

## **Response to Public Consultation for the Revision of the Guidelines for State Aid for Environmental Protection and Energy 2014-2020 (EEAG)**

January 5, 2021

Please accept this feedback on the European Commission's public consultation for revisions to the guidelines for State aid for environmental protection and energy (EEAG) from the Southern Environmental Law Center (SELC). SELC is a U.S.-based non-profit organization that uses the power of the law to champion the environment of the Southeast U.S.

SELC supports the Commission's commitment to reducing carbon emissions and ensuring that the EU's climate policies are consistent with the European Green Deal's goals of reducing pollution, restoring biodiversity, and creating a healthy and just society for European citizens. In order to achieve these goals, however, the Commission must revise its State aid guidelines to ensure that public resources are being spent in a manner that will actually decarbonize the energy sector and support the growth of diverse, healthy forests that can support biodiversity and mitigate climate change. Specifically, as it relates to forest biomass, the State aid rules must be revised as follows:

1. **End operating aid for solid biomass and end support for new conversions** of coal-fired power installations to biomass as well as for BECCS (bioenergy with carbon capture and storage) installations;
2. **Integrate a consideration of external costs in the assessment principles;**
3. **Improve monitoring and reporting of support through various support mechanisms** to increase transparency and avoid distortions.

During the 2010-2020 period, State aid supported the use of wind, solar, and biomass energy. Over the past decade it has become clear that not only does large-scale biomass energy fail to assist in the EU's carbon reduction goals, but it has also failed to become cost-competitive in the way that solar and wind have. Specifically, the levelized cost of biomass-generated electricity has remained essentially unchanged, whereas the costs for wind and solar have significantly decreased over the last decade. Accordingly, State aid for environmental protection and energy should not be directed towards biomass energy, as doing so is counterproductive to the goals of State aid and the EU's broader climate and biodiversity goals.

### **Burning Woody Biomass for Electricity Exacerbates Climate Change:**

Per unit of energy, biomass plants emit more carbon from their smokestacks than coal, and any carbon "benefit" is hypothetical and occurs, if at all, decades to a century later—and then only if forests are allowed to regrow and are not converted to plantations or recut for energy. As demonstrated by a recent lifecycle carbon analysis, even when wood is sourced from "sustainably managed forests," burning that wood for electricity increases carbon pollution for

over 40 years.<sup>1</sup> This is incompatible with the timeline needed to meet the Paris Agreement targets and the EU's new carbon reduction goals.

The climate impacts of large-scale bioenergy use have been well documented throughout the scientific community. Almost five years ago, an EU Commission report highlighted that energy scenarios with reduced bioenergy use and greater reliance on wind and solar resulted in lower carbon emissions.<sup>2</sup> And more recently, in 2019, the European Academies Science Advisory Council (EASAC) warned about the serious mismatches between bioenergy science and policy in the EU's Renewable Energy Directive.<sup>3</sup> Concerns over the impacts of woody biomass were also expressed in an open letter to the EU Parliament, signed by almost 800 leading scientists, which called for urgent action to restrict woody biomass schemes.<sup>4</sup>

EU climate policies, including the State aid guidelines, however, do not reflect the best available science on the issue of bioenergy carbon emissions. Instead, such policies assume that bioenergy smokestack emissions are zero. When the actual lifecycle carbon emissions of bioenergy feedstocks are accurately accounted for, including smokestack emissions, as well as direct and indirect land-use change impacts, it becomes clear that support for woody biomass is incompatible with the EU's 2030 and 2050 climate targets.

It is also important that State aid not be provided to support bioenergy paired with carbon capture and storage, a technology known as BECCS. There is no scientific basis for assuming that BECCS will result in negative emissions after fully accounting for the lifecycle biomass carbon emissions. In the best case scenario, a BECCS facility can only capture the smokestack emissions; it cannot mitigate the loss of carbon in the forests from biomass harvesting. A new report from the prominent U.K. think tank, Chatham House, warns policy makers against “sleepwalking towards BECCS,” based in large part on the “erroneous” assumption that the underlying biomass is “carbon neutral.”<sup>5</sup>

### **Producing and Burning Woody Biomass Harms Communities:**

The EU's bioenergy demand negatively impacts the health and well-being of communities at both ends of the supply chain. From harvesting to manufacturing, and from transportation to

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<sup>1</sup> Spatial Informatics Group, *The Carbon Impacts of UK Electricity Produced by Burning Wood Pellets from Drax's Three U.S. Mills* (2019), [https://www.southernenvironment.org/uploads/publications/2019-05-27\\_Drax\\_emissions\\_-\\_SIG\\_report\\_Phase\\_II.PDF](https://www.southernenvironment.org/uploads/publications/2019-05-27_Drax_emissions_-_SIG_report_Phase_II.PDF); see SELC, *Fact Sheet: New Report Shows Wood Pellets from Drax's U.S. Mills Increase Carbon Emissions During the Timeframe Necessary to Address Climate Change* (2019), [https://www.southernenvironment.org/uploads/publications/2019-08-08\\_FINAL\\_Biomass\\_Factsheet\\_Drax\\_SIG\\_Report\\_Updated1.PDF](https://www.southernenvironment.org/uploads/publications/2019-08-08_FINAL_Biomass_Factsheet_Drax_SIG_Report_Updated1.PDF).

<sup>2</sup> Forest Research, *Carbon Impacts of Biomass Consumed in the EU: Quantitative Assessment* (Dec. 2015), <https://ec.europa.eu/energy/sites/ener/files/documents/EU%20Carbon%20Impacts%20of%20Biomass%20Consumed%20in%20the%20EU%20final.pdf>.

<sup>3</sup> European Academies Science Advisory Council, *Serious Mismatches Continue Between Science and Policy in Forest Bioenergy* (2019), <https://easac.eu/publications/details/global-change-biology-energy/>.

<sup>4</sup> Letter from 800 Scientists, to the European Parliament re: Forest Biomass (updated Jan. 14, 2018), [http://www.pfpi.net/wp-content/uploads/2018/04/UPDATE-800-signatures\\_Scientist-Letter-on-EU-Forest-Biomass.pdf](http://www.pfpi.net/wp-content/uploads/2018/04/UPDATE-800-signatures_Scientist-Letter-on-EU-Forest-Biomass.pdf).

<sup>5</sup> Chatham House, *Net Zero and Beyond: What Role for Bioenergy with Carbon Capture and Storage?* (Jan. 29, 2020), <https://www.chathamhouse.org/publication/net-zero-and-beyond-what-role-bioenergy-carbon-capture-and-storage>.

combustion, the wood pellet and biomass-burning industries emit harmful air pollution, such as particulate matter, smog and dust, and hazardous or toxic air pollutants.

In the southeastern U.S., the wood pellet manufacturing facilities that supply much of the EU's bioenergy demand are located in areas that already endure some of the highest logging rates in the world, with surrounding communities being comprised of predominately minority populations that are suffering from high poverty rates and are already facing the threat of flooding from climate change.<sup>6</sup> All of these issues are exacerbated by the forest harvesting to supply wood to pellet mills. Moreover, a shocking pattern of air quality violations has been documented in the wood pellet industry throughout the southern U.S.<sup>7</sup> This pollution disproportionately impacts the low-income communities and communities of color living closest to the facilities, communities which are often already burdened by numerous sources of pollution.

Furthermore, burning woody biomass at EU power stations emits air pollution that causes an array of negative health impacts that result in emergency room visits, hospitalizations, and premature deaths.<sup>8</sup> In recognition of these harms, in the U.K.'s 2019 Clean Air Strategy, the government committed to consider closing subsidies for new coal-to-biomass conversions to help reduce harmful emissions of PM2.5.<sup>9</sup>

### **Demand for Woody Biomass Degrades Forests and Biodiversity:**

Current reliance on large-scale woody biomass for electricity also undermines the EU's efforts to protect global biodiversity. Years of on-the-ground investigations conducted by independent journalists and non-profit organizations have documented that much of the EU's bioenergy comes from whole trees from clearcutting highly biodiverse and mature hardwood forests in the southeastern U.S.<sup>10</sup> This area, known as the North American Coastal Plain, was recently designated as a Global Biodiversity Hotspot due to the large number of endemic species in the

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<sup>6</sup> See Rachel Carson Council, *Clear Cut: Wood Pellet Production, the Destruction of Forests, and the Case for Environmental Justice* (2019), <https://www.sec.gov/rules/petitions/2019/ptn4-741-exb.pdf>.

<sup>7</sup> Environmental Integrity Project, *Dirty Deception: How the Wood Biomass Industry Skirts the Clean Air Act* (Apr. 26, 2018), <https://www.environmentalintegrity.org/wp-content/uploads/2017/02/Biomass-Report.pdf>.

<sup>8</sup> Letter from prominent health organizations to U.S. Congress about the health harms of biomass (Sept. 13, 2016), <https://www.lung.org/assets/documents/advocacy-archive/health-organizations-letter-biomass.pdf>; Biofuelwatch, *Burning Wood in Power Stations: Public Health Impacts*, <https://www.biofuelwatch.org.uk/wp-content/uploads/Biomass-Air-Pollution-Briefing.pdf>; Fern Briefing Note, *Burning Biomass: The Impact on European Health* (Jan. 2018), <https://www.fern.org/fileadmin/uploads/fern/Documents/briefingnote%20burning%20biomass.pdf>.

<sup>9</sup> UK Defra, *Clean Air Strategy 2019* (Jan. 14, 2019), [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/770715/clean-air-strategy-2019.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/770715/clean-air-strategy-2019.pdf).

<sup>10</sup> Joby Warrick, *How Europe's Climate Policies Led to More U.S. Trees being Cut Down*, Washington Post (June 2, 2015), [https://www.washingtonpost.com/national/health-science/how-europes-climate-policies-have-led-to-more-trees-cut-down-in-the-us/2015/06/01/ab1a2d9e-060e-11e5-bc72-f3e16bf50bb6\\_story.html](https://www.washingtonpost.com/national/health-science/how-europes-climate-policies-have-led-to-more-trees-cut-down-in-the-us/2015/06/01/ab1a2d9e-060e-11e5-bc72-f3e16bf50bb6_story.html); Dogwood Alliance, Natural Resources Defense Council, and SELC, *Global Markets for Biomass Energy are Devastating U.S. Forests* (2019), [https://www.southernenvironment.org/uploads/publications/9965\\_NRDC\\_2019\\_Booklet\\_05\\_EM\\_-\\_WEB\\_VERSION.PDF](https://www.southernenvironment.org/uploads/publications/9965_NRDC_2019_Booklet_05_EM_-_WEB_VERSION.PDF).

area as well as the high-level of habitat degradation that has already occurred.<sup>11</sup> A 2016 EU Commission report recognized the “direct negative ecological consequences” of much of the bioenergy sourcing occurring in the southeastern U.S.<sup>12</sup>

Biodiversity loss and climate change are inextricably linked. Unfortunately, as it relates to forest biomass, EU-level policies aimed at addressing climate change have failed to accurately reflect the carbon impacts of large-scale biomass use and, furthermore, have failed to adequately protect forests and biodiversity from the impacts of increasing biomass demand. As acknowledged in the recent Biodiversity Strategy, “[t]he use of whole trees . . . for energy production – whether produced in the EU or imported – should be minimized.”<sup>13</sup>

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As discussed in more detail above, the use of forest-derived or woody biomass for large-scale electricity and heat production increases atmospheric carbon in the short- and medium-term, emits dangerous local air pollution at both the manufacturing and combustion stages, and is responsible for the degradation of highly biodiverse ecosystems. Additionally, biomass does not live up to the promises associated with receipt of State aid, especially when compared to wind and solar. The European Commission should therefore revise the State aid guidelines for environmental protection and energy to remove support for biomass energy.

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<sup>11</sup> Critical Ecosystem Partnership Fund, *The North American Coastal Plain Recognized as the World’s 36<sup>th</sup> Biodiversity Hotspot* (Nov. 7, 2017), <https://www.cepf.net/stories/north-american-coastal-plain-recognized-worlds-36th-biodiversity-hotspot>.

<sup>12</sup> EU Commission, *Environmental Implications of Increased Reliance of the EU on Biomass from the South East U.S.* (2016), <https://op.europa.eu/en/publication-detail/-/publication/8005fb30-81e9-4399-9b19-01af823fa42d>.

<sup>13</sup> EU Commission, *EU Biodiversity Strategy for 2030: Bringing Nature Back into our Lives* at 2.2.5 (2020), <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1590574123338&uri=CELEX%3A52020DC0380>.