

Utility Partnerships Program Overview

The U.S. Department of Energy (DOE) Federal Energy Management Program (FEMP) Utility Partnerships Program fosters partnerships between Federal agencies and local utilities. FEMP works to reduce the cost and environmental impact of the government by advancing energy and water efficiency, promoting the use of renewable and distributed energy, and improving utility management decisions.

Federal energy managers must identify the most cost-effective measures for implementing necessary capital improvements. To address increasing energy demands and environmental concerns, local utility companies are significantly expanding the range of energy-saving services and incentive programs offered to customers.

The FEMP Utility Partnerships Program facilitates utility partnerships and utility energy service contracts (UESCs) to help Federal agencies navigate the wide array of energy services offered by serving utility companies, including electric, gas, and water utilities. The Utility Partnerships Program also encourages local utility companies to assist



The U.S. Army Fort Knox Disney Barracks Area used a UESC to replace 70% of its HVAC systems with geothermal heat pumps, saving 102 million cubic feet of natural gas and \$800,000 each year. *Photo from Fort Knox, NREL/PIX 16418*

agencies in meeting energy efficiency, renewable energy, and water conservation goals.

Laws and Regulations

The following legislative and executive authorities support contracting for utility services:

- **Energy Policy Act (EPA) of 1992 (42 U.S.C. Section 8256):** Agencies are authorized and encouraged to participate in programs to increase energy efficiency and water conservation or the management of electricity demand conducted by gas, water, or electric utilities and generally available to customers of such utilities. Agencies may accept any financial incentive, good, or service generally available from any utility.
- **10 U.S.C. Section 2913:** Outlines energy savings contracts and related activities, shared energy savings contracts, participation in gas or electric utility programs, acceptance

of financial incentives, and agreements with gas or electric utilities for Department of Defense (DOD) agencies.

- **Federal Acquisition Regulations (FAR), Part 41:** Authorizes the U.S. General Services Administration (GSA) to enter into areawide contracts for use by all Federal agencies for the purchase of utility services.
- **Energy Independence and Security Act (EISA) of 2007 (Sections 432, 512, and 513):** Authorizes Federal agencies to use any combination of appropriated funds and private funding when implementing utility energy service contracts.

To achieve these goals, the Federal sector must invest at least \$4 billion in public and private funds in Federal facilities, along with operating and maintaining facilities at an optimal level. Local utilities can provide agencies with a wide range of products and services to help achieve these

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- Federal Utility Partnership Working Group (FUPWG)
- Technical Assistance and Training
- Resources

goals, including the provision of project funding and technical expertise.

For more information on Federal laws and regulations, visit www.femp.energy.gov/regulations/regulations.html.

Utility Energy Service Contracts

A utility energy service contract is a contracting vehicle that allows utilities to provide Federal customers with comprehensive energy and water efficiency improvements and demand reduction services. Federal agencies are often a utility's largest customer. UESCs help utilities improve key customer load profiles, meet efficiency and renewable energy portfolio standards, and provide exemplary customer service. Federal sites benefit from UESCs by meeting Federal mandates, resolving specific challenges at the site like replacing aging equipment with newer more energy efficient equipment, and reducing operating costs.

UESCs provide a streamlined approach for Federal agencies to contract for the broad spectrum of energy management services offered

by local utilities. The utility partner assesses the opportunities, designs and implements the accepted energy conservation measures (ECMs), and may provide financing for the project, if desired. The agency repays the utility from appropriations either at acceptance or over time when the projects are financed.

With UESCs, agencies can implement projects to meet Federal mandates. UESCs can be used for energy efficiency improvements, such as high-efficiency equipment, control systems, re-commissioning projects, and water efficiency improvements. In addition, UESCs can be a means to implement renewable energy projects, including photovoltaics, wind, and geothermal systems. Implementing projects through UESCs continues to be a major force behind many Federal facilities meeting energy management goals. To date, Federal agencies have used UESCs to invest approximately \$2.3 billion in their facilities.

For more information on UESCs, visit www.femp.energy.gov/financing/uescs.html.

Utility Rebates, Incentive Programs, and Other Services

Most utility companies offer rebates and incentives to their customers to encourage energy efficiency and/or renewable energy projects. These initiatives are growing, with energy efficiency funding at approximately \$6 billion in 2011 alone. Agencies should always check with their local utility account representative to see if rebates or incentives are available before installing new equipment.

Utilities often provide energy management services at low or no cost to the customer, funded by fees included in utility rates. FEMP surveyed its utility partners to identify low or no cost services provided to Federal customers. These include:

- Rebates and incentives
- Real-time pricing
- Peak savings
- Energy audits
- Technical assistance and/or design review
- Building commissioning
- Rate analysis and load management assistance
- Advanced metering
- Web access to utility account data
- Power quality and reliability assistance
- Renewable energy

Rebates, incentives, and demand response programs represent an important source of project funding for Federal agencies. Incentives can include free services, such as facility energy audits, energy-efficient design assistance, discounts, or rebates on energy-efficient equipment. In many cases, the programs can pay for a significant portion of energy efficiency upgrades. Federal statutes authorize



UESC projects at this hangar on Fairchild Air Force Base include light pipe technologies, infrared radiant heat, and energy-efficient lighting. Photo from Bonneville Power Administration, NREL/PIX 12713

and encourage Federal agencies to participate in these programs and permit retention at the facility of any rebates or incentive received by the agency.

Utilities promote these programs because energy efficiency is often less expensive than increasing energy generation. Incentive programs are usually funded through utility revenues from energy sales approved by public utility commissions (PUC). Some incentive programs are funded by legislature-approved statewide surcharge for public benefit funds, systems benefit charges, and state conservation surcharges.

FEMP defines energy efficiency and renewable energy programs and demand response or load management programs as:

Energy Efficiency and Renewable Energy Programs

- Public purpose programs administered by utilities, state agencies, or other third parties and paid for by utility ratepayers, typically through a non-bypassable system benefits charge instituted as part of restructuring legislation or rules.
- Utility programs administered by the local utility and paid for by utility ratepayers through bundled rates.
- Programs sponsored by state agencies designed to promote energy efficiency and renewable energy, typically funded out of general tax revenues.

Demand Response and Load Management Programs

Demand response and load management programs provide incentives to curtail demand during peak energy usage periods in response to system reliability or market conditions.

Utilities generally offer demand response programs to large consumers of power. Under these programs, a facility agrees to significantly reduce



The National Aeronautics and Space Administration (NASA) used a UESC at the John F. Kennedy Space Center to reduce electricity consumption and save \$440,000 annually.

Photo from iStock/15701255

the amount of energy it takes from the utility system when a utility is nearing peak demand, in exchange for payments by the utility.

A state-by-state listing of energy efficiency incentives, rebates, and demand response programs available to Federal facilities is available online at www.femp.energy.gov/financing/energyincentiveprograms.html.

Federal Utility Partnership Working Group

The Federal Utility Partnership Working Group (FUPWG) establishes partnerships and facilitates communication among Federal agencies, utilities, and energy service companies (ESCOs). The group develops strategies to implement cost-effective energy efficiency and water conservation projects through utility incentive programs at Federal sites.

FUPWG strives to:

- Enhance existing or foster new partnerships between Federal agencies and their servicing utilities

to identify, develop, and implement cost-effective energy efficiency, water conservation, and renewable energy projects at Federal sites.

- Identify how utilities can help Federal agencies meet energy management goals required by legislation.
- Expand the communication infrastructure between Federal agencies, specific sites, and utilities regarding all aspects of Federal energy management.

UESC Quick Facts

Since 1994, more than 1,680 UESC projects have been awarded. These projects:

- Are worth approximately \$2.3 billion.
- Performed infrastructure and equipment upgrades to reduce Federal energy and water consumption.
- Saved more than 14 trillion Btu.

- Prepare agencies for upcoming changes in the electric utility industry and provide information regarding recent technological developments in the areas of energy efficiency and water conservation.

Technical Assistance and Training

FEMP provides comprehensive support to guide agencies through the process of implementing UESCs. Direct project support includes assistance in developing contract documents, providing document templates, and building partnerships. FEMP also provides technical reviews of audits, feasibility studies,

and proposals to ensure optimal performance.

FEMP provides technical assistance to agencies seeking help accessing state energy efficiency funds, purchasing renewable power, or implementing a comprehensive energy efficiency or renewable energy plan with local utilities. FEMP also provides direct assistance to agencies wishing to participate in local demand response programs or to access utility rebate and incentive programs.

FEMP helps agencies explore renewable power purchasing options and evaluate on-site renewable power generation options with a comprehensive screening. FEMP

also helps agencies coordinate renewable energy purchases and organizes competitive electricity or renewable energy certificate (REC) procurements. This assistance may include solicitation development, publicizing the solicitation, organizing bidder meetings, and evaluating bids.

FEMP offers Federal agencies an ongoing series of workshops and webinars to provide training on the implementation of UESC projects. Consult the FEMP events calendar and training database for upcoming training opportunities. These sites are available at www.femp.energy.gov/news/events.html and www.femp.energy.gov/training.

Resources:

Utility Energy Service Contracts

www.femp.energy.gov/financing/uescs.html

FUPWG

www.femp.energy.gov/financing/uescs_fupwg.html

Energy Incentive Programs for Federal Agencies

www.femp.energy.gov/financing/energyincentiveprograms.html

Events and Training

www.femp.energy.gov/news/events.html
www.femp.energy.gov/training

FEMP Contacts

David McAndrew
 202-586-7722
david.mcandrew@ee.doe.gov

Tracy Logan
 202-586-9973
tracy.logan@ee.doe.gov



The GSA-owned Ted Weiss Federal Building (below) used a UESC to save \$256,000 in annual energy costs through a myriad of energy conservation measures. Photo from GSA, NREL/PIX 16425

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FEMP facilitates the Federal Government's implementation of sound, cost-effective energy management and investment practices to enhance the nation's energy security and environmental stewardship.

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