



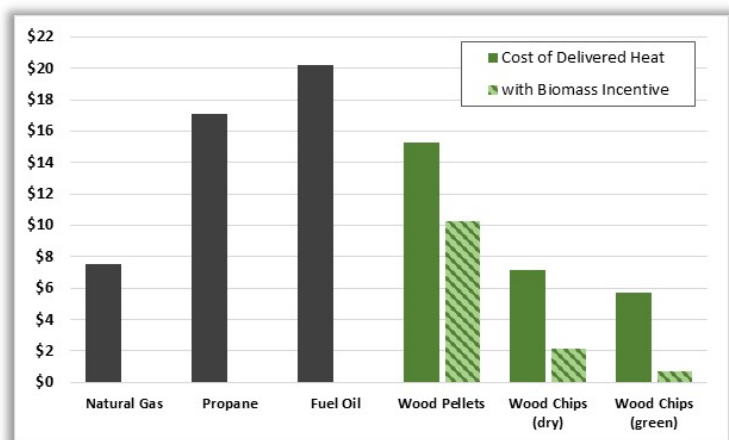
Dry Wood Chips

A Potential Market for Shavings Mills

Woody biomass energy offers a new market for Shavings Mills supplying animal bedding. Many mills likely already have the necessary feedstocks and chipping, screening, and drying equipment required to produce a dry wood chip suitable for use in commercially available dry wood chip boilers.

Biomass Thermal Production Incentive

Minnesota incentivizes the use of woody biomass as a heating fuel through its Biomass Thermal Production Incentive program. This program supports wood markets by paying eligible facilities within the state \$5 for each mmBtu of heat generated from wood resources when supplied to a building or process, significantly reducing the cost of heating. For more information please visit <http://www.mda.state.mn.us/grants/>.



Natural gas: \$0.60/therm, Propane: \$1.25/gallon, Fuel Oil: \$2.25/gallon, Wood Pellets: \$200/ton, Dry Wood Chips: \$80/ton, Green Wood Chips: \$40/ton

Energy Costs

Energy derived from woody biomass can be very competitive with most fossil fuel alternatives, particularly in regions without reliable access to natural gas. With the addition of the Minnesota's incentive for biomass, dry wood chips delivered at a price of \$60 - \$100 per ton can provide heat at a fraction of the cost of conventional fuels.

Boiler Technologies

Dry wood chips are a great alternative to wood pellets for facilities that are not large enough to warrant a green chip boiler. Commercially available dry wood chip boiler units are less expensive than green chip boilers and the infrastructure required to handle dry chips can be less expensive as well. Many existing large pellet boilers can be adapted to burn dry chips as well.

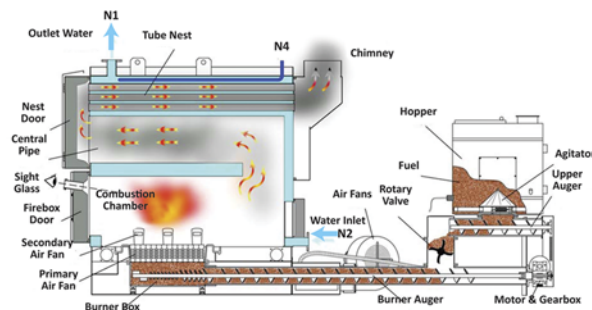


Image courtesy of Woodmaster

Required Wood Chip Specs

- ◆ Clean, low-bark feedstock
- ◆ Screened to 1-1/4" minus
- ◆ Moisture less than 25%

