

**June 16, 2016**

**To: Forest Dialog Organizers and Stakeholders Exploring Biomass as a Climate Solution**

**From: Biofuelwatch, Center for Biological Diversity, Clean Air Task Force, Dogwood Alliance, Friends of the Earth, Greenpeace, Natural Resources Defense Council (NRDC), Partnership for Policy Integrity, Southern Environmental Law Center, Stand**

Although our organizations cannot participate in the Scoping Dialogue on Sustainable Woody Biomass for Energy, we appreciate your work and the opportunity to submit these comments about woody biomass and its role in our future global energy portfolio.

At a primary level, we feel that the concerns of scientists, communities, environmental organizations, investors, and other stakeholders should not be a footnote in the scoping dialogue or its resulting products. Calculating carbon emissions is a complex process which has many potential sources of error<sup>1</sup> and ignoring discrepancies in landscape carbon accounting only removes carbon from the ledgers, not the atmosphere.

There are many serious scientific and economic reasons for concern about scaling woody biomass up into an industrial energy source. The science is clear that industrial energy from woody biomass cannot be considered carbon neutral.<sup>2</sup> A panel of the U.S. Environmental Protection Agency's Science Advisory Board has found that carbon neutrality is not an appropriate a priori assumption,<sup>3</sup> and EPA itself has chosen not to include woody biomass as a potential pathway in its proposed Federal Implementation Plan (FIP) for Clean Power Plan compliance.<sup>4</sup> In March 2016, investors and financial institutions representing \$53 billion in assets petitioned the US Securities and Exchange Commission to actually enforce climate disclosure rules with publicly held biomass companies.<sup>5</sup> On the ground, communities in the United States are organizing to stop pellet mill construction.<sup>6</sup>

Burning woody biomass also emits up to 50% more greenhouse gases at the smokestack than burning coal,<sup>7</sup> along with health-damaging soot and smog-forming pollutants.<sup>8</sup> In fact, "net" carbon emissions, representing the accumulated carbon emitted over time adjusted for putative sequestration by re-growing feedstocks, can be even greater. For example, some research has shown that the use of whole

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<sup>1</sup> <http://www.sciencedirect.com/science/article/pii/S0301421512001681>

<sup>2</sup> EU Bioenergy. 2015. 10 reasons why bioenergy is NOT carbon neutral says IPCC author William Moomaw. <http://bit.ly/Moomaw2015>

<sup>3</sup> Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units; Final Rule, 80 Fed. Reg. 64,662, 64,885 n.907 (Oct. 23, 2015).

<sup>4</sup> See Federal Plan Requirements for Greenhouse Gas Emissions From Electric Utility Generating Units Constructed on or Before January 8, 2014; Model Trading Rules; Amendments to Framework Regulations; Proposed Rule, 80 Fed. Reg. 64,966 (Oct. 23, 2015).

<sup>5</sup> Letter to Mary Jo White from Investors. 2016. <http://bit.ly/SECBiomassPetition>

<sup>6</sup> Dogwood Alliance. 2016. <http://bit.ly/StopAbengoa2016>; Bill Poovey / GSA Business. 2016. <http://bit.ly/LaurensCo2016>

<sup>7</sup> Booth. 2016. Bioenergy and the waste-burning loopholes in the Clean Power Plan, and how to avoid them. <http://bit.ly/Booth2015a>

<sup>8</sup> <http://www.pfpi.net/carbon-emissions>

trees in pellet production increases emissions compared to fossil fuels for anywhere from 35 to 100 years.<sup>9</sup> Additionally, current carbon accounting protocols do not incorporate carbon emissions from soil disturbance, which can last anywhere between five and fifty years after harvest.<sup>10</sup> As concluded in a 2013 European Commission Joint Research Center report, "in order to assess the climate change mitigation potential of forest bioenergy pathways, the assumption of biogenic carbon neutrality is not valid under policy relevant time horizons (in particular for dedicated harvest of stem-wood for bioenergy only) if carbon stock changes in the forest are not accounted for."<sup>11</sup> A number of other studies have also concluded that the present convention of ignoring carbon stock changes on the landscape, and only counting emissions from biomass manufacturing and transport, dramatically underestimates the carbon impacts of bioenergy.

The fact that biomass may be "renewable" in some sense does not mean it is beneficial for the climate. In December 2015, many countries agreed to stop climate change before warming the earth more than 2 degrees Celsius. Although biomass is renewable in the sense that trees will grow back -- and absorb carbon as they do -- it is important to remember that regrowth and carbon absorption will take decades.<sup>12</sup> That regrowth will not aid in the fight against climate change and additional harvests will lead to decreases in the carbon stocks of forests in the long run. Regrowth in itself is not a sufficient guarantee that woody bioenergy will aid in the fight against climate change. The best solution is to keep trees standing, where they will continuously absorb carbon for decades *now*. Editorial boards at the Washington Post and New York Times agree -- burning biomass should not be the future of renewable energy.<sup>13</sup>

As biomass markets in the EU and UK have expanded, they have increasingly relied on wood pellets imported from North America. The wood pellet manufacturing industry is now demonstrably harvesting trees that are several decades to more than a century old, and claiming their practices are "sustainable." The industry claims it uses trees that are low timber value -- including mature hardwood trees sourced from wetland and swamp forests and other forest types. But these trees have extremely high value to biological and human communities and represent some of the most important carbon reserves in the eastern United States. Further expansion of "sustainable" biomass globally will likely continue to expand the harvest of natural forests under the definitional guise that the industry is using "waste" or non-merchantable wood. There is no waste in natural systems and this approach is lopsided towards markets and will invariably put more pressure on natural forests. We suggest that The Forest Dialogue take a hard look at the use -- and misuse -- of the word "sustainable" and "waste wood" in conjunction with bioenergy.

Finally, biomass energy is low-value, inefficient, and extremely expensive compared to other renewables. A number of biomass companies have gone bankrupt, despite being partially subsidized by governmental

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<sup>9</sup> NRDC Issue Brief. 2016. Think wood pellets are green? Think again. <http://bit.ly/BioenergyModel>

<sup>10</sup> Law and Harmon. 2011. Carbon Management 2(1):73–84. Forest sector carbon management, measurement and verification, and discussion of policy related to climate change <http://bit.ly/Law2011>

<sup>11</sup> Agostini, A. et al. 2013. Carbon accounting of forest bioenergy. Joint Research Centre, Institute for Energy and Transport, European Commission.

<sup>12</sup> Letter to Senators McConnell, Reed, Murkowski, and Cantwell from scientists regarding biomass. 2016. <http://bit.ly/SciLetter2016>

<sup>13</sup> Washington Post Editorial Board. 2016. Dear Congress: Burning wood is not the future of energy <http://wpo.st/aEOe1>

assistance via grants, loans, subsidies, tax credits, or bailouts.<sup>14</sup> The money dumped into assisting these defunct companies could have funded solar, wind, or other renewable energy programs that have truly minimal carbon emissions.

Exploring pathways for cutting and burning forests and using unproven biomass energy/carbon capture and storage (BECCS) technology will undermine our ability to keep rising global temperatures below 1.5 degrees Celsius. Our best technology for carbon sequestration is the maintenance and expansion of intact forest landscapes and global strategies and policies need to reflect this.

On behalf of our millions of members, sincerely:

Biofuelwatch  
Center for Biological Diversity  
Clean Air Task Force  
Dogwood Alliance  
Friends of the Earth  
Greenpeace  
Natural Resources Defense Council (NRDC)  
Partnership for Policy Integrity  
Royal Society for the Protection of Birds  
Southern Environmental Law Center  
Stand

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<sup>14</sup> Assorted news articles from The Biomass Monitor: <http://bit.ly/MaineBiomassBailout>, <http://bit.ly/NHBiomassFine>, <http://bit.ly/USCovantaClosure>, <http://bit.ly/GermanPelletsBankruptcy>, <http://bit.ly/AbenqoaBankruptcy>