



U.S. Department of Energy
Office of Energy Efficiency and Renewable Energy

2003 Federal Energy and Water Management Award Winners

October 29, 2003



FEDERAL ENERGY MANAGEMENT PROGRAM
Leading by example, saving energy
and taxpayer dollars in federal facilities

**U.S. National Park Service
Mojave National Preserve
Barstow, California
760-255-8850**

The harsh rugged beauty of California's Mojave National Preserve is the setting for this renewable energy project for the Preserve's Hole-In-The-Wall Wildland Fire Center. Up to 16 firefighters and crew are stationed at the Center's remote (4,500 foot elevation) location to respond to emergencies in the Preserve's vast 1.5 million acres of land. Drawing upon the area's abundant sunlight and a desire to protect the natural quiet of the desert, the National Park Service mobilized to replace the Center's outdated modular facility that relied on diesel power. The newly-constructed fire center and dormitory is a highly functional, energy-efficient, and cost effective structure that harmoniously blends into the desert landscape. The facility features an 11 kilowatt hybrid system with 85 thin flexible photovoltaic panels placed on the Center's roof, eliminating the expense of a solar panel array frame. Insulation under the roof serves as an energy-efficient environment for the thermostatically controlled evaporative coolers located in the attic. Throughout the buildings, energy-efficient windows reduce the facility's energy use. In interior spaces without windows, solar light tubes practically eliminate the need for electrical lighting during the day. A solar-powered radiant floor heating system prevents the water lines in the fire engine bays from freezing. During FY 2002, this impressive facility achieved an energy savings of 624 million Btu and a cost savings of more than \$16,000.



IN RECOGNITION OF
OUTSTANDING SUSTAINABLE DESIGN AND CONSTRUCTION
OF THE
HOLE-IN-THE-WALL FIRE CENTER
—*—*—
U.S. DEPARTMENT OF ENERGY
2003
FEDERAL ENERGY AWARD WINNER
FOR RENEWABLE ENERGY

JR CARDENAS CONSTRUCTION