

Leroy Elementary School

Leroy, Illinois



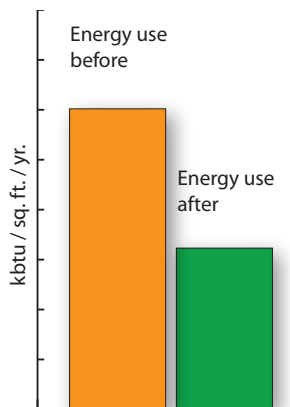
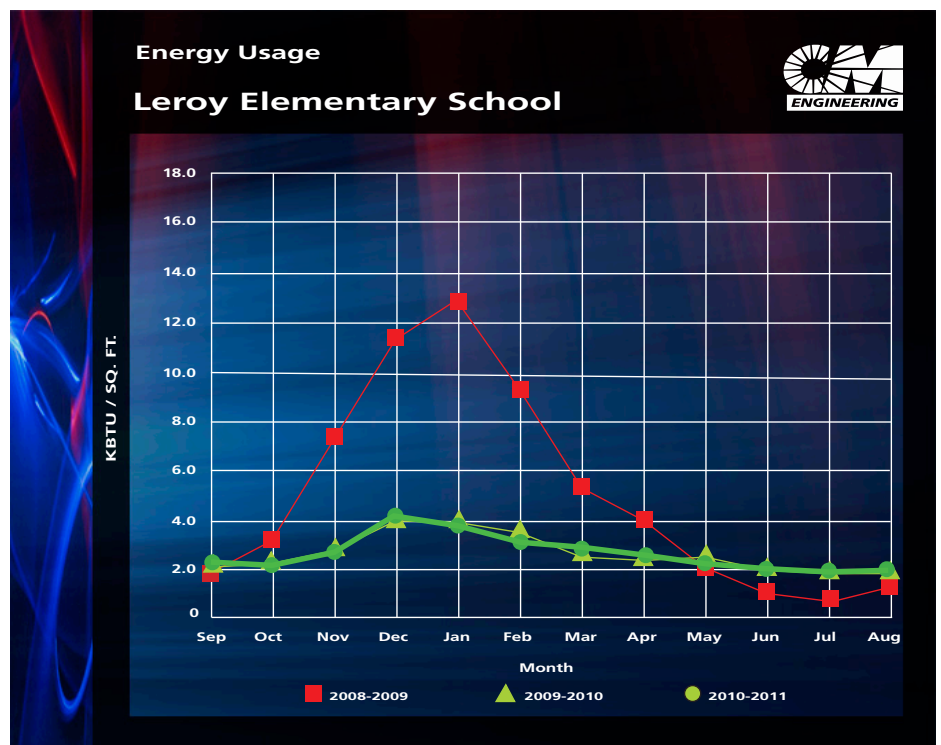
Leroy Elementary School is typical of our retrofit results. Its previous heating system consumed large amounts of energy in the winter months.

In the summer after the 2008-2009 school year, we installed a One-Pipe ground source geothermal exchange system and added individual temperature controls and air conditioning to every room in the building, at a very low first cost.

Teachers and students now have an indoor environment much more conducive to learning. Overall energy consumption has been greatly reduced and the annual energy cost savings are significant.

Retrofit of existing school

- Air conditioning added to every room
- Ground source geothermal exchange system
- One-pipe design
- 70,285 square feet
- 25 Classrooms
- Approximately 473 students
- Individual temperature controls in every space
- Retrofit cost \$18.50 / sq. ft.
- Energy use BEFORE retrofit: 60.2 KBTU / sq. ft. / yr.
- Energy use AFTER retrofit: 32.3 KBTU / sq. ft. / yr.



Energy use before retrofit: 48.2 kbtu / sq. ft. / yr.
 Energy use after retrofit: 32.1 kbtu / sq. ft. / yr.

Red tracing shows consumption for the year prior to our retrofit. The green tracings show measured energy consumption after installation of our One-Pipe Geothermal exchange heating and cooling system. Note that month-by-month energy consumption is nearly identical for the two years following our retrofit. High winter spikes have been eliminated and yearly consumption is drastically reduced. (Data source: Leroy CUSD #2, Leroy, Illinois)