

Appendix B: Federal Agency Profiles

U.S. Department of Energy

I. Organization

Ultimate responsibility for the buildings at Department of Energy (DOE) sites rests with the major DOE Program Offices and Field Offices. Most sites are contractor managed and operated. Many of the larger sites are designated as National Laboratories. Either the DOE field office or contractors managing and operating the sites hire private architectural, engineering and construction firms to accomplish most design and construction work.

Within DOE, the Office of Engineering and Construction Management <<http://oecm.energy.gov/>> within the Office of Management, Budget and Evaluation provides corporate processes and oversight of the Department's construction projects and real property; advocates value added change in the Department's project and facilities management systems; integrates sound fiscal acquisition and business practices into the management of projects and facilities, and supports DOE's project managers.

Also, the Assistant Secretary for Energy Efficiency and Renewable Energy (EERE) <<http://www.eere.energy.gov/>> is responsible for advocating policy, programs, and new initiatives to take appropriate actions to conserve energy at DOE facilities. Within EERE, the Federal Energy Management Program (FEMP) <<http://www.eere.energy.gov/femp.html>> supports DOE Field Offices with complying with energy-related requirements such as Executive Order 13123 and the Presidential Directive of May 3, 2001, *Energy Conservation at Federal Facilities*. FEMP also provides Departmental Energy Management Program funding support for energy efficiency retrofit projects at the sites.

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II. Baseline Data

DOE owns or leases more than 12,000 buildings at more than 50 sites throughout the United States. Currently occupied buildings comprise 96.2 million square feet, which is divided into laboratory space (23 percent), production space (34 percent), office space (14 percent), and other activities such as storage and service space (29 percent). Environmental cleanup is being conducted at many DOE sites and several large sites are scheduled for closure. One major DOE program, the National Nuclear Security Administration, has concluded that 50 percent of its buildings are at least 50 years old and that 70 percent are inadequate or in poor condition. About 20 percent of DOE's building inventory has been declared surplus because of changing missions.

III. Policies and Resources

DOE Order 430.2A, Departmental Energy and Utility Management, April 15, 2000, emphasizes the energy efficiency strategies of Executive Order 13123, directs the application of sustainable design principles to new buildings, and recommends the application of sustainable design principles to major alterations of existing buildings.

DOE sponsored or co-sponsored the following resources for sustainable design include:

Whole Building Design Guide, <<http://www.wbdg.org/>>

Roadmap for Integrating Sustainable Design into Site-Level Operations, <<http://www.pnl.gov/doesustainabledesign/>>

Laboratories for the 21st Century, <<http://www.epa.gov/labs21century>>

DOE Energy Efficiency and Renewable Energy, Buildings Technology Program, High Performance Buildings, <http://www.eere.energy.gov/buildings/high_performance/>

FEMP Technical Assistance: Greening Federal Facilities, <http://www.eere.energy.gov/femp/techassist/green_fed_facilities.html>

IV. Results and Case Studies

DOE promotes sustainable building design practices by offering seed funding to DOE sites to include sustainable principles in their site design/construction programs and document LEED™ certification. Participating sites include Lawrence Livermore National Laboratory, Idaho National Engineering and Environmental Laboratory, Sandia National Laboratory, National Renewable Energy Laboratory, and Oak Ridge National Laboratory. In addition, DOE is encouraging several of its sites to become partners in the EPA/DOE Laboratories for the 21st Century initiative. Three DOE laboratories became pilot partners in FY 2002: Lawrence Berkeley National Laboratory, Sandia National Laboratory, and the National Renewable Energy Laboratory. Pilot partners receive design assistance and preferential project funding consideration.

The Sandia National Laboratory – New Mexico (SNL-NM) is reviewing and revising its standard construction specifications and Design Manual to incorporate sustainable design. SNL-NM is also training its design professionals and will be providing lessons learned to other DOE sites. Sandia's Process and Environmental Technology Laboratory is featured as a case study on the Laboratories for the 21st Century website.

The Los Alamos National Laboratory produced a Sustainable Design Guide that provides a foundation to integrate sustainable design into the architecture, construction, operation and maintenance of the site.

The Idaho National Engineering and Environmental Laboratory (INEEL) provided sustainable design recommendations for the conceptual design of the Subsurface Geosciences Laboratory. As part of that effort, INEEL evaluated the design using the LEED™ software analysis package.

The Lawrence Berkeley National Laboratory and the National Renewable Energy Laboratory are in the process of registering laboratory buildings with the U.S. Green Building Council to undergo the LEED™ certification process.

The Argonne National Laboratory-East became the first DOE site to certify a building under the LEED™ rating system. Argonne's Central Supply Building achieved a LEED™ Silver rating.