1943. DOE plans to compete the contract in 2005.
Pacific Northwest National Laboratory, Washington	Battelle Memorial Institute	Initiated in 1964.
Princeton Plasma Physics Laboratory, New Jersey	Princeton University	Initiated in 1975.
Stanford Linear Accelerator Facility, California	Stanford University	Initiated in 1976.
Sites with competed contracts:		
Brookhaven National Laboratory, New York	Brookhaven Science Associates	Competed in 1997.
Idaho National Engineering and Environmental Laboratory, Idaho	Bechtel BWTX Idaho, LLC	Competed in 1999. DOE plans to restructure the site contract and compete it in 2004.
National Renewable Energy Laboratory, Colorado	Midwest Research Institute	Competed in 1998.
Oak Ridge National Laboratory, Tennessee	UT-Battelle, LLC	Competed in 1999.
Sandia National Laboratory, New Mexico	Sandia Corporation	Competed in 1993.
Savannah River Site, South Carolina	Westinghouse Savannah River Company	Competed in 1996.

Source: GAO analysis of DOE data.

DOE's decision to compete the six FFRDC sites shown in table 2 is consistent with the department's overall policy on determining when competition is appropriate. For example, DOE competed the contract for the Brookhaven National Laboratory in 1997, after terminating the previous contract for unsatisfactory performance by the incumbent contractor. DOE competed the contract for the National Renewable Energy Laboratory in 1998 to incorporate additional private sector expertise into the management team for the site. This competition resulted from an expanded mission at the site to develop innovative renewable energy and energy efficient technologies and to incorporate these technologies into cost effective new products. For the remaining four FFRDC contracts that DOE has competed, the operator of the laboratory was a for-profit entity.

When DOE has decided not to compete its FFRDC contracts but to extend them noncompetitively, its decisions have not been without controversy. For example, in 2001, DOE extended the management and operating contracts with the University of California for the Los Alamos and Lawrence Livermore National Laboratories. The University of California has operated these sites for 50 years or more and has been the sites' only contractor. In recent years, we and others have documented significant problems with laboratory operations and management at these two laboratories—particularly in the areas of safeguards, security, and project management.² Congressional committees and others have called for DOE to compete these contracts. Until recently, however, DOE did not compete them. Instead, DOE chose to address the performance problems using contract mechanisms, such as specific performance measures and interim performance assessments. In our September 2002 report, we commented that if the University of California did not make significant improvements in its performance, DOE may need to reconsider its decision not to compete the contracts.

In April 2003, the Secretary of Energy decided to open the Los Alamos National Laboratory contract to competition when the current contract expires in September 2005. The Secretary made this decision based on “systemic management failures” that came to light in 2002. The management failures included inadequate controls over employees' use of government credit cards, inadequate property controls and apparent theft of government property, and the firing of investigators attempting to identify the extent of management problems at the laboratory.

DOE has also decided to restructure the FFRDC contracts supporting work at the Idaho National Laboratory. Currently the laboratory has two FFRDC contracts—(1) a site management contract that includes activities ranging from waste cleanup to facility operations activities and (2) a contract to operate Argonne National Laboratory, which includes the Argonne West facility at the Idaho site. DOE plans to restructure the two contracts so that one focuses on the nuclear energy research mission and

²For, example, see U.S. General Accounting Office, *Department of Energy: Key Factors Underlying Security Problems at DOE Facilities*, [GAO/T-RCED-99-159](#) (Washington, D.C.: Apr. 20, 1999); U.S. General Accounting Office, *Nuclear Security: Improvements Needed in DOE's Safeguards and Security Oversight*, [GAO/RCED-00-62](#) (Washington, D.C.: Feb. 24, 2000); and A Special Investigative Panel, *President's Foreign Intelligence Advisory Board, Science at its Best, Security at its Worst: A Report on Security Problems of the U.S. Department of Energy* (Washington, D.C.: June 1999).

the other focuses on the cleanup mission at the site. DOE also plans to include the activities at Argonne West in the contract competition for the site's research mission and to remove the Argonne West scope of work from DOE's existing contract with the University of Chicago to operate Argonne National Laboratory. DOE believes this contract restructuring will help revitalize the nuclear energy research mission at the Idaho Site and accelerate the environmental cleanup.

DOE is continuing to examine the nature of its relationship with FFRDC contractors and the implications of that relationship for its contracting approach. DOE established FFRDCs in part to gain the benefits of having a long-term association with the research community beyond that available with a normal contractual relationship. However, more recent events are causing DOE to rethink its approach. As discussed above, DOE has been criticized for not competing laboratory contracts where the contractors are performing poorly. Furthermore, annual provisions in the Energy and Water Development Appropriations Acts since fiscal year 1998 have required DOE to compete the award and extension of management and operating contracts, including FFRDC contracts, unless the Secretary waives the requirement and notifies the Subcommittees on Energy and Water of the House Committee on Appropriations 60 days before contract award.

Given these concerns, in 2003 the Secretary of Energy commissioned an independent panel to determine what criteria DOE should consider when deciding whether to extend or compete a laboratory management and operating contract. The panel is expected to help DOE determine, among other things, the conditions under which competition for laboratory contracts is appropriate, the appropriate criteria for deciding to compete or extend laboratory contracts, the benefits and disadvantages derived from competing laboratory contracts, and whether different standards and decision criteria should apply depending on whether the contractor is non-profit, an educational institution, an academic consortium, or a commercial entity.

Competing Its Contracts Is One of Several Mechanisms DOE Has to Address Contractor Performance, but Effective Oversight and Improved Outcome Measures Are Also Needed

Competing contracts is one of several mechanisms DOE can use to address contractor performance problems or strengthen contract management. However, competing a contract does not ensure that contractor performance will improve. Other steps DOE has taken as part of its contract reform initiative to address contractor performance issues include changing the type of contract, such as from a cost-reimbursement to a fixed-price contract, or establishing or strengthening performance-based incentives in the contract. For example, in September 2002, we reported that DOE now requires performance-based contracts at all of its major sites. DOE has also increased over time the proportion of contractors' fees tied to achieving those performance objectives. However, DOE has struggled to develop effective performance measures and continues to modify and test various performance measures that more directly link performance incentives to a site's strategic objectives.

Even these changes to DOE's contracts do not by themselves ensure that contractor performance will improve. We have reported that DOE must also (1) effectively oversee its contractors' activities in carrying out projects and (2) use appropriate outcome measures to assess overall results and apply lessons learned to continually improve its contracting practices. Effectively overseeing contractor activities involves, among other things, ensuring that appropriate and effective project management principles and practices are being used. Since June 1999, DOE has been working to implement recommendations by the National Research Council on how to improve project management at DOE. In 2003, the National Research Council reported that DOE has made progress in improving its management of projects but that effective management of projects was not fully in place.

Regarding the use of outcome measures to assess overall results, in September 2002, we reported that DOE did not have outcome measures or data that could be used to assess the overall results of its contract reform initiatives. We recommended that DOE develop an approach to its reform initiatives, including its contracting and project management initiatives, that is more consistent with the best practices of high-performing organizations. DOE is still working to put a best-practices approach in place.

As we reported in 2001, improving an organization's performance can be difficult, especially in an organization like DOE, which has three main

interrelated impediments to improvement—diverse missions, a confusing organizational structure, and a weak culture of accountability.³ However, DOE expects to spend hundreds of billions of dollars in future years on missions important to the well-being of the American people, such as ensuring the safety and reliability of our nuclear weapon stockpile. Therefore, the department has compelling reasons to ensure that it has in place an effective set of contracting and management practices and controls.

Thank you, Madam Chairman and Members of the Subcommittee. This concludes my testimony. I would be pleased to respond to any questions that you may have.

Contacts and Acknowledgments

For further information on this testimony, please contact Ms. Robin Nazzaro at (202) 512-3841. Individuals making key contributions to this testimony included Carole Blackwell, Bob Crystal, Doreen Feldman, Molly Laster, Carol Shulman, Stan Stenersen, and Bill Swick.

³U.S. General Accounting Office, *Department of Energy: Fundamental Reassessment Needed to Address Major Mission, Structure, and Accountability Problems*, [GAO-02-51](#) (Washington, D.C.: Dec. 21, 2001).

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