

WERC Project Application – Part II

A. Project Title: Advancing Education and Outreach on Biomass Thermal Energy

B. Submitted by:

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C. Length of project: 12 months.

D. Costs: Federal funds: \$58,933; Matching funds: \$66,457; Total funds: \$125,390.

E. Abstract: The Biomass Thermal Energy Council (BTEC) proposes a project to develop resources to educate consumers, industry, and other stakeholders on the potential and benefits of the use of biomass for heat in the United States. This project will produce an array of educational tools on biomass thermal energy, including fact sheets, web resources, webinars, audio interviews, and a slide presentation for use by all stakeholders. All tools will be free and available to the public through BTEC and WERC. By creating these tools, this project will encourage the sustainable use of biomass for heat, an energy use that accounts for over 30% of U.S. consumption.

F. Project Goals and Objectives: Recent debates about the right path for America's energy future have largely focused on electricity and transportation fuels while ignoring heat, an energy usage that accounts for over 30% of U.S. consumption.

Biomass has the potential to provide a renewable source of thermal energy for millions of residential, commercial, and industrial customers in the United States. However, this potential is not widely known. Many prospective customers and investors are unaware of the technology or are unsure of its benefits.

What is needed are education and outreach resources that provide these stakeholders with the information they need to make sound decisions regarding the use of biomass for heat. These tools include fact sheets, web resources, webinars, and a slide presentation for use by all stakeholders. By developing these resources, this project will:

- Provide WERC with the resources necessary to educate stakeholders in the forest products industry on the benefits of using biomass for heating purposes;
- Provide businesses in the biomass thermal industry with the resources necessary to educate customers on the benefits of using biomass for heating purposes;
- Promote the sustainable utilization of woody biomass for energy; and
- Further encourage the development of the U.S. biomass thermal industry.

G. Project Description/Technical Approach: This project will develop and implement an array of educational resources and outreach programs to educate stakeholders on biomass thermal energy.

In an effort to have maximum impact across the forest products industry while keeping costs low, many of these resources will be developed in a web-based format.

This project will include:

- “Biomass Thermal 101” Fact Sheets and Related Online Resources
- Webinars and audio interviews to inform and educate large groups of stakeholders on biomass thermal energy
- Master slide presentation for use by all stakeholders
- Interactive Forums and Q&A section of the BTEC website

Key audiences for this project include members of the forest products industry; current and prospective customers for biomass thermal products and services; investors and market analysts; nonprofit leaders; environmental groups; staff in municipal and government agencies; entrepreneurs; media; and the general public.

1. **“Biomass Thermal 101” Fact Sheets and Related Online Resources.**

To address important issues related to the use of biomass for thermal energy, this project will develop a series of “Biomass Thermal 101” fact sheets. These resources will be 1-4 pages each and produced in print and online formats. Staff will develop content in coordination with BTEC member-led Education and Outreach, Research and Analysis Committees, and ad-hoc working groups. Printed fact sheets will be made available for distribution at the WERC facility. Fact sheets will be developed bi-monthly, with the first fact sheet being completed by September 2010.

Topics:

- *Why use biomass for heating?*
Provides an overview of the use of biomass for heat. Includes a comparison of biomass thermal energy to the other primary end-uses. Highlights the differences in feedstock consumption, efficiency, emissions, environmental impact, and job creation.
- *An overview of the U.S. biomass thermal market*
Provides an overview of the key sectors and major actors involved in the biomass thermal industry, the size of the current market, and potential growth areas.
- *Biomass thermal and rural communities*
Provides an overview of the positive economic impact of biomass thermal energy on rural communities. Highlights the many components of the economic value chain—landowners, foresters, loggers, pellet manufacturers, etc.—and their impact on local economies.
- *Residential heating with biomass*
Provides an overview of the economic and environmental aspects of heating a home with biomass. Targeted at homeowners interested in energy efficiency and renewable energy technologies. Provides a comparison of biomass heating with other options, including solar heating and weatherization.
- *Commercial/industrial heating with biomass*
Provides an overview of the economic and environmental aspects of meeting larger scale thermal demand with biomass. Features commercial installations, industrial process heat, district heating, and combined heat and power facilities. Includes case study examples of existing facilities.

Nonprofit Voices

“The Forest Guild believes that appropriately scaled, community-based uses for biomass developed through a collaborative process yield significant benefits for rural communities and reduce concerns about sustainability. Community-based uses are typically thermal or combined heat and power (CHP) applications and yield far greater energy efficiencies than stand-alone electrical generating facilities or liquid biofuels production.”

Policy Statement: Forest Biomass
Forest Guild, 1/4/2010

2. **Webinars.** To increase communications and improve the knowledge of those in the forest products industry and beyond on biomass thermal energy, this project will develop a series of free webinars on key issues in biomass thermal energy. These webinars will be broadcast live to a worldwide audience and also archived on BTEC and WERC websites for on-demand viewing after the conclusion of the event. Webinars will feature 2-4 speakers each and will be 60-90 minutes in length. In each webinar, presentations by speakers will be followed by a general Q&A session.

BTEC will invite leaders from industry, government, and the nonprofit sectors to participate in these webinars as speakers. The webinars will be promoted through a wide array of industry contacts and media outlets. Archives and presentation slides from the event will be available through the BTEC website and through WERC. Estimated participation for each webinar is 150-200 participants.

Topics:

- *Current state of the biomass thermal industry: potential and challenges for industry expansion and job creation* (Tentative date: July 2010)
- *Overview of policy and regulatory issues related to the biomass thermal industry* (Tentative date: September 2010)
- *Benefits and challenges to using biomass for residential heating* (Tentative date: November 2010)
- *Biomass thermal and environmental markets: Opportunities in carbon credits and renewable energy certificates* (Tentative Date: January 2011)
- *Biomass thermal and air quality: Overview of issues and concerns, existing technologies and those under development* (Tentative Date: March 2011)

3. **Audio Interviews.** To provide timely insights into the rapidly evolving biomass thermal industry, this project will create a series of audio interviews with experts in biomass thermal energy and the forest products industry. These interviews will address contemporaneous topics of immediate concern to key stakeholders. For example, if this grant were in effect, an audio interview with an administrator of the USDA Biomass Crop Assistance Program could occur upon the release of the draft BCAP regulations.

Each interview will be 20-30 minutes in duration and occur at a pace of roughly one a month, beginning in July 2010 and a total of 10 being conducted during the course of the grant. These audio interviews will primarily be distributed online through the BTEC website, the WERC website, and on iTunes and other audio-sharing and e-learning platforms.

4. **Biomass Thermal Presentation.** To more effectively enable individuals to communicate the role of biomass thermal energy and its benefits, this project will create a comprehensive Biomass Thermal Energy presentation with industry and non-profit support that is available for use by all stakeholders, including WERC. The presentation will include two phases: an initial development of 45+ slides by December 2010

Added Value

As a part of the webinar program, WERC will receive:

- Video archive and presentation slides of all webinars (for distribution on WERC website)
- Full contact information and demographic data on all registrants
- Full transcripts for each Q&A session
- Logo branding on all webinar marketing
- Introductory slide in each webinar explaining WERC's support of the program

and a revision an update to the slides in April/May 2011. General slide topics include an overview of:

- Biomass and its use in energy applications
- Biomass for heating and its applications
- Biomass thermal technologies in the U.S.
- Market size of biomass thermal industry
- Market outlook for biomass thermal
- Different applications and current advances in technology and emission reduction technologies
- General legislative/policy framework in the biomass and biomass thermal sectors
- Lessons from European countries with thriving biomass thermal markets

5. **Q&A and Interactive Forum.** To provide a common forum for discussion of important questions related to biomass thermal energy, this project will develop an interactive Q&A feature for integration into the BTEC website. This online tool will allow anyone to ask common and specific questions regarding biomass thermal applications, answered by a panel of subject matter experts, recruited from BTEC's membership, leading nonprofits, and industry. Questions will be answered publically on the website in a format that allows users to comment and discuss the responses. The Q&A and Interactive Forum would be online and active by September 2010. Q&A Forum will be marketed through all BTEC communications channels (website, emails, webinars).

Industry Voices

"[...] when we analyze energy prices, resource availability, financial incentives and other factors, we see biomass thermal as having the greatest financial drivers for the education industry as a whole. And that technology is barely on people's radar, according to the survey."

Jeremy Eaton, VP of Energy Solutions
Honeywell Building Solutions
Source: *New Survey Reveals School Districts Cutting Spending Due to Rising Energy Cost*,
December 17 2009, Honeywell.

Why are federal funds involved? How are they used?

Since forming in January 2009, BTEC has relied almost exclusively on membership dues to support its activities. From the beginning, education and outreach activities have been recognized as a vital component of BTEC's mission. However, we have not had the resources to effectively communicate the enormous potential of biomass thermal to meet some of America's energy challenges. With federal assistance, BTEC would be better able to develop the resources needed to educate key stakeholders on the sustainable utilization of biomass for thermal energy needs.

A vast majority of the federal funds will be allocated to staff time for conducting the activities outlined in the narrative. A small portion of the funds will be allocated to printing and distributing the materials created and developing the online forum. For a detailed analysis of the use of funding, please refer to the attached budget table.

How does this proposal address WERC's mission, goals and priorities?

This proposal will help accomplish one of the Forest Service's primary objectives, namely to "promote the sustainable utilization of woody biomass for energy and value-added products." BTEC's activities on educating the American public and other stakeholders on biomass thermal energy will directly address the utilization of woody and other forms of biomass and help create a sustainable demand for these forest products in the mid- and long term.

What is the industry involvement?

Members of BTEC and other leaders in the forest products industry will review and edit fact sheets and the slide presentation; participate in webinars and audio interviews; and answer questions in the online forum. Two of our standing member committees, Education & Outreach and Research & Analysis, in addition to possible ad-hoc member task forces, will be providing the majority of the assistance.

H. Qualifications of Staff and/or Organization: The strength of this proposal lies in the combination of the collective industry experience of the BTEC members and the staff experience in developing fact sheets, webinars, and other education and outreach programs.

BTEC has over 75 members in all segments of the biomass thermal industry. Given their collective knowledge, these members are an invaluable resource for providing guidance and feedback on the development of the education and outreach resources. Staff will be utilizing these members in virtually every component of the project.

BTEC is professionally staffed by employees of Technology Transition Corporation (TTC), an association management company with decades of experience in the clean and renewable energy sector. BTEC has no staff of its own and instead obtains staffing services through a Management and Technical Services Agreement with TTC. The project lead for this proposal is Kyle Gibeault, a Program Manager at TTC and BTEC Deputy Director. For other TTC clients, Mr. Gibeault has led many education and outreach programs, including the research and development of fact sheets, market analyses, presentations, and web resources. For the National Hydrogen Association, Mr. Gibeault began a series of educational webinars that have to date had over 1,000 attendees. Additionally Mr. Gibeault's experience in leading industry working groups and committees for four national trade associations

I. Methodology/Timetable: Specific deadlines are included within each activity description. All activities are planned to occur throughout a 12-month period. Within two weeks of the grant start date, Staff will have engaged the BTEC membership in the development of fact sheets, webinars, and the other educational resources outlined above. Progress throughout the course of the grant will be evaluated by BTEC Committees and the Board of Directors.

J. Project Outcomes and Final Report:

Final Outcomes

- New opportunities for growth in the sustainable utilization of woody biomass for thermal energy;
- Higher level of awareness of the benefits of biomass thermal energy among industry, current and prospective customers, policymakers, investors, media, and the general public;
- Stronger networks for biomass thermal technology transfer and information sharing in the forest products industry;
- Five fact sheets in use as part of customer education by businesses across the U.S. active in the biomass thermal industry;
- Five webinars with over 1,500 total viewers overall and 150 questions asked during the events;
- Ten highly-informative audio interviews with over 5,000 total downloads;
- Presentation used in at least eight professional settings and viewed online over 1,000 times; and
- Over 250 questions answered on Q&A website.

The final report will address Section 508 compliance. BTEC Deputy Director Kyle Gibeault will be responsible for the completion of the final report.