

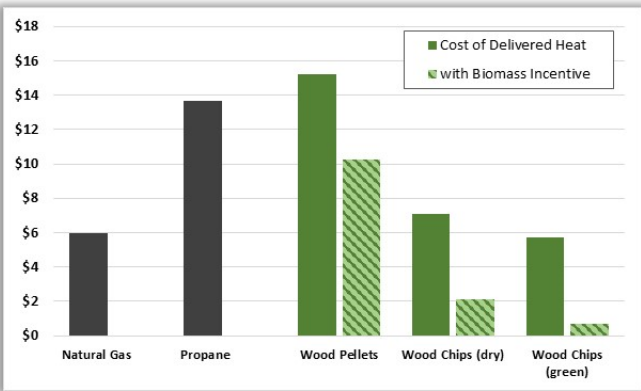


Biomass Energy Energy Savings for Poultry Farms

With a year-round demand for heat, relatively high energy use, and high heating costs, particularly in areas without access to natural gas, Minnesota Poultry farms have the potential to lower energy costs with biomass heating systems. Modern biomass boiler technology burns wood cleanly and efficiently, providing heat with a local, renewable resource.

Wood Chip Supplier

Most poultry farms likely already have a potential wood fuel supplier in their bedding supplier. Mills that produce animal bedding and wood aggregators typically have the equipment and transportation necessary to provide a wood chip suitable for use in a biomass boiler.



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

Fuel Cost Comparison

Heat derived from woody biomass can be very competitive with most fossil fuel alternatives, particularly in regions without reliable access to natural gas. Minnesota also incentivizes the use of biomass through its Biomass Thermal Production Incentive program, which pays eligible facilities \$5/mmBtu of heat generated from wood resources. For more information visit <http://www.mda.state.mn.us/grants>.

Barn Environment Benefits

Moisture control is a major component poultry barn management. By replacing direct-fired gas heaters with an indirect biomass boiler system, less water is added to the barn environment. A farm burning 50,000 gallons of propane, for example, will add over 40,000 gallons of water over the course of the year.

With advances in humidity sensor and PLC controller technologies, and low energy costs from biomass, barns can be optimized for temperature and humidity without worry of running up heating costs, while improving bird health and performance.

