

Ensuring Forest Sustainability in the Development of Wood Biofuels and Bioenergy: Implications for Federal and State Policies

Energy from biomass has the potential to contribute significantly to meeting the nation's goals for domestic energy production and reducing carbon emissions. Federal and state laws and policies provide a range of incentives and requirements for development of biofuels and other forms of bioenergy, and significant investments and planning are being undertaken to produce these fuels. Many such proposals involve reliance upon forest biomass, including both whole trees and "residuals" from harvested forests.

Ensuring that wood-based energy achieves its potential will depend upon ensuring the long term sustainability of the forest as a resource. Because meeting proposed energy goals will likely involve significant changes to forest management and major investment in facilities, significant potential exists for unintended environmental, social, or economic consequences.

Multi-Sector Policy Dialogue

The Heinz Center and Pinchot Institute are collaborating on a policy dialogue addressing the intersection between renewable energy and forest management policies. Participants include the energy industry, forest products industry, landowners, environmental advocates, federal and state agencies, and other experts. (See back for list.)

At an initial dialogue session in early 2009, participants identified several priority areas for future action. These included:

Sustainability: All participants agreed that significant attention is needed to ensure that expansion of wood-based bioenergy does not result in negative consequences like forest degradation and loss of ecosystem services. Issues of sustainability include overall quantities of biomass that can be produced without negative impacts, effects at both the landscape scale (e.g., overall land use change) and site scale (local impacts from harvest or facility development), as well as whether bioenergy strategies will result in net reductions in greenhouse gases.



Policy Clarity and Conflict: There are multiple objectives that may drive renewable energy policies, including displacing foreign oil and reducing greenhouse gas emissions, supporting more-efficient use of energy, and sustainable forest management. Policies selected to achieve one goal (such as liquid fuel replacement) may conflict with other important goals. The relationships of these goals to one another should be considered in crafting federal policy so that they do not inadvertently create policy conflicts or fail to adequately address key concerns.

Equal Treatment: Current federal or state policies appear to treat different technologies or industries differently, with potentially negative outcomes. These include the differential incentives and subsidies directed at liquid fuel production compared to, for example, combined heat and power (CHP) operations. In addition, barriers to highly efficient forms of distributed energy production (such as CHP) arising from electric utility regulations and policies make grid connection more costly or difficult.

Next Steps

Over the summer and fall of 2009, dialogue participants will initiate a set of regional consultations in the Southeast, Great Lakes states, Interior west, and West Coast to address the following topics:

Estimating sustainable biomass supply:

Regional consultations will consider what assumptions and factors should be included in regional supply estimates, identify data limitations, and explore how best to match regional supplies with new or expanding facilities.

Shaping the Build-Out: Regional consultations will explore what the range of near-term options are for bioenergy use, and how to ensure that biomass utilization is carefully matched to regional needs, resources, and development plans. What factors should be considered in matching the choice of facility to local circumstances, in terms of community economic development goals and sustainable management of forest resources? How can a regional bioenergy strategy maximize the contribution of woody biomass to achieving renewable energy goals, while minimizing the additional demands on forest resources?

Sustainability: Regional consultations will explore the range of policies, standards, and practices that are being developed or implemented to ensure the sustainability of feedstock production.



Photo credits: United States Army (front) and Seabrooke Leckie (rear)

Dialogue Participants

The following groups participated in the February 2009 initial dialogue meeting. Additional participants will be added, especially during the regional consultations.

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American Forest & Paper Association
Biomass Energy Resource Center
Chesapeake Bay Commission
Energy and Environmental Study Institute (EESI)
Environmental Defense Fund
ExxonMobil Corporation
International Paper
International Wood Fuels
Maryland Forest Service
MeadWestvaco
National Alliance of Forest Owners
National Association of State Foresters
National Wildlife Foundation
North Carolina State University
New England Wood Pellet
NewPage Corporation
Pinchot Institute for Conservation
Potlatch Corporation
Range Fuels
Southern Environmental Law Center
Stratex Energy, LLC
Sustainable Northwest/Rural Voices for
Conservation Coalition
Texas A&M University
The Forest Guild
The Heinz Center
Tennessee Valley Authority
Union of Concerned Scientists
University of Idaho
University of Minnesota
University of Toronto
US EPA
US Forest Service
USDA Office of the Chief Economist
Virginia Tech (Virginia Polytechnic Institute and
State University)
Watershed Research and Training Center
Western Forest Leadership Coalition
Western Governors Association
Weyerhaeuser Company
Wisconsin Department of Natural Resources

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To Support or Join the Dialogue, or For Additional Information:

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<http://www.heinzcenter.org/forestbioenergy> *** <http://pinchot.org/2009outlookforum>