ALABAMA

IMPROVING SCHOOL ENERGY EFFICIENCY THROUGH BUILDING COMMISSIONING

Overview
Alabama used the Clean Energy States Grant program to focus on improving energy efficiency in new K-12 schools. The state began several new school construction initiatives around the start of the grant program, providing an opportunity to make a large impact on school energy efficiency going forward. Alabama sought to develop new commissioning standards, designed to ensure that building systems work jointly and efficiently, as an effective and low-cost means of improving energy performance. This effort helped support the state’s overall goal of reducing energy use in state-funded buildings by 20 percent.

Through the grant, Alabama created a new set of voluntary commissioning guidelines that the state hopes will eventually become standard for all new K-12 school construction in the state. Alabama distributed the guidelines to key stakeholders throughout the state including school superintendents, contractors, and architects, in order to promote the benefits of commissioning and the use of the new guidelines.

Clean Energy States Grant Goals
Alabama sought to develop new commissioning guidelines for school construction and to improve the understanding and utilization of commissioning. The state began the process aware of several misconceptions about commissioning within the building community and with a very low level of understanding among local school officials involved in the construction process. The state hoped to use the process to bring these stakeholders into the development of the guidelines, both to improve knowledge and ease the eventual deployment of the guidelines.

Alabama’s goal of improving school building performance is tied to the state’s larger energy efficiency goals. Executive Order 33, issued by Governor Bob Riley in 2006, requires state agencies and departments to lower their energy use 20 percent from 2005 levels by the end of 2010. The Alabama Energy Office is also working toward achieving the Energy Policy Act of 2005 goal of improving energy efficiency statewide by 25 percent, based on 1990 levels, by 2012. The commissioning guidelines are seen as an important element of the efforts to reach those goals.

Accomplishments and Challenges
Alabama used the grant to contract with the Cadmus Group, an environmental and energy consulting firm, to assist the state and a team of stakeholders in developing a set of comprehensive guidelines. The result was the release of the Commissioning Guidelines for K-12 Schools in 2009. The guidelines were provided to both the Alabama State Department of Education and the Alabama Building Commission for further distribution and consideration. The State Energy Office also posted the guidelines on its Web site to be accessed by anyone interested in utilizing the commissioning process. The state held four public discussions of the draft document to promote a better understanding of commissioning. More than 200 stakeholders participated in these public forums.

The lack of adequate education and outreach around commissioning remains the biggest barrier to widespread implementation of commissioning. The state is working to overcome the perception that commissioning adds costs to a construction project when it instead cuts down on inefficiencies during the construction phase and reduces costs later in the form of better building performance. Alabama is also focusing on direct education to superintendents since they are often an integral part of the process of new school design but rarely have experience with architecture, construction, or building systems performance. The state hopes that familiarity with the commissioning guidelines will encourage more and better-informed involvement by school officials in the design and construction of high performance schools.

Next Steps
Alabama sees a number of opportunities to build upon the development of the commissioning guidelines. The state is continuing to educate individual school districts about commissioning and hopes to utilize the Energy Star Portfolio Manager tool to evaluate new schools and provide success stories around the energy performance of new schools that adhere to the guidelines. The State Energy Office also will continue to work with the State Department of Education and Building Commission, as well as with the Permanent Joint Legislative Committee on Energy Policy, to address building energy performance and advocate the adoption of the guidelines created during the grant process as an enforceable statewide standard for commissioning in K-12 schools.

In addition, Alabama has made K-12 school energy efficiency an integral part of its State Energy Plan under the American Recovery and Reinvestment Act (ARRA). Fourteen school districts in the state received nearly $4 million in federal funds for energy retrofits in existing school buildings, with a little more than $1 million in additional school energy retrofit grants expected to be awarded this spring. The state expects these two complementary efforts to have a lasting impact on the energy efficiency of K-12 schools in Alabama.