

**OFFICE OF THE STATE ARCHITECT
ENERGY MANAGEMENT PROGRAM
POLICIES AND PROCEDURES**

ENERGY and WATER MANAGEMENT OF EXISTING BUILDINGS

Statutory Authority/Executive Order

Colorado Revised State Statutes:

24-30-1301-1311	State Buildings, Department of Personnel and Administration
24-30-2001-2003	Utility Cost Savings Measures
24-82-601-602	State-Owned Facilities – Energy Conservation
24-82-901-902	Outdoor Lighting Fixtures

Executive Order

Greening of State Government, Executive Order D2015-013 (October 2015)

This executive order establishes responsibility for environmental leadership in all State agencies and departments. The Executive Director of each agency and department shall support development and implementation of plans, programs, and policies that incorporate sustainability practices into daily agency decision-making and long term planning across all agency and department activities and functions. The executive order has directives relating to buildings on Energy, Water, and Petroleum-Based Fuels Management; Energy and Water Management at State-Owned Facilities; Environmentally Preferable Purchasing; Recycling and Waste Management; and Greenhouse Gas Emissions.

EXISTING BUILDINGS

This policy focuses on the Energy and Water Management of Existing Buildings and on the continuous improvement of a building's efficient use of energy and water.

It is important that agencies and institutions develop, incorporate, and then utilize a maintenance program that is effective in tracking maintenance needs and prioritizing the necessary work. Minor maintenance issues are resolved through the general operation and maintenance budget. As the building ages the components and systems need replaced either through a controlled maintenance or a capital renewal request. An energy management program is an important aspect of a building's operation and maintenance strategy.

FACILITY PLANNING

OSA has a Facilities Planning Process Policy that covers the larger aspect of an agency's facilities long-range planning effort. Energy management is a small part of an agency's facilities long-range planning, but is an important requirement for calculating and controlling operation and maintenance budgets.

ENERGY and WATER MANAGEMENT PRACTICES

Each agency or institution needs to develop an energy/water management program. The program should develop methods and procedures to track, monitor, and control utility costs. The program should reduce utility usage and cost by incorporating energy and water efficiency technologies, practices, and designs into the decision-making process during the design and acquisition of buildings and the repair and replacement of existing systems. The program should emphasize cost effective and proved renewable energy sources. The net-zero energy or water goals are important, but only after building efficiency improvements have been completed.

Tracking and Monitoring Utility Bills

Departments shall reduce usage and cost per the Executive Order D2015-013. Institutions of Higher Education are encouraged to meet the goals of the Executive Order. Agencies are encouraged to install utility meters to determine building utility performance where cost effective. Departments should use the CEO supported EnergyCap software to track utility usage and cost. Institutions of Higher Education may use EnergyCap or any other utility tracking software. Agencies are encouraged to use the EPA ENERGY STAR Portfolio Manager program to benchmark their building's energy profile and compare their buildings against similar buildings. An important aspect of any energy program is the evaluation of your agencies current energy usage against comparable buildings. The program can measure, track, and benchmark an agency's buildings energy performance and develop and implement a plan to improve building energy performance. Using remote building performance software is encouraged.

Departments and Institutions of Higher Education interested in a more detailed and extensive method to track building performance should consider a sustainable rating and certification program. Two national programs that could work are: Green Globes and Leadership in Energy and Environmental Design.

ENERGY EFFICIENCY PROJECTS FUNDING OPTIONS

Energy performance contracts (EPC) provide an alternative funding source for a state agency to repair and/or upgrade its facilities. Energy performance contracts use avoided future utility costs from increased facility energy/water efficiency and best practices operating procedures as the method to fund facility improvements over the life of the lease-purchase energy performance contract. An EPC could be the preferred funding option for some maintenance projects. If the project has the potential of substantial energy savings and cost avoidance, then each department is required by the Executive Order to evaluate the request as a potential EPC project. Information on can be found in the OSA Energy Performance Contract (EPC) best practices policy.

This document can be found online at the OSA website along with related policies on energy.

- OSA Life Cycle Cost (LCC) policy covers the implementation of LLC on facilities master planning, new construction, controlled maintenance projects, and other substantial renovation of existing buildings.
- OSA High Performance Certification Program (HPCP) policy covers the construction of new buildings or the substantial renovations of existing buildings.
- OSA Energy Performance Contract (EPC) best practices document explains when an EPC is applicable, what services an Energy Service Company (ESCO) provides, and the process from selection of the ESCO to the final acceptance of an EPC project.