Environmental Components

Fueling the Cause for Wood Energy

What is your wood waste worth?

by Charlie Cary, Biomass Combustion Systems

Wood energy is the truss industry's best kept economic secret. A truss company's success already rests on wood's structural value as a strong, reliable fiber, but what is not always recognized is that wood is also a powerful and valuable contributor to British thermal unit (BTU) production. On a daily basis, the industry produces high quality wood products resulting in an abundance of wood residue and increasingly, companies in the industry have recognized the value of their wood residue by selling it as mulch or animal bedding. However, this same wood residue as heating fuel has a quantifiable and often higher dollar value than selling it for mulch. In these times of fluctuating fossil fuel prices, spurred by questionable supply and world politics, wood-based industries are uniquely positioned to create a self-sustainable, low cost fuel alternative for their own operations, but they also have the opportunity to create new business ventures by selling their wood residue to other industries looking to reduce fuel costs. The challenge within the industry is to overcome misconceptions about burning wood for fuel and to elevate the discussion of wood's BTU production advantages. The message is straight forward—wood has economic value beyond the finished truss product.

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By far, the most compelling reason to use wood for fuel is because there is real money to be saved and made. Dry wood residue (ten percent moisture content) valued at $35/ton will produce a million BTUs for about $3.27. Green wood residue valued $25/ton will produce a million BTUs for about $3.24. Considering that fossil fuel costs in most parts of the country are now over $9.00 a million BTU, any company which has wood residue can generate significant energy savings by burning this residue for heat in the winter. For example, if a manufacturer is paying $10,000 a year to heat 10,000 sq. ft. and is getting $3.27/million BTU by selling residue for $25/ton while burning gas for $9/million, burning the wood instead of selling it will save him 65 percent of his fuel cost (3.27/9.0). For this hypothetical case, the net cost for heating will be $3,600, not $10,000. If your business generates wood residue and you are not burning wood for BTU production, please take a minute and think about what is stopping you. Chances are your concerns fall into the following areas: labor requirements, safety concerns or insurance barriers.

Encouraging Wood Fuel Use by Overcoming Misconceptions

The key to encouraging wood energy use is to acknowledge and overcome some common misconceptions. These concerns need to be addressed head on as they are powerful, but frequently overstated influencers. Additional labor cost concerns can be offset by the overwhelming cost savings gained by using wood for fuel. As a practical matter, most wood scraps need to be handled, mulched or transported from the operations area anyway, so moving it to a furnace may not require much additional labor focus. Whether large multi-location operations or a single plant, companies using wood furnaces are often quick to buy additional systems because they have already experienced the freedom of fuel independence, lack of gas or oil bills and the satisfaction of "recycling" their wood waste in an environmentally sound manner.

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at a glance

- ❑ The wood residue produced by the industry has monetary value.
- ❑ Dry wood residue can produce one million BTUs for about one-third the cost of one million BTUs of fossil fuel.
- ❑ When misconceptions about wood energy are overcome, the result is decreased fuel costs and additional revenue sources for manufacturers.

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Burning wood in a wood-based facility naturally creates a perception that there may be a safety issue. As with any piece of capital equipment brought into a plant, sound business practice makes it essential to do your homework when selecting a combustion system. To start, federal regulations monitor safety and emissions control. Wood energy users must be diligent to ensure they are purchasing a system from a company that knows wood energy, has a proven record in the marketplace and complies with the necessary Underwriters Laboratories or EPA standards and third party certification thereof. Unfortunately, there are wood burning systems in the market today that, due to their excessive smoking and highly visible outdoor residential locations, have reinforced misconceptions that wood burning is unclean and polluting. In fact, the opposite is true. When an efficient, low emission furnace burns wood, it not only keeps emissions down, but also recycles the wood's carbon with greenhouse gas-free burning.

Lack of understanding in wood energy's safety record is sometimes evident by an insurance company's occasional resistance to insure. Many small individual agents or agencies have not been sufficiently exposed to wood burning, so their first reaction can be to resist its use. Again, education on an individual furnace company's performance history, safety record and National Standard compliance permits insurance companies to insure the plant. This issue, like all perceptional barriers to using wood for fuel, will be minimized as more companies in wood industries increasingly convert to wood fuel.

It is surprising that wood burning isn't more prevalent today because the potential for lucrative local wood fuel expansion is only limited by the amount of scrap produced. Once individual heating needs are satisfied, truss plants could use their excess wood waste to create local markets for BTU production. Throughout the country, small and large company's budgets are suffering from the impact of increasing fuel prices. If you took a survey of businesses in a 30-mile radius of your plant, you most likely will find these businesses would jump at the chance for a low cost, clean burning heating alternative. Selling your wood residue to these local businesses can create a steady revenue stream and increase dependence on wood energy, which ultimately increases the value of your wood.

Wood-based industries need to get the word out about wood energy's benefits for the country and for the industry. At the state and federal levels, money is currently focused on wood electricity generation and wood-based liquid fuels. Wood industry lobbying efforts do exist, but are currently focused on large scale centralized BTU production, while smaller, local opportunities (that can be fostered by truss companies) are secondary. The irony is that wood BTU production does not need the subsidy to be cost effective, but perhaps a temporary subsidy would shine a light on the possibilities, and get people thinking through the advantages of wood fuel.

By eliminating the "myths" and misconceptions about wood energy, the truss industry can empower individual companies to capitalize on the economic value of their wood fuel. Safe, clean burning wood combustion systems are available for small and large heating needs. In times like these when operating budgets are under pressure, wood energy is a sure way to gain some control over costs and real dollar savings. SBC

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