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Biomass Gasification: A Comprehensive
Demonstration of a Community-Scale
Biomass Energy System



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Chapter 7: Biomass Project Outreach and Information Transfer

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1. Introduction

During this project, researchers and others put a great deal of energy and time into education and outreach efforts. The organizers had unique communication objectives as they were part of a land grant university. However, almost any medium or large scale biomass energy project will need to have a plan for providing citizens, biomass suppliers, policy makers, regulatory officials and others with information about the project. In addition to the wide variety of audiences interested in a project, there will be significant differences in the level of details needed. For example, a regulatory agency may need very technical descriptions of the facility and its operation, while a citizen may need a simple overview of how the project may affect the community. The ability of a project team to provide timely information to these audiences is especially important in a smaller community, where rumors and sometimes incorrect information can make local approval of projects difficult. In fact, community outreach should be part of the project almost from its beginning.

2. Audiences

The varied audiences and differences in detail required by those audiences necessitate the use of several formats for information dissemination. The first round of communications is usually with potential core project members including possible financial backers, management staff, and larger suppliers. Though these people are often knowledgeable professionals, they need to understand the resources and concepts underlying the project. These beginning discussions are often in small group meetings with well laid out printed documentation of the idea for a biomass facility. While it is not critical in the initial stage to have a detailed and complete plan, it should be apparent that background research was sufficient to warrant further serious consideration of the project. Depending on the situation, an initial feasibility study may be a good document to use at this stage. This beginning communication effort may not be considered an educational or outreach activity, but its main function is to bring potential partners up to speed on details of the project.

The next audience that will need information on the project is typically community leaders. This includes both local regulatory officials (county boards, township officials, mayors, city managers) and civic leaders who regularly speak with the community members. This is also a good point at which to introduce the planned facility to agriculture or forestry trade groups. A number of formats and methods can be used for information transfer at this stage. Typically, presentations to group meetings with handouts and possible multimedia displays will begin this process. Depending on the status of the project, tours of the facility site or biomass production areas might also be helpful. The broad question that these people will have is how a biomass energy facility will affect the community and individuals in the region. Providing this audience with clear, concise information is critical as they will often be informally conveying the information to a wider cross-section of the audience.

In the rural communities where biomass projects are likely to be developed, small town media very quickly hear about even small events and a proposed biomass conversion facility will attract a great deal of attention even in its early stages. Therefore, it is good to have fact sheets ready for use by the media and an identified

project spokesperson to provide media interviews. Media coverage is an excellent chance to educate a wider audience about your project and its potential impacts on the community.

Community based biomass projects also need to specifically target another very important audience in their outreach: the biomass supplier. Farmers and foresters who provide biomass to a project will want to be comfortable that they have enough information to make a sound decision on their participation in biomass harvesting. Often their concerns will revolve around the soil conservation aspects of removing biomass from the landscape. However, economics and logistics are other important issues they are interested in. Because of the inherent financial stake in the project, project staff should incorporate reliable information from neutral third party experts into their outreach efforts. In fact, hosting workshops or conferences to bring in outside experts and facilitate honest discussions is advised.

The relatively new biomass energy industry will require a trained and educated workforce including tradesmen, plant operators, managers, and a wide variety of professional services. Even though the University has a larger role in education and training, all biomass energy projects will benefit from providing support in educating and training current and potential staff and service professionals. The University of Minnesota project team has conducted a wide variety of outreach activities that directly and indirectly support professional development of students, staff, and professional sectors. The outreach includes biomass workshops, tours, gasification courses (short and long), programs in collaboration with technical schools, presentations to secondary level students, and participation in undergraduate and graduate research projects. The website has basic information and real-time video and data capabilities that can be accessed by all.

The general public is the final group at which outreach efforts should be aimed. This group is often looking for summary information about the overall impacts of a biomass energy project on their community. Though their questions may have detailed technical answers, the answers will need to be framed in a context that a random person off the street will be able to understand.

3. Formats

With this diversity of audiences and backgrounds, there are several formats that can and should be used to implement effective outreach efforts. At the center of the effort is a set of well-written and accurate descriptions of the project, technology, resources, and the potential impacts to the community – both positive and negative. Once the core outreach documents are ready, the basic information can be adapted to a variety of formats. Immediately, the core documents can be used in brochures and handouts, and often provided to newspapers and other media. The information can be enhanced with graphics and put into presentations for use in tours, workshops, conferences, and classes. The final format and a good archive for all material is the Internet. All public documents should be organized and presented online. This allows people to review material at their own pace and provides a common set of information for people to discuss.

4. Outreach in Rural Communities

An important factor in designing outreach efforts for a biomass project is the rural nature of communities where biomass projects are likely to be located. In rural communities there are fewer people; however, they are more likely to keep track of what is happening in their community. This does not always translate into more requests for information or a constituency actively participating in advocating for or against a project. It does mean, however, that residents are evaluating biomass energy and a biomass project based on the information they have at hand. Probably the best sources of outreach in a small community are local papers, local radio, and meetings with community groups. These passive sources of information are already part of the fabric of rural communities. This is in contrast to the active sources of information such as websites and conferences, where the participant specifically chooses to go to a website or venue to learn about a project or technology.

Another item to consider in outreach to rural communities is the natural skepticism that residents may have for information related to a project. That skepticism can be magnified if the community believes that local resources may be exploited by outsiders. In practice, this means that projects with a local ownership stake are often viewed more favorably than those with exclusively non-local ownership. In these situations, outreach may best be conducted using local experts who understand the community and relate well to the issues that community members may have.

Most facilities will be using a local labor pool and local resources, and impacting the local environment. Therefore, educating the community and using them as a resource in developing a viable project is important. Proper outreach and information transfer will allow a community to feel like they have a stake in the success of a project. Early and positive outreach interactions with the community can prevent future misunderstandings of the scope, impacts, or benefits of a project. Misunderstandings can result in local permitting problems, biomass supply issues, and hard feelings, all of which may be costly to a project.

5. Morris Gasification Project Outreach Efforts as an Example

A detailed description of all the University of Minnesota, Morris Gasification Project's outreach and education efforts can be found in Section I Chapter 5 of this document. As a land-grant institution, the University has an important role to disseminate beneficial technology to local and regional citizens. Project staff wanted to demonstrate technology and inform citizens about local resources that have the potential to transform energy production and income sources in rural communities. Therefore, outreach and information transfer was a unique aspect of the project. To accomplish this, funds were specifically requested in a USDA biomass energy grant proposal to enhance outreach and education. This allowed the project to conduct multiple types of outreach and include the project knowledge and data in formal classroom education and teaching efforts.

An extra audience that the project had to incorporate into their outreach efforts was researchers, staff and administrators from the University of Minnesota. In order for the project to move forward through the University system, staff at many levels had to understand the needs, the challenges, and the risks of a biomass gasification facility. The University has a large presence in West Central Minnesota and the state as a whole. Therefore, a community scale biomass facility was and is fairly high profile and the University administration, like any government unit, wanted to fully understand the issues before approving construction. Fortunately,

the gasification project team had in-house expertise in many of the fields needed for education and information outreach. In presentations and discussions with numerous University groups and individuals, project staff were able to convey the potential benefits and challenges of biomass energy to University stakeholders.

Initial outreach efforts for the project began well before research funding or construction planning was under way, as early as 2002. By the time major research funding for the project was awarded in 2006, staff had a feasibility study and handouts, and had conducted a number of presentations on the project. Once specific funding for education and outreach was received, more organized efforts were begun with an interactive website, fact sheets and image libraries. These efforts helped support the courses, workshops, presentations, and tours conducted by project staff and research partners.

As of spring 2011, major construction of the project has been complete for over a year and initial commissioning and testing of the system has ended. Much of the early outreach has been wrapped up. But the project's goal is that the information dissemination continues long into the future. Therefore, as time and funding allows, the website is updated with the newest information and data from the biomass project. In addition, former project staff and participants are still using the outreach materials in efforts to promote renewable energy education and outreach.

To view the outreach media developed and for additional information regarding this project, go to <http://renewables.morris.umn.edu/biomass/>.