KENTUCKY ENERGY WATCH

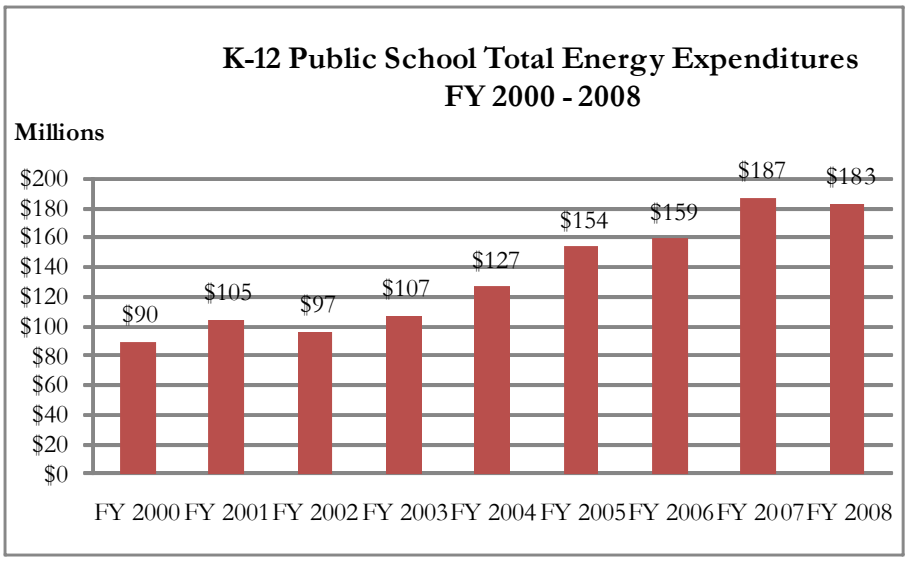
Special Edition

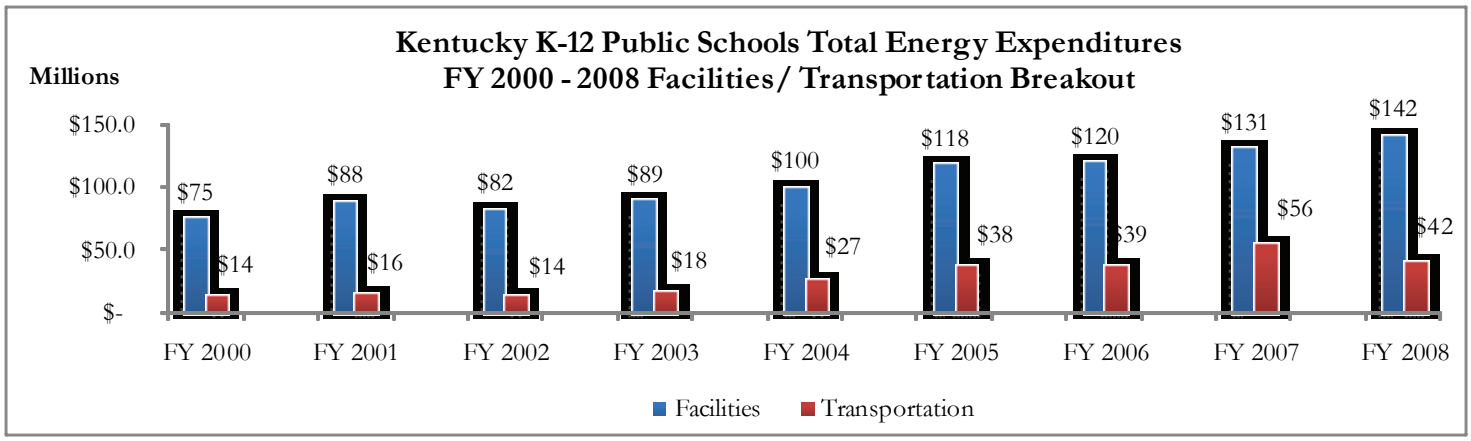
Energy's Impact on Kentucky's K-12 Public Schools

At the High Performance Sustainable Schools Workshop in March 2010, First Lady Jane Beshear said, "Kentucky has quickly moved from the end of the line to the front of the pack nationally in energy efficiency...it's clear that sustainable schools not only have a positive "green" impact today, but teach children how to live their lives as responsible environmental stewards." Five years ago Kentucky had no ENERGY STAR labeled schools. As of the date of this publication, 60 Kentucky schools have earned the ENERGY STAR label. In the past decade, Kentucky school districts have seen a steady increase in energy costs and have taken action to increase the efficiency of their buildings to save money and reduce carbon emissions. This special edition of Kentucky Energy Watch highlights the energy bills of Kentucky's K-12 public schools. All data are from the Kentucky Department of Education and the U.S. Department of Energy, Energy Information Administration.

School Energy Costs are Increasing

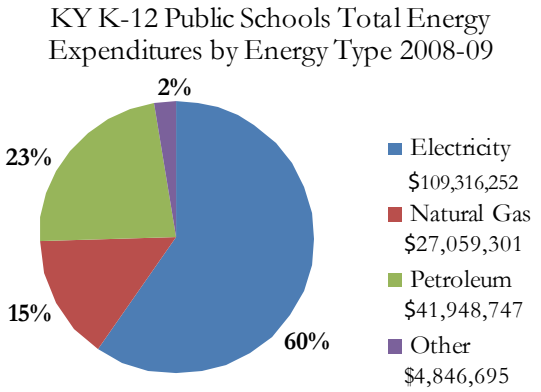
- Kentucky's K-12 public schools spent $183 million for energy during the 2008-2009 school year.
- This is $93 million more, or 104 percent higher than the energy costs for the 2000-2001 school year.
- Much of this increase results from higher energy prices and increased facility use.
- Since 2000, total annual expenditures have increased an average of 13 percent each year.





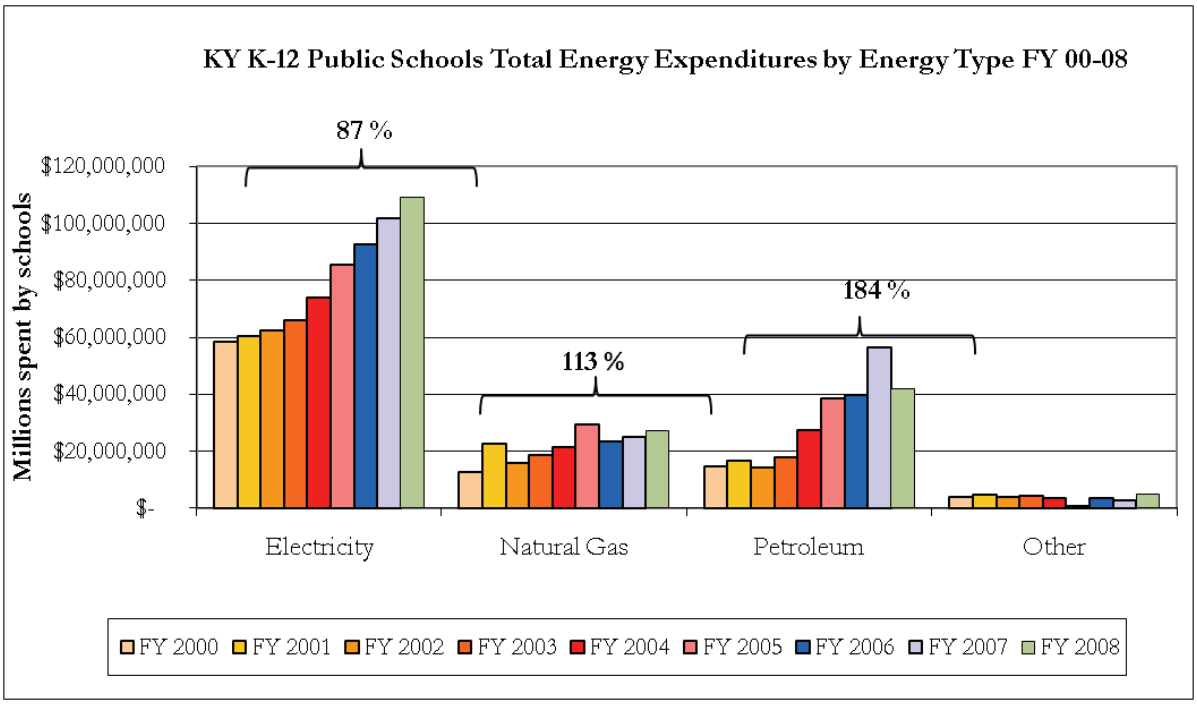
Annually, approximately 78 percent of the energy expenditures support school facilities and the remaining 22 percent pays for transportation fuels.

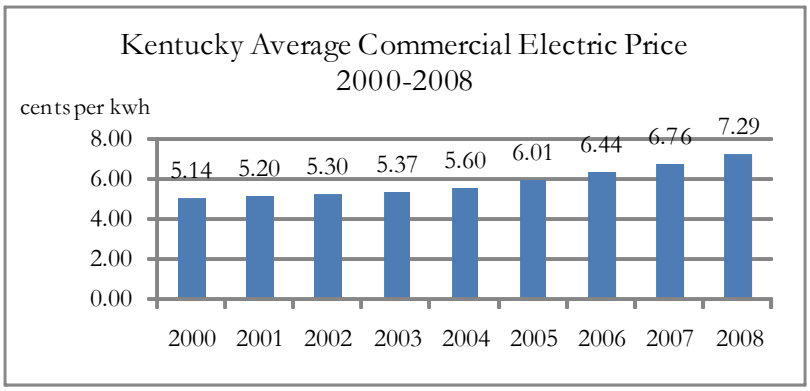
Since the 2000-2001 school year facility expenditures have increased by $66 million or 88 percent and transportation costs have increased by $27 million or more than 189 percent.



Energy expenses by type for the 2008-2009 school year are shown on the pie chart. The top three expenses are electricity (60%), petroleum (23%), and natural gas (15%).

Since the 2000-2001 school year electricity expenditures have increased by more than $50 million (87%), natural gas by more than $14 million (113%) and transportation fuel (petroleum) by more than $27 million (184%).





These trends reflect increases in Kentucky's energy prices.

Since 2000, Kentucky's commercial sector electricity prices have increased by 42 percent.

Diesel fuel prices in Kentucky have increased by 162 percent since 2001.

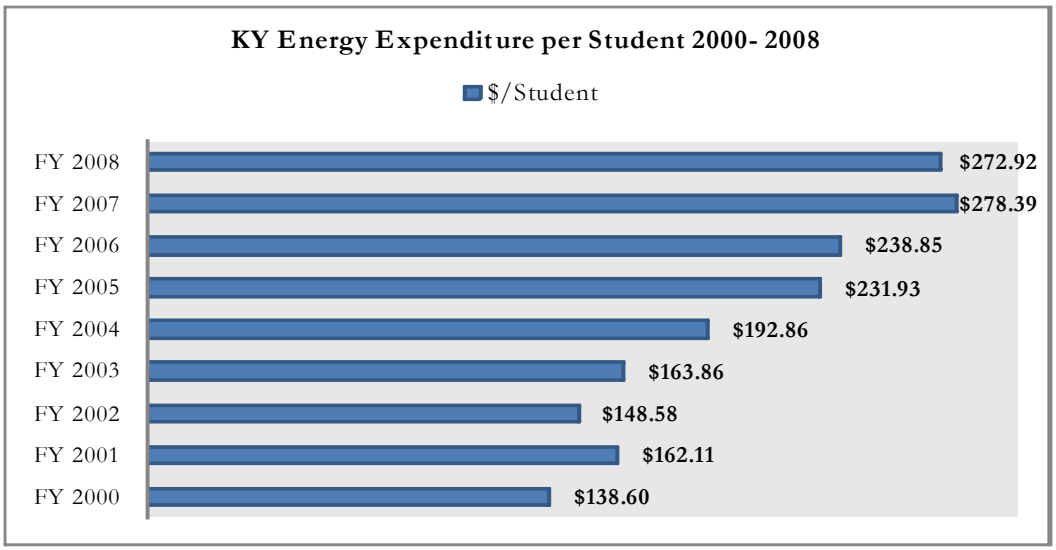
Energy Cost per Student

The Kentucky Department of Education (KDE) reporting system does not provide for recording or tracking the amount of energy used, only for the cost of energy purchased.

Because of this we are unable to compare energy consumption in actual units by dollar amount or by square foot. We know what we are paying for energy in aggregate, we just don't know how much we are buying.

Kentucky's 174 public school districts reported their 2008-2009 energy expenditures to the KDE.

- Annual total energy expenditures by Kentucky public school district range from $24 million to less than $90,000.
- Total energy expenditures for Kentucky public school districts was $183.17 million.
- The average daily attendance for Kentucky's public schools was 671,147 students for the school year.
- Dividing the total energy expenditures by the number of students results in an **average energy expense per student of $272.92.**
- Since 2000, cost per student has increased nearly 97%.



ENERGY STAR Helps Schools Lower Energy Costs

Some of Kentucky's school districts have developed strategies to better manage and reduce their energy expenditures. These strategies included building energy-efficient new schools and renovating existing school buildings to meet the ENERGY STAR standard.

ENERGY STAR is a federally sponsored program that promotes superior energy efficiency. Schools that earn the ENERGY STAR label perform better than 75% of all similar buildings nationwide.

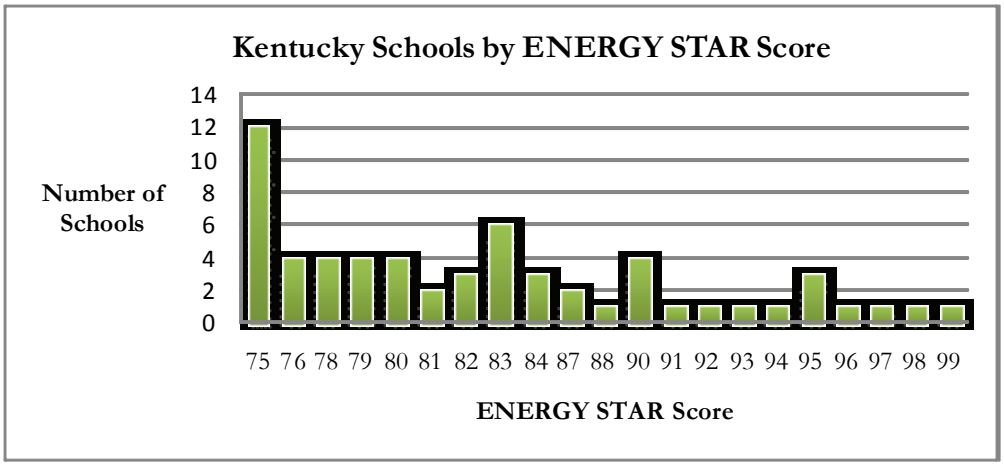
Schools qualifying for the ENERGY STAR label manage their energy use and track it on a kBtu/sq. ft./year basis.

ENERGY STAR labeled North Magoffin Elementary School in Salyersville, KY.

Things to remember…

- Schools that earn the ENERGY STAR do not have to cost more than traditionally built schools.
- Currently, there are 60 ENERGY STAR labeled schools in Kentucky.
- These schools cost significantly less to operate than conventionally built schools.

To earn the **ENERGY STAR**, a building or manufacturing plant must score in the top 25 percent, based on EPA's National Energy Performance Rating System. To determine the performance of a facility, EPA compares energy use among other, similar types of facilities on a scale of 1-100; buildings that achieve a score of 75 or higher may earn the **ENERGY STAR**..

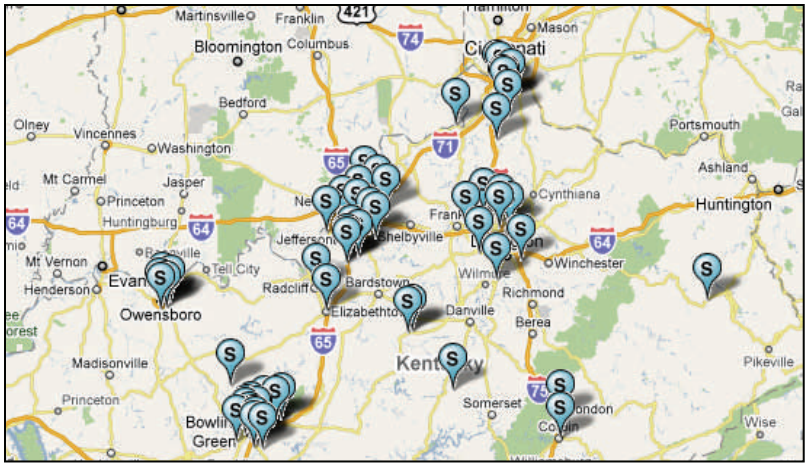


ENERGY STAR labeled school buildings can reduce energy expenditures between $20,000 and $50,000 per year for the life of the building. With several such buildings in a district and a thirty year building life span this can represent millions of dollars. This is money that can be spent on more important needs such as books, computers and teacher salaries.

The chart below lists the number of ENERGY STAR labeled public school buildings in Kentucky.

School Districts - 2010	Number of ENERGY STAR Schools
Warren County Public Schools	13
Jefferson County Public Schools	7
Kenton County School District	7
Daviess County Public Schools	6
Bullitt County Public Schools	5
Scott County Schools	4
Hardin County Schools	2
Marion County Schools	2
Oldham County Schools	2
Bowling Green Independent Schools	1
Butler County Schools	1
Casey County Schools	1
Corbin Independent Schools	1
Fayette County Public Schools	1
Franklin Co. Board of Education	1
Gallatin County Schools	1
Grant County Board of Education	1
Jessamine Co. Board of Education	1
Laurel County Schools	1
Magoffin County Schools	1
Woodford County Board of Education	1
Total	**60**

The map below displays locations of ENERGY STAR labeled schools in Kentucky.



Source: www.energystar.gov

ENERGY STAR labeled Freedom Elementary School in Bullitt County.

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