Making Biomass Work for Communities, Businesses, and Forests: Five Critical Barriers & Potential Solutions

Businesses, non-profit organizations and community groups across the West are developing a range of uses for woody biomass including value-added products and thermal and electric energy generation. The utilization of woody biomass will eventually create markets for woody material that is produced as a by-product of forest restoration and fuels reduction. Once established, the markets for woody biomass are predicted to help offset the costs of restoration and fuels reduction activities. Following is a list of five barriers that inhibit the implementation of an effective woody biomass strategy based upon our experience in the West:

1. "Acres treated" fuels performance measures, coupled with the "double counting" of acres, are working as disincentives to treating the most strategic acres and promoting woody biomass utilization.

Barrier/Problem:

- Performance measures that are based upon number of acres treated are driving managers to aim fuels dollars at treatments that yield the most acres per unit cost. For instance, burning roadside slash piles counts towards hazardous fuels reduction at a low unit cost. Despite the obvious need to treat slash, some treatments do not account for the benefits provided by treatments that thin strategic acres in and adjacent to the WUI and consider a landscape approach, which includes biomass removal and utilization. Full costs and benefits are not being accounted for, and this is being driven by poorly aimed and designed performance measures. For example, burning leftover logging slash is not an effective use of hazardous fuels dollars.

- Mechanical fuels treatments are usually accomplished with several entries over a two or three year period, and the acres are counted with each entry creating the perception of low “dollars per acre treated costs.” However, when the aggregated costs for cutting, piling, and burning are combined, they are usually higher than the cutting, extraction, and utilization costs that are accomplished in a single year and entry.

Potential Solutions:

- Make visible the “double counting” issue
- Link biomass performance measures to fuels treatments

RVCC Role:

- Help illustrate this problem in a variety of regions. Compare both low cost/high acre treatments and strategic acre treatments with biomass removal, illustrating the full costs and benefits of the treatments.
- Provide advice on biomass performance measures
2. **Biomass grants programs are necessary to provide opportunities for capacity building and technical assistance. The Improved Biomass Grants Programs (Sec. 210, Energy Policy Act of 2005) should be funded in FY07.**

**Barrier/Problem:**
- Despite current federal initiatives and incentives to encourage the development of woody biomass utilization technology and projects, many communities and businesses around the country lack the capacity to engage in and develop such projects. Previously, programs like EAP provided the assistance needed to help communities entrepreneurs develop their capacity and access the necessary technical resources to implement such projects. Current grant programs (the $5mm Woody Biomass Utilization Grants in particular) only provide direct grants, however authorities in Sec. 210 do allow for capacity building and technical assistance.
- Many communities that are ideally situated (in terms of forest resources, transmitting capacity, and potential facility locations) are lacking in social/institutional capacity to develop complex biomass utilization projects. Furthermore, fledgling rural manufacturing infrastructure must be maintained or restored in order to overcome cost barriers associated with lost local capacity.
- Implementing a national woody biomass utilization strategy will not be possible without inclusion of the aforementioned communities and businesses.

**Potential Solutions:**
- Appropriate funds (anything would be good, at least as a “place holder” for FY 2007) for Sec. 210, Energy Policy Act of 2005, *Improved Biomass Utilization Grants Program*
- Ensure that regulations for that program are developed that encourage *capacity building and technical assistance*

**RVCC Role:**
- Advocate for appropriations
- Provide suggestions for those in charge of developing grant regulations (given money is appropriated)

3. **Federal policies, programs and incentives should support the development of a dispersed system of community-scale and integrated biomass utilization efforts.**

**Barrier/Problem:**
- The current renewable energy push surrounding woody biomass is to develop large scale (10+ MW) electric generation facilities in a few key locations and haul in fuel from large areas. There are several faults to this approach, some of which may have yet to be looked at.
- First, there are several logistical inefficiencies to developing large-scale energy facilities. Hauling costs increase with distance, quickly exceeding the value of the biomass fuel. Large central energy plants require high-capacity transmitting lines that are generally unavailable at many of the ideal sites. Large energy utilities and the federal government are reluctant to embark on projects to up capacity to carry the increased energy that these large plants would produce. Also, high-capacity lines generally take around 5+ years to put in place.
Second, this approach to biomass development does not account for a collaborative process that includes communities of place and interest and that evaluates the appropriate scale for a biomass facility based on a wide and holistic array of variables.

Third, existing incentives focus primarily on biomass electricity production and in many cases may create disincentives for other traditional and innovative high-value uses of small diameter wood (i.e., energy production tax credits and $20/green ton haul subsidy for biomass energy fuel). Also, thermal applications are in fact the most efficient use of biomass fuel. For many communities, an integrated approach to biomass utilization in which biomass energy (with a focus on thermal applications) is the down-stream waste user of byproducts of other higher value processing is the best approach.

Finally, biomass energy has garnered national attention for possible contributions to energy independence; thereby it is inappropriate to excessively expend energy hauling biomass to an energy plant when avoidable. Inquiring minds have and will continue to question this approach, which could be a deterrent to funding programs.

Potential Solutions:

- Redevelop infrastructure at the abandoned mill sites around the West that already have sufficient capacity to transmit the energy that small dispersed plants would produce. These sites could be developed in a more timely and cost-effective manner, while also limiting environmental impacts (diesel fuel consumption) and providing important benefits to rural communities and businesses.
- Ensure that federal incentive programs consider all of the aforementioned points and distribute grant funds accordingly.
- Strategically invest in R&D (through Forest Products Lab and National Renewable Energy Lab) for biomass facilities of multiple scales (including less than 10 MW) and applications.
- Investigate opportunities in the Farm Bill to work with Rural Utilities to promote the dispersed system approach.
- Include specific language to these ends in the out-year USFS Woody Biomass Utilization strategy.

RVCC Role:

- Investigate the extent to which federal agencies and utilities have considered these points.
- Develop action plan based upon feedback.

4. Incentives for biomass energy generation ought to be on par with other forms of renewable energy.

Barrier/Problem:

- Open-loop biomass energy receives only one-half of the Renewable Energy Production Tax Credits that other renewables like wind and solar receive and have been extended for only two years in comparison to 15 years for wind, solar and non-renewables.
- Meanwhile, biomass is the only consistent (wind and solar are intermittent) form of renewable energy (besides hydro).
- Biomass is the only renewable that could potentially add value to the byproducts of forest restoration and fuel reduction that could restore the resistance and resilience of America’s forests to disease, fire and climate change, while also creating jobs in rural communities, and providing ancillary environmental services valued at 11.4 cents per kWh.
Potential Solutions:

- Place biomass tax credits on-par with other renewables as suggested in the Western Governors Association biomass recommendations

RVCC Role:

- Continue to illustrate the problem and help to provide support for the solution

5. The federal land management agencies need to actively engage the environmental community in dialogue regarding the development of woody biomass utilization strategy.

Barrier/Problem:

- A lack of agreement between the environmental community and agencies regarding efforts to utilize woody biomass, due in part to a lack of up-front dialogue to foster shared-understanding, will lead to unnecessary appeals and litigation of projects.

Potential Solutions:

- Develop national and regional strategies to engage moderate environmentalists in biomass strategy development and implementation. Local field tours are essential.
- Utilize partners to be intermediaries and facilitators where it may be beneficial to fostering a positive dialogue and improving relationships.

RVCC Role:

- Share ongoing strategies being utilized by RVCC partners in the Northwest, California, and Southwest.
- We are available for consultation on any USFS/Interagency strategy development, and may also be available as implementation partners.

Who We Are

The Rural Voices for Conservation Coalition is comprised of western rural and local, regional, and national organizations that have joined together to promote balanced conservation-based approaches to the ecological and economic problems facing the West. We are committed to finding and promoting solutions through collaborative, place-based work that recognizes the inextricable link between the long-term health of the land and well being of rural communities. We come from California, Oregon, Washington, Idaho, New Mexico, and Montana.

For More Information

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