http://www.deq.state.mt.us/energy/

STATE ENERGY PROGRAM SUMMARY

The Department of Environmental Quality coordinates state energy policy, planning and programming efforts for Montana. The department offers a variety of programs to promote energy conservation and renewable energy development funded through a State Energy Program grant from the U.S. Department of Energy (DOE), state general funds, utility funds and other special project funds.

State Energy Program(SEP) - U.S. Department of Energy				
SEP Expenditures and Montana Cost Share				
State FY	**Federal SEP Expenditures**	**Cost Share**	**Total State Match**	**Cost Share**
FY 2004	$356,541	80%	$89,735	20%
FY 2005	$385,600	64%	$219,764	36%
FY 2006	$366,989	76%	$116,250	24%
Totals	**$1,109,130**	72%	**$425,749**	28%

Building Energy Code Support

Montana adopted the 2003 International Energy Conservation Code (IECC) in 2004. This code change is an improvement over the previous state energy code. A series of statewide training sessions on the new code are conducted each year for building code officials, builders and the design community through funding support from DOE. Program activities include conducting workshops, providing on-site assistance to code officials on code compliance and development of code training materials. The rise in natural gas rates during the last three years has resulted in an increase in the demand for services from the public on energy efficient building techniques and new heating technologies. Montana is now actively involved in adopting the latest version of the IECC, 2006.

State Buildings Energy Conservation Program

Energy costs have risen dramatically in recent years. The current gas term contract for state agencies is 15 percent higher than costs in 2005. The State Buildings Energy Conservation Program (SBEP) reduces operating costs in state facilities by identifying and funding energy efficiency projects in state-owned buildings. Montana sells general obligation bonds to fund project costs, and the savings resulting from the energy improvements repay the debt service on the bonds. Once the bonds are retired, the state continues to realize savings over the life of the improvements. The SEP Program provides support for engineering and technical services to SBEP.

The program has completed 67 projects to date. There are 21 additional projects in stages ranging from the study phase to construction. The program has issued $14.75 million in general obligation bonds to fund project costs and operate the program. Cumulative energy savings captured through FY06 totals over $9.2 million.

There are approximately 425 buildings owned by state government that are over 10,000 square feet in size. These buildings use about 75% of the energy consumed by state government and likely have the most potential for energy savings. However, there is no mechanism to identify energy use by building, or to prioritize the buildings for energy work. DEQ initiated a project in June 2006 to collect information on 350 buildings not yet served by the State Buildings Energy Conservation Program. These buildings together

with others already participating in the SBECP will provide information to benchmark most buildings over 10,000 square feet in size and some representative smaller buildings. These buildings will be compared using the EPA Energy Star Benchmarking Tool and a database customized for Montana considering age, use, and size. Buildings that appear to have high-energy use per square foot will be targeted for further analysis and potential renovation.

Rebuild Montana Partnership

Rebuild Montana works with public buildings, multi-family housing, schools and local governments to identify energy-efficiency improvements in buildings and develop plans for implementing the saving opportunities. A variety of technical assistance services, such as reviewing and evaluating energy performance contracting bids, accessing financing options for energy retrofit projects, etc., are provided to program partners. Past projects have included a multi-family housing partnership that transformed a historic downtown hotel into low-income apartments and retail space. This program provides building commissioning training and technical assistance to schools and multi-family housing agencies to reduce energy costs in their facilities. The Rebuild Montana program has completed 44 projects on over 2 million square feet of building space. Completed Rebuild partnerships have leveraged more than $11.5 million in non-federal funds.

In 2006 Rebuild Montana worked jointly with the Montana Board of Housing to integrate energy efficiency into the Low Income Housing Tax Credit Program guidelines. The Qualified Allocation Plan guidelines now include additional credits for HUD-assisted housing projects that exceed the energy code. This program will help to improve the energy efficiency and lower costs for over 200 housing units in 2007.

Residential Housing Market Transformation

SEP provides funding to transform the market for energy efficient housing in Montana. In 2006, the program supported efforts across the state to promote the Energy Star Homes program to contractors and homeowners. Program activities include conducting on-site workshops with builders and sub-trades to promote Energy Star standards and energy efficient construction techniques. Builders are trained on energy efficient construction techniques through the demonstration of diagnostic tools such as blower doors, infrared thermography and duct tightness testing. Consumer training sessions focus on transforming the market for energy efficient housing by promoting the benefits of Energy Star building standards and state and federal tax credits. Montana offers a $500 state energy conservation tax credit for new and existing homes that are built above current code standards. In 2005 Montana homeowners received over $5.6 million in energy conservation tax credits for improving the energy performance of their homes.

State Energy Program Project Examples

University of Montana – Western
Biomass Boiler Heating System
Dillon, Montana

The University of Montana – Western college campus is presently heated with two conventional older steam boilers. These inefficient boilers provide space heating to 470,000 square feet of campus classrooms and academic buildings. As part of the Fuels for Schools Program, the heating system was evaluated for converting to a single biomass boiler for all campus buildings.

The initial engineering assessment showed that a fully automated wood chip boiler could save $130,000 in fuel costs for the school in the first year of operation. This project will provide substantial cost savings to the college and make use of a renewable resource. The State Energy Program in the Department of Environmental Quality is a partner in making this fuel conversion possible. The project is under constructed and will be operational in 2008.

The Fuels for Schools program has awarded a $400,000 grant to the University of Montana-Western through the FY05 Omnibus Appropriations Package. Total project costs are estimated to be $1.4 million. Approximately $1 million in funding will be secured through the State Buildings Energy Conservation Program (SBEP) in the Department of Environmental Quality. The general obligation bond is paid off over a ten year period. Funding from the U. S. Department of Energy State Energy Program allows Montana DEQ to provide funds for engineering studies and technical assistance to make this biomass heating system a reality.

SEP – SPECIAL PROJECT AWARD – 2006

Montana Integrated Approach for Delivering Technical Assistance to Schools and Residential Buildings

Special Project Award - U.S. Department of Energy				
Award Date	Federal Award	Cost Share	State Match	Cost Share
2006	$186,505	73%	$70,000	27%

DOE funding under this award will allow the state to implement a comprehensive study of energy conservation opportunities in K-12 schools throughout Montana. DEQ will partner with the Architecture and Engineering Division, Department of Administration to complete work over a 30 month project period. This project will take advantage of new state funding for school assessments and improvements. The objectives of the project will be to identify energy conservation needs in school districts throughout Montana; to include energy conservation as an integral part of facility assessment and planning; and to integrate energy conservation projects into building improvement projects in schools throughout the state. Montana has a unique opportunity to include energy conservation in school renovations because of recent legislation authorizing increased state revenues for school building improvements.

Special project funding will allow the state energy office to provide technical assistance to the Montana School Facility Inventory and Energy Audit project, and develop new opportunities for schools to coordinate state funded facility inventories with planning for energy efficiency improvement projects that can be funded through energy performance contracting.