



November 22, 2016

President Juncker  
European Commission  
Rue de la Loi / Wetstraat 200  
1049 Brussels

Dear President Juncker and Commissioners:

**RE: Changes in EU bioenergy sustainability regime**

On behalf of our millions of members and supporters, the Natural Resources Defense Council (NRDC) and Dogwood Alliance are writing to urge you to include vital provisions on biomass sustainability in the upcoming EU Commission proposal for the 2020-2030 energy package.

Here in the Southeastern United States, home to some of the most biologically rich forests in North America, as well as the largest wood pellet manufacturing and export industry in the world, we are on front line of the impacts of Europe's demand for biomass. This skyrocketing demand threatens the climate and our forests, as well as public health.

A large and growing number of scientific studies<sup>i</sup>, including the UK Department for Energy and Climate Change's study, show that utility-scale electricity generation using biomass as fuel is far from "carbon neutral".<sup>ii</sup> Burning wood to produce electricity is highly inefficient. Biomass-fueled power plants emit more carbon dioxide (CO<sub>2</sub>) per megawatt-hour than coal or gas plants. The UK's biomass carbon calculator, known as the Biomass Emissions And Counterfactual Model (BEaC), has shown that even when carbon re-sequestration is taken into account, using forest biomass for electricity can result in up to three times more net greenhouse gas emissions than burning coal.<sup>iii</sup>

Biomass is a particularly high-carbon fuel when it is sourced from whole trees and other large-diameter wood. NRDC analyzed the carbon pollution from burning wood pellets from southeastern forests to produce electricity and compared those emissions with emissions from burning coal and natural gas. Our analysis shows that if wood pellets are made of whole trees—even in relatively small proportions—they will emit carbon pollution comparable to or in excess of fossil fuels for more than five decades.<sup>iv</sup>

Rapidly increasing wood harvests for biomass also threatens forests in the region. Economic modeling has shown that increased demand for wood for bioenergy production could increase average stumpage prices in the US South by 31 percent in the next five years.<sup>v</sup>

Seventy-five percent of US wetland forests are found in the Southeast. Unfortunately, the vast

majority (90 percent) are highly vulnerable due to the lack of any formal protections.<sup>vi</sup> Existing and proposed pellet mills in the region are sited within harvest range of these natural forests, which are some of the most biologically-rich forest ecosystems in North America. These forests provide critical habitat for threatened, endangered and rare species, as well as numerous ecosystem services for surrounding communities, such as flood protection and filtering drinking water.

A detailed study commissioned by the European Commission to help guide EU reforms to its climate and energy policy package post-2020 concluded that US wood pellets imports are primarily being sourced from whole trees in southeastern forests, validating the concerns raised by NRDC and Dogwood Alliance for the last three years.<sup>vii</sup> The report concludes that the rapidly expanding wood pellet industry poses a serious risk to biodiversity found only in the region and could undermine the EU's ability to achieve its climate targets. The study also underscores the importance of accounting for full emissions from biomass, including power plant emissions.<sup>viii</sup>

Multiple studies also show that biomass incineration creates fine particulate pollution that impacts human health, leading to significant respiratory problems, and posing serious health risks to residents living near the facilities.<sup>ix</sup> Earlier this year, a coalition of top medical and public health organizations in the US published a letter warning about “a sweeping array of health harms, from asthma attacks to cancer to heart attacks, resulting in emergency room visits, hospitalizations, and premature deaths,” caused by the air pollution that results from burning biomass, and urging US policymakers to protect human health by rejecting policies that drive more biomass-burning and supporting the development of truly clean energy, such as solar and wind, instead.<sup>x</sup>

Our organizations are increasingly being asked to support community-based efforts to push back against proposed pellet manufacturing facilities in the Southeast, and many local residents now blame EU policies for driving forest destruction and pollution in their communities. Additionally, residents feel that economic development rooted in extractive economies, such as the wood pellet industry, does not provide long-term economic benefits to their community.

Beyond the climate, ecological and public health risks associated with biomass, it is also uneconomic compared to truly clean energy solutions like wind and solar. A recent analysis commissioned by the NRDC and conducted by Vivid Economics, a London-based economics consultancy, concludes that in the period 2020–2025, wind and solar are likely to be the least-cost way to ensure UK reliability of supply while also achieving power sector decarbonization goals, not biomass. The analysis accounts for the full system costs of wind and solar relative to biomass for replacing coal. It translates the emissions risk of biomass into economic risk by fully accounting for the carbon emitted when biomass is burned for electricity and costing the emissions to show what happens to total costs. The results point to the need for bioenergy policy reform so as not to incentivize more expensive and dirtier solutions to European energy needs.<sup>xi</sup>

Further, a review of cost data has shown that the costs of building low-carbon alternatives to biomass, in particular wind and solar energy, have been falling rapidly and are expected to continue declining. By contrast, the potential for biomass technology costs to fall is limited. Biomass conversion is already a mature technology, so comparatively little capital cost reduction is expected over time and fuel costs, which make up the bulk of biomass costs, are highly uncertain.

We urge the European Commission to include the following safeguards on bioenergy in its proposal:

- No state support for biomass for electricity-only generation;
- A cap on the overall use of bioenergy, including in heat;
- A ban on the use of roundwood for energy;

- Adequate carbon accounting for bioenergy that includes accounting for power plant emissions and changes to carbon stocks; and
- Europe-wide binding sustainability criteria that address the specific of forest biomass.

Yours sincerely,

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Natural Resources Defense Council

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CC: Telmo Baltazar, Senior Political Adviser  
Jyrki Katainen, Vice-President Jobs, Growth, Investment and Competitiveness  
Juho Romakkaniemi, Head of Cabinet  
Frans Timmermans, First Vice-President  
Maroš Šefčovič, Vice-President on Energy Union  
Dagmara Maria Koska, Member of Cabinet

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<sup>i</sup> Biofuelwatch, “Resources on Wood Biomass for Heat and Power,” Resources on Biomass, <http://www.biofuelwatch.org.uk/biomass-resources/resources-on-biomass/>

<sup>ii</sup> Stephenson, A. L., and D. MacKay, Life Cycle Impacts of Biomass Electricity in 2020: Scenarios for Assessing the Greenhouse Gas Impacts and Energy Input Requirements of Using North American Woody Biomass for Electricity Generation in the UK, U.K. Department of Energy and Climate Change, July 2014, [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/349024/BEAC\\_Report\\_290814.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/349024/BEAC_Report_290814.pdf)

<sup>iii</sup> Life Cycle Impacts of Biomass Electricity in 2020, UK Department for Energy and Climate Change, July 2014 [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/349024/BEAC\\_Report\\_290814.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/349024/BEAC_Report_290814.pdf)

<sup>iv</sup> Yassa, Sami, “Think Wood Pellets are Green? Think Again.”, NRDC Issue Brief, May 2015, <https://www.nrdc.org/sites/default/files/bioenergy-modelling-IB.pdf>

<sup>v</sup> How Can Global Demand for Wood Pellets Affect Local Timber Markets in the U.S. South?, Forisk, June 2015 <http://www.forisk.com/blog/2015/06/02/how-can-global-demand-for-wood-pellets-affect-local-timber-markets-in-the-u-s-south/>

<sup>vi</sup> In the US Southeast, natural forests are being felled to send fuel overseas, NRDC, October 2015 <http://www.nrdc.org/energy/files/southeast-biomass-exports-report.pdf>

<sup>vii</sup> Dogwood Alliance, “Wetland Logging Investigation, Roanoke River Basin, NC: March 28<sup>th</sup>, 2016,” <https://www.dogwoodalliance.org/wp-content/uploads/2013/05/Wetland-Logging-Ahoskie-March-2016.pdf>

<sup>viii</sup> Environmental implications of increased reliance of the EU on biomass from the South East US, <http://bookshop.europa.eu/en/environmental-implications-of-increased-reliance-of-the-eu-on-biomass-from-the-south-east-us-pbKH0116687/>

<sup>ix</sup> See bibliography of reports on the health risks of biomass burning <http://www.energyjustice.net/files/biomass/medicalstatements.pdf>

<sup>x</sup> Letter to the United States Congress signed by the Allergy & Asthma Network, American Academy of Pediatrics, American Lung Association, American Public Health Association, Asthma and Allergy Foundation of America, National Association of County & City Health Officials, National Environmental Health Association, and Physicians for Social Responsibility, September 13, 2016, <http://www.lung.org/assets/documents/advocacy-archive/health-organizations-letter-biomass.pdf>

<sup>xi</sup> Money to Burn? The U.K. Needs to Dump Biomass and Replace Its Coal Plants with Truly Clean Energy <https://www.nrdc.org/resources/money-burn-uk-needs-dump-biomass-and-replace-its-coal-plants-truly-clean-energy>