



# SIERRA CLUB

## MAINE CHAPTER

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To: Committee On Environment and Natural Resources  
From: Nathan Davis, Ph.D., Sierra Club Maine  
Date: February 19, 2025  
Re: **Testimony in Opposition to L.D. 502: An Act to Promote Clean and Affordable  
Maine-sourced Bioenergy by Amending the Law Regarding Outdoor Wood Boilers and  
Outdoor Pellet Boilers**

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Senator Tepler, Representative Duodera, and members of the Committee On Environment and Natural Resources,

My name is Nathan Davis, and I write on behalf of Sierra Club Maine, representing over 22,000 supporters and members statewide. Founded in 1892, Sierra Club is one of our nation's oldest and largest environmental organizations. We work diligently to amplify the power of our 3.8 million members nationwide as we work towards combating climate change and promoting a just and sustainable economy. To that end, we urge you to vote "ought not to pass" on L.D. 502: An Act to Promote Clean and Affordable Maine-sourced Bioenergy by Amending the Law Regarding Outdoor Wood Boilers and Outdoor Pellet Boilers.

L.D. 502 would deregulate outdoor wood boilers in two ways: by raising the particulate emissions limit for exemption from property setbacks; and by forbidding DEP from prohibiting smoke plumes from boilers "regardless of whether such emission remains upon the property of the owner of the outdoor wood boiler or crosses onto any adjacent land or buildings not owned by the owner".

I'll first note that my wife and I heat primarily with wood using a modern, efficient indoor stove. We are careful with both our selection and storage of wood and the operation of our stove to ensure minimal impacts on our neighbors here in Rockland, and we have never heard a related complaint. So I am generally sympathetic to the use of wood as fuel on an individual level.

That said, we object to this bill on two grounds. First, outdoor wood boilers generate a great deal of particulate emissions, and it seems unwise to roll back or prohibit regulations designed to protect neighbors from such emissions. Second, more generally, the Sierra Club encourages the electrification of home heating systems rather than further dependence on combustion, regardless of fuel.

With regard to particulate emissions, it is difficult to find reliable data from the very recent past, though a 2006 report by Northeast States for Coordinated Air Use Management, a body composed of environmental regulators throughout the Northeast, observed that "the average fine particulate emissions from one OWB [outdoor wood boiler] are equivalent to the emissions from 22 EPA certified wood stoves, 205 oil furnaces, or as many as 8,000 natural gas furnaces. To put these emissions into perspective, one OWB can emit as much fine particulate matter as four heavy duty

diesel trucks on a grams per hour basis.”<sup>1</sup> Anecdotally, Mainers understand that outdoor wood boilers can be very dirty, and it is unclear why we would wish to subject our neighbors to more pollution. It’s worth noting that the proposed particulate emissions limit of 0.32 pounds per million BTUs (a limit only for avoiding setbacks, not a limit on operation), while not directly comparable to EPA limits on indoor wood stoves, is much higher than typical indoor wood stove emissions. Current EPA regulations limit particulate emissions of indoor stoves to 2.5 g/h.<sup>2</sup> Assuming a 60,000 BTU indoor stove appropriate for a 2,000 sq ft home<sup>3</sup>, such a stove would be limited by EPA regulations to roughly 0.09 pounds per million BTUs - less than one-third of the proposed limit.

We suggest to the sponsors that it might be worthwhile to estimate the financial cost that the state might bear in treating medical problems resulting from the increased particulate emissions that this bill would enable. It might also be prudent to determine if those suffering from such problems might sue their neighbors for health expenses or wrongful death claims.

More generally, we believe that the state should promote heat pumps powered by renewably-generated electricity as the cleanest and safest method of heating our homes, and we are encouraged that Maine’s climate action plan does just that.

We encourage you to vote “ought not to pass” on L.D. 502. Thank you for your time and consideration.

Sincerely,  
Nathan Davis, Ph.D.  
Sierra Club Maine  
Legislative Team member

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<sup>1</sup>[https://www.f.nescaum.org/documents/assessment-of-outdoor-wood-fired-boilers/2006-1031-owb-report\\_revised-june2006-appendix.pdf](https://www.f.nescaum.org/documents/assessment-of-outdoor-wood-fired-boilers/2006-1031-owb-report_revised-june2006-appendix.pdf)

<sup>2</sup> <https://www.epa.gov/burnwise/choosing-right-wood-burning-stove>

<sup>3</sup> <https://www.energy.gov/energysaver/wood-and-pellet-heating>