

April 15, 2025

Assembly Member Isaac Bryan, Chair Assembly Natural Resources Committee 1020 N Street, Room 164 Sacramento, CA 95814

Re: AB 706 (Aguiar-Curry) – Forest Organic Residue, Energy, and Safety Transformation and Wildfire Prevention Fund Act – OPPOSE

Dear Assembly Member Bryan and Committee Members:

On behalf of the undersigned organizations, we are writing to oppose AB 706 by Assembly Member Aguiar-Curry. This bill will undermine the climate and environmental justice goals of the state and perpetuate health harms to fenceline communities by supporting expansion of the forest-based biomass energy industry. As written, AB 706 will incentivize the continued operation of biomass energy facilities that will increase carbon emissions, create a program that will intensify logging, and expose environmental justice communities to additional sources of air and noise pollution.

AB 706 unwisely directs 15 million tons/year of forest biomass to BioMAT/BioRAM facilities. The BioMAT/BioRAM is a failed, expensive, forced procurement program that is set to end on December 31, 2025, a move supported by PG&E and SoCal Edison. There is a current proceeding before the California Public Utilities Commission (CPUC) to decide whether or not to extend the BioMAT. Ordering procurement here beyond the current BioMAT end date shortcuts the CPUC's ongoing

process and could result in contradictory mandates. Further, there are no claims in the CPUC proceeding that the BioMAT is failing because of difficulty obtaining forest biomass-to the contrary, the Bioenergy Association of California claims there are *increases* in forest feedstocks. In other words, AB 706 proposes a solution to a nonexistent problem.

California is the most progressive, technologically-advanced economy in the world and should invest its resources in solutions that ensure the greatest potential in truly renewable energy and climate justice benefits. The use of woody biomass for energy is a false solution to the wildfire crisis. The state must instead focus time and energy on wildfire mitigation for homes and communities.

Biomass energy increases carbon emissions and will fuel wildfires

AB 706 promotes biomass energy as a means to avoid wildfires and wildfire emissions, but these claims are not supported by science. Rather, incentivizing biomass energy and establishing a program to increase forest removals for biomass energy will increase carbon emissions and fuel wildfires. While biomass energy is categorized on paper as a renewable energy source, the reality is that biomass power plants in California are much more climate-polluting than other electricity sources in California. The average greenhouse gas emission rate for CA's current electricity portfolio is about 485 pounds carbon dioxide equivalent per megawatt hour and in 2018, biomass power plants emitted more than 7x that amount.¹ California's treatment of forest feedstocks as carbon neutral is contrary to scientific opinion at the Intergovernmental Panel on Climate Change (IPCC), Environmental Protection Agency, and elsewhere who have been clear that the simplistic carbon neutrality categorization is flawed.² A letter signed by nearly 800 scientists, including recipients of the U.S. National Medal of Science, and lead authors of multiple IPCC reports, explains that "using wood deliberately harvested for burning will increase carbon in the atmosphere and warming for decades to centuries." Substantial upstream, downstream, and indirect emissions are released by, including but not limited to, cutting and extracting trees, transporting biomass long distances in diesel trucks, processing biomass through chipping and drying, and combusting the biomass.³ The reality is that the established science tells us that when biomass is used for large-scale electricity production, it makes climate change worse for decades- with or without carbon capture systems.

¹https://www.biologicaldiversity.org/campaigns/debunking_the_biomass_myth/pdfs/Forest-Bioenergy-Briefing-Book-March-2021.pdf

² IPCC Task Force on National Greenhouse Gas Inventories, Frequently Asked Questions, available at https://www.ipcc-nggip.iges.or.jp/faq/faq.html, at Q2-10 (IPCC Guidelines do not automatically consider biomass used for energy as 'carbon neutral,' even if the biomass is thought to be produced sustainably); EPA Science Advisory Board, SAB Review of Framework for Assessing Biogenic CO2 Emissions from Stationary Sources (2019), at 2 (not all biogenic emissions are carbon neutral nor net additional to the atmosphere, and assuming so is inconsistent with the underlying science); Booth, Mary S, Not carbon neutral: Assessing the net emissions impact of residues burned for bioenergy, 13 Env't Rsch. Letters 035001 (2018), https://doi.org/10.1088/1748-9326/aaac88; Sterman, John et al., Does wood bioenergy help or harm the climate?, 78 Bulletin of the Atomic Scientists 128 (2022), https://doi.org/10.1080/00963402.2022.2062933.
³ See, e.g., Roder, Mirjam et al., How certain are greenhouse gas reductions from bioenergy? Life cycle assessment and uncertainty analysis of wood pellet-to-electricity supply chains from forest residues, 79 Biomass and Bioenergy 50 (2015), DOI: 10.1016/j.biombioe.2015.03.030.

It's time to sunset the BioMAT/BioRAM and other biomass energy supports in California

AB 706 seeks to create a forest biomass procurement program for BioMAT/BioRAM facilities, even though the BioMAT is set to expire in December 2025. This makes no sense and contradicts a current proceeding currently underway and not yet decided on the CPUC–a proceeding that is gathering stakeholder and public input on the BioMAT.

In March 2025, the Bioenergy Association of California (BAC) filed a petition with the CPUC to extend the BioMAT.⁴ The BAC Petition sets forth reasons for the BioMAT failing to meet its procurement goals—but nowhere does the Petition suggest that the program's failure is due to difficulty procuring woody biomass. To the contrary, the BAC petition claims that California "policies, along with utility requirements for vegetation removal around power lines, will dramatically *increase* the availability of" woody biomass feedstocks.⁵ In other words, AB 706 sets for a procurement "solution" that does not match why the BioMAT is failing.

In their response to the BAC Petition, utilities PG&E and SoCal Edison are on record *opposing* extending the BioMAT beyond its current December 31, 2025 end date because, among other reasons, it is "administratively complex, costly, and largely unused."⁶ The BioMAT is also extremely expensive for utilities, and thus ratepayers: PG&E informed the CPUC that current prices for PG&E's BioMAT contracts range from 127.72 - 199.72, "which is much higher than the average cost of incremental wholesale electric generation today, even when considering only RPS-eligible resources."⁷

PG&E concludes: "To the extent that state policymakers believe that biomass generation should be encouraged in order to provide these non-energy-related public benefits, then the Commission and Legislature should explore ways to fund those services outside of utility customers' bills."⁸

In other words, AB 706 seeks an end-run around a state process that is already underway, questions the viability of the BioMAT, and is a better forum for considering BioMAT issues.

Logging emissions dwarf fire emissions

While we agree that more must be done to address carbon emissions, it is important to note that emissions from fires are significantly lower than those from logging. Greater climate gains will occur by focusing on reducing fossil fuel usage. Wildfire emissions are on average only 6% of fossil fuel

⁴ Bioenergy Association of California (BAC) Petition to Modify Decision 20-08-043 (hereinafter, "BAC Petition"), filed on March 6, 2025 in Rulemaking 18-07-003.

⁵ BAC Petition at 19.

⁶ SoCalGas Response to the BAC Petition at 1, filed on April 7, 2025 ("Rather than prolonging the current BioMAT framework, SCE recommends allowing the program to sunset as scheduled in 2025.").

⁷ PG&E Response to the BAC Petition at 3, filed on April 7, 2025

⁸ PG&E Response to the BAC Petition at 6, filed on April 7, 2025

emissions over the past decade. Therefore, reducing fossil fuel emissions would do more for climate mitigation potential than increasing extractive harvest to prevent fire.⁹ Furthermore, emissions from logging scale up faster than those from fire because a significant portion of the carbon stored in trees is released into the atmosphere shortly after logging, whereas fire emissions are more gradual and most of the carbon remains in the forest for decades or even centuries.^{10,11} While wildfires do release emissions, logging in California forests produces 1.5x more carbon emissions than from fire, native insects, and drought combined¹² and even very severe fires combust less than 2% of living tree biomass on average.¹³ Even in dry forests, on a per acre basis, emissions from logging are generally greater than wildfire and often substantially so– up to 8x greater in certain circumstances.¹⁴ As already noted, emissions from biomass energy are immediately released at the time of combustion.

Thinning for biomass energy will not stop wildfires

The driver for AB 706's procurement program and fund is ostensibly to reduce forest fuels that drive fires but thinning for biomass energy does not prevent or stop wildfires or reduce that amount of area that burns.¹⁵ Broadscale thinning in the backcountry is ineffective in that the chance that a fire will encounter a thinned area (fuels treatment area) is slim. We don't know where fires are going to burn and thinning treatments are short-lived. The likelihood of thinning treatments and wildfire overlapping in time/space is 5-8% according to computer simulations.¹⁶ Furthermore, there is only a 2% chance that a thinned site will encounter a severe fire. Even more, thinning can increase the intensity of fires and their rate of spread by opening up the canopy, creating hotter and drier conditions, and introducing invasive fire-prone grasses.¹⁷ One comprehensive study covering three decades and 1,500 fires in the western US, including California, found that forests with the most protection from logging/thinning burned with the lowest intensities.¹⁸ A study of national forests in the Sierra Nevada found that, after a forest fire, "mechanically thinned," or logged, areas experienced

 ⁹ Bartowitz, Kristina J., Eric S. Walsh, Jeffrey E. Stenzel, Crystal A. Kolden and Tara W. Hudiburg. "Forest Carbon Emission Sources Are Not Equal: Putting Fire, Harvest, and Fossil Fuel Emissions in Context." Frontiers in Forests and Global Change (2022). <u>https://doi.org/10.3389/ffgc.2022.867112</u>.
 ¹⁰ *Ibid*.

¹¹ Hudiburg, Tara W., Beverly E. Law, William R. Moomaw, Mark E. Harmon and Jeffrey E. Stenzel. "Meeting GHG reduction targets requires accounting for all forest sector emissions." Environmental Research Letters (2019): n.pag. <u>https://doi.org/10.1088/1748-9326/ab28bb</u>

¹² Harris, N.L. et al., Attribution of net carbon change by disturbance type across forest lands of the conterminous United States, 11 Carbon Balance and Management 24 (2016)

¹³ Harmon, M.E. et al., Combustion of aboveground wood from live trees in mega-fires, CA, USA, 13 Forests 391 (2022), <u>https://doi.org/10.3390/f13030391</u>

¹⁴ Ibid.

¹⁵ Schoennagel, Tania et al., Adapt to more wildfire in western North American forests as climate changes, 114 PNAS 4582 (2017); Law, Beverly E. at al., Creating strategic reserves to protect forest carbon and reduce biodiversity losses in the United States, 11 Land 721 (2022).

¹⁶ Rhodes, J.J., W.L. Baker. 2008. Fire probability, fuel treatment effectiveness and ecological tradeoffs in Western US public forests. Open Forest Sci. J. 1:1–7

¹⁷ DellaSala, D, et al., Have Western USA fire suppression and megafire active management approaches become a contemporary Sisyphus? 268 Biological Conservation 109499 (2022).

¹⁸ Bradley, C.M. et al., Does increased forest protection correspond to higher fire severity in frequent-fire forests of the western United States? 7 Ecosphere e01492 (2016).

significantly higher fire-induced tree mortality during the fire than adjacent unlogged areas. The logged areas "burned at high severity," while unlogged areas "burned predominantly at low and moderate severity."¹⁹

Support home hardening and defensible space instead

The current mobilization of public policy debate and financial resources is primarily in response to unacceptable levels of life and property loss in communities, not vegetation lost in wildfires. Therefore, the solution set we seek must focus more precisely on those people, homes, and communities. The state needs to focus its time and energy on wildfire solutions that mitigate wildfire risk now– by incentivizing home hardening and focusing any vegetation pruning on defensible space near the home. Up to 90% of structure loss is attributable to embers.²⁰ Research and experience show that the most effective way to prevent wildfires from harming communities is to make communities themselves more ignition resistant through home hardening and vegetation work in the defensible space immediately surrounding homes and structures—not logging/thinning forests in the backcountry for wood pellets or biomass energy.

Leading academics, former agency officials, and other experts believe that structure ignition resistance is the most effective way to save communities from wildfires.²¹ Governor Gavin Newsom emphasized this point by recognizing "Zone 0," an ember-resistant zone within 5 feet of structures in a February 6, 2025 executive order.²² During the Camp Fire, structures that adhered to home hardening requirements specified in the California Building Code Chapter 7A were nearly three times more likely to survive than structures that were built prior to the rigorous 2008 code.²³ Similarly, a post-fire analysis of the Lahaina conflagration found that both the materials of construction and the presence of connective combustible materials were significant contributors to structure ignition,

¹⁹ Hanson, C. T. and D. C. Odion. "Fire Severity in Mechanically Thinned Versus Unthinned Forests of the Sierra Nevada, California." Proceedings of the 3rd International Fire Ecology and Management Congress. (November 13-17, 2006), San Diego, CA

²⁰ *Wildfire Public Policy*. Insurance Institute for Business and Home Safety, Q1 2019, https://ibhs.org/wp-content/uploads/2019/05/wildfire-public-policy.pdf.

²¹ Finney, Mark A.; Cohen, Jack D. "Expectation and evaluation of fuel management objectives." 2003, pp. 353-366.. In: Omi, Philip N.; Joyce, Linda A. (technical editors), *Fire, Fuel Treatments, and Ecological Restoration: Conference Proceedings*, 16-18 April 2002, Fort Collins, Colorado. Proceedings RMRS-P-29. Fort Collins, CO: USDA Forest Service, Rocky Mountain Research Station.;

Calkin, David E., et al. "How Risk Management Can Prevent Future Wildfire Disasters in the Wildland-Urban Interface." Proceedings of the National Academy of Sciences, vol. 111, no. 2, Jan. 2014, pp. 746–51, https://doi.org/10.1073/pnas.1315088111.

²² Executive Order No. N-18-25, California Governor's Office, February 10, 2025, <u>https://www.gov.ca.gov/wp-content/uploads/2025/02/EO-_Urban-Conflagration-N-18-25-Final.pdf</u>

²³ Kasler, D., & Reese, P. (2019, April 11). In Camp Fire, Newer Houses Were Much Less Damaged. KQED. https://www.kqed.org/science/1940012/newer-houses-much-less-damaged-in-camp-fire

particularly on the edge of the community.^{24, 25} Therefore, to increase wildfire mitigations, we should clearly define "forest biomass waste" as material that is coming from the immediate vicinity of people's homes, along evacuation routes, and other anchor points in the WUI to support the firefighting response. This leads to ignition resistance in the immediate vicinity of the home which increases the chances of its protections. Not only should there be a clear definition around "forest biomass waste" but wildfire mitigation legislation should invest in home hardening, community planning, and infrastructure upgrades and maintenance for homes in the WUI.²⁶

Subsidizing biomass energy is a waste of California resources

We also underscore the costly nature of biomass energy and advocate against any future incentivization via grant programs, appropriations, bonds, or public - private partnerships as it would prop up industry growth. Subsidizing forest-based biomass in energy applications does more harm than good for the climate²⁷ and the industry has failed to mitigate climate risks while spurring unintended consequences and market distortions. Any incentive program should mitigate--instead of increase– climate risks. Taxpayer dollars spent on forest-based bioenergy should instead be spent on real climate solutions, such as protecting mature and old growth forests, truly low-carbon energy technologies like wind and solar, and scaling up effective mitigation efforts for communities facing wildfires like home hardening and community defense space. The program should sunset at its current date of December 31, 2025.

The health and wellbeing of California communities and ecosystems depends on urgent and effective wildfire mitigations. Biomass energy production is a false solution. We must add, and make preeminent, wildfire-prepared-home mitigations at sufficient community density to disrupt conflagrations and protect people, communities, and properties. Therefore, we are respectfully opposed to AB 706. Thank you for considering our views.

Sincerely,

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²⁴ Insurance Institute for Business & Home Safety. (2024, September). The 2023 Lahaina Conflagration. Retrieved from https://ibhs.org/lahaina/

²⁵ The Associated Press. (2024, September). Lahaina Wildfire Report Advises Communities On Avoiding Similar Disasters. Honolulu Civil Beat.

https://www.civilbeat.org/2024/09/lahaina-wildfire-report-advises-communities-on-avoiding-similar-disaster s/

²⁶ https://wildfireprepared.org/wildfire-prepared-home-overview/

²⁷ Sterman, J.D. et al., Does replacing coal with wood lower CO2 emissions? Dynamic lifecycle analysis of wood bioenergy, Environmental Research Letters 13 (1) (2018),

https://iopscience.iop.org/article/10.1088/1748-9326/aaa512/meta

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