

Compare with the open letter to the EPA affirming the carbon benefits of biomass, signed by **OVER 100** scientists from more than 80 universities, all of them experts in **FORESTRY**.

<http://www.biomass101.org/resources/2015/4/9/open-letter-to-epa-from-100-forestry-scientists>

149 Woods Hole Road  
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## Healthy markets mean healthy forests:

February 22, 2016

Dear Majority Leader Mitch McConnell, Minority Leader Harry Reid, Chairwoman Lisa Murkowski, and Ranking Member Maria Cantwell:

We are 65 research scientists and practitioners who study energy, soils, forested and wetland ecosystems and climate change. We are writing in our individual capacities to express our concern over the implications of a "forest biomass carbon neutrality" Senate Amendment 3140 to the Energy Policy Modernization Act that was recently accepted by the US Senate.

This well-intentioned legislation, which claims to address climate change, would in fact promote deforestation in the U.S. and elsewhere and make climate change much worse.

The amendment would require all federal departments and agencies to promote consistent policies that "reflect the carbon neutrality of forest bioenergy and recognize biomass as a renewable energy source." Mandating that there are no carbon dioxide emissions from burning wood from forests to produce energy does not make it so in fact.

The consequence of the amendment is to encourage a shift to forest biofuels in the form of pellets and wood chips to replace coal in the generation of electricity. Wood burning power plants are becoming more numerous in the United States and in the European Union. The US Department of Commerce and the US Forest Service are promoting expanded export of American wood pellets for this purpose to Europe and to Asia.

Burning any carbon containing substance whether biomass or fossil fuels releases carbon dioxide into the atmosphere. Burning forest biomass to make electricity releases substantially more carbon dioxide per unit of electricity than does coal. Removing the carbon dioxide released from burning wood through new tree growth requires many decades to a century, and not all trees reach maturity because of drought, fire, insects or land use conversion. All the while the added carbon dioxide is in the atmosphere trapping heat. Right now, large areas of American forests including old growth trees are being cleared for pellets that are shipped to Europe and burned to produce electricity that is counted there as zero carbon. There is no requirement in the amendment that trees used for bioenergy be replaced. International obligations require the United States to account for bioenergy emissions from either the energy sector or as land-use change.

While forest biomass energy may be renewable over the long-term, it is not a low-carbon source of energy like solar panels. Using the same amount of land area, solar panels produce up to 80-times as much electricity as wood burning with no emissions at all. Yet with this amendment, both might receive the same subsidy under the Act. Furthermore, fossil fuel emissions associated with producing bioenergy (harvesting, chipping, drying, pelletizing and transporting) are equivalent to 20-25% of direct emissions, and under this legislation these emissions are unaccounted for.

Forest bioenergy as currently produced also competes with land for other forest products including timber, paper and agriculture. Promoting forest biomass therefore encourages additional deforestation.

Granting carbon amnesty to forest biomass burning for energy could lead to significant depletion of US forests. The potential implications of declaring carbon neutrality for forest biofuels are great because even small quantities of bioenergy require large quantities of wood. The US Energy Information Agency estimates that for each 1% added to current US electricity production from forest biomass an additional 18% increase in US forest harvest is required. This policy would also encourage the destruction of forests in developing countries that would see the US as an export market. This would undermine international attempts to protect tropical forests in these countries through the programs agreed to in Paris.

This amendment puts forest carbon in the atmosphere contributing to climate change instead of keeping it in living, productive forests that provide multiple benefits of water and wetland protection, flood control, soils protection, wildlife habitat, improved air quality and recreational benefits for hunters and all who enjoy being in the great outdoors.

Legislating scientific facts is never a good idea, but is especially bad when the "facts" are incorrect. We urge you and other members of the Senate to reconsider this well-intentioned legislation and eliminate the misrepresentation that forest bioenergy is carbon-neutral.

We respectfully request an opportunity to inform you and other Senators of the scientific evidence for the appropriate accounting of forest bioenergy emissions. You could perform a great service by proposing and enacting legislation that effectively addresses climate change by enhancing the capacity of forests to reduce the amount of carbon dioxide entering the atmosphere. Any number of us would be willing to testify or to assist you and your staff in meeting the climate challenge with scientifically sound actions.

Sincerely,

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cc Olivia Kurtz, Senator Collins' Energy legislative Council, James Springer, Senator King's Energy legislative Council, Anne Knapke, Senator Klobuchar's Energy legislative Council and Blaise Sheriden, Senator Franken's Legislative Council

This ignores that the amendment states biomass is renewable and carbon neutral **ONLY** if it doesn't cause land-use conversion.

The relevant measure isn't carbon emitted upon release, but the net carbon emitted and captured by the full carbon cycles of coal and biomass over a scientifically appropriate timescale.

As stated in the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, "In the long term, a sustainable forest management strategy aimed at maintaining or increasing forest carbon stocks, while producing an annual sustained yield of timber, fiber or energy from the forest, will generate the largest sustained mitigation benefit."

The most common timeframe for measuring the impacts of greenhouse gases is 100 years, as illustrated by the widespread use of 100-year global warming potentials. This timeframe provides a more accurate accounting of cumulative emissions than shorter intervals.

The EPA's Science Advisory Board (SAB) panel's final draft report on biogenic carbon emissions agreed that a 100 year timeframe is reasonable for considering carbon impacts of biomass. As did 100 prominent forest scientists from 80 universities, who shared their views with EPA in a letter in November of 2014.

1. According to USDA data, the total volume of trees growing in U.S. forests has increased 50% since 1953. The carbon stored in these forests has increased at a corresponding rate.

2. Additionally, current markets consume only a small percentage of forest inventory annually.

3. Biomass energy markets provide additional income to forest owners that they can reinvest to plant more trees, protect forests from insects, disease and fire, and grow larger, more resilient trees.

Sustainable, scientific forestry management means trees are constantly being planted, and so there are trees in every stage of their life cycles capturing carbon even as others are being harvested.

The facts speak for themselves- U.S. timberlands are managed in a sustainable growth and harvest cycle, and are presently growing at **MORE THAN TWICE** the rate of harvest. Biomass markets, like other forest products markets, enable private forests to provide sustainable carbon benefits over the long term.

Competition is a cornerstone of free markets, and demand for forest products provides strong economic incentive to maintain forestlands. The loss of forest bioenergy markets diminishes the value of forests and places greater pressure on forest owners to convert them to other uses causing a loss of carbon storage, wildlife habitat, recreation opportunities and other important public benefits.