

Water Conservation Measures At Army Installations

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The federal government is the largest consumer of energy in the United States. The Department of Defense is responsible for consuming over 70 percent of the energy used by the federal government. Over the years, Congress has attempted to reduce federal energy use through legislative initiatives, including the Energy Policy and Conservation Act, as amended by the Energy Policy Act of 1992. The Energy Policy Act of 1992 requires a reduction in federal energy consumption. It sets as a goal, a 20 percent reduction in federal energy consumption by the year 2000 (with 1985 as the baseline year). In 1994, President Clinton issued Executive Order 12902, Energy Efficiency and Water Conservation at Federal Facilities. The executive order sets a new goal; a 30 percent reduction in energy consumption by the year 2005. The executive order also specifically mandates "cost effective" water conservation projects. This paper addresses the Army's response to the water conservation mandate.

The Department of Defense (DoD) is required to set an energy performance goal pursuant to 10 U.S.C. §2865. It has adopted the goals outlined in E.O. 12902. Under 10 U.S.C. §2865 and 10 U.S.C. §2866, DoD receives incentives for energy and water cost savings. "Two-thirds of the portion of the funds appropriated to [DoD] for a fiscal year that is equal to the amount of [savings] realized by the Department ... shall remain available for obligation ... through the end of the fiscal year following the [one] for which the funds were appropriated." One half of these funds are used to implement additional energy and water conservation measures. The other half of the funds are used at the installation where the savings occurred, to be used by the commander for improvements in housing, unspecified minor construction projects "enhancing quality of life of personnel," or for morale, welfare and recreation.

Water conservation measures range from simply turning off the water faucet to treating and reclaiming industrial waste water. Common examples of water conservation include leak detection and repair, changes in irrigation and landscaping practices, retrofitting plumbing fixtures, and servicing water heater systems. The term, water conservation measure, generally has two meanings in the federal sector. It means a building water system "the nature or selection of which for a new building influences significantly the cost of water consumed." It also means "measures that are applied to an existing Federal building that improve the efficiency of water use, reduce the amount of water for sewage disposal and are life cycle cost effective and that involve water conservation, improvements in operation and maintenance efficiencies, or retrofit activities."

The Department of the Army, Assistant Chief of Staff for Installation Management (ACSIM) and the Army Corps of Engineers (COE) are primarily responsible for implementing the Army's response to the Energy Policy and Conservation Act and E.O. 12902. ACSIM directs the Army's Federal Energy Management Program (FEMP). The COE provides technical and contracting assistance for the Army's Energy Savings Performance Contract Program (ESPC). The U.S. Army Engineer and Support Center in Huntsville, Alabama has been designated as the Technical Center of Expertise for this

program. The COE Center for Public Works provides technical and contracting assistance for water conservation measures for the Army's Facilities Management Program.

The Army FEMP funds installation energy and water conservation projects. Each fiscal year, installations provide their MACOM with a list of project requests for the FEMP. The requests must describe the project, provide a life cycle analysis, and provide the project's savings to investment ratio (SIR). The SIR is the ratio of the present value savings to the present value costs of an energy or water conservation measure. The MACOMs forward a list of those projects with the best SIRs to ACSIM. The ACSIM then provides a final list to the Army Budget Office. The FEMP projects are paid for by OMA funds, which go to the MACOMs for distribution to the installations. An installation can prepare its own water conservation project request package. It also can request assistance from the COE Huntsville office, which will prepare the package for the installation. It charges a fee for the administrative costs incurred in the preparation.

The COE provides technical and contracting assistance for the Army's Energy Savings Performance Contract Program. Energy savings performance contracts are contracts in which the contractor incurs the cost of implementing energy savings measures. The contractor is responsible for performing the audit, designing the project, acquiring and installing equipment, training personnel, and operating and maintaining the equipment. The contractor receives a share of any energy cost savings directly resulting from implementation of such measures during the term of the contract. These contracts are awarded based on best value to the government, not lowest price. The government incurs no capital costs. It does, however, incur administrative costs for developing solicitations, evaluating proposals and administering the contract. It also must share savings with the contractor. Contracting officers, therefore, should first attempt to secure government funding for the project. The government would not have to share energy savings under the more traditional contract methods.

Water conservation measures are not included in ESPCs. For example, if a contractor volunteered a proposal that would save gallons of water, it could not be awarded under an ESPC. Water conservation, however, is permissible as an ancillary benefit of an ESPC. An ESPC, therefore, would be proper if a contractor proposed a project that involved reduced electricity consumption because of efficient electrical pumping which reduced the gallons of water pumped.

Installations can engage in energy savings performance contracting or pay Huntsville to develop and secure the contract. According to the COE ESPC Project Manager, Huntsville soon will enter into regional contracts for these services that will be available to all government agencies. The installations then will be able to secure these services in less time and at less cost than the installation. Generally, it takes an installation 18 months to secure an ESPC, at a cost of \$120,000.00. Huntsville will be able to issue a task order to the regional contractor in less than 2 months, at a cost of \$10,000.00.

The COE Center for Public Works provides technical and contracting assistance for water conservation measures for the Army's Facilities Management Program. The Facilities Management Program conducts water conservation surveys and audits for installations who request it. They also will secure a contractor to conduct the survey at the installation's request. The Facilities Management Program gives installations technical advice about the required specifications for water conservation products, such as showerheads, faucets, toilets, and urinals. They will evaluate potential contractors, their products, and their contract proposals for installations. These are important considerations. The Federal Acquisition Regulation states that "agencies shall consider energy-efficiency in the procurement of products and services."

The Department of Defense has adopted the energy efficiency and water conservation goals contained in E.O. 12902 as its own. The Army is actively implementing programs to meet those goals. Contracting officers and contract law attorneys interested in fully participating in these programs should contact the Army Corps of Engineers Center for Public Works and the Army Engineer and Support Center at Huntsville, Alabama for more information.

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General Accounting Office Report 96-215 (1996).

Department of Defense Annual Report to Congress (1996).

Pub. L. 96-103, 89 Stat. 871 (codified at 42 U.S.C. §6201 et seq.) (1996).

Pub. L. 102-486, 106 Stat. 2776 (codified at 42 U.S.C. §6201 et seq.) (1996).

Exec. Order No. 12902, 59 Fed. Reg. 11463 (1994).

Cost effective means providing a payback period of less than 10 years, as determined by using the methods and procedures developed pursuant to 42 U.S.C. §8254 and 10 CFR Part 436.1 Id.

10 U.S.C.A. §2865(a) (West, 1997) (Energy Savings at Military Installations).

Annual Report, *supra* note 2.

10 U.S.C.A. §2866 (West, 1997) (Water Conservation at Military Installations).

10 U.S.C.A. §2865(b)(1); 10 U.S.C.A. §2866(b).

10 U.S.C.A. §2865(b)(2)(A); 10 U.S.C.A. §2866(b).

10 U.S.C.A. §2865(b)(2)(B); 10 U.S.C.A. §2866(b).

10 CFR §436.11 (1996) (Federal Energy Management and Planning Programs). The Department of Energy is the lead agency for implementing E.O. 12902, through its Federal Energy Management Program (FEMP). 59 Fed. Reg. *supra* note 5.

10 CFR §436.13.

10 CFR §436.21.

According to the ESPC Project Manager, Mr. Bobby Harman, the MACOMs decide whether a project actually will be funded. The FEMP is working on a procedure to secure status reports on how the money actually is used.

See 10 U.S.C.A. §2865 (c)(1). (1997). Mr. Harman is the Project Manager for the ESPC Program. He can be reached at (205) 895-1528. He speaks very highly of his legal counsel, Ms. Barbara Simmons, and recommends that contract law attorneys contact her if they have any questions on the program. She can be reached at (205) 895-1100.

E.O. 12902, supra note 5.
Id.

Id.

GAO Report supra note 1.

42 U.S.C. §8287(c) (West, 1996). See also Federal Energy Management and Planning Program, 60 Fed. Reg. 18326-01 (1995); 10 CFR Part 436 (1996).

This information was provided by Mr. Harman, ESPC Project Manager. He also referred to another program, the Energy Conservation Investment Program, which is a subsection of the MCA. He stated there has been very little contracting from this program over the years.

Ms. Jane Anderson and Ms. Nicole Lussier are the POCs for this program. They can be reached at (703) 806-5214 (DSN prefix is 656).

Huntsville also will conduct energy and water surveys and audits for installations. It recently concluded water main surveys of Fort Riley and Fort Campbell. Both systems have major leaks.

The Energy Policy and Conservation Act established energy consumption standards for certain covered products.¹ See 42 U.S.C.A. §6295 (1996). The Energy Policy Act of 1992 added four more categories: showerheads, faucets, water closets (toilets) and urinals. The rules establish maximum permissible water usage rates for the products. See 42 U.S.C.A. §6292(a)(15)-(18) (1996). See also 16 CFR Part 305 (1996).
See 48 CFR 23.203 (1996).