

Wood Energy Early Adopters

Chadron State College
Chadron, Nebraska

Year Converted: 1991

Woodchip Fuel: 9,000 tons of ponderosa pine, generated from forest thinning and wildfire fuels management

Energy Use: Heat 1.1 million square feet and cool 500,000 square feet of campus buildings

Arbor Day Lied Lodge
and Conference Center
Nebraska City, Nebraska

Year Converted: 1995

Woodchip Fuel: 3,500 tons of cottonwood, generated from sawmill waste from pallet and shipping material manufacturer

Energy Use: Heat and cool 500,000 square feet of building space and provide process steam for pool heating and laundry services

City of South Sioux City
South Sioux City, Nebraska

Year Converted: 2016

Woodchip fuel: 500 tons of community wood waste, generated from tree care and community forest management activities

Energy Use: Generate 50 kilowatts of electricity to operate the City's water treatment facility and provide excess electricity to the power grid.

Potential Candidates for Wood Energy Systems

- Agriculture/livestock operations
- Sawmills & wood product businesses
- Manufacturing facilities
- Warehouses
- Correctional institutions
- Nursery greenhouses
- Municipal buildings
- Hospitals
- Schools
- Colleges/universities



For more information about the Nebraska Forest Service, Forest Products Utilization program or Trees Heat Nebraska, contact:

Nebraska Forest Service
Forest Products Utilization
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Nebraska
Forest
Service



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Nebraska Forest Service

Trees Heat Nebraska



Under the Forest Products Utilization program, Trees Heat Nebraska is the Nebraska Forest Service's technical and financial assistance initiative dedicated to wood energy system development. Increasing energy costs across the country are negatively impacting rural communities. Woody biomass is an alternative renewable energy option that may reduce these costs.

Wood energy for thermal heating, cooling and/or electricity generation has the potential to provide significant utility cost savings, generate new rural businesses and jobs, and utilize woody residue resulting from forest management and wood products processing activities.

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Technical Assistance

NFS Forest Products Utilization staff are available to assist interested parties investigate and establish wood energy systems. Collaborating closely with the facility, NFS can offer a variety of assistance opportunities.

Pre-feasibility Economic Analysis

Using the facility's previous three years' utility expenses, an economic analysis can be completed to identify the facility's potential annual utility savings with wood energy use.

Wood Resource Analysis

Working with forest resource and wood residue inventory information, NFS can assist with determining the availability of wood fuel within the project region.

Fuel Supply Chain Development

Not only does NFS have years of experience working with Nebraska's forest products industry, we also maintain directories containing information regarding businesses in Nebraska with the potential to provide wood fuel for an energy system.

Project Partnership Development

There are many opportunities to partner with agencies and organizations to establish a wood energy system through additional technical or financial assistance. NFS can help facilitate those vital connections between these organizations and interested facilities.

Financial Assistance

Trees Heat Nebraska consists of two financial assistance categories related to establishing woody biomass energy systems; completing engineering feasibility studies and the purchase/installation of systems. These two categories are designed to be flexible in order to provide assistance to biomass energy projects in the initial planning stage through project completion. Single-family residences are not eligible for financial assistance.

Eligible Applicants: Public, private, for-profit and not-for-profit organizations

Engineering Feasibility Studies

These technical studies provide basic system engineering and design, technology and equipment recommendations, construction and renovation needs and a total project cost estimate. NFS provides assistance with the completion of feasibility studies in one of two ways; requesting assistance from the US Forest Service to provide engineering expertise or providing cost-share grants to fund contracted engineering work using a qualified engineering firm.

Wood Energy System Funding

Grant funds are available to qualified facilities for contracted services for the final design, construction and installation of wood-fueled energy systems, including the purchase of the system and associated equipment. Prior to funding approval, facilities are required to have completed pre-construction project analysis including an economic cost analysis, engineering feasibility study and fuel supply evaluation.

Cost-share: 50 percent of eligible costs, up to an annual maximum. Funding is provided as a reimbursement after project completion. For more information, contact NFS at 402-472-2944.

