



### **What is the Pennsylvania Fuels for Schools & Communities Program?**

The FFSC is a statewide energy-use initiative promoting the use of local renewable biomass to provide reliable energy for Pennsylvania schools, businesses, and communities. FFSC is open to all individuals, businesses, community groups, educational institutions, and governmental organizations.

**We provide information and support** that enables Pennsylvania schools, businesses, and communities to effectively see when biomass energy is a good option, and to help them take advantage of opportunities as they arise.

#### **Get Involved!**

- Participate in FFSC meetings and activities
- Install a biomass system in your school, business, or other facility
- Host an educational event in your area

#### **Visit the group's website**

([www.pafuelsforschools.psu.edu](http://www.pafuelsforschools.psu.edu)) for the current list of events, case studies and contacts.

### **PA FUELS FOR SCHOOLS & COMMUNITIES INITIATIVE**

Participants have included:

AFS Energy Systems  
Agripower, Inc.  
Bradford/Sullivan Forest Landowners Association  
Center Point Engineering  
Cycle4Ward Inc.  
Dillon Floral Corporation  
Mountain View School District  
PA Association of School Administrators  
PA Hardwoods Development Council  
PA Higher Educational Facilities Authority  
PA School Boards Association  
PA Department of Conservation & Natural Resources  
PA Department of Agriculture  
PA Department of Environmental Protection  
PA Forest Products Association  
Penn State Extension  
Penn TAP  
RC&D Councils of PA  
Regional Economic Development Districts Initiative  
Resource Professionals Group  
Southern Alleghenies Conservancy  
Sustainable Forestry Initiative of PA  
USDA /Natural Resource Conservation Service  
USDA/Rural Development  
USDA US Forest Service

**Pennsylvania Fuels for**

# **SCHOOLS & COMMUNITIES (FFSC)**

A RENEWABLE BIOENERGY INITIATIVE  
PROMOTING RENEWABLE BIOENERGY  
FOR PENNSYLVANIA SCHOOLS,  
COMMUNITIES AND BUSINESSES



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## WHY BIOMASS ENERGY? AND WHY NOW?

With environmental concerns and fuel costs a continuing issue, many Americans are looking for ways to reduce their dependence on fossil fuels and replace them with renewable energy sources. In Pennsylvania, renewable energy sources include wood and dedicated agricultural energy crops, also known as biomass.

## BETTER FUEL ALTERNATIVES

### Energy from Wood

**Wood for energy can come from a number of sources, such as:**

- 1) timber stand improvement activities,
- 2) low value wood that is part of timber harvest,
- 3) residues from wood manufacturing,
- 4) dedicated energy crops, and
- 5) urban or construction site wood.

### Energy from Biomass

**Large quantities of biomass can be grown specifically for energy purposes on PA farms.**

High yielding, native grasses and short rotation woody crops (SRWC) are potential energy crops for farmers.



## Operation

**Biomass systems can be designed to meet the needs of the user and the available fuel sources.** Biomass systems can use green, dry or blended fuels. System maintenance varies from a half hour to one hour per day, depending on the level of automation. Biomass systems use computerized delivery systems to optimize performance and control.

## Environmental Benefits

**Biomass is a renewable resource that recycles carbon and reduces greenhouse gases, which are considered primary causes of climate change.**

When timber is harvested from forests, secondary waste wood can be sustainably removed and converted to wood chips to be used as an energy source. Some waste wood is left behind for ground cover and habitat as the forest regenerates. Care is taken to prevent over-harvesting and maintain forestlands as a renewable resource.

Growing native grasslands for energy can return many benefits to the environment. They protect the integrity of our soil and water resources for future generations, while providing high quality habitat to wildlife.

Modern biomass burners are clean burning and can meet or exceed strictest air emission standards.



## Economics

**As a locally produced fuel, wood chips are more economical to burn than fossil fuels.** Wood chips at \$40 per ton are equivalent to fuel oil at \$0.80 per gallon. Collectively, wood fired systems can be part of the support structure for local economies through jobs and cost savings.

## Funding Sources

Several sources of funding assistance exist for biomass energy systems in Pennsylvania for schools, government and community organizations, greenhouses or other businesses. Both state and federal programs have grant and loan opportunities available periodically.

### For example:

- The Pennsylvania Dept. of Environmental Protection's PA Energy Development Authority grant program (PEDA)
- The Dept. of Community and Economic Development's (DCED) Alternative and Clean Energy (ACE) program
- The USDA Rural Development's Rural Energy for America Program (REAP)
- Pennsylvania's Sustainable Energy Funds provide loans and grants.

