

# NEWS RELEASE

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## **New Mobile Classroom Earns High Marks for Energy Savings**

### FOR IMMEDIATE RELEASE

If, like many of North Carolina's teachers and students, you have to conduct class in a mobile building, it would be comforting to know that it's the most cost- and energy-efficient classroom available. That's what the North Carolina Solar Center at North Carolina State University, working with Chapel Hill High School, is working to develop.

The North Carolina Performance Enhanced Relocatable Classroom (NC PERC) project is evaluating ways of boosting the energy efficiency, learning environment and indoor-air quality in mobile classrooms – and preliminary results show a 40 percent improvement in energy savings to date in the Chapel Hill High School test classroom.

According to Kurt Creamer, engineering specialist at the Solar Center, the NC PERC project involves both energy-modeling software and carefully selected upgrades to the mobile classroom, including a high-efficiency heat pump, skylights, an energy-recovery ventilator, better insulation in windows, walls and doors, and other energy-saving features.

“The project benefits the school by reducing energy costs, by providing a model for future mobile classrooms, and by demonstrating energy-saving technology to students,” said Creamer.

Tim Dunn of the Solar Center agrees that the sensible upgrades provide benefits beyond cost savings alone. “Classrooms that are both efficient and comfortable should help administrators, teachers and students alike to achieve their educational goals,” he said.

Garrett Raper, a master's degree candidate in mechanical engineering at NC State, is writing his thesis on the project. “Because there are so many mobile classrooms and budget concerns in North Carolina's educational system, we're seeking viable options for large-scale energy savings,” he said. “A statewide implementation would not only help school systems save money, but would also improve learning environments for students.” Christine Maurer, another

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## *Classroom 2*

graduate student in mechanical engineering working for the Solar Center, helped the team collect and analyze project data.

Sponsored by the State Energy Office and the National Association of State Energy Officials, NC PERC is a collaboration between the NC Solar Center and the Florida Solar Energy Center. The organizations will acquire and analyze data from both upgraded and standard mobile classrooms during the course of the school year, and calculate the energy savings for different configurations of features.

Created in 1988, the NC Solar Center is sponsored by the N.C. Department of Administration's State Energy Office, the U.S. Department of Energy, and the North Carolina Solar Center Foundation. The Solar Center is part of the Industrial Extension Service and the College of Engineering at NC State.

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