



FLORIDA SOLAR ENERGY CENTER

Energy Efficient Portable Classroom at
Cromwall Elementary School, Cromwall, NY

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The Challenge

Portable classrooms have become a common and acceptable low-cost solution for school districts dealing with shrinking school budgets and expanding enrollments. In many instances, this short-term fix often becomes a permanent classroom. While initial costs of portable classrooms are low, their on-going operating costs are high. Portable classrooms usually have minimal insulation. Other major problems with portables include poor indoor air quality, inadequate natural light, and an ununstable room temperature.

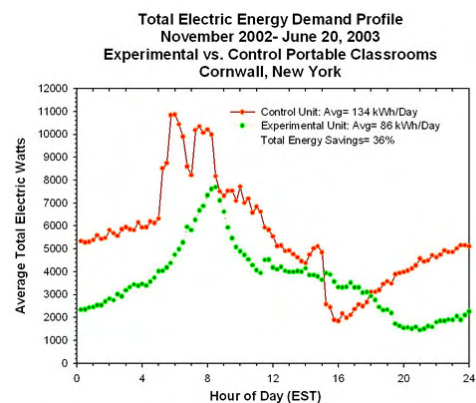
Technology Demonstration

Standard baseline and energy efficient portable classrooms were monitored and evaluated at Cromwall Elementary School in Cromwall, New York. The improved modular built classroom, Performance Enhanced Relocatable Classroom-PERC) was tested to determine the benefits of enhanced system and construction practices of relocatable classrooms in a cold climate.

The NY PERC, sited in September 2002, was built by Design Space Modular and consisted of (2) end-to-end 24'-0" x 36'-0" classrooms sharing a common wall, corridor and bathroom, totaling 1,724 sq feet. Each classroom was occupied during testing. Energy performance data was downloaded daily to FSEC via modem.

Project Results

- 36% overall energy savings
- 47% (79 kWh/day) HVAC savings
- Enhanced natural lighting
- Improved indoor air quality



Cromwall Elementary School
(Performance Enhanced Relocatable Classroom)

May 2006