



ESPC SUCCESS STORY

**DYESS AIR FORCE BASE
DYESS, TEXAS**

Water Conservation and Green Energy

Dyess Air Force Base and surrounding west Texas has been under extreme-drought water restrictions for years. To ease the stress on the nearby city of Abilene’s potable water supply, Dyess began using the city’s effluent water for irrigation. They arranged to use existing oil pipelines to economically transport the water 7 miles from the city to the base. Dyess also entered into an energy savings performance contract to add two 11-million-gallon holding reservoirs, two pump stations, and 3 miles of distribution piping to connect the irrigation system. The project reduces annual potable water consumption by 160 million gallons and saves the base \$300,000 a year. It also saves the city a highly valued 2 percent of its water supply.



Work done under an energy savings performance contract enables Dyess Air Force Base to use Abilene’s effluent water for irrigation, saving 160 million gallons of potable water and \$300,000 a year. Fusion-welded polyethylene piping connects Abilene’s effluent supply line to a holding reservoir on the base.



Trent Mesa Wind Site, Trent, TX

In January 2003, Dyess AFB became the largest single user of wind energy in the United States. The base now procures 100% of its electric power via “Green Wind Energy,” offsetting 78 gigawatt-hours of electrical usage and reducing carbon dioxide emissions by 58,000 tons per year.



Federal Energy Management Program
Please see FEMP’s ESPC Web pages at
<http://www1.eere.energy.gov/femp/financing/espcs.html>

For More Information
Contact the EERE Information Center
1-877-EERE-INF or 1-877-337-3463
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ESPC SUCCESS STORY
FDA WHITE OAK CAMPUS
SILVER SPRING, MARYLAND

Environmental Stewardship and Cost Savings

For construction of the FDA Campus in White Oak, MD, the General Services Administration (GSA) teamed up with Honeywell to construct a combined heat and power plant using Super Energy Savings Performance Contracts (ESPCs). The plant buildout is staged to match the multi-year campus development. The project is currently expanding to almost 20 MW of cogeneration, including a 5.6 MW dual fuel engine and three 4.5 MW natural gas combustion turbines. Other project features include two 1130-ton absorption chillers, two 1130-ton and three 1980-ton electric chillers and three 10 MMBtu/hr hot water boilers. The ESPCs also include integrated plant controls, building automation systems, an 1,800 sf fixed solar array and a 300 sf single-axis tracking solar array. The \$71 M installed system cost is estimated to save \$5.8 M in annual energy cost savings and \$6.5 M in annual reduced O&M costs when all of the supported Campus buildings are completed.



The FDA White Oak Campus receives power from a Central Utility Plant that was constructed using energy savings performance contracts. The contracts allow for the expansion of generating capacity to meet the needs of the campus as it grows.



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**HAROLD WASHINGTON
SOCIAL SECURITY
ADMINISTRATION CENTER
CHICAGO, ILLINOIS**

Water Conservation and Green Energy

The Harold Washington Social Security Center in Chicago, IL, installed numerous energy conservation measures using direct financing and Energy Savings Performance Contracts (ESPCs). These measures include: a 110-kilowatt, rooftop solar electric system; energy efficient lighting fixtures and controls; retro-commissioning and energy management control system upgrades; chilled water system improvements; HVAC improvements; low-flow fixtures and waterless urinals. These projects reduce the Center's annual energy consumption by more than 20 percent – a total of more than 4 million kWh – and save 2 million gallons of water each year.



A Super Energy Savings Performance Contract allowed the Social Security Administration (SSA) to upgrade major capital improvements such as chillers, boilers, and HVAC systems with no up-front cost to the agency.



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