



## Biomass Program

Alaska's most important biomass fuels are wood, sawmill wastes, fish byproducts, and municipal waste. AEA's biomass energy program focuses on developing wood-fired systems that displace fuel oil for heating public facilities, demonstrating fish oil biodiesel performance, and recovering energy from municipal solid waste.

More than 100,000 cords per year are used for residential space heating statewide. Closure of the major pulp mills in Sitka and Ketchikan in the 1990s brought an end to large-scale wood-fired power generation in Alaska; however, the volatility of fossil-fuel pricing has raised interest in using sawdust and wood wastes as fuel for lumber drying, space heating, and small-scale power production.

Demonstration projects like the Sealaska Corporation's large-scale pellet boiler at its Juneau headquarters and Tok School's chip-fired boiler have proven that biomass can significantly reduce the cost of energy in a community and has led to the start-up of other wood-fired boilers in Coffman Cove, Craig, Gulkana, Elim, Thorne Bay, Haines, and Tanana.

Interest in manufacturing wood pellets continues to rise. Currently, there are both small and large-scaled plants operating in Alaska. The largest facility, Superior Pellets, is located in North Pole and is capable of producing an estimated 30,000 tons of pellets per year.

**Current Status:** Through AEA's biomass program, 14 wood heating systems are operational and reducing heating costs in Alaskan communities. The Renewable Energy Grant Fund has funded 53 biomass projects. Currently there are 11 biomass systems in design and construction. Numerous projects are in the development phase with 5 prefeasibility studies just completed through the Alaska Wood Energy Development Task Group. AEA was just awarded a USDA grant to develop a best practices handbook for Alaska schools to implements greenhouses in conjunction with biomass heating systems.

### Ongoing Partnerships:

Through an MOU with 17 State, Federal, and Non-governmental organizations, AEA and the U.S. Forest Service have funded more than 130 pre-feasibility studies since 2005. These low-cost pre-feasibility studies are the catalyst that led to the development of many of the Renewable Energy Grant Fund applications and all of the operational biomass systems. Additional pre-feasibility studies are planned for 2016.

Alaska Energy Authority was one of five states to be awarded a State Wood Energy Team federal grant. This award, along with matching State of Alaska funds, will allow for the continuation of pre-feasibility studies and will provide technical support, education, and project development for biomass heating systems. AEA is also part of the Pacific Regional Biomass Energy Partnership, a state and federally supported effort that encourages bioenergy development in Alaska, Hawaii, Idaho, Montana, Oregon and Washington.

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TO REDUCE THE COST  
OF ENERGY IN ALASKA**  
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