

Missouri Fuels for Schools

Missouri Schools Fire Up Savings with Woody Biomass Heating Systems

The Challenge

The cost of fossil fuel for school heating systems continues to rise in certain parts of the country. At the same time, many school districts are facing declining budgets and have been forced to cut back on programs or personnel. School districts need an alternative heating system that can heat facilities reliably and more economically.

Rural communities also need stable employment opportunities. Forest-based industries are major employers in rural areas. However, they often face tight profit margins and are not globally competitive during lean economic times. To spur job growth, forest industries need a new product market that is consistent and sustainable.

The third piece of this puzzle involves landowners. It costs landowners more money to remove small-diameter and low-value trees than they receive in return. Landowners need a profitable market for these kinds of wood products so they have an incentive to remove this material, which will also make their forest healthier.

The Solution

The Northeastern Area State and Private Forestry provided American Recovery and Reinvestment Act funding to the Missouri Department of Conservation's Fuels for Schools program. This program helps schools convert their heating systems to use woody biomass. A Woody Biomass Technical Assistance team from the Forest Service's Wood Education and Resource Center evaluated and made recommendations on the applications from 13 school districts. Six school districts were chosen to receive funding to install woody biomass heating systems, which will dramatically reduce heating costs over the equipment's 20-year life expectancy.

Installing the heating systems created 30 permanent jobs in rural southern Missouri. The six schools combined will use an estimated 1,474 tons of woody biomass and potentially reduce their heating costs by \$193,000 annually. Local

*"Many are recognizing that the forests of the Northeast and Midwest are nationally significant "strategic resources." —
Northeastern Area Woody Biomass
Business Plan*



The Eminence High School band plays at the ribbon cutting ceremony for the new heating plant at Eminence Elementary School.

suppliers will provide the woody biomass, which will create additional markets for small-diameter and low-value wood. With these new markets, landowners will also have economic incentives to remove low-quality woody biomass from their forests.

Resulting Benefits

Participating school districts will have substantially lower fuel costs. A new market for low-value wood will create jobs in this rural area of Missouri. Removing low-quality woody material from the woods also improves forest health and lowers forest fire hazard. Schools can develop new school curricula about using renewable energy and demonstrate how to measure energy use and energy system efficiency using performance monitoring systems that were installed at each site.

Sharing Success

- School districts will share information about cost savings with other school administrators.
- Missouri and several other States have Web sites about Fuels to Schools programs:

<http://missourifuelsforschools.totorcd.org/>

<http://www.biomasscenter.org/services/programs/vermont-fuels-for-schools-vffs.html>

<http://www.pafuelsforschools.psu.edu/>



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