

# Let's Save Energy



## School Energy Managers Project



July 2014

## Federal Greenhouse Gas Regulations

### *... What will be the impacts to school energy budget?*

School administrators are undoubtedly concerned about the impacts on their budgets of rising energy costs. Kentucky's electricity rates have increased by 70 percent since 2000. With the rising energy costs, energy efficiency programs become ever more valuable. Kentucky schools have been very successful implementing efficiency programs, and they have the support of the Kentucky General Assembly and state and federal partners.

Although energy costs have been rising, Kentucky is still blessed with electricity rates among the lowest in the nation. The question many people have is will that scenario change as a result of proposed federal greenhouse gas regulations, especially regulations affecting existing power plants. None of us has a definitive answer on this question, but there are many factors we are looking at to help us better understand the implications. It is also important to keep in mind that both market forces and regulatory actions are creating changes in Kentucky's energy landscape.



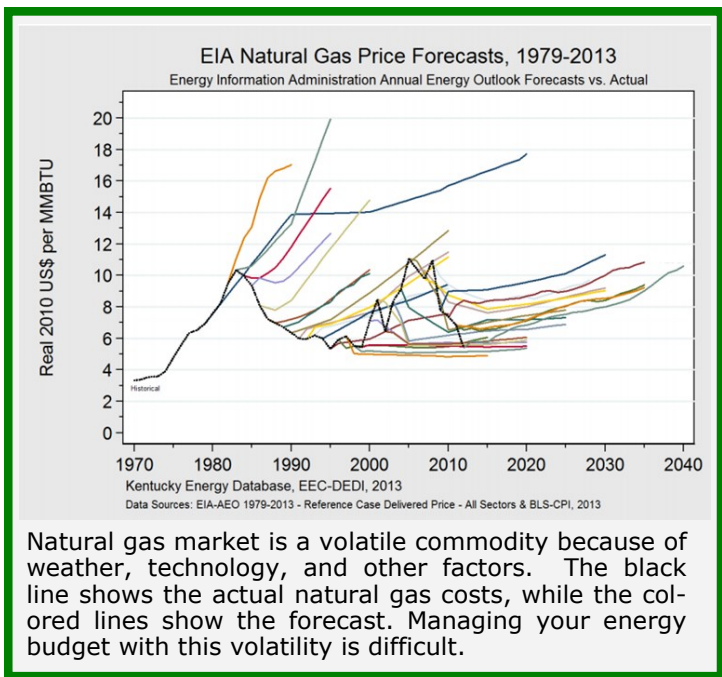
In 2011, KU announced they would be retiring Green River Power Station in 2016. While this was not due to Green House Gas regulations, it was in anticipation of new, stricter federal Environmental Protection Agency regulations.

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In fact, even in the absence of greenhouse gas regulations, Kentucky's electricity generation portfolio is shifting from less reliance on coal. By the year 2020, the amount of electricity generated from coal in Kentucky will fall from more than 93 percent to 78 percent as utilities make the decision to close older coal units and replace much of the lost capacity with natural gas. Again, this shift is not taking place as a result of greenhouse gas regulations. However, will the recently announced proposed regulations limiting carbon dioxide from the *existing* fossil generation fleet accelerate this trend? Our initial reading of the voluminous proposed rule (it's more than a thousand pages including technical documents) is that it will not force closure of existing coal units. That said, with a coal fleet that has an average age of 43 years, many units will inevitably be retired in the coming years, and if EPA's proposed regulation for *new* fossil electric generating units is ultimately implemented, the replaced capacity will not be coal. Likely, it will be natural gas in Kentucky, where we have some self-imposed and natural barriers to diversification.

We are concerned that this transition to lower-emission sources will only be a trade-off be-



tween one type of carbon fuel (coal) for another (natural gas). The potential for natural gas price volatility will add a new dimension and risk to Kentucky's electricity market.

During EPA's stakeholder process on the development of the proposed existing source rule, we had stressed in conversations with the federal agency that unique characteristics of each state should be accounted for, and apparently they listened to us and other states on this issue. That is not to say that meeting the emissions targets will not be a challenge for us, but the proposed rule at least acknowledges that we are a heavy manufacturing state and that

low-cost energy is crucial to our economy. Another important aspect of the proposal is that, while it sets firm requirements for states, it provides multiple pathways for states to comply. **For example, energy efficiency, an area where we have had a great deal of success, especially in our K-12 schools, can play a key role in compliance with the existing source rule.**

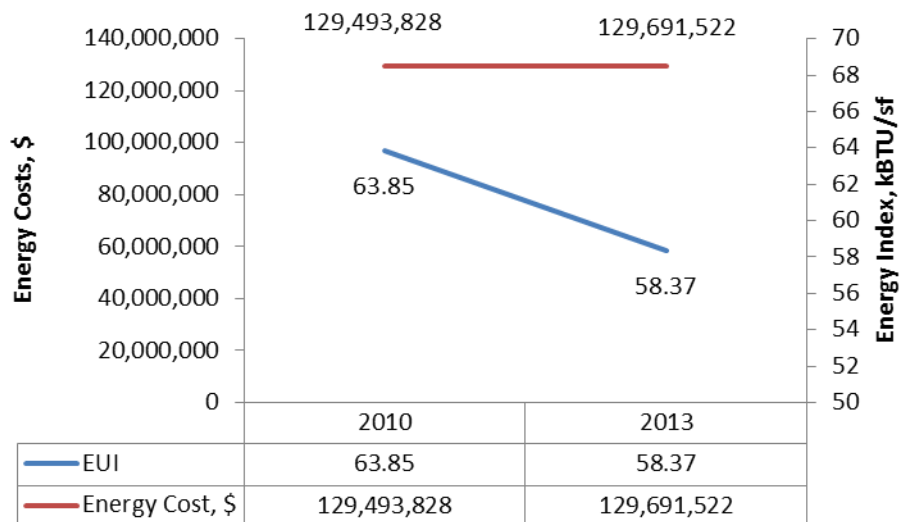
Ultimately, we will have to put together a plan that can be approved by the EPA and the legislature. But, in the meantime, it's important to remember that this is a *proposed* rule that could be changed as a result of public comments. There will also likely be legal challenges from all sides, and these could delay its implementation. However, as the agency responsible for creating a compliance plan, we are looking at the proposed rule in depth, examining where we might want to make comments or ask for clarification, and engaging with stakeholders to help understand the rule's implications for all Kentuckians. We will also undergo our own economic modeling within the Energy and Environment Cabinet to help us determine the impact of EPA's greenhouse gas regulations, and other market and regulatory forces.

**Regardless of the outcome of the proposed federal greenhouse gas regulations, we should remember the best source of energy we use, will continue to be that which we didn't have to use, because we were energy efficient.**



*Since FY 2010, energy efficiency in Kentucky School Districts has increased by nearly 10%, while utility costs have remained relatively flat, in spite of increasing utility rates.*

### Energy Cost and Efficiency over Time



The U.S. Environmental Protection Agency released a proposed rule limiting greenhouse gas emissions from new fossil generating units on September 20, 2013, under its Clean Air Act Section 111(b) authority. On June 2, 2014, the EPA released a rule limiting greenhouse gas emissions from the existing fossil generating fleet under its Clean Air Act Section 111(d) authority. Many people simply refer to the rules as the 111(b) and 111(d) rules.

The 111(d) existing source rule is now in a 120-day public comment period that will end Oct. 16. The EPA will propose the final rule in June 2015, and states then have a year to develop their individual compliance plans.