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Wood pellet heating a growing sector

Written by Gerry Tuoti, Patriot Statehouse Bureau

Wood pellet-burners may be few, but their numbers are growing.

"It's going to be one of the big new heating sectors in the near future," said Bram Claeys, the state Department of Energy Resources' deputy director for renewable and alternative energy development.

Made from compressed pieces of wood and sawdust, pellets can be burned in either a specialized woodstove or boiler system to heat homes. Northern New England, according to the Vermont-based Biomass Energy Resource Center, leads the nation in wood pellet use, and Massachusetts may be an emerging market for the biomass fuel. Pellets may be made from trees, waste from paper mills, and from discarded wood scraps left over from construction and furniture-making.

"In the 2008 time period, when oil went to \$4 a gallon, that accelerated the growth," said Adam Sherman, manager of biomass at the BERC.

Worldwide wood pellet production doubled from 2006 to 2010, according to the International Energy Agency.

The BERC conducted an analysis using average fuel prices to find that it costs roughly \$20 to produce 1 million BTUs of heat using wood pellets compared to \$35 to produce the same amount of heat using oil and \$40 using propane.

The regions where interest in wood pellet fuel is the strongest are often those where oil is the dominant home heating source. Wood pellets, he said, are typically more cost effective than heating oil, the type of oil typically used in home heating systems.

"The Northeast accounts for over 80 percent of the nation's consumption of ... heating oil," Sherman said.

In Massachusetts, approximately 35 percent of homes have oil heat, according to the state Office of Energy and Environmental Affairs.

"Over a longer time period, we've been seeing a dramatic increase in regional demand for wood pellets," Sherman said. "The market was plugging along and it was kind of a fringe thing in the '90s through the early 2000s, then around 2005, the pace started to pick up."

A 2010 census found roughly 2 percent of Massachusetts homes heating with wood, compared to 15 percent in Vermont, the state that most heavily relies on biomass heating fuel.









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<u>SENT TO LSU AGCENTER/LOUISIANA FOREST PRODUCTS DEVELOPMENT CENTER - FOREST SECTOR / FORESTY PRODUCTS INTEREST GROUP</u> While wood pellets represent a small overall share of heating fuel in Massachusetts, the state government sees the potential for significant growth.

Massachusetts, Claeys said, is developing regulations that would require wood pellet suppliers to use wood sources that are certified as sustainable.

Some in the wood industry, particularly in Europe, have raised concerns that if wood biomass fuel becomes too widespread, sustainability could be an issue in the future.

Massachusetts is developing a program that would allow homeowners who use wood pellet boiler systems to obtain and sell renewable energy credits.

"We're looking to incentivize alternatives to those traditional heating options in order to diversify the energy portfolio, reduce impacts to the environment and reduce greenhouse emissions and provide Massachusetts families and businesses with cost savings opportunities," he said. "Biomass heating is something we're looking at in particular." The Massachusetts Clean Energy Center offers rebates for residential wood pellet heating and other renewable energy systems.

Another state program recently provided grant funding to the Berkshire and Ashburnham-Westminster school districts to convert to wood pellet heat.

One of the fastest growing parts of the industry, analysts say, has been in the use of wood pellet boilers, which can heat a larger area than a stove. The boilers look similar to an oil furnace and distribute heat throughout a home the way an oil system would.

A handful of distribution companies use specialized trucks and hoses to deliver wood pellets to homes.

Areas without access to natural gas heat could experience the most widespread growth in the use of wood pellets, Sherman said. In Massachusetts, that often corresponds to rural and suburban areas.

"The driver behind that growth rate is the convergence of three critical factors," he said. "In New England, we're in fo rested areas; we have long, cold winters; and we have a regionally high level of dependence on expensive imported fossil heating fuels."

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