

Source: Biomass R&D Technical Advisory Committee

Advisory To: Biomass R&D Board

Report Date: 6/26/2019 (Q2 2019)

Issue: *Findings of the Committee on Opportunities for Woody Bioenergy in the Rocky Mountain/Pacific Northwest Region*

The Committee declared 2019 its *Year of the Tree*, intending to focus on new and emerging opportunities for using forests to support bioenergy and bioproducts industries while promoting healthier and safer forest management. We effectively launched this effort in our fourth quarterly meeting of 2018 when we identified regulatory barriers to advanced biofuels and made specific recommendations for breaking down those barriers, with a special focus on the fledgling domestic woody bioenergy sector. Our first quarterly meeting of 2019 explored the intersections between woody biomass utilization for bioenergy and healthier forests, summarizing our findings and laying out the Committee’s path forward for the rest of the year. We understood the importance of gaining first-hand knowledge of forest ecosystems and cultures in at least two distinct regions of the country. We wanted to hear from a wide range of local experts about new approaches to old problems—like preventing or diminishing forest fire damage—and about the prospects for using forest materials sustainably for biofuels and bio-based products.

In June 2019 the Committee visited Missoula, Montana, to learn about the mix of experiences and challenges specific to the northwestern U.S., especially with regard to managing public forest lands. The Committee is now also planning a similar site visit for the third quarter to learn firsthand about forest management and opportunities in the southeastern U.S., with a focus on privately owned and managed forest lands. The lessons drawn from these two trips will give the Committee a broad national perspective for our fourth quarterly meeting of 2019 when we will develop our final recommendations to the federal government for improving research, policies and regulations for growing woody bioenergy while also improving forest health.

The visit raised numerous questions for Committee members worthy of future consideration, from possible new roles for private insurance companies to drivers for needed innovation in policies, practices and technologies, to impacts on greenhouse gas displacement. The following set of conclusions synthesizes the general findings of the Committee resulting from the immersive exploration of forest biomass issues and opportunities on public lands in the northwestern U.S., setting the stage for further examination.

A Scale Is Large

- The sheer volume of available forest resources in the northwestern U.S. is huge. But the region faces daunting obstacles to greater bioenergy and other commercial uses when the material supply would depend on flows from federal lands.
- Wildfires present a tremendous hazard in general and managing this threat in public forests is particularly challenging. The fires are growing more hazardous to humans, animals, and property, while creating broader health hazards from air and water pollution.
- Current practices for economically harvesting woody materials are not sufficient for large-scale treatment of lands with material unsuitable for markets other than biomass. There seems to be little new innovation at sufficient scale, constrained by limited availability of federal and other funds.

- There are no large-scale solutions—no “home runs” in sight—for increased utilization of trees for biofuels and bioproducts. We believe forward progress in the region will be in the form of small steps.

B No One-Size-Fits-All Solution

- The complex patchwork of land ownership in the northwest between the private sector, various government levels, and tribal entities creates issues of access and use, and requires resolution through legislation, regulation, and societal acceptance.
- Removal of forest material from public lands to reduce wildfire risks may have potential to supply substantial amounts of biomass for energy and other applications but also faces significant headwinds. For example, a sufficiently sized commercial/industrial market does not exist today to support forest thinning at a meaningful scale, in part because of declining historical markets like the paper industry due to mill closures, but also because social license from the public for doing so is uncertain at best. Public acceptance of such practices might rise from seeing the benefits of sustainable new economic activity in the forests.

C Multiple Stakeholders Multiplies Complexity

- The multiplicity of uses for forests—including recreation, biodiversity, natural beauty, clean water, and lower carbon emissions—presents great value to the use of federal lands, yet also presents the challenge of balancing multiple interests.
- The easiest forest biomass to access and move also brings the greatest potential objections from the public based on proximity to communities and perceived disruptions to aesthetics and recreation, which has led in some cases to legal challenges to plans developed by the U.S. Forest Service.
- Public involvement and support for new forest management practices are critical for success. Collaborative networks and public-private partnerships have shown great value but are still in the early stages of articulating problems and solutions. There is a big disconnect between economic and environmental opportunities and widespread acceptance of new approaches. Constant and clear articulation of benefits from forest management and bioenergy growth are the foundation for shifts in public opinion and resultant political actions.

D Resources are Constrained

- The U.S. Forest Service wrestles with enormous demands for its many needed services, with tight resources and ever-increasing fiscal demands from fighting forest fires.
- There seems to be little new innovation at sufficient scale in use of very limited federal funds.
- State governments can play important roles in shifting public opinion and improving the business climate, both so necessary for growth in woody bioenergy and forest fire prevention.
- There are exciting new possibilities for the use of wood in the construction industry to save energy, cut building costs and improve indoor air quality. Europe is way ahead in this sector; the U.S. is starting to wake up to rising consumer interest.