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VIA POST AND ELECTRONIC MAIL

Minister Henk Kamp
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Minister Kamp,

On behalf of the Southern Environmental Law Center, Natural Resources Defense Council, and Dogwood Alliance,[1] we write to address common misconceptions about the wood pellet industry in the southeastern United States and to advocate for your adoption of strong biomass sustainability standards. The U.S. wood pellet industry, which is almost entirely driven by demand from European counties, such as The Netherlands, is already harming significant forest ecosystems, including coastal wetland forests that are home to some of the region's most critically threatened species.[2] And despite claims to the contrary, existing U.S. laws and regulations simply do not protect forests, sensitive ecosystems, and wildlife from the wood pellet industry's unprecedented rapid growth.

For these reasons, we strongly urge your government to adopt rigorous, independently verifiable sustainability standards for procuring wood pellets from the United States. Such standards are necessary to protect forests and wildlife. Strong carbon accounting standards are also necessary to ensure that wood pellets are actually a "low carbon" fuel.

The Wood Pellet Industry is Threatening Forests and Wildlife.

The wood pellet industry has claimed that it uses forestry industry byproducts and other "low value" fiber sources to manufacture its product. However, this is simply not true.

[1] The Southern Environmental Law Center is a regional non-profit using the power of the law to protect the health and environment of the southeastern United States (Virginia, Tennessee, North and South Carolina, Georgia, and Alabama). Natural Resources Defense Council is an international, non-profit organization working to protect the world's natural resources, public health, and the environment. Dogwood Alliance is a North Carolina-based non-profit that mobilizes diverse voices to protect the unique forests and communities of the Southern U.S. from destructive industrial forestry.

[2] See Natural Resources Defense Council, "The Truth About the Biomass Industry: How Wood Pellet Exports Pollute Our Climate and Damage Forests," August 2014, enclosed as Attachment 1.

E**xtensive documentation and analysis has made it clear that the industry is using whole trees from natural forests, including whole trees from environmentally sensitive and critically threatened wetland forests on the coastal plain of the southeastern United States**. For example, investigations by the *BBC* and *The Wall Street Journal*, among others, at existing production facilities owned by Enviva, the largest exporter of wood pellets, have revealed that Enviva uses *large quantities* of whole trees to make wood pellets, including hardwoods from wetland forests.[3] The *Wall Street Journal* visited a large clearcut near the Roanoke River, site of some of the last untouched wetlands in the southeastern United States, and spoke to a local logger who confirmed that he had "sold Enviva several hundred tons of hardwood that his crew clear-cut from a swamp that hadn't been logged for about 100 years."[4] In short, the wood pellet industry is driving harvests and putting pressure on areas that might not otherwise have experienced logging.

A recent report from the UK Department of Energy and Climate Change ("DECC") similarly noted that wood pellets are being manufactured from whole trees and predicted that high demand for biomass could result in "an increased rate of harvest of existing forests [and] the displacement of wood used for non-bioenergy wood products," which would increase overall forest harvesting.[5] Because the wood pellet industry is using whole trees, competition with existing industries, and resulting pressure on forests from displaced industries, is a particularly acute problem. As explained by the U.S. Environmental Protection Agency ("EPA"), "[i]ncreased demand for biogenic feedstocks might cause higher prices for those feedstocks, which in turn might trigger more production of biomass feedstocks. These increases in production can lead to a succession of land use changes, including the possible conversion of previously forested land or other high-carbon ecosystems to lower carbon systems and the release of carbon stored in soils and vegetation."[6]

There are strong indications that an expanding wood pellet industry will indeed compete for fiber with the pulpwood and composite industries.[7] In the absence of a United States home building boom to drive sawtimber harvests, wood pellet producers will not be able to rely

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[3] Justin Scheck and Ianthe Jeanne Dugan, "Europe's Green Fuel Search Turns to America's Forests," *The Wall Street Journal*, May 27, 2013; Roger Harrabin, "Renewable energy: Burning US trees in UK power stations," *BBC News*, May 27, 2013.

[4] "Europe's Green Fuel Search Turns to America's Forests," *The Wall Street Journal*, May 27, 2013, available at http://online.wsj.com/news/articles/SB10001424127887324082604578485491298208114 (last visited Dec. 3, 2014).

[5] UK Department of Energy and Climate Change, *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*, July 2014, p. 38. The report does not directly address the potential impacts of wood harvest on biodiversity and forest ecosystems, but does report concern that the biomass industry could spur the establishment of more tree plantations and that removal of forest residues for bioenergy production could lead to "future nutrient imbalance, reduced forest productivity, and changes in species composition and diversity." Id. at 61.

[6] United States Environmental Protection Agency, *Framework for Assessing Biogenic CO2 Emissions from Stationary Sources* ("EPA Biomass Framework"), November 2014, p. 45.

[7] United States Department of Agriculture, Forest Service Southern Research Station, *Southern Forest Futures Project: Chapter 10: Forest Biomass-Based Energy*, October 2012, pp. 38-40; see David Wear, "Southern Forest Futures Project: Anticipating forces of change" (October 2013) (presentation at Pinchot Institute conference, Savannah, GA); see also William R. Perritt, "Southern Woodfiber Market Dynamics: Pulp vs. Pellets" (March 2014) (presentation at Wood Pellet Supply Chain Summit, International Biomass Conference, Orlando, Florida).

extensively on sawtimber residues for their wood fiber.[8] Instead, wood pellet producers will likely continue to source the same whole trees that the pulpwood and composite industries are targeting. For example, Enviva admits that its "primary source of wood fiber is traditional pulpwood."[9] Meanwhile, pulpwood industry demand is holding steady or increasing across the southeastern United States.[10] This all adds up to a clear and present threat of overharvesting in certain woodsheds due to wood pellet production.

Existing U.S. Laws and Regulations Do Not Protect Forests and Wildlife from Biomass Harvesting.

Existing laws and regulations are often mentioned as guaranteeing the sustainability of wood pellets. However, any assumption that existing environmental laws in the United States will ensure the sustainability of wood biomass is highly misguided.

The vast majority (about 90%) of forest land in the southeastern United States is privately owned.[11] However, there are very few federal or state laws that apply to forest harvesting on private lands in the region. In fact, most federal and state laws specifically exempt timber harvesting and related roadbuilding on private lands from regulation.

For example, most forestry activities are exempt from the federal Clean Water Act as long as loggers or landowners follow Best Management Practices ("BMPs") that are generally voluntary and are primarily focused on minimal water quality and erosion protections. In the southeastern United States, most forestry operations are also explicitly exempted from state environmental laws if they follow these BMPs. Some states do have the authority to enforce violations of water quality standards caused by the failure to follow the BMPs. **It is important to emphasize, however, that BMPs are focused on water quality and do not limit biomass harvesting, or any harvesting, except at the margins.** Further, in many states it is clear that the voluntary BMPs fail to address significant negative silvicultural impacts on water quality. For example, the BMPs for South Carolina and Alabama do not require residual timber buffers on intermittent streams.[12] South Carolina and Alabama are the only states in the southeastern U.S. that have issued detailed biomass harvesting guidelines, but these are entirely voluntary.[13]

No southeastern state has laws or regulations on the books that prohibit or restrict wetland logging or clearcutting; that protect old growth or endangered forests; that prevent the conversion of natural forests to plantations; that restrict the size of forestry operations; or that

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[8] See Robert C. Abt, "Southern Timber Markets and Forest Sustainability: Housing Starts and Timber Supply" (October 2013) (presentation at Pinchot Institute conference).
[9] Enviva Partners, LP, *Form S-1 Registration Statement*, Oct. 27, 2014, p. 134.
[10] See Bob Fledderman, "Sustainable Woody Biomass in the US South" (July 2013) (presentation to European Commission Joint Research Centre).
[11] United States Department of Agriculture, Forest Service Southern Research Station, *Southern Forest Futures Project: Technical Report*, August 2013, p. 1.
[12] See *South Carolina's Best Management Practices for Forestry*, available at http://www.state.sc.us/forest/bmpmanual.pdf, and *Alabama's Best Management Practices for Forestry*, available at http://www.forestry.state.al.us/publications/BMPs/2007_BMP_Manual.pdf.
[13] See Environmental Defense Fund and Pinchot Institute, *Pathways to Sustainability: An Evaluation of Forestry Programs to Meet European Biomass Supply Chain Requirements*, Chapter 7, 2012, for more information on BMPs.

regulate rotation cycles. In addition, only one state in the southeast, Virginia, requires pre-notification of forestry operations and replanting in some limited instances.

Beyond the lack of strong regulations, the existing regulatory system is simply not prepared to cope with a wood pellets boom that is putting new demands on the forests of the southeastern United States. For example, the North Carolina Environmental Management Commission concluded in 2010 that:

> There are currently no standards or guidelines that require the sustainable management of the utilization of woody biomass. Sustainability refers to continuing forest productivity as well as to ecosystem protection, water and air quality protection, and biodiversity protection … [the] market for biopower will create pressure on the sustainable use of our forest resources, and therefore must be guided and monitored to avoid adverse impacts.[14]

The Commission recommended that biomass producers be required to adopt forest management plans that are "protective of forest productivity, wildlife habitat, riparian buffers and other sensitive areas," and be "required to certify that harvests were conducted in accordance with the requirements of the forest management plans."[15] This recommendation was never adopted and the situation in North Carolina, and all southeastern states, remains essentially unchanged since the Commission's 2010 assessment.

No states have adopted enforceable biomass guidelines despite the fact that intensive biomass harvesting presents environmental threats beyond those of conventional forestry operations. In particular, intensive harvesting of biomass, including use of "residuals" from existing logging operations, may have significant impacts on water quality, soil fertility, biodiversity, and forest ecology.[16] A recent study warned that growing wood pellet production could "threaten the long-term functioning and sustainability of [Southeast] forest habitats already under stress from multiple factors," including natural longleaf pine forests and coastal wetland forests that provide habitat for sensitive species.[17]

In Addition to Strong Sustainability Standards, Rigorous Carbon Accounting Standards Are Necessary to Ensure that Wood Pellets Are Actually a "Low Carbon" Fuel.

The science is clear that many sources of wood biomass are far from "low carbon" (or "carbon neutral") and may actually increase net atmospheric carbon levels for 35 to 100 years or longer, as compared to burning fossil fuels.[18] The EPA recently explained how determining

[14] North Carolina Environmental Management Commission, *Report to the Environmental Review Commission, Evaluation of the Natural Resources Impacts of the Woody Biomass Industry in North Carolina*, March 2010, p. 3.
[15] Id.
[16] See National Wildlife Federation, *Forest Bioenergy in the Southeast United States: Implications for Wildlife Habitat and Biodiversity*, December 2013, available at http://www.nwf.org/pdf/Conservation/NWF_Biomass_Biodiversity_Final.pdf.
[17] Id. at 15.
[18] See Southern Environmental Law Center, "Debunking Wood Pellets as a 'Low Carbon' Fuel," November 2014, enclosed as Attachment 2; see also Biomass Energy Resources Center, *Biomass Supply and Carbon Accounting for*

whether or not wood pellets are worse for the climate than coal depends on analyzing how they were sourced:

> There are circumstances in which biomass is grown, harvested and combusted in a carbon neutral fashion but carbon neutrality is not an appropriate a priori assumption; it is a conclusion that should be reached only after considering a particular feedstock's production and consumption cycle. There is considerable heterogeneity in feedstock types, sources and production methods and thus net biogenic carbon emissions will vary considerably.[19]

The EPA concluded that "independent verification of measurement and reporting, including protocols for accreditation of verifiers," as well as robust tracking to identify sources of wood fiber, would be necessary to determine if wood pellets were actually being sourced in a "carbon neutral fashion."[20]

The most advanced carbon accounting study to date, published by the UK DECC, has shown that wood pellets produced by increasing the harvest of whole trees from naturally regenerated (i.e., non-plantation) forests result in emissions of 3,346 kg CO2e/MWh (kilograms of CO2 equivalent – or, roughly, greenhouse gases – per megawatt hour) when analyzed over 40 years and 4,348 kg over 100 years. Burning coal creates 1,018 kg and natural gas creates 437 kg.[21] **This means that burning wood pellets may result in *four times* the amount of carbon in the atmosphere than burning coal.** Using some biomass feedstocks to make wood pellets may have carbon benefits (e.g., use of residues from forestry operations that would otherwise be burned).[22] But using whole trees from natural forests to make pellets (or, "Scenario 13" in the DECC report) clearly increases atmospheric carbon.

Unfortunately, as discussed above, Scenario 13 is very much the on-the-ground reality in the southeastern United States: wood pellets are currently being manufactured from whole trees harvested from natural forests. And the fragmented nature of forest ownership in the region means that wood pellet producers seldom track the source of their wood fiber. For example, Enviva has explained that it "procure[s] raw materials from thousands of landowners, loggers, and timber industry participants … Our wood fiber is procured under a range of arrangements, including (1) the direct purchase of timber tracts … (2) logging contracts for the thinnings, pulpwood and other unmerchandised chip-and-saw timber cut by a harvester, (3) in-woods chipping contracts … (4) contracts with lumber dealers and (5) 'gatewood' purchases, which refer to wood hauled to a mill that was not purchased as standing timber by the mill."[23]

Southeastern Forests, February 2012, available at https://www.southernenvironment.org/uploads/publications/biomass-carbon-study-FINAL.pdf.

[19] EPA Biomass Framework, p. 3 (quoting final peer review report from the Scientific Advisory Board Carbon Emissions Panel on the draft framework published on Sept. 28, 2012).

[20] Id. at 26.

[21] *Life Cycle Impacts of Biomass Electricity in 2020*, pp. 5, 13, 84, and 86.

[22] But note that, in several cases, even burning wood pellets made from the byproducts of existing logging operations may result in more greenhouse gas emissions than burning natural gas. *Life Cycle Impacts of Biomass Electricity in 2020*, p. 74.

[23] Enviva Partners, LP, *Form S-1 Registration Statement*, p. 140.

Without a strong, independently verifiable tracking or certification system, there is simply no way of guaranteeing that wood pellets are not being sourced in a manner that results in four times the carbon emissions of burning coal. And, of course, if wood pellets do not deliver a carbon benefit as compared to fossil fuels, the entire rationale for shipping wood pellets across the Atlantic disappears. Thus, a rigorous carbon accounting framework must also be in place. This framework must consider the change in carbon stocks in the sourcing area, and thereby fully reflect the carbon emissions resulting from the burning of wood pellets.

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For these reasons, we urge you to adopt strong sustainability standards and independent certification for procuring wood pellets from the United States, such as the Forest Stewardship Council ("FSC") standards. The standards must, *at a minimum*: be rigorous and independently verified through certification; be monitored on an annual basis; measure sustainability based on biomass harvesting in actual supply basins rather than based on region-wide trends; include stringent measures to penalize non-compliance; and be regularly updated using on-the-ground data concerning harvesting impacts. Above all, the standards must recognize the nature of the wood pellet industry in the southeastern United States and specifically protect against the loss of wetland forests, the loss of wildlife habitat, and the conversion of existing natural forests to plantations. By adopting both strong sustainability standards for wood biomass and a robust carbon accounting framework, The Netherlands will also ensure that wood pellets procured from the United States are in fact a "low carbon" fuel source that provides an actual carbon benefit and supports continued government investment.

Thank you for your attention to these comments and please do not hesitate to contact us with any further questions about the wood pellet industry in the United States or existing laws and regulations.

Sincerely,

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