

Woody Biomass Issue Paper

The development of national programs and policies to encourage woody biomass harvesting and utilization is moving forward rapidly, and is being driven by a number of factors. Energy security, renewable energy development, combating global climate change, and wildfire risk reduction are national priorities, and the utilization of woody biomass plays a role in each as well as in the management of long-term forest health. While the policies and programs currently in existence, and in development, all hold potential to expand a domestic woody biomass industry, they are inadequately addressing issues of scale, environmental impacts, social acceptance, public lands management, and rural economic development.

The utilization of woody biomass is increasingly creating markets for woody material that is produced as a by-product of forest restoration and fuel reduction. Utilization strategies established through community-scale, collaborative efforts focused on integrated approaches can help create markets for woody biomass. Using an integrated, community-scaled collaborative strategy will help offset the costs of forest restoration and hazardous fuel reduction activities while contributing to rural economies, energy independence, and carbon emission reductions. Businesses, non-profit organizations, and community groups across the United States are developing a range of uses for woody biomass including traditional value-added products, thermal energy production, combined electric and thermal energy generation, bio-fuels, and composites.

The Rural Voices for Conservation Coalition (RVCC) proposes the following vision and strategy for accomplishing national goals while restoring ecological integrity and enhancing rural economies across the West. The RVCC believes in a vision and strategy that promotes policies and procedures that correspond to the scale of ecological need, scope of potential environmental impacts, public acceptance, and the ability to integrate with economic benefits for rural towns.

RECOMMENDATION HIGHLIGHTS

- Create grant program and Budget Line Item to provide capacity building and technical assistance to communities and businesses.
- Revise USFS and BLM performance measures and targets to encourage biomass harvesting from the treatment of priority acres.
- Grant budget and target flexibility and waive cancellation ceilings to facilitate the development of long-term stewardship contracts.
- Improve Production Tax Credits and Renewable Portfolio Standards by qualifying thermal energy in both.
- Fund existing biomass grant programs authorized under Healthy Forest Restoration Act, 2003 and Energy Policy Act, 2005 at \$5M/program.

RVCC VISION FOR WOODY BIOMASS UTILIZATION

- A diversified biomass utilization infrastructure made up of appropriately-scaled integrated facilities that sort woody materials for their highest and best use-values to make a suite of wood and energy products.
- The scale of these facilities and the associated forest management projects required to supply them will be determined through collaborative processes that consider the perspectives of local stakeholders.
- Biomass harvesting and utilization will be used as tools to accomplish collaboratively developed land management objectives.
- At the local scale, these facilities will provide a means of economic diversification and development for rural public lands communities while supporting ecological restoration, forest fuel reduction and community wildfire protection.

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, Montana, Arizona and Colorado.

- At the national scale, these facilities will contribute to energy independence. At the global scale they will reduce the net release of carbon into the atmosphere through the reduction of intense, prolonged wildfires and through sequestration in durable wood products.

Accomplishing this vision will require comprehensive and progressive federal policies, programs, and investments. Where appropriate, federal and state decision makers should coordinate the range of actions needed on energy policy, tax incentives, competitive grants programs, technical assistance, and regulatory activities to ensure integration and maximum leverage of efforts.

BENEFITS OF A COMMUNITY-SCALE AND INTEGRATION STRATEGY

1. A strategy that is environmentally and socially responsible and economically equitable will provide many benefits. The number of products and jobs created at integrated facilities will far exceed those created by stand-alone facilities. This results in greater economic activity and contributes to increased domestic manufacturing of both durable wood and energy products.
2. Community-scaled and integrated facilities lend themselves to efficient local thermal energy generation.
3. Dispersed systems of community-scaled facilities require little or no investment in additional transmitting capacity, expediting the development of biomass utilization infrastructure and the implementation of associated forest restoration treatments.
4. Utilization of locally derived energy is cost efficient and maximizes offsets of fossil fuel consumption.
5. Energy dollars kept local contribute to rural economies.
6. Federal investments in rural development are multiplied through local spending and can help reduce costs to other federal social welfare programs.
7. Federal investments to stimulate community-scale and integrated biomass harvesting and utilization result in net tax revenue to the federal government through increased private investments and business activity.
8. Community-scaled approaches to forest management, energy, and economic development build social support and reduce conflict.

PROBLEMS WITH EXISTING STRATEGIES

Most of the existing renewable energy policies and programs encouraging woody biomass are focused on developing larger scale (20 + MW) electric generation facilities in a few key locations and hauling in fuel from large areas.

This existing strategy is too narrow in focus and insufficient for the following reasons:

- The United States needs to develop renewable *energy*, not just electricity. Generating thermal energy is the most efficient conversion possible from woody biomass, exceeding the efficiencies of both electric generation and liquid fuels, thereby enabling economically sustainable energy which can pay for the restoration of our forests. Existing incentives are weighted heavily towards the latter, and often exclude thermal applications from qualification.
- The additional consumption of fossil fuels for long-distance hauling does nothing to promote energy independence.
- Hauling costs increase with distance, quickly exceeding the value of the biomass as an electric generation fuel.
- There is a lack of high-capacity electricity transmitting lines running from much of the nation's woody biomass sources and rural communities to centers of energy demand. Building high-capacity lines is costly and time consuming, which makes both government and utilities reluctant. Given the current lack of transmitting capacity, the lag time to plan and construct high-capacity lines, and the lack of government and private commitment to make such investments, the potential for federal investments focused on developing large-scale biomass electricity generation in rural forested areas is limited.
- Incentives targeted exclusively on biomass electricity production may create disincentives for other traditional and innovative high-value uses of small diameter wood and biomass.
- Catering exclusively to centralized facilities means that economic development opportunities for rural communities could be missed due to a lack of locally available supply.

COMPONENTS OF A STRATEGY TO SUPPORT A COMMUNITY-SCALED AND INTEGRATED WOODY BIOMASS INDUSTRY

There are six components of a strategy to support the development of a community-scaled and integrated biomass utilization infrastructure:

1. ***Build capacity and provide technical assistance:*** *Congress must establish and fund a new competitive grants program and Budget Line Item (BLI), which provides capacity building and technical assistance services comparable to those offered through the U.S. Forest Service Economic Action Program (EAP). Federal land management agencies should also designate additional biomass coordinators at the Forest and/or Region level who are funded to work with communities and businesses to provide these critical services.*

Many communities and businesses are strategically situated in terms of forest resources, transmitting capacity, and potential business locations, but are lacking in social and institutional capacity to implement utilization projects. Existing fledgling rural manufacturing infrastructure must also be maintained and enhanced to overcome cost barriers associated with lost industry capacity.

Previously, programs like the Economic Action Program (EAP) administered through USFS State and Private Forestry (S&P) provided the assistance needed to help rural communities and entrepreneurs develop and maintain their capacity and access necessary technical resources. Current grant programs, such as the annually appropriated \$5 million Woody Biomass Utilization Grants program, also administered through S&P, only provide direct grants for infrastructure development. The absence of a program like EAP leaves the federal agencies with no other direct funding source, such as a budget line item (BLI) to provide technical assistance or capacity building support.

2. ***Revise performance measures and output targets:*** *Federal land management agencies, in cooperation with the Office of Management of the Budget (OMB), must revise their performance measures. The focus must shift from exclusively measuring outputs, to measuring both outputs and outcomes. Correlating outputs with other factors can aid in measuring meaningful outcomes. For example, the agencies could correlate the treatment of priority acres (identified through collaborative processes, Community*

Wildfire Protection Plans (CWPP), Forest Plans, etc.) with volumes removed of both saw logs and biomass, and the resulting change in condition class per entry. This would create an incentive for both biomass utilization and the treatment of priority acres.

USFS and BLM performance measures that are based upon the number of acres treated drive managers to use hazardous fuel dollars for treatments that yield the most acres per unit cost. This forces managers to focus on the “easy acres” to meet their targets. This approach does not account for the benefits provided by treatments that thin the highest priority acres in and adjacent to the wildland urban interface (WUI) or in areas identified as ecological priorities. The costs and benefits are not being fully accounted for by the agencies in making treatment decisions; weighting the relative priority of an acre, savings over pile burning emissions, economic activity from biomass utilization, etc.

3. ***Ensure consistent wood supply from federal lands:*** *OMB and Congress must provide the agencies with budget and target flexibility to plan and implement long-term stewardship projects targeted at biomass harvesting and utilization. Congress must allow the federal land management agencies to waive cancellation ceilings on long-term integrated resource service contracts under the Federal Acquisition Regulation (FAR).*

Obtaining consistent supply of woody biomass from federal lands is one of the primary impediments to developing biomass utilization industries that would reduce forest treatment and fire suppression costs. The USFS and BLM currently lack the workforce capacity and budget flexibility to plan and administer long-term stewardship contracts. In the instance of the White Mountain 10-year Stewardship Contract in Arizona, a large proportion of the National Forests’ funding and staff resources are required for successful implementation, leaving other districts in the region without the capacity to develop similar contracts. Congress needs to realize that achieving positive results like those of White Mountain are an investment rather than a cost.

4. ***Qualify thermal energy when developing Renewable Portfolio Standards (RPS):*** *Congress should require that thermal energy generation qualify as equivalent to electric energy and liquid fuels in a national RPS. The Arizona state RPS should be used as an example.*

Thermal applications are the most efficient conversion technology for turning woody biomass into energy and should be considered in the development of a national Renewable Portfolio Standard (RPS). Thermal applications for woody biomass can be up to 90% efficient, compared to 20% for electricity and 50-70% for bio-fuels. Thermal systems can be applied at multiple scales, and are often more economically viable, particularly in rural and remote areas, than electrical generation.

By not including thermal energy, one of the most efficient uses of woody biomass energy is put at a disadvantage to electricity generation. This runs counter to the goals of displacing fossil fuels, promoting energy efficiency, and minimizing emissions.

Excluding thermal applications in a national RPS will continue to focus both federal and private investments on large centralized electric generation development, bypassing opportunities for efficient community-scaled projects.

5. **Improve Production Tax Credits (PTC):** *Congress should add language that qualifies thermal energy facilities for PTCs. Also, Congress should place open loop biomass on par with other renewable energy sources at \$.019 per kWh, and extend the PTCs to at least 10 years.*

Renewable Energy Production Tax Credits (PTCs) currently exist for what is known as “open loop” biomass (open loop meaning unregulated or not farmed). The current credit is valued at \$.008 per kilowatt hour (kWh) and is reauthorized on a 2-year basis. Biomass developers are seeking to bring this credit up to \$.019 per kWh (on-par with wind and solar PTCs), and to extend its authorization to a duration more appropriate to large-scale capital investments. One critical shortcoming of the existing PTCs is that they do not qualify thermal energy facilities.

6. **Fund existing biomass grants programs:** *Congress must appropriate no less than \$5 million per program per year to provide adequate support. These dollars will be used to effectively leverage private funds to increase domestic biomass harvesting and the utilization infrastructure necessary to address the scale and scope of challenges identified.*

Continued support for biomass grant programs is necessary to provide opportunities for infrastructure development,

capacity building and technical assistance to communities and businesses. Two programs currently exist to support woody biomass infrastructure development. The USFS Woody Biomass Utilization Grants (authorized under Sec. 203, Healthy Forest Restoration Act of 2003) have funded the purchase of critical equipment to improve both the harvesting and utilization of woody biomass. The Improved Biomass Grants Program (authorized under Sec. 210, Energy Policy Act of 2005) has yet to be funded, but could also provide for development of utilization infrastructure, while also providing some technical assistance to recipients to build local capacity. Also under Sec. 210 is the Commercial Biomass Grants Utilization Program, which would provide a transportation subsidy of \$20 per green ton of biomass delivered to a facility. We believe that allowing biomass to be delivered at lower cost supports inefficiency. Also, while contributing to the bottom line of existing businesses, this program would not significantly contribute to growth, and thus is not a wise use of the limited resources available.

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