# **Super Energy Savings Performance Contracts**

Streamlined Super Energy Savings Performance Contracts (Super ESPCs) offered by the U.S. Department of Energy make it easier for agencies to finance energy efficiency improvements in Federal buildings

If you're doing all you can to meet your agency's energy efficiency, water conservation, and renewable energy goals – but are frustrated by a lack of funds – then Super Energy Savings Performance Contracts (Super ESPCs) could be just what you're looking for.

With Super ESPCs, energy and facility managers can improve their buildings and install new equipment with no up-front costs. Each Super ESPC project is designed to meet the specific needs of a facility and can include a wide range of energy and cost-saving improvements, from energy efficient lighting to heating and cooling systems. These contracts also allow agencies to obtain financing for newer technologies, such as geothermal heat pumps, photovoltaic systems, and biomass systems.

### **Energy and Cost Savings Pay for Improvements**

Through an ESPC, an energy service company (ESCO) arranges financing to develop and install energy and water conservation and renewable

# **Benefits of Super ESPCs**

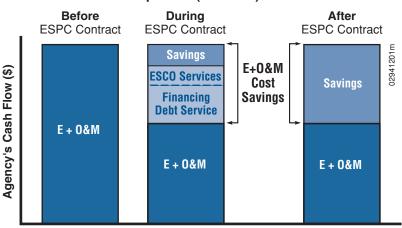
- Building efficiency improvements and new equipment without up-front costs
- A financing alternative to Congressional appropriations
- A flexible, streamlined procurement process for projects
- Guaranteed energy cost savings and lower utility bills
- · Lower operations and maintenance (O&M) costs
- Access to private-sector expertise in energy efficiency, water conservation, and renewable energy
- Infrastructure improvements to enhance mission support
- Healthier, safer, more productive working conditions
- Progress in meeting Federal energy, water, and emissions-reduction goals
- Greater ability to plan and budget energy and O&M accounts
- Less vulnerability to volatile energy prices, weather, and equipment failure

energy projects. As part of the project, the ESCO conducts a comprehensive energy audit and identifies improvements that will save energy and reduce utility bills at the facility.

The ESCO guarantees that energy improvements will result in a specified level of annual cost savings to the Federal customer, and that these savings will be sufficient to pay the ESCO for its work over the term of the contract. Agencies simply use a portion of guaranteed energy cost savings to pay for building improvements over the life of the contract. After the contract ends, all additional cost savings accrue to the agency. Contract terms can be up to 25 years, depending on the scope of the project.

Program Overview

#### ESPCs Reallocate the Federal Customer's Payments for Energy and Energy-Related Operations & Maintenance Expenses (E + O&M)



## Super ESPCs Streamline Energy Project Procurements

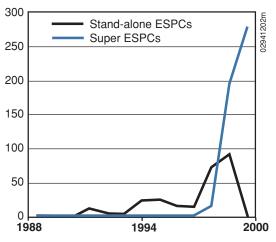
Awarding a stand-alone ESPC can be very complex and time-consuming. Recognizing this, the U.S. Department of Energy's Federal Energy Management Program (FEMP) created streamlined Super ESPCs. These "umbrella" contracts allow agencies to undertake multiple energy projects under the same contract.

An agency that uses a Super ESPC can bypass cumbersome procurement procedures and partner directly with a prequalified ESCO to develop an energy project. With Super ESPCs, FEMP has already completed the Federal Acquisition

U.S. Department of Energy

Office of Energy Efficiency and Renewable Energy





Private-sector investment in Federal energy efficiency and building improvements through ESPCs is growing rapidly.

Regulations (FAR) procurement process, in compliance with all necessary requirements, and awarded contracts to selected ESCOs.

In much less time than it takes to develop a standalone ESPC, Federal customers can place and implement a Super ESPC and begin to realize energy and cost savings immediately. As a result, Super ESPCs are being used more frequently by Federal agencies, and they appear to have largely supplanted stand-alone ESPCs.

## **FEMP Offers Two Kinds of Super ESPCs**

FEMP offers both Regional and Technology-Specific Super ESPCs. FEMP's Regional Super ESPCs allow agencies in a particular U.S. region to place delivery orders with preselected ESCOs. The entire United States, the District of Columbia, and all U.S. territories are covered by the six Regional Super



The San Francisco Veterans Administration Medical Center is saving more than \$500,000 and 2.7 million kilowatt-hours of electricity every year through energy system retrofits financed by DOE FEMP's Super ESPCs.

ESPCs. Technology-Specific Super ESPCs allow any facility to access financing for several advanced energy technologies.

Regional Super ESPCs. Regional Super ESPCs are intended for Federal projects based on a wide variety of proven energy efficiency and conservation measures. ESCOs available under the Regional Super ESPCs have demonstrated their capabilities in the following categories, among others:

- Boiler plant improvements
- Chiller plant improvements
- Building automation systems/energy management control systems (EMCS)
- Heating, ventilation, and cooling equipment (HVAC)—other than boilers, chillers, and EMCS



A Super ESPC allows agencies to save energy and money by using geothermal heat pumps, as this school in Lincoln, Nebraska, does.

- Lighting improvements
- Building envelope modifications (e.g., low-e windows)
- Chilled water, hot water, and steam distribution systems
- Electric motors and drives
- Refrigeration
- Distributed power generation systems
- Renewable energy systems
- Energy/utility distribution systems
- Water/sewer conservation systems
- Electric power peak shaving; load shifting
- Energy cost reductions through rate adjustments
- Energy-related process improvements

For a comprehensive list of delivery orders placed under Regional Super ESPCs, see FEMP's Web site: http://www.eren.doe.gov/femp/financing/doawards.html.

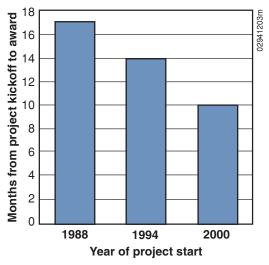
Technology-Specific Super ESPCs. FEMP offers Technology-Specific Super ESPCs to encourage the use of emerging renewable energy systems in order to help Federal agencies benefit from these promising technologies. Technology-Specific Super ESPCs—which apply to Federal projects all over the world—currently focus on the following energy systems:

- Biomass-based fuels and alternative methane fuels
- Geothermal heat pumps
- Photovoltaics
- Solar thermal concentrating systems

For these ESPC projects, the featured technology must be the center of the project, but bundling other energy- and water-conservation measures into these projects is allowed and even encouraged. For a list of delivery orders placed under Technology-Specific Super ESPCs, see FEMP's Web site: http://www.eren.doe.gov/femp/financing/tsawards.html.

## **FEMP Supports Federal Customers in Many Ways**

Agencies can rely on FEMP to assist them in implementing Super ESPC projects. FEMP provides services on ESPCs, and other energy management issues, with the support of numerous partners, including the DOE Golden Field Office, Lawrence Berkeley National Laboratory, National Energy Technology Laboratory, National Renewable Energy Laboratory, Oak Ridge National Laboratory, Pacific Northwest National Laboratory, and private-sector experts.



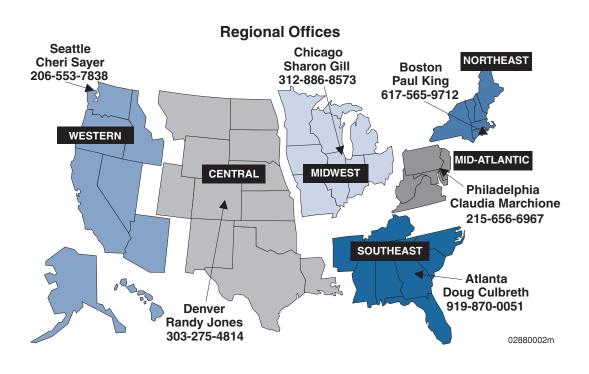
Super ESPCs are becoming faster and easier to use.

You can benefit from FEMP's pioneering projects. Agencies just beginning Super ESPC projects can

benefit from FEMP's experience with more than 50 projects. As the Super ESPC Program has progressed and matured, FEMP staff have applied the lessons learned from earlier contracts to improve the contracting process. As a result, the average time to award ESPC delivery orders has decreased from 17 months to 10 months over the last few years.

In addition to ESPCs, agencies can turn to Utility Energy Services Contracts to finance energy improvement projects. To learn more about them, visit FEMP's Web site: http://www.eren.doe.gov/femp/utility.html

Regional representatives help you get started. DOE's Regional Offices are the primary source of help for agencies learning about Super ESPCs and getting started on a project.



#### FEDERAL ENERGY MANAGEMENT PROGRAM



The photovoltaic technologies Super ESPC helps agencies reduce energy costs and pollution by converting sunlight directly to electricity.

FEMP's Regional Office representatives (see map) help agencies:

- Determine whether a Super ESPC project is feasible at a particular site
- Explain performance contracting to site staff and management
- Form an acquisition team
- Partner with an ESCO.

#### **Private Financing Is Authorized by Congress**

Because the government spends billions of dollars a year on energy for more than 500,000 Federal buildings, executive orders and directives require Federal agencies to use 35% less energy by 2010 in comparison to 1985 usage levels. To reach this goal, agencies will need to invest an estimated \$5 billion in Federal energy projects. But many agencies are hard-pressed to pay for minimal maintenance and repairs, let alone major facility improvements.

To address this situation, Congress authorized and encouraged agencies to make use of innovative contracts to finance and implement efficiency improvements. ESPCs were authorized in the 1986 amendments to the National Energy Conservation Policy Act of 1978 and further amended by the Energy Policy Act of 1992. From 1988 through 2000, agencies used ESPCs to leverage an estimated \$795 million in private-sector financing for energy-efficiency improvements in Federal facilities—without relying on Congressional appropriations. These investments have helped the government reduce its energy use and costs by nearly 20% since 1985.

FEMP facilitators are your Super ESPC advisors.

FEMP can assign an experienced project facilitator upon request to advise and guide an agency's acquisition team through the process of developing and awarding a Super ESPC delivery order. Project facilitators can –

- Review price and technical proposals
- Draft requests for proposals
- Consult on all aspects of the project (e.g., measurement and verification, contractual and financial issues, and specific technologies and engineering issues).

FEMP's services are designed to ensure that Super ESPC projects are financially smart; are technically, contractually, and legally sound; and thoroughly address an agency's priorities and needs.

#### For More Information

Tatiana Strajnic, Project Financing Team Leader U.S. Department of Energy, EE-90 1000 Independence Ave., SW Washington, D.C. 20585

Phone: 202-586-9230 Fax: 202-586-3000

E-mail: Tatiana.Strajnic@ee.doe.gov

FEMP Help Desk: 800-DOE-EREC (363-3732) Internet: http://www.eren.doe. gov/femp



Produced for the U.S. Department of Energy by the National Renewable Energy Laboratory, a DOE national laboratory

DOE/GO-102001-1160 June 2001 Revised May 2002