

Sustainable Forest Bioenergy for North Carolina

Endorsed by
Environmental Defense Fund, NC Coastal Federation, NC League of Conservation Voters, Pamlico Tar River Foundation, Southern Alliance for Clean Energy, Southern Environmental Law Center, and Western North Carolina Alliance

North Carolina has important forest resources. North Carolina also has a mandate to increase renewable energy generation from a variety of potential sources and a goal to produce biofuels. Wood in some form from forests is a potential source of renewable energy and biofuels. Forest resources, renewable energy, and biofuels are critical economic and environmental drivers for the state. For North Carolina to remain green and prosperous, the state must have policies to guide sustainable bioenergy development.¹

A Conservation Vision

The utilization of forest biomass for energy production must not harm North Carolina's forests, waters or wildlife or the health of the state's citizens. The production of bioenergy should reduce greenhouse gas emissions and reduce the state's dependence on fossil fuels, while at the same time enhancing the condition of the state's working forests. The development of bioenergy should be complementary to and not a substitute for investments in energy efficiency, solar, wind and other forms of renewable energy.

Policy Principles

To achieve the vision, North Carolina's forest bioenergy policy should reflect the following principles:²

- *Carbon*: Utilization of forest biomass for energy should be net carbon beneficial within a timeframe necessary to avoid adding greenhouse gases that could exacerbate negative climate change impacts.
- *Forest Landscapes*: Biomass policies should encourage the retention and re-growth of the state's forests, should protect and enhance high conservation value forests,³ and should maintain & restore a diversity of native forest types across the landscape. The development of energy plantations or crops should not result in the loss of natural forests.

¹ Bioenergy is defined here as the use of agricultural, forest and other biomass resources to produce transportation fuels, electric power and heat.

² These principles are intended to apply to wood and forest resources only; other forms of biomass likely require a different set of principles.

³ The term "high conservation value forests" is used here to include ecologically-important, rare natural forest communities such as old growth forests and other forests identified by the Natural Heritage Program and The Nature Conservancy's Ecoregional Plans.

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- *Forest Management*: Sustainable forestry provisions and practices should be adopted whenever biomass is defined broadly to include most or all forest resources. These provisions and practices should provide for the maintenance of wildlife habitat, water quality and soils productivity.
- *Air Quality*: Biomass-consuming facilities should meet “best available control technology” requirements for criteria and other pollutants⁴ and “maximum achievable control technology” standards for any hazardous air pollutants (HAPs). Robust ambient air quality monitoring and proper siting should be required to identify the potential for community impacts or hotspots.
- *Efficiency*: Biomass-consuming facilities should maximize the efficiency of water use and feedstock consumption.
- *Scale*: Biomass-consuming facilities should be sized with regard to available feedstocks, considering other wood-consuming facilities, without causing adverse impacts on forests and the associated natural resources identified above.
- *Economy*: Utilization of forest biomass for energy should be a net benefit for local economies. Biomass policies should favor local consumption over export, prioritize the highest value-added end products, and recognize the unique needs of diverse landowners.
- *Evaluation*: Look-back studies conducted every 3-5 years should evaluate economic, climate and landscape impacts associated with the utilization of forest biomass in bioenergy.

This document was drafted by the Environmental Defense Fund (EDF)⁵, the Southern Environmental Law Center (SELC)⁶, and the Southern Alliance for Clean Energy (SACE)⁷. Additional endorsements are invited. Send comments and endorsements to John Bonitz bonitz@cleanenergy.org.

⁴ The criteria pollutants are sulfur dioxide, nitrogen oxides, particulate matter, carbon monoxide, lead and ozone.

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