

GAO

Report to the Subcommittee on
Readiness, Committee on Armed
Services, House of Representatives

May 2005

DEFENSE
INFRASTRUCTURE

Management Issues
Requiring Attention in
Utility Privatization



G A O

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Highlights of [GAO-05-433](#), a report to the Subcommittee on Readiness, Committee on Armed Services, House of Representatives

Why GAO Did This Study

Department of Defense (DOD) installations have about 2,600 electric, water, wastewater, and natural gas utility systems valued at about \$50 billion. In 1997, DOD decided that utility privatization was the preferred method for improving utility systems and services and the Congress approved legislative authority for privatizing utility systems at military installations with Public Law No. 105-85.

Because of the costs and long-term implications of DOD's utility privatization program, GAO reviewed the program to determine (1) the program's status, (2) whether the services' estimates of long-term savings from utility privatization projects are reliable, (3) how DOD implements the fair market value requirement for conveyed utility systems, and (4) whether other issues impact the effectiveness of DOD's execution of the program.

What GAO Recommends

GAO recommends that DOD take several actions designed to help ensure the reliability of the economic analyses for proposed utility privatization projects and improve the guidance and procedures used to implement and oversee the utility privatization program. DOD did not agree with the recommendations. GAO believes its recommendations continue to have merit.

www.gao.gov/cgi-bin/getrpt?GAO-05-433.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Barry W. Holman at (202) 512-5581 or holmanb@gao.gov.

DEFENSE INFRASTRUCTURE

Management Issues Requiring Attention in Utility Privatization

What GAO Found

DOD's progress in implementing the utility privatization program has been slower than expected, largely because of the complexities of the solicitation and contracting processes. In 1997, DOD initially expected that the services would privatize or exempt all utility systems by January 2000. Yet, after spending about \$248 million on program implementation, the services had privatized only 94 systems and exempted 311 systems of the 1,499 utility systems determined to be available for privatization as of December 31, 2004. Although DOD reset implementation target dates and established September 2005 as the current goal for the services to make decisions to privatize or exempt all systems, DOD officials stated that it was unlikely that the services would meet the revised goal.

Utility privatization can provide for quicker system improvements than otherwise might be available; however, there are questions about program savings. Although the services' economic analyses estimate that utility systems privatized to date will reduce the government's costs for utility services, GAO questions the estimates because they give an unrealistic sense of savings to a program that increases ongoing government utility costs in order to pay contractors for enhanced utility services and capital improvements. Other base support services could suffer unless budgets are adjusted to reflect these increased costs. Moreover, GAO found that long-term cost comparisons did not depict actual expected costs of continued government ownership in the event that systems were not privatized and DOD had not taken steps to ensure that the estimates were otherwise reliable. As a result, GAO found in the seven cases it reviewed that the services' analyses included inaccuracies that tended to favor the privatization option over continued government ownership.

Although the services are permitted latitude in ensuring that the government receives fair market value for systems conveyed to privatization contractors, in some cases implementation has resulted in higher contract costs for utility services. Contractors normally include the full amounts they paid for conveyances in the associated utility services contracts and, therefore, the government will pay back the amounts received over time. In some cases, contractors also include additional amounts in the contracts to cover costs associated with the fair market value payment. Thus, implementing the fair market value requirement in such cases results in higher contract costs because the government will pay back more than it will receive for conveying the systems.

Two additional issues of concern identified by GAO related to limited oversight of privatization contracts and DOD's preferred practice of permanently conveying utility systems to contractors rather than using more limited arrangements which, according to DOD consultant reports, is a more prevalent private sector practice and one which may offer greater safeguards to the government.

Contents

Letter

Results in Brief	1
Background	3
Utility Privatization Implementation Has Been Slower Than Expected	7
The Services' Savings Estimates from Utility Privatization Are Questionable	11
Implementation of the Fair Market Value Requirement Can Result in Higher Contract Costs	17
DOD's Execution of the Utility Privatization Program Raises Other Concerns	25
Conclusions	29
Recommendations for Executive Action	34
Matter for Congressional Consideration	36
Agency Comments and Our Evaluation	37

Appendixes

Appendix I: Scope and Methodology	43
Appendix II: Results of GAO's Review of the Services' Economic Analyses Supporting Seven Utility Privatization Projects	45
Appendix III: Comments from the Department of Defense	49

Tables

Table 1: Status of the Utility Privatization Program as of December 31, 2004	13
Table 2: Percentage of Systems with Privatization or Exemption Decision	13
Table 3: Implementation Costs for the Utility Privatization Program	17
Table 4: Selected Information from Economic Analyses Supporting Utility Privatization Projects	23
Table 5: Amounts to Be Received for Utility System Conveyances for Projects Reviewed	27

Abbreviations

DOD Department of Defense
GSA General Services Administration

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United States Government Accountability Office
Washington, D.C. 20548

May 12, 2005

The Honorable Joel Hefley
Chairman
The Honorable Solomon P. Ortiz
Ranking Member
Subcommittee on Readiness
Committee on Armed Services
House of Representatives

Department of Defense (DOD) installations have about 2,600 electric, water, wastewater, and natural gas utility systems valued at about \$50 billion. These systems consist of the equipment, fixtures, pipes, wires, and other structures used in the distribution of electric power and natural gas, the treatment and distribution of water, and the collection and treatment of wastewater. According to DOD officials, many of these systems have become unreliable and in need of major improvements due to inadequate funding caused by the competition for funds and DOD's risk management and budget allocation decisions. To address this issue, DOD decided in 1997 that utility privatization was the preferred method for improving utility systems and services because privatization would allow installations to benefit from private sector financing and efficiencies. With private sector financing, installations could immediately obtain major upgrades to their utility systems and pay for these improvements over time. Thus, utility improvements could be achieved without going through the traditional military construction budget justification and funding process. Under DOD's program, utility privatization normally involves two transactions with the successful contractor—the conveyance of the utility system infrastructure and the acquisition of utility services for upgrades, operations, and maintenance under a long-term contract of up to 50 years. DOD estimates that some privatization contracts will cost more than a hundred million dollars over the contract time frames.

To institute the program at DOD's request, the Congress approved legislative authority in 1997 for privatizing utility systems at military installations.¹ The authority requires that the military services meet a number of conditions to privatize a system including, in part, the following two conditions. First, the services must demonstrate through an economic analysis that privatization of a system would reduce the government's long-term costs for utility services. Second, the services must receive as consideration for conveying a system an amount equal to the system's fair market value.² DOD's program guidance permits the services to exempt systems from privatization when long-term costs will not be reduced or for unique security reasons.

In view of these requirements and because of the program's costs and long-term implications, this report, undertaken pursuant to the Comptroller General's legislative authorities, determines (1) the program's status, (2) whether the services' estimates of savings from utility privatization projects are reliable, (3) how DOD implements the fair market value requirement for conveyed utility systems, and (4) whether other issues impact the effectiveness of DOD's execution of the program. As discussed with your offices, we are addressing the report to you because of your expressed interest related to your committee's oversight responsibilities.

To address these questions, we summarized program implementation status and costs, compared the status to DOD's goals and milestones, and discussed issues affecting program implementation, such as accounting for contract termination liabilities. We relied on program status data provided by the services, confirmed the status data for seven projects, but did not otherwise test the reliability of the data. We examined DOD's guidance and methods for performing and reviewing the economic analyses used to determine whether privatization will reduce the government's long-term costs and for determining the fair market value of the systems to be conveyed. We reviewed the economic analyses for seven projects regarded by DOD as privatization successes to examine the basis for the estimates and the assumptions used, evaluate consistency and reliability, and assess the amounts received as consideration for the conveyances. Finally, we

¹ The National Defense Authorization Act for Fiscal Year 1998, Pub. L. No. 105-85, § 2812, (1997).

² The conveyance may consist of all right, title, and interest of the United States in the utility system or such lesser estate as the Secretary of a military department considers appropriate to serve the interests of the United States.

reviewed DOD and service guidance for utility privatization contract administration, discussed contract oversight with officials at five installations, and reviewed information from DOD officials and consultant reports on how DOD's approach to utility privatization compares with private sector practices. We conducted our work from July 2004 through March 2005 in accordance with generally accepted government auditing standards. A more detailed description of our scope and methodology is included in appendix I.

Results in Brief

Although initial goals were aggressive, DOD's actual progress in implementing the utility privatization program has been slower than expected. In 1997, DOD initially expected that the services would privatize or exempt all utility systems by January 2000. Yet, after spending about \$248 million on program implementation, the services had privatized only 94 systems and exempted 311 systems of the 1,499 utility systems determined to be available for privatization as of December 31, 2004. Although DOD reset implementation target dates and established September 2005 as the current goal for the services to make decisions to privatize or exempt all systems, DOD officials stated that it was unlikely that the services would meet the revised goal. According to DOD and service program officials, program implementation has been slower than expected primarily because the privatization evaluation, solicitation, and contracting processes were more complex and time consuming than originally anticipated. Moreover, an issue surfaced in October 2004 that further slowed the program by placing pending contract awards on hold for several months while the matter was evaluated. This issue concerned whether the services were required at the time of contract signing to obligate sufficient funds to pay a privatization contractor for costs that had not been recovered under a contract to date in the event of a future contract termination. According to service officials, if required, the amounts needed could be large enough to make many proposed utility privatization projects financially unfeasible. The DOD Office of General Counsel evaluated the issue and concluded in February 2005 that the services were not required to obligate sufficient funds to cover contract termination liability under the utility privatization program. We agree that defense services are not required to record obligations for potential termination liabilities under that authority, unless and until they decide to terminate.

Although the services' economic analyses estimate that utility systems privatized to date will reduce the government's costs for utility services, we

found that the estimates give an unrealistic sense of savings to a program that generally increases government utility costs in order to pay contractors for enhanced utility services and capital improvements. DOD's funding obligations will likely increase faster than they would under continued government ownership as it pays over time for utility system improvements obtained from private sector financing. Air Force officials estimated that the Air Force's costs alone could increase between \$100 million and \$200 million annually for the first 5 to 10 years of privatization. Various service officials expressed concern that unless funding for operation and maintenance accounts are adjusted to reflect this increase, other support functions on military bases could suffer as funds are shifted to cover "must pay" privatized utility costs. Moreover, we found that the services' long-term savings estimates, required to be developed to support privatization decisions, were questionable because the estimates did not depict actual expected costs of continued government ownership in the event that systems were not privatized and DOD had not taken steps to ensure that the estimates were otherwise reliable. First, to determine whether a proposed privatization contract would meet the statutory requirement for reduced long-term costs, each service followed DOD guidance and compared the long-term estimated costs of the contract with the estimated long-term "should costs" of continued government ownership assuming that the service would upgrade, operate, and maintain the system in accordance with accepted industry standards as called for in the proposed contract. This estimating method would be appropriate if, in the event the system is not privatized, the service proceeded to upgrade, operate, and maintain the system as called for in the estimate. However, this generally is not the case. According to DOD and service officials, if a system is not privatized, then the anticipated system improvements would probably be delayed because of DOD's budget allocation decisions, which have limited funds for utility improvements. Because of the time value of money, a future expense of a given amount is equivalent to a smaller amount in today's dollars. As a result, delaying system improvements to future years would reduce the estimated cost of the government ownership option in today's dollars and, therefore, affect the results of the economic analyses. At the same time, it must be recognized that delays in system improvements could increase government costs due to increased maintenance and possible changes in system reliability in the long term. Thus, if reduced costs to the government are expected to be a key factor in utility privatization decision making, then it would appear more appropriate for the services to compare the cost of a proposed privatization contract with the cost of continued government ownership on the basis of the actual planned expenditures and timing of these expenditures, with

appropriate consideration to the impact of delayed improvements. Second, largely because DOD does not require that the services' economic analyses be subjected to an independent review for accuracy and compliance with guidance, we found in the seven cases we reviewed that the services' analyses included inaccuracies which tended to favor the privatization option over continued government ownership.

Although the services are permitted latitude in ensuring that the government receives fair market value for systems conveyed to privatization contractors, in some cases implementation has resulted in higher contract costs for utility services. Guidance and practices for determining fair market value varied among the services, with Army guidance stating that fair market value for system conveyances could range from zero to full replacement cost of the system. For example, the Army privatized one installation's water distribution system, consisting of a reservoir, four water towers, and pipelines, and according to the economic analysis received no consideration from the contractor for the conveyance. Army officials stated that determining fair market value was subjective and determined in part by the amounts contractors were willing to pay. In some cases, the officials stated that the most beneficial business case was to convey systems at less than estimated fair market value. Also, although it is a reasonable concept that the government should receive consideration if an asset is conveyed to a contractor, the receipt of consideration for conveyances in the utility privatization program does not typically result in a net financial payment to the government. To recover their costs, privatization contractors normally include the full amounts they paid for conveyances in the associated utility services contracts and, therefore, the government will pay back the amounts received for the conveyances in the utility services bills over time. Beyond that, in some cases, contractors include additional amounts in the utility services bills to cover the contractors' costs associated with the fair market value payments. Implementing the fair market value requirement in such cases will result in increased costs because the government will pay back more than it will receive for the conveyances. For example, the economic analysis for the electric distribution system privatization at Dobbins Air Reserve Base showed that the contractor will pay \$741,000 as the fair market value for the conveyance. The analysis also showed that the contractor will recover this cost, plus other associated costs, by charging the Air Force \$1,322,000 in the utilities services bills over time. Thus, implementing the fair market value requirement in this case will result in the Air Force paying about \$581,000, or 78 percent, more than it will receive for the conveyance.

In examining DOD's execution of the utility privatization program, we identified two other areas of concern that could affect program effectiveness. First, the adequacy of privatization contract oversight was a concern. Although they intend to do so, the services have not issued specific contract administration guidance for the program since it began over 7 years ago. Officials at one installation we visited stated that they were performing limited oversight because they lacked sufficient guidance and had not been funded for people to oversee contractor performance. Also, in its reviews of four utility privatization contracts, the Army Audit Agency reported that contractor performance was not adequately monitored and, as a result, there was little assurance that the installations would receive quality products and services. Second, according to DOD consultant reports, DOD's approach to utility privatization differs from typical private sector practices in that private sector companies may outsource system operations and maintenance but normally retain system ownership. As a result, the consultant reports note that DOD's preferred approach of permanently conveying utility system ownership to contractors may give the contractor an advantage when negotiating service contract changes or renewals. This occurs because DOD must deal with the contractor or pay significant amounts to construct a new utility distribution system to replace the one conveyed to the contractor, attempt to purchase the system back from the contractor, or institute legal action to reacquire the system through condemnation proceedings.

We are making recommendations to help ensure the reliability of the economic analyses for proposed utility privatization projects and to improve the guidance and procedures used to implement and oversee the utility privatization program. In commenting on a draft of this report, DOD disagreed with our recommendations, characterized our findings as being outdated and not well founded, and suggested that our report represented an unwarranted characterization of issues we identified as being systemic to the program. We believe that our review of the utility privatization program was objective, balanced, and represented program conditions existing at the time we completed our review in March 2005. We disagree with DOD's contention that our findings were outdated. Of the seven utility privatization projects we reviewed in detail, the associated contracts for four projects were awarded in 2004, and the contracts for two projects were awarded in 2003. Additionally, the issues we identified and recommendations we made are current regardless of the case studies. We remain confident that both our conclusions and recommendations are soundly based upon the findings discussed in this report. We address

DOD's comments in detail later in the report. Because of DOD's response to the report, we have added a matter for congressional consideration.

Background

At DOD's request, the Congress approved legislative authority in 1997 for privatizing utility systems at military installations.³ In defining a utility system, the authority included systems for the generation and supply of electric power; the treatment or supply of water; the collection or treatment of wastewater; the generation or supply of steam, hot water, and chilled water; the supply of natural gas; and the transmission of telecommunications. Included in a utility system are the associated equipment, fixtures, structures, and other improvements as well as real property, easements, and rights-of-way. The authority stated that the Secretary of a military department may convey a utility system to a municipal, private, regional, district, or cooperative utility company or other entity and the conveyance may consist of all right, title, and interest of the United States in the utility system or such lesser estate as the Secretary considers appropriate to serve the interests of the United States.

Among other things, the current authority also includes two requirements for utility privatization. First, the Secretary shall submit reports to the congressional defense committees on the conveyances made under the authority each quarter. Previously, the statute required DOD to submit the report and wait 21 days before allowing a conveyance.⁴ For each such conveyance, the report is to include an economic analysis, based on acceptable life-cycle costing procedures, demonstrating that (1) the long-term economic benefit of the conveyance to the United States exceeds the long-term economic cost of the conveyance to the United States, and (2) the conveyance will reduce the long-term costs of the United States for utility services provided by the utility system concerned. Second, the Secretary shall require as consideration for a conveyance an amount equal to the fair market value, as determined by the Secretary, of the right, title, or interest of the United States conveyed. The consideration may take the form of a lump sum payment or a reduction in charges for utility services.

³ See note 1.

⁴ See National Defense Authorization Act for Fiscal Year 2004, Pub. L. No. 108-136, § 1031(a)(12), which changed the timing of the reporting requirement. The seven utility privatization projects we reviewed were under the earlier requirement.

Before and after approval of the specific authority for privatizing utilities, the services have used other authorities for utility privatization. For example, the Army had privatized some systems after obtaining congressional authority on each specific case. Also, the services have privatized systems by modifications to natural gas services agreements administered by the General Services Administration and by conveyances of some systems on the basis of authorities related to base realignment and closure and the military housing privatization program.

DOD Made Utility Privatization a DOD Policy

In December 1997, DOD issued Defense Reform Initiative Directive Number 9, which made utility system privatization a DOD policy.⁵ The directive instructed the military departments to develop a plan that would result in privatizing all installation electric, natural gas, water, and wastewater utility systems by January 1, 2000, unless exempted for unique security reasons or if privatization would be uneconomical. Under the program, privatization normally involves two transactions with the successful contractor—the conveyance of the utility system infrastructure and the acquisition of utility services for upgrades, operations, and maintenance under a long-term contract of up to 50 years. Normally, the conveyances do not include title to the land underlying the utility system infrastructures.

A year later, in December 1998, DOD issued another directive to establish program management and oversight responsibilities and provide guidance for performing economic analyses for proposed projects, exempting systems from the program, and using competitive procedures to conduct the program.⁶ The directive also stated that the objective was for DOD to get out of the business of owning, managing, and operating utility systems by privatizing them and that exemptions from privatization should be rare. The directive reset the privatization implementation goal to September 30, 2003.

⁵ See Deputy Secretary of Defense, *Memorandum for Secretaries of the Military Departments and others, Subject: Department of Defense Reform Initiative Directive #9—Privatizing Utility Systems* (Department of Defense: Washington, D.C., Dec. 10, 1997).

⁶ See Deputy Secretary of Defense, *Memorandum for Secretaries of the Military Departments and others, Subject: Department of Defense Reform Initiative Directive #49—Privatizing Utility Systems* (Department of Defense: Washington, D.C., Dec. 23, 1998).

Implementation Goals Reset and Program Guidance Revised

In October 2002, DOD issued revised program guidance and again reset implementation goals.⁷ The guidance noted DOD's contention that many installation utility systems had become unreliable and in need of major improvements because the installations historically had been unable to upgrade and maintain reliable utility systems due to inadequate funding caused by the competition for funds and DOD's budget allocation decisions. DOD officials stated that owning, operating, and maintaining utility systems was not a core DOD function and the guidance stated that privatization was the preferred method for improving utility systems and services by allowing military installations to benefit from private sector financing and efficiencies. The revised implementation goals directed the military departments to reach a privatization or exemption decision on at least 65 percent of the systems available for privatization by September 30, 2004, and on all systems by September 30, 2005.

The October 2002 guidance also reemphasized that utility privatization was contingent upon meeting two requirements contained in the legislative authority for the program—that the services demonstrate through an economic analysis that privatization will reduce the long-term costs to the government for utility services and that the services receive fair market value for system conveyances. The guidance included details for conducting the economic analyses stating that the services' analyses should compare the long-term estimated costs of proposed privatization contracts with the estimated long-term costs of continued government ownership assuming that the systems would be upgraded, operated, and maintained at accepted industry standards, as would be required under privatization.

Utility Privatization Program Management

DOD's Office of the Deputy Under Secretary of Defense for Installations and Environment provides overall policy and management oversight for the utility privatization program. However, primary management and implementation responsibility for the program is delegated to the individual services, their major commands, and individual installations.

⁷ See Deputy Secretary of Defense, *Memorandum for Secretaries of the Army, Navy, and Air Force and Director of the Defense Logistics Agency, Subject: Revised Guidance for the Utility Privatization Program* (Department of Defense, Washington, D.C., Oct. 9, 2002).

Prior GAO Reports on Utility Privatization and Related Subjects

Although this is our first detailed report on DOD's utility privatization program, we have issued four previous reports that commented on the program. These reports primarily focused on DOD's progress in implementing DOD's Defense Reform Initiative, which began in 1997. The initiative represented an important set of actions aimed at improving the effectiveness and efficiency of DOD's business operations. One of those actions was the utilities privatization program. Concerning the utilities privatization program, we reported in April 1999 and August 1999 that the program was complex, time consuming, and expensive and that the services would not meet initial implementation goals.⁸ In July 2000, we reported that in December 1998, DOD had issued a program budget decision directing the services to set aside \$243.6 million to complete privatizations between fiscal years 1999 and 2004.⁹ The program budget decision estimated that utility system privatization might begin to provide about \$327 million in annual savings after privatizations were completed in 2003. However, we also reported that these early budget estimates of the costs and savings were unrealistic and that in addition to paying for privatization studies, military service officials were also concerned that utility bills would increase without a corresponding increase in operations and maintenance funds. In December 2002, we again reported that the utility privatization program was more complex and time consuming than anticipated and DOD planned to reset the program's completion goal.¹⁰

⁸ GAO, *Defense Reform Initiative: Organization, Status, and Challenges*, [GAO/NSIAD-99-87](#) (Washington, D.C.: Apr. 21, 1999) and *Defense Infrastructure: Improved Performance Measures Would Enhance Defense Reform Initiative*, [GAO/NSIAD-99-169](#) (Washington, D.C.: Aug. 4, 1999).

⁹ GAO, *Defense Management: Actions Needed to Sustain Reform Initiatives and Achieve Greater Results*, [GAO/NSIAD-00-72](#) (Washington, D.C.: July 25, 2000).

¹⁰ GAO, *Defense Management: New Management Reform Program Still Evolving*, [GAO-03-58](#) (Washington, D.C.: Dec. 12, 2002).

We have also issued three reports on DOD's program management and oversight of another privatization program—the military housing privatization program.¹¹ As noted elsewhere in this report, information from those reports provides a useful contrast in approach when compared to the utility privatization program. Finally, we have issued other reports that identified examples where the services moved operations and maintenance funds intended to support one functional area to another functional area and discussed associated impacts.¹²

Utility Privatization Implementation Has Been Slower Than Expected

The utility privatization program provides DOD with a method to improve installation utility systems by using private sector financing as an alternative to traditional military construction funding. Although DOD's initial goals were aggressive in order to use privatization to quickly obtain improvements and get the services out of the business of owning and operating utility systems, actual program implementation has been slower than expected. In 1997, DOD expected that the services would privatize or exempt all utility systems by January 2000 and DOD's current goal is for the services to make decisions to privatize or exempt all systems by September 2005. Yet, the services had awarded or exempted only a fraction of the 1,499 systems available for privatization as of December 31, 2004. Program implementation slowed further in late 2004 and pending contract awards for all services were put on hold for several months over an issue related to contract termination liability. Implementation costs for the program will total about \$296 million for fiscal years 1998 through 2005, according to DOD and service officials.

¹¹ See GAO, *Military Housing: Privatization Off to a Slow Start and Continued Management Attention Needed*, [GAO/NSIAD-98-178](#) (Washington, D.C.: July 17, 1998); *Military Housing: Continued Concerns in Implementing the Privatization Initiative*, [GAO/NSIAD-00-71](#) (Washington, D.C.: Mar. 30, 2000); and *Military Housing: Management Improvement Needed As the Pace of Privatization Quickens*, [GAO-02-624](#) (Washington, D.C.: June 21, 2002).

¹² See GAO, *Defense Budget: DOD Should Further Improve Visibility and Accountability of O&M Fund Movements*, [GAO/NSIAD-00-18](#) (Washington, D.C.: Feb. 9, 2000); and *Defense Infrastructure: Changes in Funding Priorities and Strategic Planning Needed to Improve the Condition of Military Facilities*, [GAO-03-274](#) (Washington, D.C.: Feb. 19, 2003).

Privatization Offers a Method for Obtaining Utility System Improvements Without Full Up-front Appropriations

Utility privatization has helped installations achieve major system improvements which, according to cognizant DOD and service officials, would not have been otherwise possible due to inadequate funding caused by the competition for funds and budget allocation decisions. They report the systems vary among the military services in the extent to which they have been adequately maintained and upgraded over time. With private sector financing as an alternative to traditional military construction funding, installations have obtained system upgrades and improved operations and maintenance and will pay for the improvements over time, rather than through full up-front appropriations.¹³ According to these officials, the improvements have resulted in increased utility system reliability and efficiencies while reducing safety and environmental risks. Also, these officials noted that, with privatization, installations can focus more on their core defense missions rather than tending to problems caused by outdated utility systems. These officials further noted that without the privatization program these benefits would not have been obtained in the short term but would have been delayed, perhaps for many years.

The Services Have Awarded Contracts for Only a Fraction of the Total Systems Available for Privatization

After spending about \$248 million on program implementation costs, the services had awarded contracts for only a fraction of the 1,499 utility systems available for privatization as of December 31, 2004. Of the 94 total contract awards, the services awarded 68 under the legislative authorities specifically provided for the program and 26 as part of other programs, such as DOD's military housing privatization program. As shown in table 1, the services also had exempted 311 systems for security or economic reasons and had 979 systems in various stages of the privatization contract solicitation process.

¹³ Because the budget does not reflect up front the full costs of the improvements to be obtained through utility privatization, it may be more difficult for decision makers to consider the full financial commitment that the government undertakes when it enters into long-term privatization contracts. This could lead to a situation in which budget decisions favor utility privatizations over programs that include their full costs up front in the budget.

Table 1: Status of the Utility Privatization Program as of December 31, 2004

Component	Systems available for privatization	Systems pending solicitation or on hold	Systems in solicitation	Systems exempted	Contracts awarded ^a
Army	320	67	144	40	69
Navy	645	23	534	73	15
Air Force	505	17	280	198	10
Defense Logistics Agency	29	8	21	0	0
Total	1,499	115	979	311	94

Source: DOD.

^aAccording to service officials, of the 94 contract awards, 68 were awarded using 10 U.S.C. 2688 authorities and 26 were awarded using other authorities. Of the Army's 69 contract awards, 4 were awarded under the General Services Administration's areawide gas service agreements and 4 were awarded under authorities related to base realignment and closure. Of the Navy's 15 contract awards, 14 were awarded as part of the Navy's military housing privatization program or other transactions. Of the Air Force's 10 contract awards, 4 were awarded under the General Services Administration's areawide gas service agreements.

In comparison to DOD's current implementation goals, only the Air Force met the September 30, 2004, goal by making a privatization or exemption decision on at least 65 percent of its utility systems available for privatization. As shown in table 2, as of September 30, 2004, the Air Force had made decisions on 70 percent of its systems while the Army, the Navy, and the Defense Logistics Agency had made decisions on 51 percent, 47 percent, and 55 percent, respectively, of their utility systems. DOD officials stated that it was unlikely that the services will meet DOD's September 30, 2005, goal of making a privatization or exemption decision on every system available for privatization.

Table 2: Percentage of Systems with Privatization or Exemption Decision

Component	Goal for Sept. 30, 2004 (percent)	Actual as of Sept. 30, 2004 (percent)	Sept. 30, 2004 goal met?	Goal for Sept. 30, 2005 (percent)	Actual as of Dec. 31, 2004 (percent)
Army	65	51	No	100	52
Navy	65	47	No	100	49
Air Force	65	70	Yes	100	71
Defense Logistics Agency	65	55	No	100	55
Total	65	56	No	100	57

Source: DOD.

According to DOD and service officials, implementation was slower than expected primarily because the program proved to be more complex and time consuming than initially expected. The program represented a new way of doing business for both the military and the private sector and it took time to develop guidance for determining fair market values for system conveyances and for comparing the long-term costs of a proposed privatization project with the long-term costs of continued government ownership. Initially, DOD also had to evaluate and make decisions in many areas such as the role of state laws and regulations on utility systems located on military installations but with ownership conveyed to private contractors. Further, to address some private utility company concerns, DOD made or sought and obtained waivers from some contracting regulations, but the process to do so was time consuming. For example, early in the program DOD learned that some private utility companies were reluctant to submit offers on privatization contracts because of regulations requiring that contractors follow accounting standards set by the Cost Accounting Standards Board. The concern was that the utility industry already had a set of established accounting practices used by regulatory agencies to set utility rates and to adopt an additional set of accounting standards would be too costly. DOD requested the Cost Accounting Standards Board to grant a waiver from use of the standards in utility privatization contracts under certain circumstances. Although the matter remained a point of contention for several years, the waiver was not obtained until September 2004 and DOD guidance on the matter was not issued until October 2004.

Contract Termination Liability Questions Slowed Implementation Further

Program implementation slowed further in late 2004 and pending contract awards for all services were held up over an issue concerning contract termination liability. In October 2004, the Navy raised a question with the Office of the Secretary of Defense concerning whether it was required to obligate funds to cover potential contract termination expenses should the Navy terminate a utility services contract prior to the contractor recovering its acquisition and system improvement costs. Navy officials stated that, if required, the amounts needed could be very large, making many proposed utility privatization projects financially unfeasible.

Not all the services shared the Navy's concern regarding termination liability. The Army, for example, reportedly has entered into a number of utility privatization agreements without recording an obligation to cover potential termination liability. The Army's position apparently was that 10 U.S.C. § 2688 provides the necessary authority to enter into utility

privatization agreements without recording an obligation for termination liability.

To resolve the differences between the services, the DOD Office of General Counsel considered the Navy and Army positions and issued guidance in February 2005 indicating that the services were not required to obligate funds to cover contract termination liability under the utility privatization program. In part, the DOD Office of General Counsel relied on a 1983 GAO decision¹⁴ which addressed the acquisition by the General Services Administration (GSA) of telephone equipment and related services under 40 U.S.C. § 501(b)(3). That statutory provision, similar to section 2688, authorizes contracts for public utility services for multiple years (up to 10 years) without mentioning termination liability. The DOD Office of General Counsel noted that our 1983 decision stated that under section 501, GSA did not need to have available budget authority to obligate the total estimated cost of a contract, “but only sufficient budget authority to obligate its annual costs under the agreement.” Although the 1983 decision did not directly address termination liability, the DOD Office of General Counsel maintains that a requirement to obligate termination costs for such contracts would directly contradict the conclusion that GSA need only obligate its “annual costs.” According to the DOD Office of General Counsel, the same result is appropriate under section 2688.

We examined the guidelines issued by the DOD Office of General Counsel and the authorities they relied on. Given the nature of the section 2688 multiyear authority and the nature of the utility privatization program, we agree that defense services are not required to record obligations for potential termination liabilities under that authority, unless and until they decide to terminate.

During our review of seven privatized DOD systems, we determined that the services generally are agreeing to reimburse contractors for the acquisition and system improvement costs of the facilities. To the extent a particular contract is terminated prior to the contractor recouping its acquisition and system improvement costs, DOD has agreed to repay those costs. In the context of the multiyear utility program, the services have generally entered into contracts with terms of 50 years. During the terms of those contracts, DOD is either going to pay the annual costs of performance, which includes materials, labor, overhead, and other costs of

¹⁴ 62 Comp. Gen. 569 (1983).

the acquisition and system improvements, or it will pay termination costs, which will cover the contractor's unreimbursed costs for the acquisition and completed system improvements.

As DOD's Office of General Counsel notes, our 1983 decision concluded that GSA may obligate the costs for its utility service contracts on an annual basis rather than obligating the entire amount of contract costs for future years in the first year of the contract. Section 2688, the authority underlying DOD's utility services contracts, is not unlike GSA's section 501 authority. They both permit contracting for utilities services for a multiyear period. Just as in 1983, when we viewed section 501 as a remedial provision to afford GSA flexibility in contracting, we view section 2688 to similarly afford DOD flexibility. In our 1983 decision, we noted that the purpose of section 501's multiyear contracting authority was to "take advantage of discounts offered under long term contracts" and "to effect economy and improve services," and, thus, broadly construed the authority conferred to facilitate achieving these objectives.¹⁵ For the same reasons, we read section 2688 broadly, and agree with DOD's interpretation of it. To read the statute to require obligating potential termination costs prior to a decision to terminate could undermine the economies and improvements in services that the statute envisions.

The decision to terminate the contracts is DOD's, not the contractors'.¹⁶ If DOD decides to terminate a contract, those contracts appear to do nothing more than bind DOD to repay amounts that DOD would otherwise have paid if performance had continued, rather than additional penalties or charges DOD would not have paid absent the termination. If DOD decides to terminate, DOD must either have or obtain sufficient budget authority for the year DOD becomes liable for termination costs. Because DOD controls whether, and when, to terminate its contracts (and presumably would not terminate without sufficient budget authority to cover termination liability), should DOD in the future decide to terminate, such action does not expose the government to a financial risk.

¹⁵ 62 Comp. Gen. at 572 and 575, n.8.

¹⁶ We do not presume the government will default on its contractual obligations.

Utility Privatization Program Implementation Costs

For fiscal years 1998 through 2004, DOD and the services estimated that about \$248 million had been spent to implement the utility privatization program (see table 3). For fiscal year 2005, implementation costs were expected to be about \$48 million, bringing the total to about \$296 million. According to DOD officials, the funds used to implement the program primarily paid for consultants hired to help implement the program by assisting the services in inventorying their utility systems, assessing the systems' condition, preparing economic analyses, and soliciting and contracting for proposed projects. Program implementation costs did not include funds used to pay the costs of awarded privatization contracts.

Table 3: Implementation Costs for the Utility Privatization Program

Dollars in millions

Component	Fiscal years 1998 through 2004	Fiscal year 2005	Total through fiscal year 2005
Office of the Secretary of Defense	\$3.3	\$0.0 ^a	\$3.3
Army	62.5	15.0	77.5
Navy	103.3	27.6	130.9
Air Force	78.6	5.4	84.0
Total	\$247.7	\$48.0	\$295.7

Source: DOD.

^aAt the time of our review in February 2005, Office of the Secretary of Defense officials stated that they had not yet estimated their program implementation costs for fiscal year 2005.

According to DOD officials, program implementation costs are expected to decline rapidly as the services complete their evaluations to privatize or exempt their utility systems.

The Services' Savings Estimates from Utility Privatization Are Questionable

The services' economic analyses supporting utility systems privatized or near contract award for privatization estimate that the government's costs for equivalent utility services will be less with privatization. The amount of the savings is calculated based on the difference between the estimated costs of two options for improving the utility systems—privatization and continued government ownership. However, because of the method used to estimate the costs of continued government ownership, we found that these estimates give an unrealistic impression of reduced costs in that the government's costs under privatization typically increase to pay

contractors for enhanced utility services and capital improvements. Moreover, based on the economic analyses examined, we question the reliability of the projected differences in long-term costs between the privatization and government ownership options. In seven analyses we reviewed, we found inaccuracies and unsupported cost estimates that tended to favor the privatization option over continued government ownership. The Army Audit Agency has reported similar concerns with the reliability of analyses supporting Army utility privatization projects.

Installation Utility Costs Increase with Privatization

Installation utility costs under privatization typically increase significantly above historical levels because the systems are being upgraded and the contractors recoup their investment costs through the utility services contracts.¹⁷ Essentially, under the privatization program, the services leverage private sector capital to achieve utility system improvements that otherwise would not be feasible in the short term because of limited funding caused by the competition for funds and budget allocation decisions. The services pay for the improvements over time through the utility services contracts. Army officials estimated that the average annual cost increase for each privatized Army system was \$1.3 million. According to the economic analysis for the electric system privatization at Dobbins Air Reserve Base, the annual operations and maintenance costs for the system after privatization were expected to increase by over 500 percent compared to historical costs.

Air Force headquarters officials stated concerns with the increased costs from historical levels with utility privatization. The officials estimated that based on the Air Force systems already privatized and those systems with the potential to be privatized, the Air Force's costs could increase between \$100 million and \$200 million annually for the first 5 to 10 years of privatization. The officials also stated their concern that privatized systems present the Air Force with a bill that must be paid, whereas the Air Force would have more flexibility in programming and executing improvements for government-owned utility systems. According to the officials, this flexibility allows the Air Force to better balance the spending of available funds on utility improvements and other mission requirements to ensure the best use of resources.

¹⁷ System improvements normally include capital equipment upgrades and enhanced operations and maintenance to increase utility system reliability and reduce safety and environmental risks.

Officials at each of the five installations we visited also expressed concern about increased utility costs from privatization. In particular, installation officials were concerned that other installation functions might suffer if funding provided for operating and maintaining their installations were not sufficiently increased to cover the higher utility costs. They noted that, under privatization, costs for upgrading, operating, and maintaining the systems are contract costs that must be paid. As a result, if an installation's funds were not increased sufficiently, then funds provided for other installation functions where there was more discretion in spending might be used to pay the higher utility bills. This, in turn, could negatively impact those other functions, such as the maintenance of installation facilities.

The economic analysis for the Fort Campbell water and wastewater systems privatization illustrates the funding concern expressed by installation officials. The analysis stated that privatization will increase installation utility services costs well above levels previously budgeted for this purpose. The analysis further stated the concern that "the installation's budget may not be increased to the level necessary to fund the increase requiring sacrifice of other installation functions."

Privatization funding was a particular concern at Fort Irwin. Fort Irwin privatized its electrical system in 2003 and Army headquarters began providing funds to the installation to pay the monthly utility services bill. However, when we visited the installation in January 2005, Fort Irwin officials stated that Army headquarters had provided no funds for the privatization contract from October 2004 through January 2005 and, as a result, the monthly utility services bills had not been paid. In March 2005, the officials stated that headquarters had provided some funding for the project, but the amount provided was only 34 percent of the amount needed. Fort Irwin officials said that headquarters officials stated that they would try to provide more funds; however, if the additional funds are not provided, then the installation will have to use funds intended for other installation functions to pay the utility services bills.

Services' Economic Analyses Do Not Depict Actual Expected Costs of Continued Government Ownership

We found that the services' savings estimates for utility privatization projects were questionable because of the assumptions made about government "should costs" in the economic analyses that compare predicted costs under the privatization and government ownership options. DOD guidance directs the military services to compare estimated privatization costs based on the proposed contract with the estimated government ownership costs based on what it "should cost" the

government to upgrade, operate, and maintain the system in accordance with accepted industry standards as called for in the proposed contract. This estimating method would be appropriate if, in the event the system is not privatized, the service would proceed to upgrade, operate, and maintain the system as called for in the government estimate. However, this generally is not expected to be the case. According to DOD and service officials, if a system is not privatized, then the anticipated system improvements would likely be delayed several years because of DOD's budget allocation decisions, which have limited the funds available for utility improvements and which caused DOD to look to privatization as an option in the first place.

Because of the time value of money, a future expense of a given amount is equivalent to a smaller amount in today's dollars. Thus, delaying system improvements to future years would reduce the estimated cost of the government ownership option in today's dollars and, therefore, affect the results of a proposed project's economic analysis. At the same time, it must be recognized that delays in system improvements could increase government costs in the long term. Thus, if savings are expected to be a key factor in utility privatization decision making, then it would appear more appropriate for the services to compare the cost of a proposed privatization contract with the cost of continued government ownership on the basis of the actual planned expenditures and timing of these expenditures, with appropriate consideration to the impact of delayed improvements.

The economic analysis supporting the June 2003 privatization of Fort Campbell's water and wastewater utility systems illustrates the impact of using DOD's method for estimating and comparing the long-term costs of the privatization and government ownership options.¹⁸ Following DOD's guidance, the Fort Campbell economic analysis estimated the long-term costs of government ownership by assuming that the installation would upgrade, operate, and maintain the systems in accordance with industry standards as the contractor proposed to do. The analysis estimated that over a 50-year period the total cost of government ownership of the systems would exceed the total cost of privatization by about \$4.3 million in today's dollars. However, Fort Campbell officials stated that if the contract had not been awarded and the government continued to own the

¹⁸ Fort Campbell privatized its water and wastewater systems under one contract and prepared one economic analysis for the project.

systems, then the improvements planned for the systems would not have occurred as indicated in the economic analysis. The officials stated that the improvements most likely would have been delayed for several years until the Army approved funding for the improvements. Based on information in the economic analysis, we estimated that if the start of improvements to upgrade the systems planned during the first 10 years under the government ownership option were delayed by 5 years, which installation officials stated was a reasonable assumption, then the estimated cost of the government ownership option would decrease by about \$6.5 million in today's dollars because of the time value of money.¹⁹ Thus, in this case, consideration of the expected costs of continued government ownership based on a more realistic estimate of the timing of improvement expenditures could have changed the result of the analysis and showed that government ownership of the systems would be less costly than privatization over the long term.

DOD Does Not Require an Independent Review of the Services' Economic Analyses

DOD does not require that the services' economic analyses be subjected to an independent review for accuracy and compliance with guidance, as a step to help ensure reliability. Normally, the services hire consultants to prepare the analyses and service officials stated that completed analyses are reviewed by the service's headquarters office responsible for the program. However, the reliability of the analyses is not reviewed by DOD headquarters officials or by an independent party, such as the services' audit agencies. Further, at the five installations we visited, installation officials stated that they had not reviewed the details in the economic analyses supporting their privatization projects and did not know the basis for some of the estimates used in the analyses.

In contrast, DOD provides a more rigorous review of the analyses supporting privatization projects under DOD's military housing privatization program. Under this program, the service that proposes a project must provide the responsible DOD headquarters officials with a detailed briefing that describes the project, its justification, and whether it meets specific financial criteria. These officials stated that they review each project's supporting analysis and evaluate the estimates, assumptions,

¹⁹ Under the government ownership option, the Fort Campbell economic analysis assumed that operations and maintenance levels would be enhanced and a series of capital projects would be undertaken to upgrade the systems. Our estimate was based on delaying the planned capital projects, not the enhanced operations and maintenance levels, for 5 years.

and methodology used in the analysis for reasonableness and compliance with guidance. If concerns are identified, the officials ask the service for additional information before the project is approved. These top-level review steps provide additional assurances that supporting analyses are reliable and that each project is adequately justified before approval.

We reviewed seven utility privatization project analyses and identified inaccuracies, unsupported cost estimates, and noncompliance with guidance for performing the analyses. The cost estimates in the analyses we reviewed generally favored the privatization option by understating long-term privatization costs or overstating long-term government ownership costs. In five of the seven analyses, making adjustments to correct problems we identified would change the outcomes to show that government ownership, rather than privatization, would be less costly in the long term. In the remaining two cases, the analyses were not reliable because they did not reflect the actual utility system improvements to be performed by the contractor.

The economic analysis for privatizing Fort Lee's water distribution system illustrates problems we identified. The Fort Lee analysis did not consider the system's value at the end of the analysis period—the residual value—under the government ownership option, as required by DOD guidance.²⁰ Consideration of residual value recognizes that, under the government ownership option, the government would own the system and that the system would have some value at the end of the analysis period. In contrast, under the privatization option, the contractor, not the government, would own the system at the end of the analysis period. Not including the residual value in the analysis resulted in favoring the privatization option by overstating government ownership costs. We recomputed costs by including a residual value for the system at the end of the 50-year contract. The result was to change the outcome of the analysis from estimating that privatization would be less costly over the long term to estimating that government ownership would be less costly over the long term.

Table 4 includes selected information on each project we reviewed, including the savings estimates from the services' analyses and a summary

²⁰ See DOD Instruction 7041.3, *Subject: Economic Analysis for Decisionmaking*, November 7, 1995.

of the concerns we identified. Also, appendix II contains a detailed description of our review of each of the seven project economic analyses.

Table 4: Selected Information from Economic Analyses Supporting Utility Privatization Projects

Dollars in millions

Utility privatization project	Results from services' economic analyses				Results from GAO's review of the economic analyses			
	Estimated total costs of government ownership option in today's dollars	Estimated total costs of privatization option in today's dollars	Estimated savings or cost avoidance with privatization option	Were government ownership costs based on actual expected costs?	Did the analysis cover the same time period as the privatization contract?	Did the analysis consider residual value under the government ownership option?	Did the analysis include errors in estimating costs?	Would correcting the issues identified change the outcome to favor government ownership?
Water system, Fort Lee, Virginia	\$10.3	\$8.8	\$1.5	No	No	No	Yes	Yes
Electric system, Fort Lee, Virginia	31.7	26.9	4.8	No	Yes	No	Yes	Yes ^a
Water and wastewater systems, Fort Campbell, Kentucky	196.6	192.3	4.3	No	Yes	Yes	Yes	Yes
Electric system, Fort Irwin, California	32.1	29.7	2.4	No	Yes	Yes	Yes	Yes
Electric system, Dobbins Air Reserve Base, Georgia	5.6	3.8	1.8	No	No	Yes	Yes	Yes
Water system, Bolling Air Force Base, Maryland	10.9	6.5	4.4	No	Yes	Yes	Unknown ^b	Unknown ^b

(Continued From Previous Page)

Dollars in millions

	Results from services' economic analyses			Results from GAO's review of the economic analyses				
	Estimated total costs of government ownership option in today's dollars	Estimated total costs of privatization option in today's dollars	Estimated savings or cost avoidance with privatization option	Were government ownership costs based on actual expected costs?	Did the analysis cover the same time period as the privatization contract?	Did the analysis consider residual value under the government ownership option?	Did the analysis include errors in estimating costs?	Would correcting the issues identified change the outcome to favor government ownership?
Utility privatization project Wastewater system, Bolling Air Force Base, Maryland	7.2	5.7	1.5	No	Yes	Yes	Unknown ^b	Unknown ^b

Source: DOD information with GAO analysis.

^aThe outcome of the economic analysis changes if the system's residual value is assumed to be equal to the system's current replacement value. Army officials stated that the system's residual value should equal the system's replacement value less depreciation and, if this value were used, the outcome of the economic analysis would not change. However, under privatization, the system is to be upgraded, operated, and maintained in accordance with industry standards, which will result in increasing the system's residual value.

^bWe question the reliability of the economic analyses for Bolling Air Force Base because they did not reflect the actual system improvements to be performed by the contractor. We did not have sufficient information to recalculate estimates in the analyses. However, installation officials stated that they believed that continued government ownership of the systems would have been less costly than privatization over the long term.

The Army Audit Agency Identified Concerns about the Reliability of Economic Analyses

The Army Audit Agency has issued reports that identified concerns about the reliability of the economic analyses supporting utility privatization contracts at four Army installations. These concerns are similar to the ones we identified in our review. For example, in July 1999, the Army awarded a contract to privatize Aberdeen Proving Ground's water and wastewater utility system. The Army Audit Agency reviewed the project and the supporting economic analysis and reported in April 2004 that the analysis did not include realistic cost estimates for system improvements to be performed by the privatization contractor.²¹ For example, the report stated that the analysis understated the cost of system improvements by \$18.5 million over the life of the contract. As a result, the audit agency

²¹ U.S Army Audit Agency, *Potable Water and Wastewater Utility Systems Contract, Aberdeen Proving Ground, Maryland, A-2004-0186-IMO* (Alexandria, Va.: Apr. 27, 2004).

concluded that there was not a reliable framework for preparing the analysis and the decision to privatize Aberdeen's water and wastewater system might result in higher costs to the government in the long term.

Implementation of the Fair Market Value Requirement Can Result in Higher Contract Costs

Although DOD is permitted latitude in ensuring that the government receives fair market value for systems conveyed to privatization contractors, in some cases implementation has resulted in higher contract costs for utility services. Guidance and practices for determining fair market value varied among the services, with Army guidance stating that fair market value for system conveyances could range from zero to full replacement cost of the system. Also, although it is a reasonable concept that the government should receive consideration if an asset is conveyed to a contractor, the receipt of consideration for conveyances in the utility privatization program does not typically result in a net financial payment to the government. To recover their costs, privatization contractors normally include the full amounts they paid for conveyances in the associated utility services contracts and, therefore, the government will pay back the amounts received for the conveyances through utility services bills over time. In some cases, the contractors also include additional amounts in the utility services contracts to cover the contractors' costs associated with the fair market value payments. Consequently, implementing the fair market value requirement in such cases will result in the government paying back more than it will receive for the conveyances.

Guidance and Practices for Determining Fair Market Value Vary

The legislative authority for the utility privatization program states that the Secretary of a military department shall require as consideration for a conveyance an amount equal to the fair market value, as determined by the Secretary, of the right, title, or interest of the United States conveyed. DOD provided general guidance on implementing this requirement in October 2002. As part of the negotiation strategy for utility system conveyances, the guidance directed the services to develop a range of fair market values, taking into account the business and strategic values of the utility system. The guidance stated that the services could choose to determine fair market value through an actual appraisal, a modified cost and income analysis, or a replacement or original-cost-less-depreciation analysis. Subsequently, in response to questions at an industry forum in September 2004, DOD officials stated that the fair market value should be established through open negotiations, the contractor would recover the fair market

value paid for a conveyance through the service contract, and the contractor would earn a reasonable return on investment.

Although service officials stated that they have generally followed this guidance, the Army issued additional guidance on determining fair market value in April 2002.²² This guidance basically stated that a range of values could be considered as fair market value for utility system conveyances. Specifically, the guidance stated that the Army had concluded that the fair market value “could be any number of values such as zero, nominal, appraised, full replacement cost of the system, or any negotiated amount, but that the [fair market value] should be determined by an economic analysis applied in planning the sale of each utility system.” Army officials stated that determining fair market value is subjective and determined in part by the amounts contractors are willing to pay. In some cases, the officials stated that the most beneficial business case is to convey systems at less than their apparent fair market values.

On the basis of information in the services’ economic analyses we reviewed, table 5 shows the amounts that the government will receive from privatization contractors for utility system conveyances compared to one measure of fair market value—the system’s replacement cost less depreciation. Whether the amounts received should be considered sufficient is difficult to gauge because DOD has not adopted objective standards for determining whether the amounts received meet the fair market value requirement.

²² See *Memorandum for Distribution, Subject: Utility Systems Privatization—Fair Market Value*, the Army Assistant Chief of Staff for Installation Management (Washington, D.C.: Apr. 30, 2002). Navy and Air Force officials stated that their guidance on fair market value was consistent with DOD’s general guidance.

Table 5: Amounts to Be Received for Utility System Conveyances for Projects Reviewed

Dollars in millions

Utility privatization project	System replacement cost less depreciation ^a	Amount to be received for the conveyance ^b	Amount to be received as a percentage of system replacement cost less depreciation (percent)
Fort Campbell water and wastewater systems	\$20.0	\$4.5	23
Fort Irwin electric system	10.0	8.5	85
Fort Lee electric system	16.5	9.7	59
Fort Lee water system	Unknown ^c	0.0	0
Dobbins Air Reserve Base electric system	0.9	0.7	78
Bolling Air Force Base water system	3.1	1.2	39
Bolling Air Force Base wastewater system	2.9	5.0	172

Source: DOD with GAO analysis.

^aThese values are normally determined by an analysis of each system's replacement cost less depreciation based on an evaluation of the system's physical condition.

^bAccording to the services' economic analyses, the amounts that the contractors will pay for the conveyances normally will be paid through credits applied over time to the government's utility services bill.

^cThis project's economic analysis did not include information on the system's replacement cost. However, an Army analysis of the system, which included a reservoir, four water towers, and pipelines, performed about 10 years prior to privatization, stated that the system's replacement cost was about \$11.8 million, and Fort Lee officials stated that the system was in good condition and was not in need of any immediate upgrades or improvements at the time of its conveyance to the contractor.

The Army Audit Agency reported in October 2001 that the Army used varying methods to handle the fair market value requirement.²³ The audit agency reported that in four electric system privatizations the Army had used an independent contractor to estimate the fair market values of the systems. However, the fair market value estimates were not the final negotiated fair market values agreed to by the parties. For example, in one case the independent fair market value estimate for the system was

²³ U.S. Army Audit Agency, Memorandum for the Assistant Chief of Staff for Installation Management, *Subject: Review of the Fair Market Value for Privatized Electrical Distribution Systems*, AA 02-701 (Alexandria, Va.: Oct. 5, 2001).

\$2.2 million and the system was conveyed for \$0.1 million. In another case, the independent fair market value estimate for the system was \$19.5 million and the system was conveyed for zero dollars.

Implementation of the Fair Market Value Requirement Increased Privatization Contract Costs in Some Cases

The services' implementation of the requirement that the government receive fair market value when conveying utility systems resulted in increased costs to the government in some cases. The services normally negotiated with proposed privatization contractors for the fair market amount that the contractors will pay for system conveyances. However, to recover their costs, privatization contractors normally factor into the utility services contracts the full amount paid as fair market value for the systems. Thus, the government pays back the amounts received as consideration for the conveyances. However, in some cases, the contractors also include additional amounts in the utility services contracts to cover the contractors' costs associated with the fair market value payments, which increased contract costs.

For example, according to the economic analysis for privatizing Dobbins Air Reserve Base's electric system, the contractor will pay about \$741,000 as the fair market value for the system conveyance in today's dollars. However, the analysis stated that the contractor will recover this cost, plus other associated costs, by charging the Air Force about \$1,322,000 in today's dollars in the utility services bills over time. Consequently, implementing the fair market value requirement in this case will result in the Air Force paying about \$581,000, or 78 percent, more than it received for the conveyance.

A similar situation occurred at another installation we visited. According to the economic analysis for privatizing Fort Lee's electric distribution system, the contractor will pay about \$6.6 million for the conveyance with a cash down payment and with the remaining balance financed over 27 years and paid in the form of monthly credits to the installation's utility services bill. This arrangement will be equivalent to the contractor paying about \$9.7 million for the conveyance in today's dollars. However, the analysis also stated that the contractor will recover its costs for purchasing the system, including added amounts for taxes and other associated costs, through annual charges added to the installation's utility services bill over the first 28 years of the contract. Based on the amounts to be charged, this arrangement will be equivalent to charging the Army about \$16.7 million in today's dollars. Consequently, implementing the fair market requirement in

this case will result in the Army paying about \$7.0 million, or 72 percent, more than it received for the conveyance.

In a review of the electric distribution system privatization at Fort Benning, the Army Audit Agency also found that receipt of fair market value for the conveyance will result in the government paying more under the contract than if no consideration had been received. The audit agency's report noted that the contractor agreed to pay \$4.8 million for the system and the Army agreed to pay the contractor for this cost plus additional amounts for profit. The result was that over the life of the contract the Army will pay about \$748,000 more than it received for the conveyance.²⁴

DOD's Execution of the Utility Privatization Program Raises Other Concerns

In examining DOD's execution of the utility privatization program, we identified two additional areas of concern that could impact the overall effectiveness of the program. First, the services have not issued specific contract administration guidance for the program and, as a result, the adequacy of privatization contract oversight is a concern. Second, according to DOD consultant reports, DOD's approach to privatizing utilities differs from typical private sector practices and, as a result, privatization contractors may have an advantage when the time comes to negotiate utility service contract changes and renewals. Management attention in these areas could help ensure that best practices are used and the government's interests are adequately protected.

Adequacy of Privatization Contract Oversight Is a Concern

The adequacy of privatization contract oversight is a concern. The services' oversight of utility privatization contracts appeared to be limited in some cases because of limited guidance and inadequate provisions for staff to monitor contracts. Inadequate oversight could result in the services paying contractors for work not performed or for work performed in an unsatisfactory manner.

The services have not issued specific guidance on utility privatization contract administration even though the program began 7 years ago and 94 contracts have been awarded. Service officials stated that such guidance was in preparation and should be issued before the end of 2005. However,

²⁴ U. S. Army Audit Agency, *Electrical Distribution System Contract, U.S. Army Infantry Center and Fort Benning*, A-2002-0395-IMO (Alexandria, Va.: May 23, 2002).

the lack of specific guidance for awarded contracts was a matter of concern at Fort Lee, one of the five installations we visited. Fort Lee officials stated that they had little guidance from headquarters on what they should be doing to oversee their water and electric privatization contracts, other than to pay the bills. The officials also stated that they did not have sufficient personnel to perform detailed monitoring of contractor performance because no additional resources were provided for this purpose after the contracts were signed. The officials believed that the contractors were performing adequately but had little documentation to support their opinions.

The Army Audit Agency also has reported concerns with the adequacy of privatization contract oversight. As illustrated below, in its reviews of four Army utility privatization contracts at the Aberdeen Proving Ground and Forts Hamilton, Benning, and Pickett, the audit agency found that contractor performance was not adequately monitored, and as a result, there was little assurance that the installations would receive quality products and services under privatization.

- In its review of utility privatization at the Aberdeen Proving Ground, the audit agency found that the Army paid about \$3.3 million during fiscal year 2001 for operating expenses the contractor did not incur, system improvements the contractor did not perform, and purchases the contractor did not make.²⁵ These conditions occurred because the Aberdeen Proving Ground did not develop a performance monitoring plan, monitor completion of system improvements, or require detailed expense reporting by the contractor. In response, the responsible Army officials agreed to develop a contract-monitoring plan to help track system improvements and require the contractor to report additional data on expenses.

²⁵ See note 21.

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- In its review of utility privatization at Fort Hamilton, the audit agency found that the Army's guidance to the installation did not specify what aspects of the contract required monitoring, the installation did not have a plan to monitor contractor performance, and the contractor did not provide the Army with plans and reports as required by the contract to assist in contract oversight.²⁶ The audit agency concluded that the Army needed to improve the contract administration procedures to ensure that the Army would receive quality products and services. In response, the responsible Army officials agreed to put procedures in place to address the findings.
 - In its review of utility privatization at Fort Benning, the audit agency found that Fort Benning did not have procedures in place to effectively monitor the contractor's performance because the contractor was not required to provide any performance data to the government and the installation did not have a contract-monitoring plan as required by guidance.²⁷ In response, Fort Benning officials agreed to develop a contractor-monitoring plan that included inspection, verification, and reporting to establish better contract oversight.
 - In its review of utility privatization at Fort Pickett, the audit agency found that Fort Pickett had no contract monitoring plan, the installation official responsible for the contract did not know that the contractor had delayed about 50 percent of the improvements planned in the first year, and tenant organizations at the installation were not properly charged for reimbursable costs associated with the privatized electrical system.²⁸ In response, the responsible Army officials agreed to develop a contract-monitoring plan to help track system improvements and to ensure accurate charges for tenants.

²⁶ Army Audit Agency, *Privatization of Utility Distribution Systems, Fort Hamilton*, New York, A-2003-0216-IMO (Washington, D.C.: Apr. 11, 2003).

²⁷ See note 24.

²⁸ U.S. Army Audit Agency, *Electrical Distribution System Contract, Virginia Army National Guard Maneuver Training Center, Fort Pickett, Virginia*, A-2003-0337-IMO (Alexandria, Va.: June 27, 2003).

DOD's Approach to Utility Privatization Appears to Differ from Typical Private Sector Practices

DOD has no studies or other documentation showing that its approach to utility privatization is based on private sector best practices. A senior DOD official characterized the utility privatization program as the result of a decision by the Office of the Secretary of Defense that operating and maintaining utilities was not a core function and that installation utilities should be privatized. Nevertheless, according to two reports prepared by Navy and Air Force consultants, DOD's approach actually differs from typical private sector practices in that private companies may outsource system operations and maintenance but normally opt for shorter than 50-year utility service contracts and typically do not permanently convey ownership of their utility systems. The first report, prepared by CNA at the request of the Navy and issued in March 2001, noted that while most private sector contracts for utility services last from 7 to 10 years, most DOD utility services contracts under privatization are for 50 years.²⁹ The report's concern was that a contract written today could not adequately anticipate all possible contingencies over the next 50 years because technologies and requirements can change in unforeseen ways. CNA also reported that, in contrast to DOD's preferred approach that utility system ownership be permanently conveyed to contractors, private sector firms typically retain ownership of their systems. The report's concern here was that DOD's preferred approach of permanently conveying ownership may give the contractor an advantage when negotiating service contract changes or renewals. For example, generally entering into a long-term services contract creates a bilateral monopoly where the military must purchase utility services from one company and that company must sell these services to the military. The report concluded that such an arrangement could pose special problems because DOD must deal with the contractor or face high costs. For example, if DOD and the contractor reached an impasse over some issue, then DOD might have to pay significant amounts to construct a new utility distribution system to replace the one that had been conveyed to the contractor, attempt to purchase the system back from the contractor, or institute legal action to reacquire the system through condemnation proceedings.

²⁹ CNA, *Utility Privatization Initiatives: Concerns, Metrics, Priorities*, CRM D0003236.A2 (Alexandria, Va.: March 2001).

The second report was prepared by Malcolm Pirnie, Incorporated, at the request of the Air Force and issued in March 2002.³⁰ This report included the results of a survey of utility practices at entities similar to military installations, such as selected industrial complexes, airport authorities, and universities responsible for supplying utility services to their complexes. The survey found that in most cases, these entities owned and operated their utility systems. The report also noted that under DOD's approach, renegotiating terms after a contract's 50-year term ends could be a concern because in instances where alternatives for service were not available, DOD's negotiating position would be negatively impacted.

Officials at several of the installations we visited also expressed concerns about the government's negotiating position under privatization after permanent conveyance of system ownership to a contractor. For example, Bolling Air Force Base officials stated that they were concerned that the contractor might obtain larger-than-expected price increases in future price renegotiations because the contractor had a monopoly position over the government. As a result, they believed that a privatization contract could ultimately cost considerably more than expected. Similarly, the Fort Campbell economic analysis supporting privatization of the installation's water and wastewater systems stated that privatization "will give the new owner a monopoly for the utility service that will require close regulation by the Army. Staffing of this regulation function will be essential to insuring that a reasonable price is paid for the service rendered."

A recent situation at Fort Leonard Wood appears to illustrate the potential problems facing DOD under its approach to privatization when utility services contracts come up for renewal. About 15 years ago, the Army awarded a contract to a company to build a natural gas pipeline to the installation and in 1992 entered into a 10-year utility services contract with the company. This contract expired in October 2002. From that time through December 2004, the Army was unable to reach agreement with the company for a new 10-year contract. According to Army officials, the impasse was over higher service prices and other conditions imposed by the company as a condition for renewal. To continue service, the Army and the company had agreed to short-term 90-day contracts in which the Army agreed to pay the company higher prices for utility services. After 26 months, in January 2005, the Army and the contractor agreed to new terms

³⁰ Malcolm Pirnie, Inc., *Program Assessment for Utilities Privatization in the U.S. Air Force* (March 2002).

and entered into a new 10-year services contract. However, according to Army Audit Agency officials who were conducting a review of natural gas service contracts at several installations including Fort Leonard Wood, if negotiations for renewing the contract at Fort Leonard Wood had not been successful, then the Army possibly would have started legal efforts to condemn the system in order to gain ownership.

Of the seven utility privatization projects that we reviewed, all but one followed DOD's preferred approach and permanently conveyed system ownership to the contractor. The exception was the privatization of Fort Campbell's water and wastewater systems. In this case, the installation conveyed the systems to the contractor, but the contract provided for reversion of ownership to the government at the end of the 50-year services contract. During the privatization evaluation process, Fort Campbell officials had noted concerns over the permanent conveyance of the systems. Specifically, according to the Fort Campbell economic analysis for the systems, the government will pay the contractor to upgrade and maintain the systems in good condition over the 50-year contract term. As a result, by regaining ownership at the end of the contract, the Army would take ownership of systems worth a considerable sum of money and would have additional options, such as taking over operations and maintenance or issuing a competitive solicitation for a new utility services contract. Conversely, the analysis noted that by following DOD's preferred approach of permanent conveyance without reversion, the government would be locked into procuring utility services from the contractor for as long as the Army needed the services and this approach might not be in the government's best interest. Because of its concerns, Fort Campbell sought and obtained approval from Army headquarters to enter into a privatization contract that included ownership reversion.

Conclusions

Utility privatization has helped installations achieve major system improvements that, according to DOD, would not have been otherwise possible given competing appropriation priorities. Nevertheless, the utility privatization program generally increases military utility costs well above historical levels because the program leverages private sector capital to achieve utility system improvements. To pay for these improvements over time, DOD's funding obligations will likely increase, not decrease, by hundreds of millions of dollars and operations and maintenance budgets will need to be adjusted, as necessary. Yet, the services' economic analyses give an unrealistic sense of savings to this program because they estimate that approved projects will reduce the government's long-term costs for

utility services. The amount of estimated long-term savings, however, is merely the services' estimated difference between the costs of two options—privatization and government ownership—and both options will result in increased utility costs compared to historical levels, although perhaps in different time frames. Moreover, as long as selecting the less-costly option is expected to be a key factor in utility privatization decision making, it is important that the supporting analyses are reliable. Unless DOD revises the guidance for preparing economic analyses for proposed utility privatization projects so that the analyses are based on actual anticipated costs, the result will continue to be analyses that could lead DOD to enter into long-term privatization agreements that result in higher, not lower, costs compared to continued government ownership. Reliability also will continue to be an issue until DOD starts requiring an independent review of the economic analyses supporting proposed privatization projects. Without such a review, the services' economic analyses could continue to include inaccuracies and decision makers will be hampered in their ability to make economically sound choices about which option should be followed to achieve utility systems improvements.

Unless DOD places greater scrutiny on the implementation of the fair market value requirement in proposed utility privatization contracts in order to minimize cases where contractors recover more than the amounts they paid for system conveyances, some utility privatization contracts may cost more than necessary. Also, until the services issue specific utility privatization contract administration guidance including the clear assignment of responsibilities and ensure that resources are provided to perform adequate contract oversight, the services' oversight of utility privatization contracts may continue to be limited. Inadequate oversight could result in the services paying contractors for work not performed or for work performed in an unsatisfactory manner. Also, as long as DOD's preferred approach is for installations to permanently convey utility system ownership, contractors may continue to have an advantage when it comes time to negotiate contract changes and renewals. DOD must deal with the contractor or pay significant amounts to construct a new utility distribution system to replace the one that had been conveyed to the contractor, attempt to purchase the system from the contractor, or institute legal action to reacquire the system through condemnation proceedings.

Recommendations for Executive Action

We recommend that the Secretary of Defense direct the Deputy Under Secretary of Defense (Installations and Environment) to take the following six actions:

- As long as savings are expected to be a key factor in utility privatization decision making, revise the guidance for preparing economic analyses so that the analyses compare the cost of a proposed privatization contract with the cost of continued government ownership on the basis of the actual planned expenditures and the timing of these expenditures.
- Require an independent review, perhaps by DOD headquarters or the services' audit agencies, of the economic analyses supporting proposed privatization projects.
- Provide general program guidance emphasizing the need to consider increased utility costs under privatization as the military services prepare their operation and maintenance budget requests.
- Place greater scrutiny on the implementation of the fair market value requirement in proposed contracts to minimize cases where contractors recover more than the amounts they paid for system conveyances.
- Issue program guidance, specific to utility privatization, emphasizing the importance of contract oversight.
- Reassess whether permanent conveyance of utility systems should be DOD's preferred approach to obtaining improved utility services.

We further recommend that the Secretary of Defense direct the Secretaries of the military departments to take the following two actions:

- Ensure that installation operations and maintenance budgets are adjusted as necessary to reflect increased costs from utility privatization projects.
- Issue specific utility privatization contract administration guidance including the clear assignment of responsibilities and ensure that resources are provided to perform adequate contract oversight.

Matter for Congressional Consideration

On the basis of DOD's comments on our recommendations, as discussed below, the Congress may wish to consider requiring DOD to address the issues and recommendations discussed in this report before proceeding with further utility privatization efforts.

Agency Comments and Our Evaluation

In commenting on a draft of this report, the Deputy Under Secretary of Defense (Installations and Environment) did not concur with our report findings or recommendations and raised several concerns. DOD stated that we had a limited understanding of the utilities privatization program and characterized our findings as being outdated and not well founded. In addition, DOD suggested that our report represented an unwarranted characterization of our findings as being systemic problems of the program. We disagree.

We believe that our review of the utility privatization program was objective, balanced, and represented program conditions existing at the time we completed our review in March 2005. We remain confident that our conclusions and recommendations are soundly based upon the findings discussed in the report. In response to the comments, however, we modified two of our recommendations, as noted below, to improve their clarity and more precisely identify responsible parties. We also added two recommendations regarding program guidance, as noted below. We believe it is appropriate to emphasize, as explained in the scope and methodology section of this report, that we followed our professional practices and validated the facts and statistics presented in the report with DOD and service officials prior to preparation of the draft report.

In its comments, DOD did not provide any information suggesting any inaccuracies in our report, but rather contended that our case studies were outdated and related to problems that occurred during the start of the program in the late 1990s. DOD's contention is incorrect. Of the seven utility privatization projects we reviewed in detail, the associated contracts for four projects were awarded in 2004, and the contracts for two projects were awarded in 2003. The economic analyses supporting these projects should have been current and reliable at the time the contracts were awarded; but as noted in this report, they were not. Further, Office of the Secretary of Defense officials used three of the projects we reviewed in detail as examples of cost-saving utility privatization projects in program

briefings presented to us in July 2004. As noted in the scope and methodology section of this report, we recognize that the limited number of case studies completed does not make them projectable to the universe of DOD utility privatization projects. However, given other corroborating information, including statements of continuing program concerns raised by cognizant service and installation officials and similar concerns reported by the Army Audit Agency and more recently by the Naval Inspector General, we believe the findings of this report have much broader applicability than the limited number of cases we studied.³¹ Even the Deputy Under Secretary recently noted significant challenges in managing the program. In March 2, 2005, testimony before a House Appropriations Subcommittee, the Deputy Under Secretary noted difficulties in conducting long-term economic analyses, determining fair market value for the government's utility systems, and making price adjustments to long-term contracts for utility services.³² We make the following observations regarding DOD's comments on the individual recommendations in the draft report.

DOD disagreed with our recommendation to revise the guidance for preparing economic analyses so that the analyses would compare the cost of a proposed privatization contract with the cost of continued government ownership on the basis of the actual planned expenditures and the timing of these expenditures. DOD stated that it is impossible to predict with any measure of accuracy what DOD would spend to maintain a system, particularly with regard to military construction, beyond more than a few years. Thus, DOD believes that its current use of a "should-cost" estimate, based on what a private utility company would engage in by way of recapitalization, results in an estimate with some reasonable accuracy. Our issue with DOD's estimates primarily concerns what DOD would actually spend on the systems over the near term where, based on its comments, it does know what it plans to spend with some accuracy. As long as selecting the less-costly option—i.e., government ownership or privatization—is expected to be a key factor in utility privatization decisions, as required by statute, we continue to believe that the supporting analyses should be based on realistic anticipated costs, as is the intent of

³¹ See notes 21, 23, 24, 26, and 28, and Naval Inspector General, *Utilities Privatization Study* (Washington, D.C.: Mar. 15, 2005).

³² See Statement of Deputy Under Secretary of Defense (Installations and Environment) before the Subcommittee on Military Quality of Life and Veterans' Affairs, Committee on Appropriations, United States House of Representatives, March 2, 2005.

our recommendation. DOD also commented that use of its current estimating method was consistent with the underlying rationale of the program—that private industry can normally provide more efficient utility service than can the government. As our report makes clear, however, DOD did not provide any studies or other documentation to support its contention. Given that the private sector faces higher interest costs than the government and strives to make a profit whereas the government does not, it is not certain that utility services provided by the private sector would be less costly than utility services provided by the government through the use of up-front appropriations. Thus, as we have recommended, sound economic analyses based on actual planned expenditures are needed to determine the most cost-effective option for providing utility services to DOD installations.

DOD disagreed with our draft recommendation that the Deputy Under Secretary of Defense (Installations and Environment) ensure that installation operations and maintenance budgets are adjusted as necessary to reflect increased costs from utility privatization projects. DOD properly noted that the Deputy Under Secretary of Defense (Installations and Environment) does not manage the operations and maintenance budgets of the installations. Accordingly, we have modified the recommendation to state that the Secretary of Defense should direct the Secretaries of the military departments to take this action. Further, given the magnitude of the program and the fact that many of these facilities, as well as base operating support budgets from which utility-related contracting costs are paid, have been historically underfunded, we believe it would be appropriate for the Deputy Under Secretary to provide general program guidance emphasizing the need to consider increased utility costs under privatization as the military services prepare their operations and maintenance budget requests. Accordingly, we have added supporting information in the text on this point and a new recommendation to address this issue.

DOD disagreed with our recommendation to require an independent review, perhaps by DOD headquarters or the services' audit agencies, of the economic analyses supporting proposed privatization projects. DOD stated that the military departments have the authority to ensure a sufficient review and have adopted processes that conduct such a review. DOD stated that our concerns, while factual, occurred during the start of the program. We agree that the military departments have the authority to ensure sufficient review of the economic analyses, but we disagree that the military departments have adopted processes that ensure reliable analysis,

as noted by the examples in this report. As explained above, the case studies we reviewed and their economic analyses are associated with recent privatization contracts mostly signed within the past 2 years—not at the beginning of the program in 1997—and thus reflect current concerns. Also, we do not understand DOD’s reluctance to provide additional scrutiny of the economic analyses for proposed utility privatization projects in view of the errors we found in the cases we examined and the fact that DOD already provides for such independent reviews of economic analyses associated with proposed projects in the housing privatization program. Thus, we continue to believe, as we have recommended, that an independent review is needed to help ensure the accuracy and reliability of the economic analyses supporting proposed privatization projects.

DOD disagreed with our recommendation to place greater scrutiny on the implementation of the fair market value requirement in proposed contracts to minimize cases where contractors recover more than the amounts they paid for system conveyances. DOD again commented that the examples mentioned in this report happened during the start of the program and that contracting officers are now aware of the potential for contractors to recover more than they pay in fair market value and take steps to minimize the risk. Contrary to DOD’s comments, the two examples of concerns in this area that we reviewed and cite in this report, Dobbins Air Reserve Base and Fort Lee, were privatized in April 2004 and June 2004, respectively—7 years after the start of the program in 1997. Also, given that DOD contends that contracting officers are now aware of the concern and are taking steps to minimize the risk, we continue to believe, as we have recommended, that it is appropriate for DOD to place greater scrutiny on the implementation of the fair market value requirement to ensure that these steps are successful.

DOD disagreed with our draft recommendation that the Deputy Under Secretary of Defense (Installations and Environment) issue specific utility privatization contract administration guidance and provide funding for personnel to perform contract oversight. DOD commented that the services are responsible for funding and performing post-award contract administration of utility contracts, just as with any other contract. We agree, in part, and therefore clarified and changed our recommendation to state that the Secretary of Defense should direct the Secretaries of the military departments to take this action. However, given the magnitude of the utility privatization program and its use of 50-year service contracts, we believe, as our report makes clear, that it would be beneficial for the Deputy Under Secretary to issue program guidance, specific to utility

privatization, to emphasize the importance of contract oversight. We have added a separate recommendation to address this issue.

DOD disagreed with our recommendation to reassess whether permanent conveyance of utility systems should be DOD's preferred approach to obtaining improved utility services. DOD commented that the Deputy Secretary of Defense determined that owning, operating, and maintaining utility systems are not core functions of the DOD and that the issue of title transfer has been reviewed repeatedly during the life of this program. As noted in this report, DOD has no studies or other documentation showing that its approach to utility privatization is based on private sector best practices. On the other hand, the services have two consultant reports which state that DOD's approach actually differs from typical private sector practices and raise the concern that DOD's preferred approach of permanently conveying ownership may give the contractor an advantage when negotiating service contract changes or renewals. Moreover, there is not universal agreement within DOD concerning what is or is not a core function. For example, the Deputy Assistant Secretary of the Air Force stated in March 2005 congressional testimony that "the Air Force considers utility operation and maintenance a core competency, without which we could not fly and fight".³³ In its comments, DOD also stated that while there are compelling arguments on each side, the department continues to believe that the best practice—i.e., its practice—is to transfer title to the utility system in line with the statutory intent. We disagree. First, just because many DOD systems have been conveyed in that manner does not make it a best practice. As noted, most utility service contracts are long-term agreements and it may take many years before DOD knows whether the practice of conveyance is successful or whether it results in long-term problems and added costs to DOD. Second, while the utility privatization statute permits title transfer, it is not clear that the statute's language shows intent for the services to convey utility ownership. Thus, we continue to believe, as we have recommended, that DOD should reassess whether permanent conveyance of utility systems should be DOD's preferred approach to obtaining improved utility services.

³³ See Statement by the Deputy Assistant Secretary of the Air Force (Installations) before the Subcommittee on Military Quality of Life and Veterans' Affairs, Committee on Appropriations, United States House of Representatives, March 2, 2005.

DOD's comments are reprinted in their entirety in appendix III.

We are sending copies of this report to other interested congressional committees; the Secretaries of Defense, Army, Navy, and Air Force; and the Director, Office of Management and Budget. We will also make copies available to others upon request. In addition, the report will be available at no charge on GAO's Web site at <http://www.gao.gov>.

If you or your staff has any questions on the matters discussed in this report, please contact me at (202) 512-5581 or my Assistant Director, Mark Little, at (202) 512-4673. Gary Phillips, Sharon Reid, Harry Knobler, and Kenneth Patton were major contributors to this report.

A handwritten signature in black ink that reads "Barry W. Holman". The signature is written in a cursive, flowing style.

Barry W. Holman, Director
Defense Capabilities and Management

Scope and Methodology

To determine the status of the Department of Defense's (DOD) utility privatization program, we reviewed past and present privatization plans, initiatives, and costs. We reviewed the legislative history of the privatization program and assessments of the program performed by service audit agencies and others. We compared current goals and milestones with previous ones and interviewed DOD and service headquarters officials responsible for the program to determine reasons for the changes. We reviewed applicable DOD and military service policies and procedures. Using data from the services' quarterly program status reports to DOD, we summarized the program implementation status by service and compared the status to the current goals and milestones for the program. We confirmed the quarterly reports' status data on seven privatization projects but did not otherwise test the reliability of the data. We discussed with DOD and service officials issues affecting implementation of the program such as questions regarding contract termination liability. We visited selected installations to review and discuss utility privatization projects at the installations. Specifically, we visited five military installations—Fort Campbell, Kentucky; Fort Lee, Virginia; Fort Irwin, California; Dobbins Air Reserve Base, Georgia; and Bolling Air Force Base, Maryland. The installations were selected because they have projects that were privatized using the legislative authorities specifically provided for privatizing military utility systems. In addition, DOD often cites three of the installations visited as having financially successful utility privatization projects. We did not select a Navy or Marine Corps privatization project to review because the Navy had approved only one project under the legislative authorities provided for the program and the Marine Corps had approved none. The Navy project did not involve a typical utility privatization effort in that it converted a fuel service contract into a privatization contract.

To determine whether the services' estimates of savings from utility privatization projects are reliable, we reviewed the services' utility costs and funding information and discussed with DOD and service officials how utility costs under privatization compare to historical utility costs, the reasons for the cost differences, and whether funding the utility privatization program could affect the funding available for other installation functions. We also selected and reviewed the economic analyses for seven privatization projects located at the five installations visited. We selected three analyses for review because DOD often cites the associated privatization projects as examples of successful, cost-saving projects. The other four analyses were selected because they represented a cross section of typical utility privatization projects, according to service

officials. For each analysis, we evaluated the basis for the estimates and assumptions used and assessed consistency and compliance with DOD guidance. We examined the analyses for the use of appropriate life-cycle methodologies and accuracy of the calculations. We did not otherwise attempt to independently determine estimates of long-term costs for the seven projects. We shared the results of our analyses with DOD and service officials and incorporated their comments as appropriate. We discussed with DOD and service officials the procedures they use to ensure the consistency, reasonableness, and accuracy of the completed economic analyses. We also reviewed reports from the services' audit agencies related to utility privatization projects and their assessments of the reliability of the economic cost analyses.

To determine how DOD implements the fair market value requirement for conveyed utility systems, we reviewed DOD and service policies and procedures dealing with implementation of the fair market value requirement, discussed with officials how receipt of fair market value is ensured, and assessed the amounts received as consideration for the seven privatization project conveyances associated with our review of the economic analyses. For each project, we examined how the fair market value was determined and reviewed what effect the amounts received and the associated contract terms had on the government's costs for privatization. We shared the results of our analyses with DOD and service officials.

To determine whether other issues might impact DOD's execution of the utility privatization program, we reviewed DOD and service guidance for utility privatization contract administration, discussed contract oversight with DOD and service officials, and discussed and reviewed the oversight provided at the five installations visited. We also reviewed reports on utility privatization contract administration from the Army Audit Agency. In addition, we obtained and reviewed information from DOD, service, and installation officials and from service consultant reports on how DOD's approach to utility privatization compares with private sector practices. We visited one of the services' consultants, CNA, to discuss details with the authors of the CNA report on utility privatization.

We conducted our review between July 2004 and March 2005 in accordance with generally accepted government auditing standards.

Results of GAO's Review of the Services' Economic Analyses Supporting Seven Utility Privatization Projects

We reviewed seven utility privatization project analyses and identified inaccuracies, unsupported cost estimates, and noncompliance with guidance for performing the analyses. In general, the cost estimates in the analyses we reviewed favored the privatization option by understating long-term privatization costs or overstating long-term government ownership costs. The results of our review are summarized below.

Fort Lee Water System Privatization

The economic analysis for privatizing Fort Lee's water distribution system did not consider the system's value at the end of the analysis period—the residual value—under the government ownership option, as required by DOD guidance.¹ Consideration of residual value recognizes that, under the government ownership option, the government would own the system and that the system would have some value at the end of the analysis period. In contrast, under the privatization option, the contractor, not the government, would own the system at the end of the analysis period. Not including the residual value in the analysis resulted in favoring the privatization option by overstating government ownership costs. We recomputed costs by including a residual value for the system at the end of the 50-year contract. The result was to change the outcome of the analysis from estimating that privatization would be less costly over the long term to estimating that government ownership would be less costly over the long term.

DOD's guidance also requires that a system's economic analysis consider costs over the proposed project's contract term. However, the analysis for Fort Lee's water distribution system considered costs over a 25-year period instead of the contract's 50-year period. Although information was not available to determine how this discrepancy affected the results of the analysis, the example demonstrates the need for independent review to help ensure accuracy and compliance with guidance.

Fort Lee Electric System Privatization

The economic analysis for the privatization of Fort Lee's electric distribution system also did not consider the system's residual value under the government ownership option. We recomputed costs by including a residual value for the system at the end of the 50-year contract. Army

¹ See DOD Instruction 7041.3, *Subject: Economic Analysis for Decisionmaking*, Nov. 7, 1995.

officials suggested that the residual value should approximate \$16.5 million, the system's current replacement cost less depreciation. Using this amount in the analysis would show the privatization option to still be less costly than government ownership over the long term, but the estimated cost difference between the options would decrease from 15.0 percent to 4.6 percent. However, the analysis assumed that the system would be upgraded and maintained in accordance with industry standards over the 50-year analysis period and showed that, under the government ownership option, the Army would spend \$17.7 million in today's dollars for system improvements. As such, we believe that it is reasonable to assume that the residual value should approximate the system's current replacement cost of \$23.3 million. Using this amount in the analysis would change the outcome of the analysis and show that government ownership would be slightly less costly than privatization over the long term.

Fort Campbell Water and Wastewater Systems Privatization

The economic analysis supporting privatization of Fort Campbell's water and wastewater systems contained several errors. First, the analysis did not follow DOD guidance when estimating contract oversight costs for the privatization option and as a result, understated these costs. Second, the analysis included errors in estimating general and administrative costs under the government ownership option and as a result, overstated these costs. Third, the analysis used faulty assumptions in estimating self-insurance costs for potential property and liability losses under the government ownership option and as a result, overstated these costs. We recomputed the cost estimates by making corrections for these errors. The result was to change the outcome of the analysis from estimating that privatization would be less costly over the long term to estimating that continued government ownership would be less costly over the long term.

Fort Irwin Electric System Privatization

The economic analysis for privatizing Fort Irwin's electric distribution system overstated annual operations and maintenance costs under the government ownership option. Specifically, to estimate these costs, the analysis adjusted the installation's historical operations and maintenance costs upward to reflect the estimated amount that the installation should be spending in accordance with industry standards. However, part of this estimate included predicted future costs for emergency repairs. Fort Irwin's historical emergency repair costs were about \$175,000 annually and, to adjust for some items that were not included in the historical costs and estimate the amount that the installation should be spending for emergency

repairs, the analysis increased the historical amount by over 100 percent to about \$357,000 annually. Fort Irwin officials stated that emergency repair costs were high in the past because the system consisted primarily of old, antiquated equipment that had not been adequately maintained. However, under the government ownership option, as under privatization, the analysis assumed that the system would be quickly upgraded and maintained to industry standards. As such, the officials stated that future emergency repair costs should decrease, not increase. To adjust for the overstated emergency repair cost estimate and to be conservative, we recalculated the total costs under the government ownership option assuming that emergency repair costs would not increase or decrease but remain at the historical level. The result was to change the outcome of the analysis from estimating that privatization would be less costly over the long term to estimating that continued government ownership would be less costly over the long term.

Changes in the economic analysis supporting the Fort Irwin electric distribution system privatization also raised questions about reliability. In October 2000, an Army consultant completed an economic analysis of the proposed system privatization. The analysis estimated that the government ownership option would be less costly than privatization in the long term. Specifically, in today's dollars, the analysis estimated that the government ownership option would cost about \$14.7 million less over the long term than if the system were privatized. Yet, about 2 and a half years later in February 2003, the same consultant completed a new economic analysis for the proposed project. This analysis concluded the opposite—that privatization would be less costly than the government ownership option by about \$3.6 million in today's dollars. Details explaining the basis for the significantly changed estimates were not included in the new analysis and could not be explained by Fort Irwin officials.

Dobbins Air Reserve Base Electric System Privatization

According to DOD guidance, the economic analyses for proposed privatization projects should estimate and compare costs assuming that the government would upgrade and improve the system to industry standards, as the privatization contractor would be required to do. However, we questioned whether the analysis for Dobbins Air Reserve Base's electric system privatization followed this guidance because of the large cost difference between estimated improvement costs under the privatization and government ownership options. The economic analysis estimated that under privatization the contractor's costs to complete system improvements over the contract period would be about \$1.6 million in

today's dollars. In contrast, the analysis estimated that system improvement costs under the government ownership option over the same period would be about \$4.7 million in today's dollars, a difference of \$3.1 million, or 194 percent, more. In response to our questions, Air Force officials stated that an error had been made in calculating improvement costs under the government option and that the improvement costs were overstated by about \$2 million. We recomputed costs to make a correction for the error. The result was to change the outcome of the analysis from estimating that privatization would be less costly over the long term to estimating that continued government ownership would be less costly over the long term.

Bolling Air Force Base Water and Wastewater Systems Privatization

The economic analyses supporting privatization of the water and wastewater systems at Bolling Air Force Base were not valid because they did not accurately reflect system improvements to be performed by the contractor. Bolling Air Force Base officials stated that the analyses assumed that the contractor would complete many upgrades and improvements to the systems during the first 5 years of the contracts. However, the officials also stated that the privatization contract process was delayed after the analyses were prepared and that military construction funding was obtained and used to complete about 90 percent of the improvement projects that the analyses assumed the contractor would do. Because the analyses were not updated to reflect the changes in the planned work, the results of the analyses include estimated savings from contractor work that will not be performed. We did not have sufficient information to recalculate estimates in analyses. However, installation officials stated that they believed that continued government ownership of the systems would have been less costly than privatization over the long term.

Comments from the Department of Defense



ACQUISITION,
TECHNOLOGY
AND LOGISTICS

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WASHINGTON, DC 20301-3000

Mr. Barry Holman
Director, Defense Capabilities and Management
Government Accountability Office
Washington, D.C. 20548

APR 29 2005

Dear Mr. Holman:

This is the Department of Defense (DoD) response to the GAO Draft Report, 'DEFENSE INFRASTRUCTURE: Management Issues Requiring Attention in Utility Privatizations', dated March 31, 2005 (GAO-05-433, Code 350557). Detailed comments on the report are enclosed. Our comments support my conclusion that the draft report reflects a limited understanding of the Utilities Privatization program and an unwarranted characterization of all findings to be systemic problems of the program.

To the extent that the report characterizes findings which appear to be outdated and not well founded, I urge your strongest consideration to revisit this report and to comprehensively address the issues we have raised prior to issuing this report in final form. My staff is prepared and willing to assist your team to more accurately assess the program. We would also appreciate an additional opportunity for review prior to any final publication.

Philip W. Grone
Deputy Under Secretary of Defense
(Installations and Environment)

Enclosure: As stated



GAO DRAFT REPORT – DATED MARCH 31, 2005
GAO CODE 350557/GAO-05-433

“DEFENSE INFRASTRUCTURE: Management Issues Requiring Attention In
Utility Privatization”

DEPARTMENT OF DEFENSE COMMENTS
TO THE RECOMMENDATIONS

RECOMMENDATION 1: The GAO recommended that the Secretary of Defense direct the Deputy Under Secretary of Defense for Installations and Environment to revise the guidance for preparing economic analyses so that the analyses compare the cost of a proposed privatization contract with the cost of continued government ownership on the basis of the actual planned expenditures and the timing of these expenditures. (pp. 33/GAO Draft Report)

DOD RESPONSE: Nonconcur. In establishing the economic costs to be compared for purposes of meeting the statutory requirements of 10 U.S.C. § 2688, the DoD effectively had two choices: (1) it could assume that future costs of ownership by DoD would be the equivalent of the level of maintenance that would occur if owned by private industry, i.e., “should-cost”; or, (2) it could assume that future costs of ownership by DoD would reflect the likely levels of actual expenditures that DoD would invest in the system. In either case, the resulting numbers would be, at best, an estimate of future costs. The more accurate estimate, however, is the “should-cost” estimate. This is because it is impossible to predict with any measure of accuracy what the DoD would itself spend to maintain a system, particularly with regard to military construction, beyond more than a few years. DoD does not effectively budget beyond that for purposes of utility system capitalization. On the other hand, using the “should-cost” estimate is substantially more accurate since it represents what a private utility company would engage in by way of re-capitalization. This is an estimate the DoD can ascertain with some reasonable accuracy. Given the choice between a reasonably accurate number and a number that would be unreliable, the DoD chose the more reliable number—the “should-cost” estimate.

This is also consistent with the underlying rationale of the program, that private industry can normally provide more efficient utility service than can the Government. It is reasonable to assume that the comparison, for purposes of the economic evaluation, should be between equivalent operations. To do this, the DoD has to assume that the utility system will be maintained at essentially the same level whether privately or Government owned. The alternative—assuming little or no Government investment, but very large private investment—would result in the authority of section 2688 never being used for the simple reason that the costs of not maintaining a system, even if it doesn’t perform, is always going to be less expensive than the costs of maintaining the system.

RECOMMENDATION 2: The GAO recommended that the Secretary of the Defense direct the Deputy Under Secretary of Defense for Installations and Environment to adjust installation operations and maintenance budgets as necessary to reflect increased costs from utility privatization projects. (p. 34/GAO Draft Report)

DOD Response: Nonconcur. The Deputy Under Secretary of Defense for Installations and Environment does not manage the operations and maintenance budgets of the installations. The Military Departments are responsible for funding the utility services contracts resulting from a system conveyance. The Services make the required adjustments for these must-pay contract costs as part of their programming and budgeting responsibilities.

The example on page 18 concerning funding of the Fort Irwin electrical distribution services contract illustrates how the Services prioritize requirements in a rational manner. The Army centrally programs and budgets for the increased cost of utilities due to privatization for a period of two years following contract award. By that time, the increased cost becomes part of the historic data and is captured by the Army's programming and budgeting system.

RECOMMENDATION 3: The GAO recommended that the Secretary of the Defense direct the Deputy Under Secretary of Defense for Installations and Environment to require an independent review, perhaps by DoD headquarters or the services audit agencies, of the economic analyses supporting proposed privatization projects. (p. 34/GAO Draft Report)

DOD Response: Nonconcur. The Military Departments have authority to ensure a sufficient review and have adopted processes that conduct such a review. The Service Secretary is responsible for ensuring that a proper economic analysis is conducted per guidance that has been in effect since October 10, 2002. While some of the GAO concerns are factually correct, they occurred during the start of the program. The Services have implemented program improvements (standard RFPs and economic analysis models) to achieve uniform and consistent processes and have shared lessons on a regular basis. The Services achieve independent review of the economic analysis by using the Defense Contract Audit Agency and consultants to conduct reviews at all stages of the procurement process. DUSD(I&E) will continue to monitor progress in this area in its oversight role.

RECOMMENDATION 4: The GAO recommended that the Secretary of the Defense direct the Deputy Under Secretary of Defense for Installations and Environment to place greater scrutiny on the implementation of the fair market value requirement in proposed contracts to minimize cases where contractors recover more than the amounts they paid for system conveyances. (p. 34/GAO Draft Report)

DOD Response: Nonconcur. 10 U.S.C § 2688 states that the Secretary concerned shall require as consideration for a conveyance an amount equal to the fair market value of the right, title, or interest of the United States conveyed. This requires that the contractor

make an investment in the system. It also avoids issues related to taxes for contributions in aid of construction. Business practices will normally yield some return on that investment, as does any investment in capital plant by a business. The form of that return and the cost of the transaction are highly variable depending on the industry sector. The examples mentioned in the GAO report happened during the start of the program. Contracting Officers are now aware of the potential for contractors to recover more than they pay in Fair Market Value and take steps to minimize the risk.

RECOMMENDATION 5: The GAO recommended that the Secretary of the Defense direct the Deputy Under Secretary of Defense for Installations and Environment to issue specific utility privatization contract administration guidance and provide funding for personnel to perform contract oversight. (p. 34/GAO Draft Report)

DOD Response: Nonconcur. The Services are transitioning their emphasis from pre-award functions to post award contract administration. The Services are responsible for funding and performing post-award contract administration of utility contracts just as with any other contract. Specific utility privatization guidance is best developed by Service contracting authorities as a regular order of business using established contract administration procedures and best business practices.

RECOMMENDATION 6: The GAO recommended that the Secretary of the Defense direct the Deputy Under Secretary of Defense for Installations and Environment to reassess whether permanent conveyance of utility systems should be DoD's preferred approach to obtaining improved utility services. (p. 34/GAO Draft Report)

DOD Response: Nonconcur. The Deputy Secretary of Defense determined that owning, operating, and maintaining utility systems are not core functions of the Department of Defense. When conveyance with full title transfer is uneconomical, the Military Services are already able to consider if conveyance of a lesser estate will result in long-term savings. As an example, the Army determined that full title transfer of the water and wastewater systems at Fort Campbell is uneconomical. The Army then determined that conveyance of the systems at a lesser estate is economical and completed the transaction.

The issue of title transfer has been reviewed repeatedly during the life of this program. While there are compelling arguments on each side, the Department continues to believe, supported by numerous completed actions, that the best practice is to transfer title to the utility system in line with the statutory intent. This effectively gets the Department out of a non-core mission and makes the Department a utility customer instead of a utility provider. As of 2nd quarter FY 2005, the Services have issued RFPs or made privatization decisions for most of DOD's utility systems. A re-assessment of DOD's policy at this point would create confusion without adding value to the few remaining solicitations.

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