Woody Biomass For Energy

A Brief Inventory of Educational Resources of Interest to Conservation Districts

"Biomass Ambassadors Guide"
University of Florida, 2007
http://www.interfacesouth.org/woodybiomass/
This guide explains how to determine community receptiveness to using wood for energy and how to promote informed discussion about woody biomass. The guide contains fact sheets on a range of topics including basic overview information, economics, environmental concerns, and policy; case studies of existing wood-to-energy facilities; and community economic profiles illustrating the supply and cost of woody biomass in selected counties, as well as the potential economic impacts of wood-to-energy facilities. In addition, the Guide contains presentation slides and notes that can be adapted and used in outreach activities, a list of additional resources, and more. The guide also contains information on creating community forums to educate and engage the public in discussions about using wood for energy without advocating for a particular outcome.

"Biomass Energy II"
Temperate Forest Foundation, 2008
http://www.forestinfo.org/Products/eco-links/16-3BiomassEnergyII.pdf
Succinct overview of role of biomass in renewable energy production, the why's of using biomass for energy, the linkage to forest fires and forest health, along with challenges and constraints.

"Biomass Feedstocks For A Bioenergy and Bio-Products Industry: The Technical Feasibility of a Billion-Ton Annual Supply"
U.S. DOE & USDA. 2005
http://www1.eere.energy.gov/biomass/pdfs/final_billionton_vision_report2.pdf
Publication jointly developed and produced by U.S. Dept. of Energy & Dept. of Agriculture. This report is an assessment of the capability of the land resources of the U.S. to produce a sustainable supply of biomass sufficient to displace 30 percent or more of the country's present petroleum consumption – the goal set by the Advisory Committee in their vision for biomass technologies. Accomplishing this goal would require approximately 1 billion dry tons of biomass feedstock per year. The study found over 1.3 billion dry tons per year of biomass potential — enough to produce biofuels to meet more than one-third of the current demand for transportation fuels. The report shows that about 368 million dry tons of sustainably removable biomass could be produced on forestlands, and about 998 million dry tons could come from agricultural lands.

"Fuels for Schools"
USDA Forest Service. 2006
http://www.fuelsforschools.info
This program has it's origins with the Fuels for Schools program in Vermont. It is designed to promote and encourage the use of wood biomass as a renewable, natural resource to provide a clean, readily available energy source suitable for heat and power generation in public and private buildings, including schools. Objectives include using wood to replace higher cost energy sources such as fuel oil and natural gas and to facilitate the removal of hazardous fuels from our forests by assisting in the development of viable commercial uses of removed material.

"The Hidden Treasure"
National Association of Conservation Districts, 2007
http://www.nacdnet.org/education/hiddentreasure/
"The Hidden Treasure" is an educational comic book that shows young people and families how woody biomass from our nation's woodlands can provide a wealth of products and energy resources. The book was developed by NACD through a cooperative agreement with the United States Department of the Interior and the Forest Service of the United States Department of Agriculture. The comic book presents messages that are closely tied to the goals and objectives of the Forest Service's National Fire Plan. The Hidden Treasure provides an engaging and educational story for children in late elementary to middle school to help them understand that forest renewal improves the health of forests and provides biomass for many productive uses and how woody biomass will play an important role in our nation's future, including energy security through the production of biofuels, biochemicals, and other sources of energy.

"Primer on Wood Biomass for Energy"
Richard Bergman & John Zerbe, USDA Forest Service, State and Private Forestry Technology Marketing Unit, Forest Products Laboratory, Madison, WI. 2008
http://www.fpl.fs.fed.us/tmu/resources/documents/primer_on_wood_biomass_for_energy.pdf
This paper explains and describes concepts of wood energy on a residential, commercial, and industrial scale in the United States. In addition, terminology is explained so individuals can develop a basic understanding of and familiarity with technical terms common to bioenergy.

"Sustainable Forestry for Bioenergy and Bio-based Products Training Program"
Southern Forest Research Partnership, Inc. 2007
http://www.forestbioenergy.net
SFRP's Forest Bioenergy Training Program and manual provides technology and educational assistance central to the nation's growing interest in domestic, renewable alternatives to electric energy, gasoline, and diesel fuels. The training manual reviews and synthesizes scientific literature around seven topical areas: Understanding Bioenergy Resources; The Southern Bioenergy Resource; Forest Management for Bioenergy Production; Introduction to Harvesting, Transportation, and Processing; Utilization of Woody Biomass; Economics of Forest Biomass and Bioenergy; and Environmentally Sustainable Bioenergy Production Systems.

"Terminology and Definitions for Biomass Production, Harvesting and Collection, Storage, Processing Conversion and Utilization"
ANSI/ASABE S593. 2006
http://www.webstore.ansi.org
This is the official American National Standards Institute and American Society of Agricultural and Biological Engineers standards for biomass definitions and terminology.

"Woody Biomass Utilization Desk Guide"
USDA Forest Service, 2007
http://www.forestandrangelands.gov/woody_biomass/documents/biomass_deskguide.pdf
This guide was developed by the USDA Forest Service Woody Biomass Utilization Work Group to help Federal land managers either start or build upon existing regional, forest, district, and other field offices and community-level small-diameter tree and biomass-utilization programs.
The purpose of the desk guide is to 1) provide a quick reference guide and suggestions to local land managers on how to locate and collaborate with biomass stakeholders; 2) assess the viability of offsetting the costs of accomplishing hazardous fuels and ecosystem restoration treatments by utilizing marketable small-diameter trees and other biomass; 3) provide suggestions on how to use current National Environmental Policy Act (NEPA) planning tools to start up quickly and then maintain a biomass-utilization program; and 4) provide suggestions on how to use cost-effective sale preparation techniques and cost-effective timber sale/stewardship/service contract preparation techniques to provide increased supplies of biomass. The guide does not provide a magical recipe for successful implementation of small-diameter tree utilization and biomass projects. Rather, this guide provides encouragement and useful tips to help land managers implement projects and build small-diameter tree utilization/biomass infrastructures in their communities.