

# ***Drax: The Destroyer of Forests***

## **The Western Expansion of the Wood Pellet Industry and Its Growing Opposition**



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**Cover Photos:** Top: Eric J. Shelton/*Mississippi Today*; Bottom: © *Extinction Rebellion*



*The Rachel Carson Council, founded in 1965, is the national environmental organization envisioned by Rachel Carson to carry on her work. We promote Carson's ecological ethic that combines scientific concern for the environment and human health with a sense of wonder to build a more sustainable, just, and peaceful future.*

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# INTRODUCTION

*Drax: The Destroyer of Forests* relates an ongoing contemporary saga still unfolding. Outside the spotlight of mainstream media, a single corporation, Drax, burns the remains of American forests to produce electricity while continuing to grow and spread like a metastatic cancer from the U.K., its home, to the southeastern United States, then along the Gulf Coast, and, most recently in a new burst, out to California, the Pacific Northwest, and on to the giant markets of Asia.

When Drax and the Enviva Corporation, the other major producer of industrial scale wood pellets, began their operations, few people noticed except for the poor, predominately Black communities of rural North Carolina who suffered the ravages of leveled forests, the roar of trucks, and the dust and debris from wood pellet factories that coated their homes, their surroundings, and their lungs with powdery sawdust.

But, by 2015, another part of the story began to emerge. Seeking allies in this latest environmental justice struggle against yet another assault on their long beleaguered communities, local activists linked with a few independent journalists, some intrepid scientists and academics, and a patchwork of local, regional, and small national organizations. A movement was born.

Today, that movement against the wood pellet industry has begun to grow and spread, not unlike the industry itself, from a mostly North Carolina concern, to a national and increasingly global force that has begun to successfully challenge and slow the designs of the wood pellet giants, gain the support of progressive policy makers, and put wood pellet opponents, not just Drax and Enviva, on the political map.

*Drax: The Destroyer of Forests* is the fourth major report by the Rachel Carson Council on the perils of wood pellet production. It reflects the wide-ranging research and writing of its principal author, Jackson Ronald of Duke University, and the critical contributions of RCC senior staff, Joy Reeves and Claudia Steiner. Like our previous analyses, *Clear Cut*, *Bad Business*, and *Greenwashing*, this new *Drax* report grows out of not only the work of the Rachel Carson Council, but also the efforts of the broad movement described here and our partners and colleagues from the beginning. These include the Dogwood Alliance, the Southern Environmental Law Center (SELC), the NRDC, and the Southern Forest Conservation Coalition (SFCC) which has been coordinated by Emily Zucchini of Dogwood and also includes individuals like Jack Spruill, Priss Endo of the Sierra Club, Andy Wood of the Coastal Plain Conservation Group, and frontline environmental justice leaders like



Image credit: USFWS.

Anita Cunningham, Brenna Bell, Portia Shepherd, Dr. Krystal Martin, Dr. Treva Gear, and Dr. Ruby Bell. Rita Vaughan Frost, formerly with Dogwood and the SFCC, now provides strategic leadership from the NRDC, while legal actions have been led by Heather Hilaker of the SELC. But all our work and the movement against wood pellets depends upon the bold opposition and actions of countless leaders and members of grassroots community groups across the country who have joined with us in the nation's capital along with hundreds and hundreds of young environmental leaders from the national RCC Campus Network.

But *Drax: The Destroyer of Forests* is not simply an exposé of the latest machinations of the wood pellet industry, or overdue recognition of those community and environmental activists who have raised the alarm and taken action. It is designed to offer hope, to engage and activate those who read it to join in this burgeoning movement, to take action, and to convince others to do the same. That is why this report does not have an actual ending. As Rachel Carson said, "Conservation is a cause that has no end." Instead, you will find here detailed recommendations for how to become involved, policy recommendations to press on legislators and policy makers, and resources and organizations to help you join this fight. And win it.

— Robert K. Musil, Ph.D., M.P.H., President & CEO, the Rachel Carson Council

# I. WOODY BIOMASS

## A. The Beginnings of the Industry

**T**he saga of how a small, insignificant industry producing wood pellets has grown exponentially into a global giant adding to the climate crisis while destroying forests and harming communities in its wake is also a stirring story of growing citizen awareness and action. A grassroots movement and rising organizational opposition now challenge corporations like Drax and Enviva at every turn, exposing their false greenwashing claims of sustainability, and significantly weakening their financial standing. These important environmental episodes of David versus Goliath have occurred mostly beneath the notice of major media and mainstream policy makers. But, as *Drax: The Destroyer of Forests* reports, that is changing rapidly. As movement opposition continues to grow and as political conditions in the United States shift, the discrediting and decline of the wood pellet industry will soon emerge as a story that will inspire millions. But it all began, not too long ago, in rural North Carolina.

The wood pellet industry in the United States started out small, with regional pellet mill facilities that had existed for decades supplying wood pellets for heating purposes. Production centered primarily in the U.S. Northwest and Northeast, where small-scale production based on sawmill residues supported regional residential heating markets. The facilities produced low quantities of around 20-40,000 metric tons of wood pellets per year.<sup>1</sup> These markets still exist today, but they are stunted by the growing natural gas network and the limited price competitiveness of wood pellets nationally.

Over the past decade, however, U.S. production has grown dramatically because of demand from EU markets, leading to wood pellet industry expansion, primarily in the Southeast United States given its proximity to EU ports.<sup>2</sup> But this growth in demand is not limited to EU markets. Demand for wood pellets has since expanded into Japan and South Korea, a trend which will be explained later. The U.S. energy sector does not use industrial scale wood pellets to be burned for heat or power due to a lack of incentives, especially since wood pellets are too expensive to be used in bio-power facilities for electricity. Companies like Enviva and Drax built wood pellet facilities in the Southeast with capacity far larger than those of the plants that supplied residential heating demand. These big mills cannot source from sawdust leavings alone; instead, they require whole trees from forests in our southern states in order to produce wood pellets at capacity.<sup>3</sup>



*Wikimedia Commons Geneva2106.*

<sup>1</sup> Pellet Mill Magazine, US & Canada Fuel Pellet Producer Map (2024). <https://issuu.com/bbiinternational/docs/pmap-2024-issuu>

<sup>2</sup> Lamers, Patrick. "U.S. Pellet Industry Overview." Idaho National Laboratory, January 1, 2017. <https://doi.org/10.2172/1485429>.

<sup>3</sup> Lawson, Alex. "Drax-Owned Wood Pellet Plant in US Broke Air Pollution Rules Again." *The Guardian*, May 29, 2023, sec. Business. <https://www.theguardian.com/business/2023/may/29/drax-owned-wood-pellet-plant-in-us-broke-air-pollution-rules-amite-bioenergy-mississippi-emissions-limits>.

*Today, the U.S. South produces 10.5 million metric tons of wood pellets annually.<sup>4</sup> Woody biomass and major pellet production is spreading across the U.S., despite popular efforts to prevent it.*

## **B. Drax Background and History**

Drax is one of the largest consumers of wood pellets in the world. In 2012, the company committed to transforming its business into primarily biomass-fueled energy generation, using compressed wood pellets. Once a coal power generation plant, the Drax Power Station in Selby, England transitioned to burning wood pellets in 2013. At the same time, it began constructing storage domes and pellet manufacturing facilities to supply its newly found demand. Since 2013, Drax has built pellet manufacturing facilities in Mississippi and Louisiana and established ports throughout the U.S., Canada, and the U.K. to become one of the largest companies in the wood pellet industry.<sup>5</sup> By 2016, Drax had constructed five facilities operating throughout Mississippi and Louisiana with a total production capacity of 6.1 million metric tons (while Enviva had seven facilities operating across the Southeast in Mississippi, Virginia, Florida, and North Carolina).

## **C. Enviva Background and History**

Understanding Enviva's early growth is key to also understanding Drax's expansion. The world's largest producer of wood pellets, Enviva is capable of producing over 5 million tons per year, all for export. More than half are made in North Carolina. Enviva first started out in the wood pellet industry by purchasing two small existing pellet mills in Mississippi in 2010 and then built its first 410,000-ton capacity plant in Ahoskie, North Carolina the following year. Like Enviva's other facilities, the Ahoskie plant operates 24 hours a day, seven days a week.<sup>6</sup> Today, Enviva has a total of eight plants throughout the Southeast, and has plans for additional plants along the Gulf Coast. Each of Enviva's eight plants draws from the surrounding 50–75 miles for biomass.<sup>7</sup> Enviva declared bankruptcy in March 2024, and while it eventually re-emerged, the company still fails to meet its wood pellet contract obligations because of its production facilities underperformance amid chronic systemic manufacturing problems.<sup>8</sup>

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<sup>4</sup> "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis." Accessed July 16, 2024. <https://www.eia.gov/biofuels/biomass/?year=2016&month=12>.

<sup>5</sup> Drax US. "Our History," 2023. <https://www.drax.com/us/about-us/our-history/>.

<sup>6</sup> Enviva, Inc. "Ahoskie, NC." Accessed July 15, 2024. <https://www.envivabiomass.com/facility/ahoskie-nc/>.

<sup>7</sup> Stradling, Richard. "SLOW BURN (Part 3): World's Largest Wood Pellet Maker Both Welcomed and Condemned in NC." Raleigh News & Observer, January 3, 2020. <https://www.newsobserver.com/news/business/article238397398.html>.

<sup>8</sup> Mongabay Environmental News. "Enviva Bankruptcy Fallout Ripples through Biomass Industry, U.S. and EU," April 2, 2024. <https://news.mongabay.com/2024/04/enviva-bankruptcy-fallout-ripples-through-biomass-industry-u-s-and-eu/>.

## D. How Did the Wood Pellet Industry Gain a Foothold?

As policymakers struggle to find alternatives for fossil fuels, the use of wood pellets as fuel for large-scale electricity production has exploded. The American South has increasingly become the primary sourcing ground for plants in the U.K., Europe, and Asia. While the Intergovernmental Panel on Climate Change (IPCC) has not supported forest biomass electricity generation with carbon capture, Drax and other wood pellet supporters have repeatedly mischaracterized their activity, claiming that wood pellet operations are climate-friendly and serve as a “low-carbon replacement” bridge fuel from coal to renewables.<sup>9, 10</sup>

Following the Kyoto Protocol, the United Nations Framework Convention on Climate Change (UNFCCC) decided on accounting rules for forestry emissions. The UNFCCC based its accounting on the assumption that a forest’s carbon should be considered “released” when harvested, not when burned. Consequently, emissions are counted from the nation where the trees are sourced from, not where they are burned. This ruling allows countries to import biomass, use it for energy production, and then mark it as zero emissions. Thus, any emissions from actual biomass burning are not reported. By qualifying biomass (and the substitution of coal by imported wood pellets) as “renewable,” the ruling has enabled companies like Drax to apply for renewable energy subsidies. For instance, Drax received 789 million pounds (or more than one billion dollars) in subsidies in 2018. These policies fail to recognize that removing forest carbon stocks for bioenergy actually leads to an initial *increase* in emissions.<sup>11</sup>

Countries pursuing carbon-neutral goals, as agreed upon under the Kyoto Protocol (which committed countries to decreasing their emissions in accordance with agreed individual targets),<sup>12</sup> took advantage of these UNFCCC rules and their oversimplification to achieve carbon neutrality goals. The misclassification of forest biomass as “renewable” also led to the inclusion of biomass in the European Commission’s definition of “renewable energy” in its 2009 Renewable Energy Directive. This allowed governments to offer renewable energy *subsidies* to replace coal with biomass in large, already-constructed power stations.

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### Without these subsidies, wood pellet energy generation would be economically untenable.

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The biggest concern here is an economic one: by incentivizing facilities to generate electricity using biomass, governments are likely to initially *increase* emissions of carbon dioxide (per kWh of electricity) at those plants simply as a result of **burning fuel that is less efficient than coal**.<sup>13</sup>

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<sup>9</sup> “Carbon Capture Can’t Fix the Climate Impacts of Forest Biomass Power,” January 17, 2024. <https://www.nrdc.org/bio/sami-yassa/carbon-capture-cant-fix-climate-impacts-forest-biomass-power>.

<sup>10</sup> “Explore Sustainable Biomass.” n.d. Drax Global. Accessed June 20, 2025. <https://www.drax.com/biomass/>.

<sup>11</sup> Norton, Michael, Andras Baldi, Vicas Buda, Bruno Carli, Pavel Cudlin, Mike B. Jones, Atte Korhola, et al. “Serious Mismatches Continue between Science and Policy in Forest Bioenergy.” *GCB Bioenergy* 11, no. 11 (November 2019): 1256–63. <https://doi.org/10.1111/gcbb.12643>.

<sup>12</sup> “What Is the Kyoto Protocol? | UNFCCC.” Accessed July 16, 2024. [https://unfccc.int/kyoto\\_protocol](https://unfccc.int/kyoto_protocol).

<sup>13</sup> Norton, Michael, Andras Baldi, Vicas Buda, Bruno Carli, Pavel Cudlin, Mike B. Jones, Atte Korhola, et al. “Serious Mismatches Continue between Science and Policy in Forest Bioenergy.” *GCB Bioenergy* 11, no. 11 (November 2019): 1256–63. <https://doi.org/10.1111/gcbb.12643>.

## II. NORTHWEST THREATENED

**T**he forests of the Pacific Northwest offer a place of natural beauty and grandeur and splendid national parks. But, unless halted, the wood pellet industry threatens these northwestern forests with the destruction already witnessed across the Southeast.



*Muir Woods. Credit: National Park Service.*

National parks there see a combined total of 16.6 million visitors every year.<sup>14</sup> In October 1963, Rachel Carson was one such visitor to California's forests. Despite her terminal cancer, which left her in a wheelchair, she endeavored to tour Muir Woods National Monument in California with her friend and literary agent Marie Rodell as her travel companion. She was hosted by David Brower, the first Executive Director of the Sierra Club and founder of the Friends of the Earth, and his wife, Anne. As Douglas Brinkley writes in his book *Silent Spring Revolution*, "Carson had to expend her energies carefully. The woman who couldn't muster the strength to go to the dedication of the Pinchot Institute in eastern Pennsylvania was making a cross-country trip to San Francisco. That was no double standard. It just showed how very much Carson wanted to see the big trees, as well as the Pacific Coast."<sup>15</sup> Despite being relegated to a wheelchair to conserve her strength, she explored the woods of California, and its ecosystem of mature trees mixed with young trees and understory dense with plants. She wrote to Dorothy Freeman that she "longed to wander off, alone, into the heart of the woods, where [she] could really get the feeling of the place ... [i]nstead of being surrounded by

<sup>14</sup> Nudd, Ash. "List of the U.S. National Parks by Visitation (the Most and Least Visited Parks)." *Dirt In My Shoes* (blog), November 28, 2023. <https://www.dirtinmyshoes.com/us-national-parks-by-visitation/>.

<sup>15</sup> Brinkley, Douglas. *Silent Spring Revolution: John F. Kennedy, Rachel Carson, Lyndon Johnson, Richard Nixon, and the Great Environmental Awakening* Harper, an imprint of HarperCollinsPublishers, 2022. 344-345

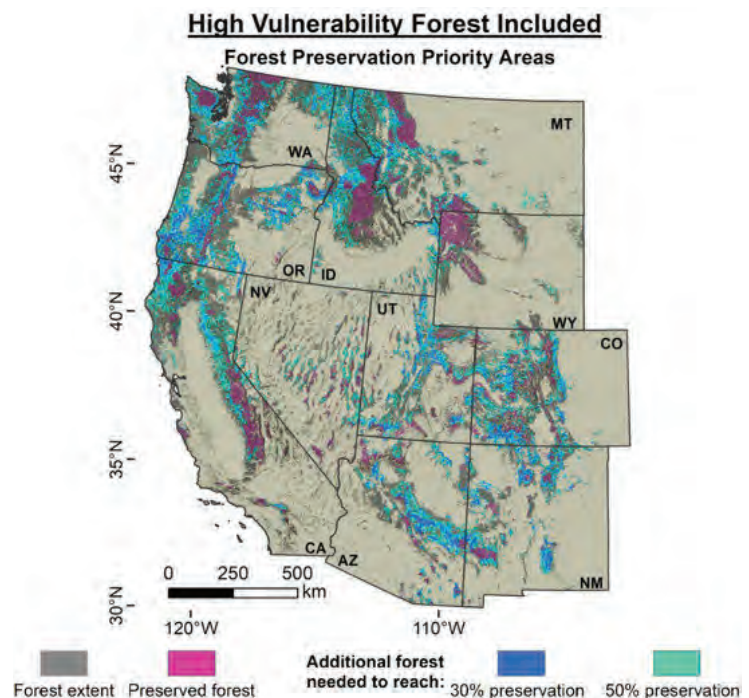
people! And confined to a wheelchair.”<sup>16</sup> She valued forests, not just for their ecosystem services, but for the joy she experienced while immersed among them. Earlier in her life, in 1956, Rachel Carson founded The Nature Conservancy’s chapter in Maine, out of concern for its forests and the threat of losing wildlife habitat.<sup>17</sup>

Now the wood pellet industry has started moving from the Southeast out West, to the Pacific Northwest, a land that holds many of the remaining American old growth forests, national parks that receive millions of visitors every year, and a large swath of forests the industry is looking to exploit. As the larger, international companies of the wood pellet industry expand operations into California and Washington, they pose hazards to local and rural communities from emissions and dust pollution, habitat loss, and clear-cut forests.

Small-scale wood pellet facilities have operated for years; however, these consume bioproducts from saw mills and are not responsible for clear-cutting forests. Drax has had three facilities proposed which will harvest from forests in California, Oregon, and Washington, two of which have since been halted.

Drax is using the same tactics in their proposed expansion territories that it used in the Southeastern U.S., where the wood pellet industry started up quickly. There, opposition started up only after wood pellet production *began*, making it more challenging to oppose the entrenched wood pellet facilities despite the harm they were and are causing to local communities. That opposition is still growing, and through coalition building and local pressure, activists have been able to stop Drax’s two proposed projects in California.

In the Pacific Northwest, the current facilities manufacturing wood pellets have a combined capacity of 545,340 metric tons of wood pellets, across nine facilities operating in the three states.<sup>18</sup> Drax’s proposed facility in Longview, Washington will produce 450,000 metric tons of wood pellets annually when operations begin. It will harvest from all forests within a 50-mile radius, reaching into both Oregon and Washington forests.<sup>19</sup> The two facilities in California’s Lassen and Tuolumne counties would have had a combined annual capacity of one million tons of pellets.<sup>20</sup>



**Forest Preservation Priority Areas**  
 Law, Beverly E., William R. Moomaw, Tara W. Hudiburg, William H. Schlesinger, John D. Sberman, and George M. Woodwell. "Creating Strategic Reserves to Protect Forest Carbon and Reduce Biodiversity Losses in the United States." *Land* 11, no. 5 (May 11, 2022): 721. <https://doi.org/10.3390/land11050721>.

<sup>16</sup> *Ibid*, 344-345.

<sup>17</sup> The Nature Conservancy. "About the Maine Chapter." Accessed July 16, 2024. <https://www.nature.org/en-us/about-us/where-we-work/united-states/maine/about-our-work/>.

<sup>18</sup> "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis." Accessed July 3, 2024. <https://www.eia.gov/biofuels/biomass/#dashboard>.

<sup>19</sup> Brenna, Bell. "In 2024, We're Stopping the Drax Biomass Plant in Longview, WA." 350PDX: Climate Justice, December 12, 2023. <https://350pdx.org/in-2024-were-stopping-the-drax-biomass-plant-in-longview-wa/>.

<sup>20</sup> "U.K.'s Drax Targets California Forests for Two Major Wood Pellet Plants." Accessed July 16, 2024. <https://news.mongabay.com/2024/05/uks-drax-targets-california-forests-for-two-major-wood-pellet-plants/>.

There have been four wood pellet facilities proposed in the Pacific Northwest: three of them by Drax, and the other by Pacific Northwest Renewable Energy (PNWRE). Two of the facilities proposed by Drax that were to be sited in California have since been blocked by activists and stymied by financial difficulties. Nonetheless, Drax is still moving ahead with another proposed wood pellet factory in Longview, Washington. PNWRE is responsible for the factory proposed in Grays Harbor, Washington, an old lumber port that has witnessed other environmentally harmful project proposals such as a coal export terminal and a methanol plant (which were eventually defeated or abandoned by their developers). The port has long since been a hub of exporting wood products, and top trading partners include China, Japan, South Korea, Philippines, and Australia. However, the major factories proposed by Drax and PNWRE are far different from previous small-scale wood pellet facilities in Washington.<sup>21</sup> While proposing that they will supply their demand with wood waste from other facilities, the capacity of the proposed plants tells a different story. All other plants in the region have capacities of about 70,000 metric tons per year or less, some half that. Meanwhile, the proposed facilities by Drax and PNWRE will each have a capacity of 450,000 metric tons.<sup>22</sup> (The PNWRE facility's air emissions permit was approved in 2024, and Drax expects to begin operations at Longview by the end of 2025 pending permit approval from Washington's Southwest Clean Air Agency.<sup>23</sup>) While Drax claims that its biomass facility will promote carbon-neutral energy, it will require far more woody biomass than what waste products from other mills can provide. When these potential projects are done clear-cutting, they propose to then turn the carbon-rich, biodiverse forests that cover most of the northwest into sterile, monoculture tree plantations whose purpose it is to grow wood as quickly as possible to convert to fuel.<sup>24</sup>

## A. Drax's Failed Attempt to Gain a Foothold in California

In a historic victory for advocacy groups and Californians in 2025, Drax canceled plans to build the largest proposed wood pellet operation in California. The project would have constructed two wood pellet processing facilities: one in the foothills of the Central Sierra Nevada Mountain range in Tuolumne County, and one in the Modoc Plateau of Northern California, in Lassen County. (plus a Port of Stockton export terminal). If constructed, the pellet mills would have sourced wood from any forest within a 100-mile radius of the facilities.<sup>25</sup> The finished pellets would then have been shipped to the Port of Stockton for export to Asian markets.

While these projects have since been blocked, it is important to examine Drax's proposal as part of a larger, ongoing strategy in which Drax seeks to capitalize on greenwashing opportunities, mislead the public on wildfire management and "sustainability," and take advantage of environmental justice communities.

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<sup>21</sup> Engelfried, Nick. "U.K. Company Wants to Turn Pac NW Trees into International Energy Source." *Columbia Insight* (blog), February 15, 2024. <https://columbiainsight.org/uk-company-wants-to-turn-pac-nw-trees-into-international-energy-source/>.

<sup>22</sup> "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis." Accessed July 3, 2024. <https://www.eia.gov/biofuels/biomass/#dashboard>.

<sup>23</sup> "Southwest Clean Air Agency Permits Open for Public Comments." Accessed July 16, 2024. <https://www.swcleanair.gov/permits/publiccomments.asp>.

<sup>24</sup> In These Times. "The 'Clean Energy' Industry Ravaging Natural Forests to Feed Power Generators," July 12, 2024. <https://inthesetimes.com/article/biomass-power-natural-forests-expanding-wood-pellet-export>

<sup>25</sup> "Golden State | Home." Accessed July 16, 2024. <https://goldenstatenaturalresources.com/>.

## Tuolumne County:

Proposed Location: 12001 La Grange Road,  
Jamestown, CA, 95327

At full production capacity, the facility would have created approximately: 55 full-time jobs, \$186,000 in annual tax revenue and \$80.8 million in economic impact.<sup>26</sup>



## Lassen County:

Proposed Location: 653-800 Washington Avenue,  
Nubieber, CA 96009

At full production capacity, the facility would have created approximately: 65 full-time jobs, \$412,000 in annual tax revenue and \$188 million annual economic impact.<sup>27</sup>



## Port of Stockton:

Proposed Location: Port of Stockton, West Complex  
(Edwards Ave. At Lipes Dr.) Stockton CA

At full production capacity, the facility would have created approximately: eight full-time jobs, \$148,000 in annual tax revenue and \$29.2 million annual economic impact.<sup>28</sup>



<sup>26</sup> Golden State Natural Resources. "Tuolumne County." Accessed July 17, 2024. <https://goldenstatenaturalresources.com/tuolumne-county/>.

<sup>27</sup> Golden State Natural Resources. "Lassen County." Accessed July 17, 2024. <https://goldenstatenaturalresources.com/lassen-county/>.

<sup>28</sup> Golden State Natural Resources. "Port of Stockton." Accessed July 17, 2024. <https://goldenstatenaturalresources.com/port-of-stockton/>.

Full production capacity entails both facilities producing over 1 million metric tons of wood pellets annually—far more than the capability of any other current wood pellet facility in the entire Pacific Northwest. At full capacity, both facilities would have demanded unprecedented levels of biomass for the West Coast. In practical terms, industry would have to clear-cut forests to meet that demand.

## B. The Veiled Agreement: GSNR, an MOU, and Drax

Understanding the early momentum—and eventual halting—of Drax’s failed proposal offers an instructive glimpse into industrial growth patterns. This project in particular planned to operate under a veil of complicated, cloudy arrangements with no real accountability.

The project was first proposed by Golden State Natural Resources (GSNR), a state-sponsored non-profit. GSNR was created as a joint initiative of the Golden State Finance Authority (GSFA) and Rural County Representatives of California (RCRC). GSFA is a government entity that provided the initial funding for GSNR. GSFA is the principal public agency that would have been responsible for reviewing, approving, and providing oversight for the project proposed by GSNR. The project proposal consisted of constructing two wood pellet manufacturing facilities and their port operations. GSFA and RCRC consist of elected County Supervisors from each of their member counties. These agencies aim to serve the interest of rural counties, but focus on economic development and public safety. Had it been approved, the project would have required further approval by other agencies such as land use approval by local authorities, who sometimes require further permits. GSFA had also entered into a 20-year Master Stewardship Agreement with the U.S. Forest Service, responsible for the core of GSNR’s forest management activities. The Stewardship Agreement was designed to provide the feedstock for the pellet facilities. This, too, would have required permits and approvals from various agencies, depending on the harvest location. U.S. Forest or State Forest land requires approval from the U.S. Forest Service, while private lands require a “timber harvest plan,” approved by CalFIRE.<sup>29</sup> Under the Master Stewardship Agreement with the U.S. Forest Service, they agreed that GSFA will work to remove: low and no value woody biomass such as brush, overgrowth, slash, and dying trees with little or no value as timber from California’s forests. It is not the focus of the proposed program to remove or utilize merchantable saw logs as timber, other than incidental volumes associated with forest fuels treatment projects and restoration projects; provided that GSFA may be allowed to remove and utilize unmarketable sawlogs if so provided in an approved Supplemental Project Agreement. The Parties recognize that, currently, the cost of biomass removal exceeds the market value, if any, for such material and that the mutual success of developing an economically viable market for such material will depend on a reliable long term supply, reliable markets, and financial feasibility for removing and utilizing the material.<sup>30</sup>

The agreement between GSFA and the U.S. Forest Service recognized that **the costs of biomass removal exceed the returns they might receive for wood pellets**. This means that, without the substantial subsidies that they anticipated to receive, the proposed project would essentially lose money from the start. When the subsidies stop, the proposed industry stops as well. Within the internal documents of GSFA and the U.S. Forest Service, they recognize that the material value, “if any,” does not cover the “cost of biomass removal.”

<sup>29</sup> “Frequently Asked Questions (FAQS)” Golden State Natural Resources, May 2024. <https://goldenstatenaturalresources.com/wp-content/uploads/2024/05/GSNR-FAQs-5.2024.pdf>

<sup>30</sup> “Master Stewardship Agreement Between the Golden State Finance Authority And the USDA Forest Service, Pacific Southwest Region” signed October 3, 2019. <https://goldenstatenaturalresources.com/wp-content/uploads/2024/02/GSFA-USDAForestSvc-Final-Executed-MSA-2019.pdf>

Further, while “not the focus” of the project, nowhere in the agreement is there a *direct prohibition* against taking **full trees** during the management activities. Any “sawlogs” deemed “unmarketable,” if approved, may be taken. This refers to full trees, which may not serve sawmills but nevertheless provide ecological benefits to the land. GSFA is also GSNR’s principal funder, having authorized GSNR to accept a loan for GSFA for \$10 million to finance the project. GSNR has also received grants from the U.S. Forest Service in addition to the support from the U.S. Forest Service in the Master Stewardship Agreement.<sup>31</sup> Thus, public funding was poured into this project—funding that could otherwise support forest management that does not involve clear-cutting.

Industrial projects like GSNR and Drax’s strain not only public funding but also local environmental quality. GSNR sought a Clean Air Act Title V permit, which would have allowed it to emit more than 100 tons of air pollutants annually.<sup>32</sup>

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**The price tag on those pollutants should not be understated. Air pollution costs the U.S. more than \$790 billion annually,<sup>33</sup> and according to the World Economic Forum, it costs each American \$2,500 per year in healthcare alone.<sup>34</sup>**

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In California, 98% of residents live in communities with reduced air quality.<sup>35</sup> As emissions-related hospitalizations rise, the projects’ perceived economic benefits—bolstered by subsidies—could be undermined completely as they exacerbate local health crises. Meanwhile, curbing air pollution is an economic accelerant: according to the EPA, **each dollar invested in clean air returns \$30-90 in improved health and economic productivity.**<sup>36</sup>

### **C. Biomass in California: False Premises and Promises**

GSNR’s mission is to “enhance the quality of life, public safety, economic development and the environment in rural California.”<sup>37</sup> Nevertheless, while GSNR had claimed that only excess and unmarketable biomass and fire fuels would have been converted into wood pellets, the capacity of the proposed facilities did not align with this assertion. In other places that Drax has operated, like Canada, Drax was discovered to have supplied its wood pellet mills with hardwood trees by clear-

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<sup>31</sup> “Golden State Natural Resources’ Biomass Boondoggle,” July 19, 2023. <https://www.nrdc.org/bio/rita-frost/golden-state-natural-resources-biomass-boondoggle>.

<sup>32</sup> Meyer, Zoe. “Golden State Natural Resources’ Wood Pellet Project and the Debate over California’s Forests,” March 10, 2024. <https://www.tahoe-dailytribune.com/news/golden-state-natural-resources-wood-pellet-project-and-the-debate-over-californias-forests/>.

<sup>33</sup> U.S. Department of State Office of Environmental Quality, “Air Quality.” Accessed August 19th, 2025. <https://www.state.gov/key-topics-office-of-environmental-quality-and-transboundary-issues/air-quality/>

<sup>34</sup> World Economic Forum, “Air pollution costs each American \$2,500 a year in healthcare - study finds,” June 1, 2021. <https://www.weforum.org/stories/2021/06/air-pollution-cost-america-healthcare-study/>

<sup>35</sup> American Lung Association, “Living and Breathing in California: Health Benefits of Clean Air Programs,” February 6, 2024. <https://www.lung.org/getmedia/fed6a54d-524e-409e-897a-a4b1cfa6400/ala-ca-clean-air-programs>

<sup>36</sup> U.S. Environmental Protection Agency, “Benefits and Costs of the Clean Air Act 1990-2020, the Second Prospective Study,” April 2011. <https://www.epa.gov/clean-air-act-overview/benefits-and-costs-clean-air-act-1990-2020-second-prospective-study>

<sup>37</sup> Golden State Natural Resources. “Local Forest Resilience Projects.” Accessed July 16, 2024. <https://goldenstatenaturalresources.com/local-forest-resilience-projects/>.

cutting old growth forests.<sup>38</sup> Despite the industry's attempts to persuade the public that their industry is "green" and "sustainable," wood pellets as a form of biomass energy are unsustainable and harmful to ecosystems and humans alike.

Continually looking for opportunities to expand, Drax sought a partnership with GSNR to build the California wood pellet market. The Memorandum of Understanding (MOU) between GSNR and Drax dictated that upon GSNR's completion of the California Environmental Quality Act review process, Drax and GSNR would negotiate an agreement that may include provisions on Drax's financing of project infrastructure and operations (including staffing), Drax's offtake of wood pellets produced by GSNR, or any other agreement by the parties—including the exploration of a long term vision of providing a "sustainable wood fibre market."<sup>39</sup> Effectively, upon completion of GSNR's environmental review and garnering public support, Drax would have taken the reins of the entire wood pellet operation in California using the cover of GSNR's green, respectable acronym.

### Concerns for Communities

Given that the failed GSNR projects are just the beginning of Drax's vision of long-range, expanded wood pellet operation goals in the Pacific Northwest and beyond, the robust community response offers significant hope for further opposition. The counties involved would have faced an increase in industrial logging activities, including the impacts of heavy trucks on their roads. The Lassen County plant was to be located in the town of Nubieber with a total population of 42.<sup>40</sup> Strategy Director for the California Environmental Justice Coalition, Matt Homes, spoke about the impact of the project proposed by GSNR: "When I found out that the largest wood pellet scheme was going to be built in my home of Lassen County, I knew enough from Dogwood Alliance and others that big piles of wood blow up all the time, and they're not safe. And I was shocked to find out that the plan was to put that wood pellet pile in my hometown of Stockton in the middle of the port of Stockton... They want to put one of the biggest piles of wood pellets in one of the most overburdened communities in California."<sup>41</sup>

Stockton has a population over 310,000, with several highly-trafficked freeways that contribute significant amounts of particulate matter (PM) 2.5 emissions in the community. The Stockton AB 617 community, an air district disproportionately burdened by air pollution as designated by the California Resources Board, is densely populated and is directly affected by large freeways, the Port of Stockton, freight locomotives, industrial sources, and emissions traveling downwind from the northern part of the city.<sup>42,43</sup> The community is ranked in the top 5% of most disadvantaged communities in California.<sup>44</sup> (AB 617 is a California Assembly Bill that addresses air pollution impacts in environmental justice

<sup>38</sup> "Drax: U.K. Power Station Owner Cuts down Primary Forests in Canada." October 2, 2022. <https://www.bbc.com/news/science-environment-63089348>.

<sup>39</sup> "Memorandum of Understanding between the Golden State Natural Resources, Inc. and Drax US BECCS Development, LLC regarding exploration of Sustainable Biomass Development Opportunities," signed January 18, 2024.

<sup>40</sup> "Nubieber, CA | Data USA." Accessed July 18, 2024. <https://datausa.io/profile/geo/nubieber-ca>.

<sup>41</sup> Earth Island Journal. "Proposed California Wood Pellet Facility Raises Justice Concerns." Accessed July 17, 2024. <https://www.earth-island.org/journal/index.php/podcast/entry/environmental-justice-california-wood-pellet-manufacturing-facility>.

<sup>42</sup> "Stockton | California Air Resources Board." n.d. Accessed May 29, 2025. <https://ww2.arb.ca.gov/capp/com/cip/stockton>.

<sup>43</sup> "AB 617 Community Air Protection." n.d. Monterey Bay Air Resources District. Accessed May 29, 2025. <https://www.mbard.org/ab-617-community-air-protection>.

<sup>44</sup> Valley Air District. "Stockton." Accessed July 18, 2024. <https://community.valleyair.org/selected-communities/southwest-stockton/>.

communities. The program requires local air districts and the state Air Resources Board to reduce air pollution in these most impacted communities.)<sup>45</sup>

When speaking about carbon neutrality goals in California, Homes says carbon neutrality is “a concept that seems to have more to do with providing incentives and resources for new unproven carbon solutions when proven solutions like re-vegetation, conservation and restoration in our communities have always worked... We needed a reason to figure out how to stab pipe and squirt carbon underground to keep basically the very industries that are responsible for global climate instability afloat.”<sup>46</sup> As an environmental justice strategy director, Homes serves the California Environmental Justice Coalition by bringing communities together. Through mutual support and peer-led training, community members can build each other up against those that might take advantage of them. That is the core, Homes believes, for why GSNR proposed Lassen and Tuolumne counties as the locations of wood pellet facilities and the Port of Stockton as the export location. He says the project is “only moving forward because of the lack of political power in the communities they’ve targeted.” Homes was mainly concerned for the environmental justice communities and the likelihood that, as GSNR applied for its air emissions permits, the project’s emissions would be considered singularly rather than as compounding additions to *existing emissions* from other industrial facilities and pollution sources in the area.<sup>47</sup> Drax’s siting decisions appear to strategically target communities facing those cumulative effects of pollution—communities they perceive to lack political power. That strategy is not new, nor is it ultimately effective in the long-run. Drax and Enviva have tried the same approach in the southeastern United States, where wood pellet opposition continues to grow.

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## “the forests they chose were not their first choice, rather the politically vulnerable forests that needed jobs”

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But the fight isn’t over. Even after abandoning their proposal and effectively starting over from scratch, GSNR now intends to “explore alternative approaches” for implementing the project. The group even voted to pursue wood chip production instead. A wood chip production proposal could yield similar community impact issues and perpetuate the wood product industry more broadly. **Activists are determined to stay vigilant on the status of any future projects.**

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<sup>45</sup> South Coast AQMD. “AB 617 Community Air Initiatives.” Accessed July 18, 2024. <https://www.aqmd.gov/nav/about/initiatives/environmental-justice/ab617-134>.

<sup>46</sup> Earth Island Journal. “Proposed California Wood Pellet Facility Raises Justice Concerns.” Accessed July 17, 2024. <https://www.earth-island.org/journal/index.php/podcast/entry/environmental-justice-california-wood-pellet-manufacturing-facility>.

<sup>47</sup> Earth Island Journal. “Proposed California Wood Pellet Facility Raises Justice Concerns.” Accessed July 17, 2024. <https://www.earth-island.org/journal/index.php/podcast/entry/environmental-justice-california-wood-pellet-manufacturing-facility>.

# III. THE HAZARDS OF WOOD PELLETS

## A. Wood Pellets are a Climate Change Issue

The climate is changing, and global climate leaders have called for immediate and sustained action to reduce its worst feedback loops. The next 10 to 30 years are the critical window for action. Natural land-based carbon sinks are essential. Forests play a key role in storing carbon, accounting for 92% of terrestrial biomass globally and storing approximately 400 gigatons of carbon.<sup>48</sup> Reducing harvest—a practice sometimes called “proforestation”—is a far more effective carbon sequestration strategy than reforestation or afforestation. It is estimated that, if managed differently, global forests could hold twice as much carbon as they currently do.<sup>49</sup> (This report will cover alternative management practices in a later section.) Mature and old forests generally store more carbon in trees and soil than young forests.<sup>50</sup> A 2018 study published in *Environmental Research Letters* used eastern U.S. forest data to examine the impact of substituting wood biomass for coal in energy production.

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**The study found that, after clear-cutting, it would take between 44 and 104 years to repay the carbon debt, even if the trees were replanted.<sup>51</sup>**

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Some argue that logging trees and biomass from the forest helps prevent forest fires. However, given the site-specific contingencies of fire management, forest thinning is in many cases ineffective and unlikely to have its perceived outsized impact on fire behavior<sup>52</sup>. In other words, intensively thinning areas “to reduce potential fire fuel” has been found to have little to no impact on which areas ultimately end up burning. Where fires actually burn is determined by other factors, including wind, drought, and warming<sup>53</sup>. Additionally, the amount of carbon released by thinning surpasses what might be released by fire. Effective risk reduction solutions need to be tailored to the specific conditions of each forest,<sup>54</sup> particularly those dealing with an overgrowth of thinner brush vegetation and not trees.

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<sup>48</sup> U.S. Department of Agriculture, “Considering Forest and Grassland Carbon in Land Management,” June 2017. [https://www.fs.usda.gov/sites/default/files/fs\\_media/fs\\_document/wo-95-consideringforestandgrasslandcarboninlandmanagement-508-92517.pdf](https://www.fs.usda.gov/sites/default/files/fs_media/fs_document/wo-95-consideringforestandgrasslandcarboninlandmanagement-508-92517.pdf)

<sup>49</sup> Mo, L., Zohner, C.M., Reich, P.B. *et al.* Integrated global assessment of the natural forest carbon potential. *Nature* 624, 92–101 (2023). <https://doi.org/10.1038/s41586-023-06723-z>

<sup>50</sup> Law, Beverly E., William R. Moomaw, Tara W. Hudiburg, William H. Schlesinger, John D. Sterman, and George M. Woodwell. “Creating Strategic Reserves to Protect Forest Carbon and Reduce Biodiversity Losses in the United States.” *Land* 11, no. 5 (May 11, 2022): 721. <https://doi.org/10.3390/land11050721>.

<sup>51</sup> No, Burning Wood Fuels Is Not Climate-Friendly,” March 28, 2022. <https://www.nrdc.org/stories/no-burning-wood-fuels-not-climate-friendly>.

<sup>52</sup> Banerjee, Tirtha. Impacts of Forest Thinning on Wildland Fire Behavior. *Forests*. 11, no. 9 (2020): 918. [https://www.researchgate.net/publication/343808759\\_Impacts\\_of\\_Forest\\_Thinning\\_on\\_Wildland\\_Fire\\_Behavior](https://www.researchgate.net/publication/343808759_Impacts_of_Forest_Thinning_on_Wildland_Fire_Behavior)

<sup>53</sup> Center for Climate and Energy Solutions (C2ES), “Wildfires and Climate Change,” Accessed August 19th, 2025.

<sup>54</sup> Law, Beverly E., William R. Moomaw, Tara W. Hudiburg, William H. Schlesinger, John D. Sterman, and George M. Woodwell. “Creating Strategic Reserves to Protect Forest Carbon and Reduce Biodiversity Losses in the United States.” *Land* 11, no. 5 (May 11, 2022): 721. <https://doi.org/10.3390/land11050721>.

## B. Wood Pellet Sourcing Destroys Ecosystems

A group of over 650 scientists have signed a letter to world leaders urging them to stop using woody biomass due to its impacts on global biodiversity. One of the main authors, William Moomaw, Professor Emeritus of International Environmental Policy at Tufts University, writes “Our forests are the most biodiverse places on the planet, providing habitat for countless species. They are also absorbing nearly 30% of all global emissions from burning fossil fuels.”<sup>55</sup>

The biodiverse forests that industry logs are often replaced by fast-growing tree plantations, which are less biodiverse and poorly equipped to sequester carbon.<sup>56</sup> Part of the challenge is that cut trees are often replaced with loblolly or yellow pine, which grow faster but don’t absorb as much carbon dioxide.<sup>57</sup> **The emergence of young monoculture plantations is a primary factor contributing to the decline of temperate woodlands, one of the world’s most threatened ecosystems.**<sup>58</sup>

Research on slash harvesting (harvesting the debris that remains following timber harvest, i.e. branches, leaves and wooden stems) has shown a significant negative effect on species composition and community richness.<sup>59</sup> Slash removal has also been found to reduce species richness within the first year after harvest. Standing wood and downed wood are both essential structural components of biodiversity in forest systems. Dead wood provides habitat necessary to sustain ecosystems. It is possible to use biomass harvesting as a tool for ecosystem restoration, if it effectively advances activities that promote forest health and function (read more in [Janowiak and Webster](#), 2010).<sup>60</sup> Despite industry’s assertions, however, Drax and Enviva have never



*Loblolly plantation. Credit: Chattooga Conservancy.*

<sup>55</sup> “650+ Scientists Urge Stop to Burning Trees for Energy,” December 6, 2022. <https://www.nrdc.org/bio/elly-pepper/650-scientists-urge-stop-burning-trees-energy>.

<sup>56</sup> No, Burning Wood Fuels Is Not Climate-Friendly,” March 28, 2022. <https://www.nrdc.org/stories/no-burning-wood-fuels-not-climate-friendly>.

<sup>57</sup> Stradling, Richard. “SLOW BURN (Part 3): World’s Largest Wood Pellet Maker Both Welcomed and Condemned in NC.” Raleigh News & Observer, January 3, 2020. <https://www.newsobserver.com/news/business/article238397398.html>

<sup>58</sup> Willis, John L., Don C. Bragg, Jeffery B. Cannon, Kamal J. K. Gandhi, Kathryn R. Kidd, Adam D. Polinko, Joshua J. Puhlick, et al. “Assessing the Potential Impact of Retaining Native Offsite Tree Species in Woodland Restoration.” *Restoration Ecology* 32, no. 5 (July 2024): e14119. <https://doi.org/10.1111/rec.14119>.

<sup>59</sup> Extension, Michigan State University. 2017. “Logging Slash.” MSU Extension. July 5, 2017. [https://www.canr.msu.edu/news/logging\\_slash](https://www.canr.msu.edu/news/logging_slash).

<sup>60</sup> Janowiak, Maria K., and Christopher R. Webster. “Promoting Ecological Sustainability in Woody Biomass Harvesting.” *Journal of Forestry* 108, no. 1 (January 1, 2010): 16–23. <https://doi.org/10.1093/jof/108.1.16>.

been known for the painstakingness or ecological due diligence of their biomass removal. From their earliest operations, a litany of evidence has emerged that their wood pellet facilities indeed source whole trees from clear-cut forests. This evidence surfaced in on-the-ground surveillance photos, videos, aerial photography taken by the Dogwood Alliance and community groups near Enviva facilities<sup>61</sup> (where some photographers faced intimidation,<sup>62</sup> despite Enviva's blameless-sourcing claims). Further evidence exists in an exposé in Mongabay written by investigative journalist Justin Catanoso, in which a whistleblower admitted that Enviva's claim of being good for the planet is 'all nonsense'; in a BBC Panorama investigation on Drax; and in several other reports that have followed.<sup>63, 64, 65, 66</sup>

## C. A Lifecycle of Emissions, a Lifetime of Debt

Despite the wood pellet industry's standard tagline that wood pellets are carbon-neutral and more sustainable than coal, the act of processing wood and then burning it for energy is fundamentally less efficient than coal.

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**In comparison to the average coal burning power plant, biomass burning power plants emit 150% the carbon dioxide and 300-400% the carbon dioxide of natural gas per unit of energy produced.<sup>67</sup>**

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Combustion aside, if each harvested forest were replanted and immediately regrown—an idyllic scenario—the “deforestation debt” (carbon) could, of course, be replenished. But, as stated elsewhere in this report, such regrowth requires a timeline of 44–104 years. In practice, the biomass-to-energy process yields “an increase in atmospheric CO<sub>2</sub> relative to coal,” according to researchers.<sup>68</sup> Based on projected harvest growth, such a mismatched debt payoff period would “increase atmospheric CO<sub>2</sub> for at least a century.”<sup>69</sup>

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<sup>61</sup> Dogwood Alliance, “A Thousand-Foot View of Industrial Logging,” April 20th, 2019. <https://dogwoodalliance.org/2019/04/a-thousand-foot-view-of-industrial-logging/>

<sup>62</sup> Dogwood Alliance, “Enviva Investigation: Intimidation in Ahoskie,” September 20th, 2013. <https://dogwoodalliance.org/2013/09/enviva-investigation-intimidation-in-ahoskie/>

<sup>63</sup> Crowley and Robinson, “Drax: U.K. power station owner cuts down primary forests in Canada.” BBC News, October 2, 2022. <https://www.bbc.com/news/science-environment-63089348>

<sup>64</sup> Duncombe, Lyndsay, Harvey Cashore, and Lynette Fortune. “Wood from B.C. Forests Is Being Burned for Electricity Billed as Green — but Critics Say That’s Deceptive.” CBC News, October 6, 2022. <https://www.cbc.ca/news/canada/wood-pellets-bc-forests-green-energy-1.6606921>.

<sup>65</sup> clearaire. “Our Clear Cut Problem.” CleanAIRE NC (blog), June 27, 2019. <https://cleanairenc.org/blog/2019/06/27/our-clear-cut-problem>

<sup>66</sup> Catanoso, Justin. 2022. “Whistleblower: Enviva Claim of ‘Being Good for the Planet... All Nonsense.’” Mongabay Environmental News. December 5, 2022. <https://news.mongabay.com/2022/12/envivas-biomass-lies-whistleblower-account/>.

<sup>67</sup> “Carbon Emissions from Burning Biomass for Energy - Partnership for Policy Integrity.” 2011. March 17, 2011. <https://www.pfpi.net/carbon-emissions/>.

<sup>68</sup> Serman, John D, Lori Siegel, and Juliette N Rooney-Varga. “Does Replacing Coal with Wood Lower CO<sub>2</sub> Emissions? Dynamic Life-cycle Analysis of Wood Bioenergy.” *Environmental Research Letters* 13, no. 1 (January 1, 2018): 015007. <https://doi.org/10.1088/1748-9326/aaa512>.

<sup>69</sup> *Ibid*, 2018.

One way the industry attempts to negate the higher carbon intensity of burning wood pellets is by utilizing carbon capture and storage technology at the smokestack.

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**However, even bioenergy with carbon capture and storage (BECCS) power plants, which are designed to capture carbon and store it post-combustion, result in 780 kilograms of *uncaptured* carbon dioxide emissions for each megawatt-hour of power after burning wood pellets; this is equivalent to 80% of the emissions from a coal power plant smokestack.<sup>70</sup>**

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With BECCS, wood pellet fuel for power generation yields emissions that exceed the carbon intensity of the U.S. power grid today.

Wood pellet production also releases emissions that are harmful to human health, such as fine particulate matter (PM), nitrogen oxides, carbon monoxide, sulfur dioxide, and volatile organic compounds (VOCs). These emissions are precursors to ozone and smog and can lead to impaired lung function, asthma attacks, and aggravated conditions for people with bronchitis and emphysema. Given their close vicinity to populated areas and the magnitude of their emissions, wood pellet facilities pose potentially significant health impacts to local communities. Such facilities may also burden environmental justice communities with pollution from fugitive dust and tailpipe emissions, including particulate matter related to increased vehicle traffic to and from the facilities.<sup>71</sup> Residents cannot escape the disturbance outside of work hours: the plants operate 24/7, all year long, with tree and pellet shipments trucking in at all hours of the day—and night. Not only do wood pellets produce more emissions at-the-smokestack than coal, but their manufacturing facilities also expose nearby communities to harmful pollutants and consistently violate their air quality permits.

One third of the 21 wood pellet plants in states from Virginia to Texas violated their permits, in the year 2017, by releasing illegal amounts of air pollution.<sup>72</sup> More than half of them have failed to keep emissions below legal limits or install required pollution controls.<sup>73</sup> And, of the 15 largest operating wood pellet facilities, at least eight have experienced fires or explosions since 2014, including at factories in North Carolina, Georgia, Arkansas, Alabama, and Texas, which released large amounts of air pollution and sometimes injured employees.<sup>74</sup> One of the co-authors of a recent Environmental Integrity Project report stated that the wood pellet industry “is creating a public health hazard that can easily be avoided - because we already have the technology available to filter and capture this air

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<sup>70</sup> “Carbon Capture Can’t Fix the Climate Impacts of Forest Biomass Power,” January 17, 2024. <https://www.nrdc.org/bio/sami-yassa/carbon-capture-cant-fix-climate-impacts-forest-biomass-power>.

<sup>71</sup> Tran, Huy, Edie Juno, and Saravanan Arunachalam. “Emissions of Wood Pelletization and Bioenergy Use in the United States.” *Renewable Energy* 219 (December 2023): 119536. <https://doi.org/10.1016/j.renene.2023.119536>

<sup>72</sup> Anderson, Patrick, and Keri Powell. “Dirty Deception: How the Wood Biomass Industry Skirts the Clean Air Act.” Environmental Integrity Project, April 26, 2018. <https://environmentalintegrity.org/wp-content/uploads/2017/02/Biomass-Report.pdf>.

<sup>73</sup> *Ibid*, 2018.

<sup>74</sup> Anderson, Patrick, and Keri Powell. “Dirty Deception: How the Wood Biomass Industry Skirts the Clean Air Act.” Environmental Integrity Project, April 26, 2018. <https://environmentalintegrity.org/wp-content/uploads/2017/02/Biomass-Report.pdf>.

pollution, ... The solution is for states to enforce the law and require wood pellet plants to install the best available technology.”<sup>75</sup>

Both Drax and Enviva facilities have been fined extensively for major pollution violations. In Gloster, Mississippi, a Drax facility located near lower-income communities was fined \$2.5 million for exceeding VOC limits for years.<sup>76</sup> Drax has since failed to receive another permit to pollute, as a result of the efforts of local activists (highlighted later in this report). In Louisiana, Drax paid \$3.2 million for air pollution permit violations from two of its wood pellet manufacturing facilities in Bastrop and Urania.<sup>77</sup> In North Carolina, an Enviva plant in Sampson County was fined for several air quality violations, as was Enviva’s Hamlet plant, which was fined for equipment malfunctions leading to air permit violations.<sup>78</sup>

## D. Severe Health Risks

Dust, odor, and noise are just the beginning. Wood pellet manufacturing turns biomass into dried pellets, a process that emits significant amounts of carbon dioxide and VOCs. These emissions contribute to ground level ozone formation. The facilities also release toxic PAHs (polycyclic aromatic hydrocarbons), which are known carcinogens.<sup>79</sup> A study examining the health impacts of the wood pellet facility in Gloster, Mississippi compared the Gloster residents to a Mississippi town with similar income and poverty rate, but no wood pellet manufacturing nearby. Researchers found that Gloster experiences far more air pollution and noise pollution due to the plant.<sup>80</sup> VOCs, in addition to forming smog, can potentially cause cancer, as well as damage to the liver, kidneys, and central nervous system.<sup>81</sup> Wood pellet manufacturing facilities also produce dust that coats vehicles and houses, forcing local residents to wear masks constantly to avoid breathing it in. Dust inhalation can damage the lungs, worsen asthma, and cause heart attacks.<sup>82</sup>

## E. Targeting Environmental Justice Communities

The wood pellet industry has a pattern of selecting environmental justice communities as sites for their wood pellet manufacturing. In fact, wood pellet production facilities are 50% more likely to be

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<sup>75</sup> “Environmental Integrity Report Finds Rapidly Growing ‘Green’ Energy Industry Releases Dangerous Air Pollution.” Accessed July 18, 2024. <https://environmentalintegrity.org/news/biomass-report/>.

<sup>76</sup> Frost, Rita. “Drax Facility Fined \$2.5M for Major Air Pollution Violations.” Dogwood Alliance, February 18, 2021. <https://dogwoodalliance.org/2021/02/release-drax-facility-fined-2-5m-for-major-pollution-violations/>.

<sup>77</sup> Baurick, Tristan. “British Company Agrees to Pay \$3.2 Million for Air Pollution at Louisiana Wood Pellet Mills.” NOLA.com, October 3, 2022. [https://www.nola.com/news/environment/british-company-agrees-to-pay-3-2-million-for-air-pollution-at-louisiana-wood-pellet/article\\_c451e610-4352-11ed-8a54-43df54e33cd5.html](https://www.nola.com/news/environment/british-company-agrees-to-pay-3-2-million-for-air-pollution-at-louisiana-wood-pellet/article_c451e610-4352-11ed-8a54-43df54e33cd5.html).

<sup>78</sup> Sorg, Lisa, NC Newsline May 1, and 2021. “Fire Breaks out at Enviva Wood Pellet Plant with History of Environmental Violations • NC Newsline.” NC Newsline (blog). Accessed July 18, 2024. <https://ncnewsline.com/briefs/fire-breaks-out-at-enviva-wood-pellet-plant-with-history-of-environmental-violations/>.

<sup>79</sup> Dimitri, Carl. “A Looming Health Crisis Shadows the South’s Wood Pellet Boom.” School of Public Health | Brown University, July 11, 2024. <https://sph.brown.edu/news/2024-04-29/mississippi-wood-pellets>.

<sup>80</sup> WWNO. “Researchers Look into Community Health Impact of Wood Pellet Production in Rural Mississippi,” May 15, 2024. <https://www.wwno.org/coastal-desk/2024-05-15/researchers-look-into-community-health-impact-of-wood-pellet-production-in-rural-mississippi>.

<sup>81</sup> US EPA, OAR. “Volatile Organic Compounds’ Impact on Indoor Air Quality.” Overviews and Factsheets, August 18, 2014. <https://www.epa.gov/indoor-air-quality-iaq/volatile-organic-compounds-impact-indoor-air-quality>.

<sup>82</sup> VanHise, James L. “How the Wood Pellet Industry Is Threatening Small Southern Towns.” Progressive.org, June 12, 2023. <https://progressive.org/api/content/d414c5f8-0955-11ee-84f9-12163087a831/>.

located in such areas – defined as counties where the poverty level is above the state median and where at least 25% of the population is non-white.<sup>83</sup> The EPA’s former Office of Environmental Justice and External Civil Rights defines “Environmental justice” as:

The just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation, or disability, in agency decision-making and other Federal activities that affect human health and the environment so that people:

- are fully protected from disproportionate and adverse human health and environmental effects (including risks) and hazards, including those related to climate change, the cumulative impacts of environmental and other burdens, and the legacy of racism or other structural or systemic barriers; and
- have equitable access to a healthy, sustainable, and resilient environment in which to live, play, work, learn, grow, worship, and engage in cultural and subsistence practices.<sup>84</sup>

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## **All four Enviva wood pellet production plants in North Carolina are located in counties with high poverty rates and large populations of people of color.<sup>85</sup>**

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The state’s Department of Environmental Quality has an obligation under Title VI of the Civil Rights Act of 1964 to consider disproportionate impacts. Under Title VI, if a recipient of federal assistance (Enviva) is found to have discriminated—such as by siting all of their wood pellet facilities in communities of high poverty and large populations of people of color—then voluntary compliance must be achieved. If the company is unwilling to comply, then the federal agency providing the assistance should initiate fund termination or appropriate legal action. In short, Title VI prohibits intentional discrimination.<sup>86</sup>

At Environmental Justice (EJ) and Equity Advisory Board meetings hosted by North Carolina’s Department of Environmental Quality, Dr. Ruby Bell of Sampson County, a retired educator at Mount Olive College, said that most of her neighbors are afraid to speak up: “They don’t feel that their voices will be heard. Their feeling is ‘*What’s the use?*’ meaning that the county and state government are going to do whatever they want to do, with no concern for them.”<sup>87</sup> Dr. Bell noted that when Enviva was first recruited to the county, local leaders disregarded residents who opposed the plant and instead offered Enviva a multimillion dollar subsidy.<sup>88</sup> The industry in North Carolina has received

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<sup>83</sup> Koester, Stefan, and Sam Davis. “Siting of Wood Pellet Production Facilities in Environmental Justice Communities in the South-eastern United States.” *Environmental Justice* 11, no. 2 (April 2018): 64–70. <https://doi.org/10.1089/env.2017.0025>.

<sup>84</sup> US EPA, OA. “About the Office of Environmental Justice and External Civil Rights.” Overviews and Factsheets, August 23, 2022. <https://www.epa.gov/aboutepa/about-office-environmental-justice-and-external-civil-rights>.

<sup>85</sup> WFAE 90.7 - Charlotte’s NPR News Source. “Environmental Justice Board Hears Concerns about Wood Pellet Plants,” November 18, 2022. <https://www.wfae.org/energy-environment/2022-11-18/environmental-justice-board-hears-concerns-about-wood-pellet-plants> Hereafter WFAE

<sup>86</sup> “Civil Rights Division | Title VI of the Civil Rights Act of 1964,” April 9, 2023. <https://www.justice.gov/crt/fcs/TitleVI>.

<sup>87</sup> *Supra* 86, WFAE.

<sup>88</sup> *Supra* 86, WFAE.

over \$9 million in subsidies.<sup>89</sup> The counties where the facilities are sited—Northampton, Hertford, Sampson, and Richmond—are all Tier 1 counties, meaning they are part of the 40 most economically-distressed counties in the state.<sup>90</sup> According to speakers at the EJ and Equity Advisory Board meeting, these counties remain the poorest; the presence of these facilities does not advance the economy or support long-term jobs in rural communities.<sup>91</sup>

At the same meeting, more than two dozen speakers complained about the dust, air pollution, and noise the facility was producing. One speaker said the “industry is not contributing to any of our goals to increase renewable or clean energy production;” “It rather continues the status quo of continuing its practices of extraction and deforestation.”<sup>92</sup> Every day in Northampton County, a layer of powdery dust envelops people’s homes and cars, one of the side effects of living in the vicinity of a wood pellet facility. Other impacts include the emissions of particulate matter, carbon monoxide, nitrogen oxide and greenhouse gases, all of which have health risks. In 2020, Clean Air Carolina and the Southern Environmental Law Center sued NCDEQ alleging violations of the Clean Air Act, causing Enviva to agree to install high-level pollution-reduction technology. Only after regulations were put in place did Enviva eventually decide to install pollution control technology.<sup>93</sup>

In a recent [Pellet Mill Community Impact Survey](#), to which Dr. Bell was a contributor, researchers found that pellet mills have significantly affected people in their daily lives. The survey focused on residents living within a two-mile radius of pellet mills. It queried communities living near five facilities, including Drax Amite in Louisiana, Drax Aliceville in Alabama, Enviva Greenwood in South Carolina, and Enviva Sampson and Enviva Northampton, both in North Carolina. Air pollution and dust concerns were the two most commonly named concerns, along with noise, which prevents 36% of respondents from participating in outdoor activity. Traffic to and from the plants significantly disturbs residents within a half mile of a pellet mill. Many who live within that half mile reported that the combination of dust, health concerns, odors, noise, and traffic specifically keeps them inside. These impacts disproportionately affect low-wealth communities of color. Despite what Enviva and Drax may claim, the economic benefit they say they will bring to the city is rarely seen by its residents. Instead, they are plagued by dust, noise, and traffic.<sup>94</sup>

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<sup>89</sup> Alamo, Adel. “Introducing the Biomass Baddies Failing Forests, Climate, and Justice,” March 21st, 2022. <https://dogwoodalliance.org/2022/03/biomass-baddies/>

<sup>90</sup> Jaen, Caryl Espinoza. “Communities of Color in Eastern North Carolina Want Wood Pellet Byproducts Out of Their Neighborhoods—And Their Lungs.” INDY Week, May 27, 2021. <http://indyweek.com/news/northcarolina/communities-of-color-in-eastern-north-carolina-want-wood-pellet-byproducts-out-of-their-neighborhoods-and-lungs/>.

<sup>91</sup> Garden, Habitats. 2024. “Who Is Looking at the Real Costs of Wiping out NC Trees to Power Europe with Wood Pellets?” Coastal Plain Conservation Group, April 8. <https://www.coastalplainconservationgroup.org/blog/who-is-looking-at-the-real-costs-of-wiping-out-nc-trees-to-power-europe-with-wood-pellets>.

<sup>92</sup> *Supra* 86, WFAE.

<sup>93</sup> Catanoso, Justin. “Enviva Facilities Have Generated Hundreds of Tons of Air Pollution a Year, Critics Say.” Raleigh News & Observer, January 3, 2020. <https://www.newsobserver.com/news/state/north-carolina/article238397508.html>.

<sup>94</sup> Bell, Ruby, Richard Benderson, ErNiko Brown, Richie Harding, and Krystal Martin. “Pellet Mill Community Impact Survey,” October 2024. [https://www.selc.org/wp-content/uploads/2024/10/Biomass\\_Report\\_0924\\_F.pdf](https://www.selc.org/wp-content/uploads/2024/10/Biomass_Report_0924_F.pdf)

## IV. RAPID SPREAD, GROWING OPPOSITION

As noted earlier, the wood pellet industry in the U.S. started out small, as regional pellet mill facilities. In 2010, Enviva built its first facility in Ahoskie, NC with a capacity of about 410,000 metric tons.<sup>95</sup> By 2016, Drax had constructed five facilities operating throughout Mississippi and Louisiana with a total production capacity of 6.1 million metric tons, and Enviva had seven facilities operating across the Southeast in Mississippi, Virginia, Florida and North Carolina. Today, the southern U.S. produces 10.5 million metric tons of wood pellets annually.<sup>96</sup> With the rise of wood pellet markets in Asia, the wood pellet industry is expanding on the West Coast, as companies are working to build large-scale facilities in California, Oregon and Washington. But even as the wood pellet industry has metastasized like a cancer across the map, antibodies of opposition have appeared, also spreading rapidly and slowing new industry growth.

While Enviva started small, the residents and local organizations concerned about their forests and their communities quickly caught on that Enviva was not simply sourcing its wood pellet production from the leftovers of lumber operations. One of the first advocacy groups to fight wood pellets was the Dogwood Alliance, a Southern regional organization concerned with protecting forests. Headquartered in Asheville, North Carolina, the Dogwood Alliance operates several offices with professional staff, experts, community members, and activists. While the organization started out fighting paper companies, it has since moved on to the threats that biomass production poses to Southern forests. The Dogwood Alliance's campaign against wood pellets began with tracking, monitoring and surreptitiously photographing trucks filled with whole trees from clear-cut sites driving directly to Enviva's wood pellet manufacturing facilities. Despite Enviva's claims, it harvests directly from hardwood forests while proclaiming they are sourcing wood in a "sustainable" fashion.<sup>97</sup>

Overall, Drax operates nine facilities across four states, and plans to expand further. One of the facilities is located in Mississippi, where Drax paid out several million in fines for violating air emissions limits in 2020. Because of these fines and several lawsuits, Drax installed pollution controls in 2021 in the Mississippi facility and in the two Louisiana facilities, one in Bastrop (built in 2015), the other in Lasalle (started production in 2018).<sup>98, 99</sup> But these fines have not stopped Drax from polluting. Even recently (2024), Drax is spending \$200,000 on mitigation plans due to continuous hazardous air pollution violations.<sup>100</sup>

<sup>95</sup> Enviva, Inc. "Ahoskie, NC." <https://www.envivabiomass.com/facility/ahoskie-nc/#:~:text=Enviva%20Ahoskie&text=It%20was%20built%20on%20the,day%2C%20seven%20days%20a%20week>. Accessed August 20, 2025.

<sup>96</sup> "U.S. Energy Information Administration - EIA - Independent Statistics and Analysis." Accessed July 16, 2024. <https://www.eia.gov/biofuels/biomass/?year=2016&month=12>.

<sup>97</sup> Dogwood Alliance, "Where Do Biomass Companies Get Wood?" n.d. <https://dogwoodalliance.org/our-work/wood-pellet-biomass/where-are-biomass-companies-getting-their-wood/>

<sup>98</sup> Brook, J. "British energy giant reports violating toxic pollutant limits at Louisiana wood facilities," Associated Press (August 12, 2024). Press, <https://apnews.com/article/louisiana-drax-air-pollution-524bba156b9a4e5ffa55d8f5e9e1f9a0>

<sup>99</sup> Zeringue, J. "Wood power: Drax making improvements two years into operation," Louisiana Forestry Association (July 3, 2017). <https://www.laforestry.com/single-post/2017/07/03/wood-power-drax-making-improvements-two-years-into-operation#:~:text=Morehouse%20Bioenergy%20became%20operational%20in,electricity%20to%20the%20United%20Kingdom>.

<sup>100</sup> *Supra* 99, AP News.

Despite Mississippians' outspoken opposition to pollution from wood pellet factories as asthma rates rise, the facilities continue to operate.<sup>101</sup> And in spite of community organizing against the Gloster plant, even the state of Mississippi has not publicly announced that the Drax plant has violated the Clean Air Act. Drax exposed the community to illegal levels of toxic pollution, and then, even though they had already received a fine, Drax soon incurred a second violation because of its failure to act.<sup>102</sup> In Arkansas, Drax is scheduled to build three smaller plants, all situated next to saw mills. The first is in Leola county, the second in Russellville, and the third is still in the planning stage.<sup>103, 104</sup>

## A. The Search for Sacrifice Zones

As demonstrated by the resistance of local activists across the South in response to Drax facilities, community and environmental groups strongly dispute GSNR's claims that the project will mitigate wildfire risk and contribute to rural economic growth in Washington state. Instead, they warn that export operations will significantly pollute South Stockton, a historically underserved Filipino neighborhood. A local environmental justice coordinator at Little Manila Rising, Gloria Alonso Cruz, speaks out against the project, saying "our community is in danger. If the Port of Stockton buys into the GSNR scheme, South Stockton will get hit with even more harmful pollution, noise and traffic. We are already overburdened with severe health risks from existing toxic air pollution. South Stockton understands the lasting trauma and sacrifices of the past, and we rise in opposition to GSNR's project because we deserve development that values our health, well-being, and is non-emissive. We deserve



*Port of Stockton. Credit: Downtowngal via Wikimedia Commons.*

<sup>101</sup> James Pollard et. al, "Wood pellets production boomed to feed EU demand. It's come at a cost for Black people in the South", Associated Press (July 26, 2024). <https://apnews.com/article/wood-pellets-biomass-climate-environmental-justice-biden-cd9a3de5f-55d5acf495986fed8ddc778>

<sup>102</sup> Dogwood Alliance, "Release: Mississippi State covers up Drax's toxic legacy", May 30, 2023. <https://www.woodworkingnetwork.com/news/woodworking-industry-news/drax-starts-construction-second-arkansas-biomass-pellet-plant>

<sup>103</sup> Magnolia Reporter, "Drax Group will build three wood pellet plants in state, with first in Leola," May 7, 2021. [https://www.magnoliareporter.com/news\\_and\\_business/local\\_business/article\\_757690e4-aea8-11eb-ba21-bb6195ea1ba0.html](https://www.magnoliareporter.com/news_and_business/local_business/article_757690e4-aea8-11eb-ba21-bb6195ea1ba0.html)

<sup>104</sup> Dogwood Alliance, "Release: Mississippi State covers up Drax's toxic legacy", 2023.

to not be treated as a sacrifice zone.”<sup>105</sup> Previously, GSNR planned to export its wood pellets from the Port of Richmond on the San Francisco Bay, but the community there rejected the project in 2023. Residents brought up concerns about the project’s health and safety risks to the surrounding community. Recognizing that the same backlash may have materialized at the Port of Stockton, GSNR attempted to fast-track the project by holding minimal community engagement events.

The Stockton community is already overburdened. Fires and explosions have repeatedly plagued wood pellet storage piles at port facilities in other parts of the country and pose serious risks to host communities.<sup>106</sup> The concern in Stockton is the same as it is everywhere the wood pellet industry sets up shop. It has promised economic development to an environmental justice community, then historically reneged on its promise.<sup>107</sup> There are no federal or state guardrails to protect the community against developers who don’t account for cumulative impacts, and Stockton has some of the highest overall exposure to toxins like ozone, particulate matter, and groundwater threats.<sup>108</sup>

## **B. From North Carolina to the Global Community**

North Carolina was the first state in the U.S. to experience exploitation of its biomass and its people for the wood pellet industry. Although the state is geographically distinct from the Northwest and thus involves unique timber markets, North Carolina still aptly serves as a broader, cautionary case study for the patterns of attempted expansion into California and other states. As we have seen, it is a telling example of what happens when the wood pellet industry entrenches in a state.

At present, the wood pellet industry is one of the major contributors to rising carbon emissions in North Carolina. Each year, the industry is responsible for the destruction of approximately 60,000 acres of forest.

**In the past seven years, on top of its harm to local communities, Enviva Biomass alone has logged enough acreage to release 28 million tons of CO<sub>2</sub> into the atmosphere. That’s equal to the emissions from 60-70 million cars averaging 10,000 miles a year.**

<sup>105</sup> swilliams. “Proposed Wood Chip Project in Lassen County Draws Heavy Fire from Community and Environmental Groups.” Lassen News, March 28, 2024. <https://www.lassennews.com/proposed-wood-chip-project-in-lassen-county-draws-heavy-fire-from-community-and-environmental-groups>.

<sup>106</sup> “Wood Pellet Plan Could Impact SJ County Air Quality.” Accessed July 17, 2024. <https://www.mantecabulletin.com/news/local-news/wood-pellet-plan-could-impact-sj-county-air-quality/>.

<sup>107</sup> Meyer, Zoe. “Golden State Natural Resources’ Wood Pellet Project and the Debate over California’s Forests.” March 10, 2024. <https://www.tahodailytribune.com/news/golden-state-natural-resources-wood-pellet-project-and-the-debate-over-californias-forests/>.

<sup>108</sup> “CalEnviroScreen 4.0 Results.” Accessed July 17, 2024. [https://experience.arcgis.com/experience/11d2f52282a54ceebcac7428e6184203/page/CalEnviroScreen-4\\_0/](https://experience.arcgis.com/experience/11d2f52282a54ceebcac7428e6184203/page/CalEnviroScreen-4_0/).

These statistics clearly demonstrate the immense damage a single producer, including Drax, can bring to a single state. The international demand for wood pellets, primarily from European power stations, has driven this industry's expansion, with the U.S. exporting approximately 8 million tons of wood pellets valued at \$981 million. Nevertheless, this economic activity translates into meager sustainable job growth and community investment in states like North Carolina, as plants close, industries shift, production costs rise, and job openings go to out-of-community or contracted workers. In fact, between 2004 to 2009, wood product industry jobs declined by over 20%.<sup>109</sup>

Activists have also raised concerns about new developments, such as the proposed facility in Robeson County, which has already received \$500,000 in state grants before obtaining the necessary environmental permits. The Southern Environmental Law Center (SELC) has filed lawsuits against companies violating the Clean Water Act, such as Active Energy Renewable Power, which was found illegally discharging wastewater into the Lumbee River.<sup>110</sup>

But now, like the wood pellet industry itself, the fight against big biomass is getting stronger and going global. On October 19, 2023, grassroots organizations from six continents joined forces for the International Day of Action on Big Biomass, held just a month before COP28. Nearly 100,000 signatures were collected and delivered to the Biden and Trudeau administrations, calling for stronger action against the destructive impacts of biomass burning. Activists argue that if governments and corporations express solidarity with movements like Black Lives Matter, they must also address the racial and environmental injustices tied to pollution and industrial exploitation.

That's why, in early 2025, the Rachel Carson Council hosted a national week of advocacy in Washington, D.C. focused on the attempted expansion of the wood pellet industry. Then, on March 28th, the Rachel Carson Council convened the **2025 National Wood Pellet Forum**. It marked the tenth anniversary of the first Wood Pellet Forum in 2015 that jump started opposition to the then little-known problem of wood pellet production. The 2025 National Wood Pellet Forum attracted over 100 invited attendees, including policymakers, scientists, organizers, U.K. economists, students, and concerned citizens from across the United States. They were brought together by the RCC to discuss the implications of the wood pellet biomass industry on climate, justice, and biodiversity, to bring great cohesion and political clout to the decentralized grassroots movement, and to consider collective strategies of opposition. The forum welcomed attendees from the Gulf South, the Carolinas, the Pacific Northwest, Europe, and U.S. universities. They were greeted and roused by Senator Chris Van Hollen (D-MD), Senator Sheldon Whitehouse (D-RI), and Representative Valerie Foushee (D-NC-8) who have been vocal in their opposition to wood pellets. Just the day before, students and community opposition leaders met with over 65 congressional offices with a focus on the Carolinas, Gulf South, and Pacific Northwest. The RCC and its partners intend to host similar events in the future as a grassroots strategy to raise awareness and strengthen opposition to wood pellet industry expansion.

While wood pellet expansion has popped up in multiple states—and often in the form of facility “conversions”—so too has resistance. In May of this year, the Churchill County Planning Commission in Nevada voted to table discussion of converting a vacant grain facility into a wood pellet processing plant. Despite a local entrepreneur's conviction that wood pellet production would mirror crop

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<sup>109</sup> Dogwood Alliance, The Facts about the Wood Products Industry, Jobs, and the Rural Economy, 2 (2020). <https://media.dogwood-alliance.org/wp-content/uploads/2020/09/Wood-Products-Industry-Jobs-and-Economy-S4F-Report.pdf>

<sup>110</sup> Sairinen, Varpu. n.d. “International Day of Action on Big Biomass 2023 | Environmental Paper Network.” Accessed July 8, 2024. <https://environmentalpaper.org/2023/10/idoa2023/>.

processing, residents from the surrounding area raised enough concerns about declines in air quality, property values and quality of life from the proposed round the clock operations that the discussion of permitting was postponed. In Nevada, the planning commission listened to community members and emphasized the need for more time and clarity about the project before moving forward.<sup>111</sup>

The fight against the wood pellet industry continues to gain momentum, with environmental organizations, local leaders, and international activists calling for stronger regulations and an end to state subsidies for biomass energy. This grassroots movement is a testament to the power of community action in resisting corporate and governmental policies that prioritize profit over environmental justice.

## C. What Other Organizations are Saying

As Drax and other wood pellet companies build up the wood pellet industry, so too have local grassroots movements sprung up to counter the resulting pollution and nuisance. On September 27, 2023, over 20 groups sent a letter to the Biden administration trying to prevent Enviva and other woody biomass companies from qualifying for the 48C Qualifying Advanced Energy Project Credit (a clean energy and manufacturing tax credit from the Inflation Reduction Act). These resistance groups, hailing from six continents, gathered on October 19, 2023 to stand together against biomass burning—just one month away from the Conference of Parties (COP) 28. Nearly 100,000 signatures were collected and delivered to the Canadian and U.S. federal governments to petition for the suspension of wood pellet operations.<sup>112</sup> Similarly, communities in North Carolina gathered in Wilmington at the mouth of the Cape Fear River where Enviva operates one of the six ports they use to ship wood pellets overseas.<sup>113</sup>

Many community and environmental advocacy groups have mobilized against wood pellets, alongside scientists, community members, and harmed residents. In a letter to the leaders of the United States, EU, Japan and South Korea, over 400 scientists and economists joined together to urge their leaders not to undermine their 2050 carbon neutrality commitments by burning trees to generate energy.<sup>114</sup> Other organizations like the NRDC are arguing for the same, and helping communities stand up to prevent further pollution and subsequent health issues.<sup>115</sup> Little Manila Rising and other local groups have opposed GSNR as well.<sup>116</sup>

As we have seen, the magnitude of resistance against GSNR in California pressured state officials to halt the project. More than 100 groups submitted comments opposing the plans, stating the project “will irrevocably harm our climate, communities, and forests, and will increase air pollution, particularly around the wood pellet mills and the Port of Stockton, a community which already has

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<sup>111</sup> Burke, Taylor. 2025. “Churchill County Residents Push Back against Proposed Wood Pellet Plant.” <https://www.kolotv.com/2025/05/15/churchill-county-residents-push-back-against-proposed-wood-pellet-plant/>. May 15, 2025.

<sup>112</sup> Sairinen, Varpu. “International Day of Action on Big Biomass 2023 | Environmental Paper Network.” Accessed July 8, 2024. <https://environmentalpaper.org/2023/10/idoa2023/>.

<sup>113</sup> <https://www.whqr.org/local/2021-10-26/green-energy-or-greenwashing-the-wood-pellet-industry-is-the-target-of-fierce-debate>

<sup>114</sup> Dropbox. “Scientist Letter to Biden, von Der Leyen, Michel, Suga & Moon Re. Forest Biomass (February 11, 2021).Pdf.” Accessed July 3, 2024. <https://www.dropbox.com/scl/fi/ui66cxmk2gozwtr20xqzw/Scientist-Letter-to-Biden-von-der-Leyen-Michel-Suga-Moon-Re.-Forest-Biomass-February-11-2021.pdf?dl=0&rlkey=sq7q099cewdb5v80cti16z1y2>.

<sup>115</sup> <https://www.nrdc.org/bio/courtenay-lewis/world-mobilizing-against-big-biomass>

<sup>116</sup> “Little Manila Rising.” n.d. Little Manila Rising. Accessed March 25, 2025. <https://littlemanila.org>.

some of the highest pollution burdens in the state.”<sup>117</sup> On June 30, 2023, “a coalition comprising 109 organizations, including the California Center for Biological Diversity, Biofuelwatch, Natural Resources Defense Council (NRDC), Partnership for Policy Integrity, 1000 Grandmothers for Future Generations, Center for Community Action and Environmental Justice, Alliance of Nurses for Healthy Environments, Doctors and Scientists Against Wood Smoke Pollution,” and others all submitted comments to the Golden State Finance Authority vehemently opposing the GSNR wood pellet project.”<sup>118</sup> Comments focused on the impact the project would have on Truckee and Lake Tahoe because of increased industrial logging activities. The Tuolumne County facility’s radius reaches forests east of the Bay Area all the way to Nevada, threatening forests within a wide range of ecosystems, communities, and counties. Many rural California grassroots organizations criticized the wood pellet export proposal, instead advocating for the need for sustainable jobs in watershed restoration and climate resiliency—not biomass. Groups pointed out that the production goals did not line up with available quantities of unmarketable biomass or fire fuels. Within the proposals, GSNR had specifically planned to cut and remove any trees within the 100-mile radius of each pellet facility that fell under the category of “roundwood.”<sup>119</sup> Rita Vaughan Frost, Forest Advocate at the NRDC, said: “The GSNR proposal isn’t really about wildfire mitigation or rural jobs, it’s about corporate profit. Industrial-scale wood pellet projects meant for overseas energy markets, like those owned by Drax, won’t solve California’s wildfire problem, and it can actually make the problem worse. This is a dangerous misuse of valuable time and resources that are needed for real solutions. Destructive wildfire is something we must address—but not by harming California’s vulnerable communities and forests.”<sup>120</sup>

## D. Why on Earth are We Still Burning Wood Pellets for Fuel?

Drax burns 6.5 million metric tons<sup>121</sup> of wood pellets each year in the U.K., all of which are sourced overseas. The carbon accounting rules dictate biomass energy is emission-free, and that any greenhouse gas emissions from burning wood are counted in the country where the trees are sourced (US and Canada), not where they are burned (U.K.). Given this loophole, Drax is helping the British government meet its climate targets for the Paris Agreement by producing “zero-emission” electricity. Meanwhile, this “zero-emission” company is the U.K. power sector’s largest CO<sub>2</sub> emitter,<sup>122</sup> while generating only a small share of its total power.

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<sup>117</sup> “Groups Call on California Officials to Axe the GSNR Wood Pellet Project,” news release, June 30, 2024, <https://www.pfpi.net/wp-content/uploads/2023/06/NewsRelease-GSNRwoodpelletprojectsign-onletter63023.pdf>

<sup>118</sup> Meyer, Zoe. “Golden State Natural Resources’ Wood Pellet Project and the Debate over California’s Forests,” March 10, 2024. <https://www.tahoedailytribune.com/news/golden-state-natural-resources-wood-pellet-project-and-the-debate-over-californias-forests/>.

<sup>119</sup> Meyer, Zoe. “Golden State Natural Resources’ Wood Pellet Project and the Debate over California’s Forests,” March 10, 2024. <https://www.tahoedailytribune.com/news/golden-state-natural-resources-wood-pellet-project-and-the-debate-over-californias-forests/>.

<sup>120</sup> swilliams. “Proposed Wood Chip Project in Lassen County Draws Heavy Fire from Community and Environmental Groups.” Lassen News, March 28, 2024. <https://www.lassennews.com/proposed-wood-chip-project-in-lassen-county-draws-heavy-fire-from-community-and-environmental-groups>.

<sup>121</sup> “Drax: U.K. Power Station Still Burning Rare Forest Wood.” Accessed October 9, 2024. <https://www.bbc.com/news/science-environment-68381160>.

<sup>122</sup> Ember. “Biomass Plant Is U.K.’s Top Emitter,” July 30, 2023. <https://ember-climate.org/insights/research/drax-co2-emissions-biomass/>.

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**Less than 5% of U.K. power is generated from biomass, while 20% of U.K. power sector *emissions* are from biomass. In 2022, Drax emitted 12.1 million tonnes of CO<sub>2</sub>. In 2020, Drax reportedly earned 832 million pounds (more than \$1 billion) in government subsidies, plus an estimated 258 million pounds (\$340 million) in tax incentives for biomass production.<sup>123</sup>**

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**So why, with the risk of bad press, further environmental degradation, and substantial carbon emissions, is Drax trying to expand into the West?** Because other countries are using the same carbon accounting loophole as the U.K., and counting biomass burning as a “zero emissions” source of energy. Countries in Asia are increasing their demand for wood pellets, most of which are sourced from the U.S. and Canada. Japan’s imports, alone, have soared from 72,000 tonnes in 2012 to 4.4 million tonnes of wood pellets in 2021, and are projected to reach 9 million tonnes by 2027.<sup>124</sup>

Increasing Asian demand means deforesting California could lead to major profit for Drax. By using GSNR as a front for its intentions, Drax can gain access to California’s 33 million acres of forests while avoiding the inquiries into Drax’s previous dealings with forests and its questionable business practices. Worse, the wood pellet industry frames itself as the “clean” alternative to fossil fuels, as if the industry wishes to be the perfect example of greenwashing.

## **E. Lessons Learned: Greed, Greenwashing, and GSNR**

Drax has been dropped from the index of green energy firms, as doubts are growing about the promises the industry has made concerning their contributions to reaching carbon neutrality in the energy sector. While interventions by S&P Global Dow Jones and Jefferies are some of the first blows struck by the financial sector against the bioenergy sector, that has not stopped Drax from collecting tax credits, government subsidies and “green” loans from banks in order to continue their operations.<sup>125, 126</sup> Asia is increasing its demand for wood pellets, too, so expansion to California would be extraordinarily profitable for Drax. All Drax needs to do is continue misleading the public through greenwashing long enough to receive funding and approval to continue its operation.

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<sup>123</sup> No, Burning Wood Fuels Is Not Climate-Friendly,” March 28, 2022. <https://www.nrdc.org/stories/no-burning-wood-fuels-not-climate-friendly>.

<sup>124</sup> “By Buying Wood Pellets from the US Southeast, Japan Is Fueling Forest Degradation, Hazardous Pollution.” Accessed October 9, 2024. <https://stories.mightyearth.org/by-buying-wood-pellets-from-the-us-southeast-japan-is-fueling-forest-degradation-hazardous-pollution/>.

<sup>125</sup> Ambrose, Jillian, and Jillian Ambrose Energy correspondent. “Drax Dropped from Index of Green Energy Firms amid Biomass Doubts.” *The Guardian*, October 19, 2021, sec. Business. <https://www.theguardian.com/business/2021/oct/19/drax-dropped-from-index-of-green-energy-firms-amid-biomass-doubts>.

<sup>126</sup> Ambrose, Jillian, and Jillian Ambrose Energy correspondent. 2021. “Drax Dropped from Index of Green Energy Firms amid Biomass Doubts.” *The Guardian*, October 19, 2021, sec. Business. <https://www.theguardian.com/business/2021/oct/19/drax-dropped-from-index-of-green-energy-firms-amid-biomass-doubts>.

Drax once was one of the largest coal power generators in Europe. Drax only changed course because of the growing stigma against fossil fuels. Noticing the opportunity to generate biomass electricity, the company slowly converted its power plant to consume wood pellets instead of coal. Because of this transition, Drax has received billions in renewable energy subsidies for its biomass electricity. Biomass energy, on its own, is too expensive. However, when it's propped up by tax incentives and essentially paid for by the public, its business venture suddenly becomes viable.

In 2022, the Biden Administration passed the Inflation Reduction Act (IRA), which committed the federal government to providing \$370 billion for reducing heat-trapping pollution. Tax breaks are a big part of this funding, one of which provides tax credits for technology that captures and permanently stores carbon dioxide. Drax is taking advantage of this tax credit to subsidize its operations further.<sup>127</sup> Drax is beginning a project to capture this carbon – carbon from Drax's power plants that are needlessly burning biomass for energy – and store it under the North Sea. But Drax is not footing the bill. Despite already providing the corporate giant subsidies and loans, the U.K. government approved the \$2.5 billion project in 2024 to build a "carbon-negative" wood-burning power plant.<sup>128</sup> Depending on the "clean energy" definition of the IRA, which currently includes woody biomass, there are two more tax breaks provided: one for the production of so-called "clean energy," and the other to offset the cost of production of advanced manufacturing equipment. The latter credit typically applies to solar and wind energy components, but Enviva is also trying to use this to support two new large pellet mills it plans to build in Mississippi and Alabama.<sup>129</sup> After already going through bankruptcy, Enviva is still seeking more subsidies to help make the process more economical.

In February 2025, the U.K. announced that it is continuing to subsidize Drax. While Drax's production levels will be halved and sourcing investigations are finally underway, the U.K. government is still providing hundreds of millions in subsidies and the guarantee of sustainability standards.<sup>130</sup> The government is not addressing the primary issue: cutting and burning trees does not add any climate benefit. During the same time that Drax has been violating state pollution laws and paying fines for them, Drax has been receiving "green loans" in a sum total of \$762 million.<sup>131</sup> Banks like J.P. Morgan and Bank of America are issuing "sustainability-linked loans" or SLLs, to large corporations to motivate "climate friendly practices." But there is little to no oversight or public disclosure of what these goals are

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<sup>127</sup> Bruggers, By James. 2024. "How Clean Energy Tax Breaks Could Fuel a US Wood Burning Boom." Inside Climate News (blog). March 15, 2024. <https://insideclimatenews.org/news/15032024/clean-energy-tax-breaks-wood-burning-boom/>.

<sup>128</sup> Paddison, Laura. 2024. "U.K. Government Approves Controversial \$2.5B Project for 'Carbon Negative' Power Plant." CNN. January 16, 2024. <https://www.cnn.com/2024/01/16/climate/drax-biomass-beccs-carbon-negative-climate-intl/index.html>.

<sup>129</sup> "How Clean Energy Tax Breaks Could Fuel a US Wood Burning Boom - Inside Climate News." n.d. Accessed March 24, 2025. <https://insideclimatenews.org/news/15032024/clean-energy-tax-breaks-wood-burning-boom/>.

<sup>130</sup> "Written Statements - Written Questions, Answers and Statements - U.K. Parliament." n.d. Accessed March 26, 2025. <https://questions-statements.parliament.uk/written-statements/detail/2025-02-10/hcws424>.

<sup>131</sup> "Amid Years of Pollution Violations in the Deep South, Drax Received over \$700 Million in 'green' Loans - Mississippi Today." n.d. Accessed March 24, 2025. <https://mississippitoday.org/2025/01/15/amid-years-of-pollution-violations-in-the-deep-south-drax-received-over-700-million-in-green-loans/>.



*A firefighter clears loose brush from around a Sequoia tree in Mariposa Grove in Yosemite National Park, Calif., in this July 2022 photo provided by the National Park Service. (Garrett Dickman/NPS via AP)*

or whether the companies actually meet their promises.<sup>132</sup> Despite all of Drax's emissions violations, they are still receiving SLLs and are eligible for tax credits.<sup>133</sup>

While this market is only economically viable because of the increased funding from "green" initiatives and government subsidies, the U.K. is not the only one taking advantage of the carbon accounting loophole. Asian countries are also increasing their demand for wood pellets and are building out more facilities to take advantage of the same error in the Paris Agreement.<sup>134</sup> China, South Korea, and especially Japan are growing their wood pellet imports to co-fire at their power plants. They are doing so to increase their percentage of renewable energy and meet their promises of carbon neutrality.<sup>135</sup> Both Japan and South Korea wish to diversify their energy mix and meet emissions targets. This increase in demand in Asia is the primary reason Drax and other companies

<sup>132</sup> "Amid Years of Pollution Violations in the Deep South, Drax Received over \$700 Million in 'green' Loans - Mississippi Today." n.d. Accessed March 24, 2025. <https://mississippitoday.org/2025/01/15/amid-years-of-pollution-violations-in-the-deep-south-drax-received-over-700-million-in-green-loans/>.

<sup>133</sup> "Amid Years of Pollution Violations in the Deep South, Drax Received over \$700 Million in 'green' Loans - Mississippi Today." n.d. Accessed March 24, 2025. <https://mississippitoday.org/2025/01/15/amid-years-of-pollution-violations-in-the-deep-south-drax-received-over-700-million-in-green-loans/>.

<sup>134</sup> "Written Statements - Written Questions, Answers and Statements - U.K. Parliament." n.d. Accessed March 24, 2025. <https://questions-statements.parliament.uk/written-statements/detail/2025-02-10/hcws424>.

<sup>135</sup> Roos, Joseph A., and Allen Brackley. 2022. "The Asian Wood Pellet Markets." *Gen Tech Rep. PNW-GTR-861*. Portland, OR. U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 25 p, March. <https://doi.org/10.2737/PNW-GTR-861>.

are eyeing the Pacific Northwest and its forests to clear-cut to meet Asian demand. In 2012, Japan imported less than 100,000 metric tons of wood pellets, but in 2023 they imported more than 5.8 million metric tons.<sup>136</sup>

Given Drax's MOU with GSNR, the natural resources organization set up to help rural communities, Drax is able to hide its name from much of the effort in California to get another foothold for the wood pellet industry. Why? Perhaps because when local residents and organizations ask why a wood pellet production plant is being installed in their backyard, they don't see a company that has ravaged the Southeastern United States, has multiple pollution violations, and has been well reported for saying one thing and doing the opposite about forest management. Instead, it's a local organization whose sole purpose is supposed to be the economic well-being and public health of the rural communities in California. Nevertheless, according to the MOU, as soon as the process of the Environmental Quality Act review ended, GSNR would have started to hand Drax the entire operation.

Meanwhile, Drax and GSNR are using the fear of wildfires to fuel their own endeavor of setting up two wood pellet facilities. They are marketing their woody biomass harvesting as beneficial to staving off wildfires. However, there are other and better solutions to preventing wildfires and saving forests aside from cutting down trees so there is "less to burn." Forest restoration can be done in ways that sustain long-term employment and ensure forest resilience, making forest management both socially and ecologically restorative.<sup>137</sup> But instead of providing an actual solution, Drax is feeding off California's concern about wildfire to supply its real goal of fulfilling Asian markets. Despite the promises made to local communities of economic benefit, any benefit is likely negated by the health effects from the facilities themselves, whether noise or dust pollution, or simply the dangers the facilities pose to workers—both as a hazardous workplace, and as a flammable location that could easily spark further fire. Such blazes have happened multiple times at several plants across the Southeastern U.S.<sup>138</sup> Even as Drax is exploiting the fear of fire in the Pacific Northwest, it may actually be bringing another potential source of conflagration. Drax says it offers the solution, but in reality it is part of the problem. Burning wood is not a bridge fuel, but rather a way for an old coal company to keep energy operations still burning.

A recent paper from the journal, *Forests in the Landscape*, states clearly that utilizing "wood biomass as a substitute for coal increases carbon dioxide emissions and worsens climate change for many decades or more."<sup>139</sup> Wood releases about 25% more carbon dioxide per unit of primary energy than fuel oil, and about 75% more carbon dioxide than natural gas. Greenhouse gas emissions from the wood supply chain exceed that of the coal supply chain. "*Eventual carbon neutrality does not mean climate neutrality.*"<sup>140</sup>

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<sup>136</sup> "Exploring the Surge in Wood Pellet Imports into Japan and South Korea." n.d. Accessed March 24, 2025. <https://www.resource-wise.com/forest-products-blog/exploring-the-surge-in-wood-pellet-imports-into-japan-and-south-korea>.

<sup>137</sup> Nelson, Sara Holiday, Patrick Bigger, Micah Elias, and Andrew Schuldt. 2022. "High Roads to Resilience: Building Equitable Forest Restoration Economies in California and Beyond." <https://doi.org/10.13140/RG.2.2.36671.18086>.

<sup>138</sup> Manrique, Nataly Perez. 2022. "Fires At Wood Pellet Facilities: What You Need To Know | Dogwood Alliance." January 11, 2022. <https://dogwoodalliance.org/2022/01/fires-at-wood-pellet-facilities-what-you-need-to-know/>.

<sup>139</sup> Law, Beverly E., William R. Moomaw, Tara W. Hudiburg, William H. Schlesinger, John D. Sterman, and George M. Woodwell. "Creating Strategic Reserves to Protect Forest Carbon and Reduce Biodiversity Losses in the United States." *Land* 11, no. 5 (May 11, 2022): 721. <https://doi.org/10.3390/land11050721>.

<sup>140</sup> Law, Beverly E., William R. Moomaw, Tara W. Hudiburg, William H. Schlesinger, John D. Sterman, and George M. Woodwell. "Creating Strategic Reserves to Protect Forest Carbon and Reduce Biodiversity Losses in the United States." *Land* 11, no. 5 (May 11, 2022): 721. <https://doi.org/10.3390/land11050721>.

## V. CONCLUSION

In the face of intensifying climate change, droughts, storms, and floods, retaining healthy American forests is becoming increasingly challenging. Logging them further will not help. While companies like Drax and Enviva promise sustainable harvesting, the evidence tells a far different story. These subsidized corporations are clear-cutting American forests to supply their wood pellet production facilities whose output is then shipped and burned outside the United States. Because of carbon accounting loopholes, these companies claim—under false pretenses—that they are responsible for *decreasing* carbon emissions, when they are doing the opposite. Despite what GSNR says about the wood pellet industry, how can community members trust Drax to keep to its word about only harvesting “excess biomass” to prevent fires in California? Like much of the southeastern United States, it is unlikely rural Californian communities will see any benefits from a wood pellet mill. Wood pellet mills bring noise, nuisance, and pollution.

The MOU between Drax and GSNR allows Drax to escape much of the public scrutiny it is under in other parts of the world. It is clear that fires are a threat to biodiversity and the forests of California, but deforestation is not a mitigation strategy. But, in the face of such disassembling and destruction, communities have not been standing by helplessly. There have already been significant victories in slowing—and sometimes stopping—the industrial production of wood pellets. Every act of opposition can make a difference. The Rachel Carson Council recommends the following:

# VI. RECOMMENDATIONS

## Forest Carbon and Climate Policy

- **End the carbon neutrality myth for forest biomass.** Burning wood is **not carbon neutral**—even under best-case scenarios, it takes decades to centuries to recapture carbon lost through logging. Lawmakers should discuss that timeline and how it misaligns with necessary carbon mitigation timelines.
- **Formally account for full life-cycle emissions of biomass in GHG inventories.** A total picture of logging and wood product emissions are currently **excluded** from national greenhouse gas (GHG) inventories due to outdated, industry-driven rules. Bills such as the Forest Biomass Emission Act seek to rectify gaps in the complete life-cycle emissions of biomass.
- **Implement proforestation as a climate strategy.** Letting existing forests grow (proforestation) is the **most cost-effective, immediate**, and scientifically-supported method of carbon removal. Proforestation should take precedence over logging and “replanting” for biomass products.
- **Prioritize ecological restoration and afforestation.** Restoring degraded forests and planting new, native forests offers massive carbon sequestration benefits—without relying on speculative technologies like BECCS (Bioenergy with Carbon Capture and Storage) to sequester carbon.

## Forest & Wildfire Management

- **Reject clear-cutting as a wildfire solution.** Clear-cutting can increase fire risks by encouraging fast-growing, flammable vegetation and removing mature (and sometimes fire-resistant) trees. What Drax and others propose will only worsen ecosystem instability and fire severity.
- **Promote ecologically-sound wildfire risk reduction.** Examples of effective risk reduction strategies include removing “ladder fuels” (e.g. saplings and dense understory) while preserving large, resilient trees. Additionally, home hardening and community fire adaptation are promising options. Research shows that home hardening (e.g. ember-resistant materials, defensible space) in its surrounding 100 feet is, in many cases, an effective approach to protecting property without altering vegetation outside the defensive perimeter.<sup>141</sup> Such measures are also cost-effective. Fires more often originate in developed areas and spread outward—not from forests inward—making local fire preparedness key.
- **Support Indigenous-led fire management practices.** Reintroducing low-intensity cultural burning practices supports biodiversity, reduces fuel loads, and restores traditional stewardship models proven effective over centuries.

<sup>141</sup> Loder, Stephanie, “Wildfire Protection Tests Focus on the Details of Construction.” Engineering News Record, July 12, 2019. <https://www.enr.com/articles/47212-wildfire-protection-tests-focus-on-the-details-of-construction>

- **Protect the Pacific Northwest and Alaskan old-growth forests.** These two regions contain globally-critical carbon sinks and biodiversity. Their forests meet IPCC criteria for climate protection due to their unmatched carbon sequestration capacity and ecological value.
- **Financially encourage private landowners to leave trees intact;** through regeneration, afforestation, and other climate-smart practices. If the right carbon markets exist, this decision can be more lucrative (and passive) than selling off harvestable stands to companies like Enviva or Drax.

## Renewable Energy Policy

- **Eliminate public funding and subsidies for biomass.** Industrial-scale woody biomass should be removed from all federal and state subsidy programs, including tax credits, development bonds, and grants. Subsidizing biomass places it in unfair competition with legitimately clean technologies like solar and wind, while completely undermining any climate benefit.
- **Invest in proven clean energy technologies.** Redirect investments toward mature, scalable, and truly renewable technologies—especially **solar + battery storage**, which are increasingly cost-competitive and effective.
- **End carbon credit eligibility for forest biomass energy.** Bioenergy should be excluded from carbon pricing programs and carbon markets. Policies must be science-based, not based on outdated assumptions or budgetary riders falsely declaring forest biomass “carbon neutral.”

## International Leadership and Justice

- **Close international biomass loopholes.** Much of the biomass demand (particularly for wood pellets) is driven by **flawed EU policies** that label bioenergy as carbon neutral. The U.S. must accurately count biomass emissions, end exports of forest carbon under false climate claims, and pressure trade partners to revise carbon accounting rules and phony “certification schemes.”
- **Challenge misleading sustainability certifications like SBP.** The **Sustainable Biomass Program (SBP)**, commonly used by Drax and others, lacks rigorous ecological standards and enables greenwashing. It must be challenged and replaced.
- **Continue to address environmental injustice in biomass-exporting regions.** Industrial pellet production disproportionately harms poor, rural, often majority-Black communities. Basic controls against noise, operating hours, traffic, and fugitive dust are bare-minimum safeguards until the energy system reforms against biomass.

## VII. WHAT YOU CAN DO

There are many ways to get involved—both actively and behind-the-scenes—in the movement to halt the expansion of industrial-scale wood pellet biomass. Every action helps build momentum.

### Show Up Locally

- **Join local and regional campaigns.** Connect and volunteer with grassroots groups in your region working to stop biomass expansion, or support organizations in the Pacific Northwest specifically.
- If you live in California, Oregon, or Washington, speak up at town halls, city council meetings, or hearings where biomass projects are discussed. Once facilities are built, they are much harder to stop.
- If you live in Washington State and want to get involved in the fight against the Longview and Hoquiam plants, visit [www.nobigbiomasspnw.org](http://www.nobigbiomasspnw.org).<sup>142</sup>
- **Support frontline communities** not only in California (eyeing the evolution of Drax's proposal following its downsizing) but also in Mississippi, where Drax seeks to expand. Stand with residents of [Gloster, Mississippi](#) fighting Drax's pollution permits.
- **Use the power of the ballot box.** Cast your vote for candidates at the local, state, and national level who oppose the destruction of forests and industrial wood pellet production.
- **Financial support:** If donating your time isn't an option, contributing financially or logistically is just as valuable, organizers say.

### Take Legislative Action

- **Engage with your Representatives and Senators;** whether in-person or by email/phone, and urge them to reject wood pellets as a "carbon neutral" energy source and end subsidies for woody biomass. Ask them to support investments in solar, wind, and battery storage instead.
- **Submit Public Comments.** Watch for opportunities to comment on federal or state agency rulemakings (e.g., EPA, Department of Energy, state renewable portfolio standards). Submit comments opposing biomass subsidies and calling for accurate carbon accounting.
- **Stay vigilant** for state-level bills attempting to designate the industry as "carbon neutral."
- Participate in RCC's annual **Advocacy Days** and other forums, which bring grassroots activists, scientists, and policy experts together to lobby against biomass subsidies.
- **Support international advocacy** to update EU and U.K. biomass sustainability criteria so they reflect the true impacts on climate and forests. The Rachel Carson Council recommends that the criteria be updated to reflect the real impacts of different feedstocks on the climate.<sup>143</sup>

<sup>142</sup> "nobigbiomassPNW." n.d. nobigbiomassPNW. Accessed May 29, 2025. <https://www.nobigbiomasspnw.org>.

<sup>143</sup> "Greenhouse Gas Emissions from Burning US-Sourced Woody Biomass in the EU and U.K. | Chatham House – International Affairs Think Tank." 2021. October 13, 2021. <https://www.chathamhouse.org/2021/10/greenhouse-gas-emissions-burning-us-sourced-woody-biomass-eu-and-uk>.

## Financial and Institutional Pressure

- If you have expertise in finance, live in the U.K., or are comfortable attending investor meetings, consider [purchasing shares of Drax](#) to gain access to shareholder decision-making venues and push back from within.
- Withhold financial support from companies expanding biomass markets, and instead donate to organizations resisting biomass development.
- **Push for institutional change.** Ask your university, workplace, faith group, or city government to adopt procurement policies that avoid wood biomass energy. Or, offer to give a “Wood Pellets 101” presentation to raise awareness on the oft-overlooked issue.

## Media and Awareness

- Write op-eds, letters to the editor, and share RCC’s reports and films widely. Amplify stories from frontline communities in the Southeast and Pacific Northwest who are directly impacted by pellet mills and logging.
- Propose the wood pellet biomass issue as a topic of discussion to grassroots green groups in your community, particularly those who might focus on climate or energy more broadly who haven’t yet explored (or taken a stance on) the issue of wood pellets.

## Additional Resources to Read and Circulate

- **Educate yourself** and your communities with the [Pellet Mill Community Impact Survey](#).
- **Watch and promote documentaries** like *Burned* by Alan Deter and Lisa Merton,<sup>144</sup> [Monster on the Horizon](#) by Maya Khosla,<sup>145</sup> and RCC’s latest film product:
- The Rachel Carson Council, with Lemon Tree Productions, has produced a short documentary highlighting the wood pellet issue, the evolution of the movement, and the people involved, [The Story of Wood Pellets](#)
- Host or join a screening and discussion, or “watch party,” to raise awareness.
- **Consult the [2025 #BreakBigBiomass Action Packet](#)** for more follow-up items, as brainstormed by community groups and grassroots leaders.

## Stay Connected

- Follow [@rachelcarsondc](#) on social media for action alerts and campaign updates.
- To keep up with the RCC’s programming, newsletters, policy work and more, please subscribe to our mailing list: [Subscribe to RCC e-News](#).
- In addition to the Rachel Carson Council, follow groups such as the Dogwood Alliance, 350PDX, Blackbelt Women Rising, NC Climate Solutions Coalition, the Southern Environmental Law Center, Wild Europe Foundation, Southern Forest Conservation Coalition, Greater Greener Gloster, and others helping to lead the grassroots movement against wood pellets.

<sup>144</sup> “Burned: Are Trees the New Coal?” n.d. *Burned*. Accessed May 29, 2025. <https://burnedthemovie.com/>.

<sup>145</sup> Khosla, Maya. n.d. “Monster on the Horizon.” Accessed May 13, 2025. <https://www.mayakhosla.com/copy-of-the-essentials-forests-of-in-1>.

Drax's expansion into the western United States has been another characteristic attempt to take advantage of communities. But there are forces working against Drax—illogical economics, community opposition, logistical difficulties, investor pressure, and the ever-growing awareness that biomass only looks good on paper. With Asia's energy demand shifting toward biomass, Drax is trying to profit off of western forests in the U.S. and Canada, an uphill battle against foundational conservation groups and deeply-rooted historical preservation efforts.

While the Southeast still struggles to disrupt and uproot this forest-killing industry, many western states have the chance to **stop the destruction before it starts**. When the science is clear, so is the reality: Drax and other companies cannot succeed in sneaking biomass into the 21st-century zeitgeist of the energy transition. The Rachel Carson Council recognizes that the United States sits at a high-stakes crossroads. Now is our chance to prevent deforestation under the manipulative banner of greenwashing, choose communities' health above all else, and protect the sacred forests that Rachel Carson and so many others have enjoyed.

**The Rachel Carson Council** is the national environmental organization envisioned by Rachel Carson and founded in 1965 to carry on her work after her death. We promote Carson's ecological ethic that combines scientific concern for the environment and human health with a sense of wonder and reverence for all forms of life in order to build a sustainable, just, and peaceful future.

**The Rachel Carson Campus Network (RCCN)** links students, faculty, staff, and administrators at campuses nationwide to the Rachel Carson Council to provide and share information and resources, recruit environmental leaders, and work on and off campus to create lasting changes in policy and practice for a sustainable future.



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