

A LEGISLATIVE HEARING TO EXAMINE A DISCUSSION DRAFT OF THE WILDFIRE EMISSIONS PREVENTION ACT; AND S. 881, THE RENEWABLE FUEL FOR OCEAN-GOING VESSELS ACT

HEARING

BEFORE THE

**COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS**

UNITED STATES SENATE

ONE HUNDRED NINETEENTH CONGRESS

FIRST SESSION

SEPTEMBER 10, 2025

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COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

ONE HUNDRED NINETEENTH CONGRESS

FIRST SESSION

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A LEGISLATIVE HEARING TO EXAMINE A DISCUSSION DRAFT OF THE WILDFIRE EMISSIONS PREVENTION ACT; AND S. 881, THE RENEWABLE FUEL FOR OCEAN-GOING VESSELS ACT

WEDNESDAY, SEPTEMBER 10, 2025

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
Washington, DC.

The committee met, pursuant to notice, at 10:13 a.m. in room 562, Dirksen Senate Office Building, Hon. Shelley Moore Capito (chairman of the committee) presiding.

Present: Senators Capito, Whitehouse, Curtis, Ricketts, Kelly, Blunt Rochester.

**OPENING STATEMENT OF HON. SHELLEY MOORE CAPITO,
U.S. SENATOR FROM THE STATE OF WEST VIRGINIA**

Senator CAPITO. Well, good morning, everybody. Thank you all for being here. Just by way of explanation of why we have a lot of empty—there is lots going on on Capitol Hill, so we are expecting people in and out of the committee as we move forward.

I want to thank everybody for being here as we will discuss two pieces of legislation, a discussion draft titled the Wildfire Emissions Prevention Act (WEPA), we all have a name for everything, and then S. 881, the Renewable Fuel for Ocean-Going Vessels Act, which is sponsored by Senators Ricketts and Klobuchar.

I thank the witnesses for traveling and for coming.

The WEPA discussion draft amends the exceptional events process to make it easier for States to manage their forests, to reduce wildfire risk, we see them all over the place, and to protect human health and the environment through prescribed burns.

The Clean Air Act has been a success story. Since the Clean Air Act was signed into law in 1970, the U.S. has reduced criteria air pollutant emissions by 78 percent. That reduction is largely attributed to significant decreases in emissions from the energy and transportation sectors.

Today, a large share of emissions that remain come from hard-to-abate sources, such as wildfires. Wildfires are growing in size and severity, and the National Academies found that wildfires pose an increasing threat to air quality and public health.

In a 2024 fact sheet, the EPA estimated that wildland fires accounted for 44 percent of the Nation's primary emissions of fine

particulate matter. Passing WEPA would help us to reduce those emissions.

In 2023, many Americans experienced what western States have been dealing with for decades when smoke from Canadian wildfires blanketed the East Coast. There is little we can do to regulate wildfires and their emissions. We cannot install traditional air pollution control technology on a wildfire.

However, we do have tools that can reduce their impact, like the use of prescribed burns. Studies consistently find that prescribed burns are a proven method to reduce the risk of catastrophic wildfires and their associated emissions. For example, Stanford University scientists recently found that prescribed burns can reduce the net emissions of subsequent wildfires by 14 percent.

In 2021, the EPA determined that targeted prescribed burns could have reduced particulate matter emissions from the 2015 Rough Fire by 20 percent, and caused a 40 percent reduction in respiratory-related emergency room visits and premature deaths.

However, prescribed burns are severely underutilized as a tool to mitigate wildfires. According to the GAO, EPA's air quality requirements limit the use of prescribed burns that reduce smoke from wildfires. This is because emissions from prescribed burns and wildfire smoke impact a State's ability to comply with the EPA's air quality requirements.

The EPA's Exceptional Events Rule provides a mechanism to account for air pollution from wildfire smoke. However, this process is complex and resource intensive, and smoke from prescribed burns is treated less favorably than wildfire smoke.

While the Exceptional Events Rule allows for prescribed burns in theory, the cumbersome process has limited states from using them in practice. The GAO stated that "State and local agencies may not use the provision because exceptional event demonstrations are technically complicated and resource intensive."

Instead of going through this challenging process, State and local agencies often limit the number of eligible burn days to ensure they do not have to use this process, which limits the use of prescribed burns.

WEPA would ensure that States will not be penalized for using prescribed burns and facilitate State leadership on actions that would mitigate wildfire risk. I look forward to hearing from our witnesses about the environmental and public health benefits that would come from having WEPA signed into law.

This morning, we will also discuss S. 881, the Renewable Fuel for Ocean-Going Vessels Act. Ocean-going vessels include the large cargo and container vessels used to transport more than 80 percent of our international goods. Currently, using biofuels to power ocean-going vessels is not a qualified use under the Renewable Fuel Standard, or RFS, potentially limiting broader adoption of biofuels.

S. 881 amends the RFS to allow U.S. companies to use biofuels for ocean-going vessels to comply with the RFS. In addition to biofuels, U.S. shipping companies and fuel producers are exploring various other alternative fuel options for maritime use. As these companies explore alternative fuels, they must consider various measures of viability, including compatibility with conventional

fuels and existing infrastructure, as well as cost, emissions, and availability.

I thank Senator Ricketts for his role in championing biofuels and look forward to learning more about the use of alternative fuels in shipping today.

I will now recognize Senator Whitehouse for his opening statement.

**OPENING STATEMENT OF HON. SHELDON WHITEHOUSE,
U.S. SENATOR FROM THE STATE OF RHODE ISLAND**

Senator WHITEHOUSE. Thank you very much, Chairman, for this hearing on Clean Air Act legislation.

Whether it is reducing our greenhouse gas emissions or assuring Americans breathable, unpolluted air, we are facing dreadfully short and urgently need real solutions to very real problems.

Let me turn first to wildfires. Climate scientists have warned since the very first Intergovernmental Panel On Climate Changes (IPCC), report back in the early 1990's that wildfires were becoming more destructive. It is getting worse fast, as western colleagues like Senator Curtis know all too well.

Insurance markets have noticed and pulled back homeowners' coverage in wildfire areas, just as they have in coastal areas, translating climate risk into rising costs and availability problems for families.

The great climate insurance collapse, when it happens, will likely prompt a failure cascade, first into mortgage markets, then home values, then our entire economy. The Fed Chair has already warned us to expect entire regions of the Country where mortgages just are not available. I ask that my more complete warnings list be appended as an exhibit to these remarks.

Senator CAPITO. Without objection, so ordered.

Senator CAPITO. Thank you.

Better forest and land management has a role, but as Stanford Professor Michael Wara said in our Budget Committee hearing, these fixes may help win wildfire battles, but without addressing climate change, "we're going to lose the war."

To vessels. A quick victory is near on maritime fuels. Marine shipping is a major source of greenhouse gas emissions fueling wildfires around the world. If marine shipping were its own country, it would be the world's sixth largest carbon polluter.

It also produces 9 percent of global sulfur oxide and 18 percent of global nitrogen oxide emissions. Locally, as these ships come into port, their fumes pollute neighborhoods along our coast. Most vessels are not U.S.-flagged and most of the goods, and related pollution, come from China.

How is a victory near? The International Maritime Organization, which regulates global shipping, is implementing a binding emissions standard, with an economic penalty for vessels violating the standard. Industry supports it. Shipping giant Maersk has long called for a \$150 per ton pollution fee on maritime carbon emissions. It works; the IMO's 2020 policy capping sulfur in marine fuels has already reduced sulfur oxide emissions.

To no one's surprise, the Trump Administration is trying to undermine this process, another trophy for its fossil fuel donors. Few

ships governed by this are U.S.-flagged, and the effect on American consumers will be negligible: pennies on a pair of Chinese-made shoes.

Senator Padilla and I have bills to strengthen this standard for ships operating in U.S. waters, and I urge the IMO and the big international shippers to stick to their guns and finalize the fee.

That is important context for our discussion today on the Renewable Fuel for Ocean-Going Vessels Act, which would extend the Renewable Fuel Standard to maritime fuels. The global shipping community is already moving to low-carbon fuels like methanol and ammonia, to next-generation batteries, and, where they measure up, to advanced biofuels.

Biofuels, to succeed, will need to measure up. Unfortunately, the carbon accounting for conventional biofuels, under lifecycle emissions analysis, often does not measure up. Indeed, studies suggest that lifecycle emissions make some biofuels worse than petroleum.

The United States is the largest market in the world. Everyone wants to bring their goods to our ports to sell to U.S. consumers. We have the opportunity to compete and win in the market for low-carbon marine fuels, actually a win-win-win for our economy, our health, and our planet, but not if we do not even try. Not if we set up for a competition that does not exist. That is a prescription for failure.

Investments already made in hydrogen and other low-carbon technologies were setting us up to be a global leader in this space. Unfortunately, the recently passed Republican mega bill undermined those investments. I hope together we can re-right that ship. American families and the rest of the world can no longer afford American inaction and backsliding on carbon pollution.

Thank you, Chairman.

Senator CAPITO. Thank you, Senator Whitehouse.

I will now turn to our witnesses for their opening remarks, and thank all of you all for being here. Our first witness is Johnny Sabo, Director of the Georgia Forestry Commission, testifying this morning on behalf of the National Association of State Foresters. Mr. Sabo brings a wealth of knowledge and experience in forest management and prescribed fire.

Welcome, Mr. Sabo, and you can proceed with your opening statement.

STATEMENT OF JOHNNY SABO, DIRECTOR, GEORGIA FORESTRY COMMISSION

Mr. SABO. Thank you, and good morning, Chairman Capito, Ranking Member Whitehouse, and members of the committee, for inviting me to this hearing today and for the opportunity to testify on behalf of the National Association of State Foresters and the Georgia Forestry Commission.

My name is Johnny Sabo, and I am the Georgia State Forester.

My comments today focus on the Wildfire Emissions Prevention Act of 2025, a bill that National Association of State Foresters (NASF) supports, and for which I want to offer my sincere appreciation to the committee for considering today.

All State forestry agencies have a commission to protect America's forests and most have statutory responsibility to provide

wildland fire protection on all lands, public and private, and to reduce wildfire risk on those lands through tools such as prescribed fire. This is true in Georgia, where I am responsible for the protection and conservation of Georgia's 22.4 million acres of forest resources, 88 percent of which is privately owned.

Our forests are under increasing pressure from a variety of threats, including catastrophic wildfires, forest pests and diseases, natural disasters, and conversion to other uses. Notably, wildfire risk is increasing across the Nation, from Georgia and West Virginia in the East and Utah, Arizona, and Wyoming to the West. USDA Forest Service estimates that approximately 1 billion acres of land across America are at risk for catastrophic wildfire.

It is nearly universally agreed that a significant increase of prescribed fire and fuels treatment is needed to reduce the wildfire threat. Most ecosystems in the United States evolved with fire, are fire-prone and even need fire to sustain healthy conditions. We cannot suppress fire indefinitely, and doing so only increases the intensity of damage of wildfire when it does start.

Prescribed fire is a tool relied upon by natural resource professionals to reduce hazardous levels of vegetation that fuel wildfires by simulating natural wildfire disturbance through carefully planned and managed ignitions. Prescribed fire also improves wildlife habitat and recycles nutrients back to the soil.

Georgia is a leader nationally in prescribed fire, treating roughly 1.5 million acres annually through a network 3,800 prescribed fire burners, utilizing comprehensive burn plans and emerging technologies such as drone-based ignition.

Turning to the EPA Exceptional Events Rule for prescribed fire, NASF and its members have been longstanding supporters and partners with the EPA in implementation of the rule. A key aspect of the Wildlife Emissions Prevention Act is a continued State-Federal partnership that is at the heart of the Clean Air Act by placing priority on engagement with the States, but then developing the rules and crafting exceptional event determinations for EPA to review.

These partnerships have significantly ramped up in the wake of the lower PM2.5 Air Quality Standard in 2024. States like Georgia have been actively working with the EPA and making sure the tools and processes are in place for demonstrations to proceed.

To this end, a wildfire emissions prevention act would be essential in codifying exceptional events demonstration processes for prescribed fire, given the Supreme Court ruling that courts cannot defer to agency interpretations of law.

We particularly appreciate that this bill would clarify exceptional events to include activities such as prescribed fire that are "intended to mirror the occurrence or reoccurrence of a natural event." This definition recognizes both the critical need for wildfire risk reduction in forests and that risk reduction through prescribed fire is mirroring the natural fire return intervals and the resultant natural smoke and emissions that would occur in the absence of human intervention.

Also, the economic costs of suppressing large wildfires and the damage they cause far exceeds the cost of planned, controlled burns. By reducing fire severity through prescribed fire, we protect

not only ecosystems but rural communities, infrastructures, and human life.

As someone who has served as a wildland firefighter, I believe the core question underpinning the Wildfire Emissions Prevention Act is simple: would you rather fight fire in a forest that has been responsibly managed with prescribed burns, or one left to accumulate decades of fuel waiting for a disaster?

Prescribed fire is science-based, State-led, and essential. Without it, we are left on the defensive.

Thank you for the opportunity to discuss how responsible forest management rooted in science and partnership can protect both our environment and our communities. I appreciate the committee holding this important hearing, and I look forward to answering any questions you may have.

[The prepared statement of Mr. Sabo follows:]



NATIONAL ASSOCIATION OF STATE FORESTERS
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**Written Testimony of the National Association of State Foresters (NASF)
Johnny Sabo, Georgia State Forester and Representative for NASF
Submitted to the Senate Committee on Environment and Public Works
Hearing on the *Wildfire Emissions Prevention Act of 2025*
September 10, 2025**

The National Association of State Foresters (NASF) is pleased to provide written testimony to the Senate Committee on Environment and Public Works for this important hearing on the *Wildfire Emissions Prevention Act of 2025*. Thank you, Chairwoman Capito, Ranking Member Whitehouse, and members of the Committee, for holding this hearing today and for the opportunity to testify on behalf of NASF. We are also grateful to the bill's sponsors for bringing this critical legislation forward.

NASF represents the directors of the forestry agencies in all 50 states, five U.S. territories, three nations in compacts of free association with the U.S., and the District of Columbia. State foresters deliver technical and financial assistance to private landowners for the conservation of more than two-thirds of the nation's forests. As State Forester in Georgia and head of the Georgia Forestry Commission (GFC), I am responsible for the protection and conservation of Georgia's 24.2 million acres of forest resources through leadership, service and education. 88 percent of Georgia's forestland is privately owned and in 2024, forestry ranked first in salaries and wages, and second in jobs created in Georgia, with a total economic output of \$42 billion.

All State Forestry Agencies share a common mission to protect America's forests and most have statutory responsibilities to provide wildland fire protection on all lands, public and private, and to reduce wildfire risk on those lands through tools such as prescribed fire. State Foresters also partner with federal land management agencies through cooperative agreements and Good Neighbor Authority to manage national forests and grasslands. Through resource sharing agreements we help suppress wildfires on federal lands and promote wildfire risk reduction through tools such as prescribed fire.

America's forests are one of the nation's greatest assets, both in terms of environmental importance as well as economic prosperity. Our nation has over 765 million acres of forest land, with the majority of those acres privately owned. As State Foresters, our role is to support the health and maintenance of forests of all ownerships and the benefits that society derives from them, but particularly to support private landowners in their management goals. However, those forests are under increasing pressure from a variety of threats, including catastrophic wildfires, forest pests and diseases, natural disasters, urbanization and conversion to other uses, and more.

Of particular note, wildfire risk is growing throughout the nation, from Georgia and West Virginia in the East to Utah, Arizona, and Wyoming in the West. The causes for this phenomenon may vary, but fire managers are seeing longer, more intense fire seasons in every corner of the country. Adding to the increased incidence of wildfire, we are also seeing more people living in the wildland-urban interface (WUI) - the area where human development,

including structures and other infrastructure, meets or intermixes with undeveloped wildlands. For example, 84 percent of Georgia's population resides in the WUI. This puts more people at risk and makes proactive risk mitigation activities harder to carry out.

In state fiscal year 2025, Georgia had 3,178 wildfires that burned over 21,760 acres - up 23 percent and 63 percent respectively over the five-year average. On March 1, 2025, we saw our highest single day wildfire total since spring 2011 with 133 fires. Total wildfires for March alone were 1,012. Despite challenges, GFC averages a response time of 26 minutes from initial report to attack, including nights, weekends and holidays, which contributes to Georgia's relatively small average fire size of five acres. Since 2020, we have saved 5,500 homes and outbuildings valued at \$983.2 million. Simply put, aggressive wildfire response, alongside a robust, science-based prescribed fire program, create safer conditions for communities and wildland firefighters.

It is nearly universally agreed that a significant increase in prescribed fire and fuels treatments is needed to reduce wildfire threats and aid in ecosystem maintenance, restoration, and resilience across the country. The U.S. Department of Agriculture's Forest Service estimates a billion acres of land across America, across all ownerships, are at risk of catastrophic wildfires. Prescribed fire is a tool relied upon by natural resource professionals to reduce hazardous levels of vegetation that provide fuel for wildfires and promote fire adapted ecosystems by simulating natural wildfire disturbance through carefully planned and managed ignitions. Many forests are fire adapted ecosystems, relying on low intensity fires to help them regenerate and improve conditions for wildlife habitat and native plant species. Prescribed fire can help to reduce hazardous fuel loads and protect communities from catastrophic wildfire. It also minimizes the spread of forest pests, insects and disease, removes unwanted species that threaten our native ecosystems, provides forage and improved habitat for wildlife, recycles nutrients back into the soil, and promotes the growth of trees, wildflowers and other plants.

Most ecosystems in the United States evolved with fire, are fire-prone, and even need fire to sustain healthy conditions. We cannot suppress fire indefinitely, and doing so only increases the intensity and damage of a wildfire when it does start. Thus, for any forest, we can choose whether that fire comes in the form of planned prescribed fire or the eventuality of unplanned wildfire. When using prescribed fire, we are choosing to use best practices that minimize impacts on potentially affected populations. State Foresters have many tools in the toolbox for implementing prescribed fire effectively, whether burning themselves on state lands or supporting private landowners in prescribed burning. These tools include detailed burn plans with current weather forecasts and dispersion modeling that helps determine burn days. State Forestry Agencies' community outreach programs let populations know when there may be impacts from prescribed fire smoke.

For example, in Georgia we have a robust burn program with 3,821 certified burners and recently established a reciprocal program where we honor burn certifications from seven other states. GFC typically burns 10 percent of the total acres across the state. We are leveraging technology in the utilization of drones to conduct prescribed burns on just over 20,000 acres in state fiscal year 2025. Our drones burn an average of 595 acres per flight hour. The benefit of leveraging technology is burning more efficiently to lessen smoke impacts.

State Foresters are one of the leading advocates for wildfire risk reduction, especially the use of prescribed fire. NASF and the Coalition of Prescribed Fire Councils (CPFC) work collaboratively to produce the National Prescribed Fire Use Survey Report.¹ This report remains unique among prescribed fire surveys by evaluating state forestry agencies' prescribed fire policies and management of prescribed fire programs. This intelligence helps to track how much and where prescribed fire is implemented and to what effect. It also helps to track progress made toward increasing the scale and pace of prescribed fire to maintain and build resilient landscapes. The most recent report documents 9.4 million acres treated with prescribed fire annually, of which Georgia treated 1.5 million acres.

Since its inception in 2007, NASF has been a longstanding supporter of and partner with EPA in implementing the Exceptional Events Rule for Prescribed Fire. More broadly, we partner with EPA and State environmental agencies in many efforts that help protect communities from smoke. In our roles on wildfire response teams, we are responsible for daily briefings and smoke hazard communication to local communities. Outside of wildfire season, we proactively build relationships around smoke management.

As one example of this relationship building is the Albany, Georgia Pilot Project: Prescribed Fire and Air Quality. Approximately 400,000 acres are burned each year in the Albany Metropolitan Statistical Area, primarily during February and March. Recognizing the PM2.5 National Ambient Air Quality Standards (NAAQS) were being revised, partners initiated this pilot project to explore strategies for maintaining prescribed fire at scale while protecting air quality. In January 2025, the project was refined to emphasize burns upwind of the Albany population center, targeting the conditions most likely to affect monitored air quality. After this year's burn season, results were very promising with only one daily exceedance recorded that was traced to smoke drift from Columbus, GA, not a local prescribed burn. Overall burn acreage remained average, confirming that the project did not reduce burning opportunities. Partners in this project include private landowners, GFC, NGOs, Georgia Environmental Protection Department, EPA and other state and federal agencies. Their collaboration ensured both scientific credibility and broad community support.

These partnerships have significantly ramped up in the wake of the lowering of the PM2.5 NAAQS from 12 mg/m³ to 9 mg/m³ in 2024. This has put many areas of the country at risk of being out of attainment, with the resultant negative impacts on economic development. While there has been great progress across the country in lowering many sources of PM2.5, the increased wildfire risk discussed earlier in this testimony has meant that attainment challenges still exist in certain areas.

With the lowered PM2.5 NAAQS standard, NASF has been a proactive voice with EPA in making sure the tools and processes are in place for Exceptional Events demonstrations to proceed. We appreciate the tools EPA has released since the final rulemaking, including tools for data visualization, the PM2.5 Wildland Fire Exceptional Events Tiering Document, and the prescribed fire Exceptional Events demonstration from Nevada County, CA. However, the fact remains that the Nevada County, CA demonstration is the only one processed in the history of EPA, and we expect hundreds of demonstrations annually across the country due to the new

¹ https://www.stateforesters.org/wp-content/uploads/2023/01/2021-National-Rx-Fire-Use-Report_FINAL.pdf

lowered standard. In Georgia alone, 129 total Exceptional Event demonstrations were submitted for monitoring data captured between 2021 and 2023, with 89 of those events being prescribed fire demonstrations. EPA has yet to approve or deny any of those cases.

Specifically, we have asked the EPA to ensure that each EPA regional office issues clear guidance to state agencies on what documentation is needed for an Exceptional Events demonstration to be approved – ideally aligned across EPA regions – and establishes clear internal and external timelines for processing and approval of Exceptional Events demonstrations that adequately meet state data needs.

We believe there needs to be strong recognition that smoke from forest fires, whether they be wildfires or prescribed fire, is a natural part of ecosystem maintenance and should not factor into attainment decisions. With this in mind, we offer our full support for the *Wildfire Emissions Prevention Act of 2025*, which recognizes this exact reality, and gives EPA, the states and partners greater flexibility in following-through on EPA’s long-standing position on the importance of prescribed fire.

The intent of the *Wildfire Emissions Prevention Act of 2025* to codify efforts by multiple Administrations to utilize the Exceptional Events demonstration process for prescribed fire is particularly important. In the wake of the recent Supreme Court ruling that courts cannot defer to agency interpretations of law, having clear Congressional intent and clarification for the Exceptional Events processes will be key going forward, especially if states are to navigate a policy environment with a lowered PM2.5 NAAQS.

We particularly appreciate that this bill would clarify Exceptional Events to include activities “intended to mirror the occurrence or reoccurrence of a natural event or the event is an action that mitigates wildfire risk”. This definition recognizes both the critical need for wildfire risk reduction in forests across all ownerships, and that risk reduction through prescribed fire is mirroring the natural fire return interval and the resultant natural smoke and PM2.5 emissions that would occur in the absence of human intervention. Fire in our forests is not preventable in most areas of our country, nor should it be our goal to do so, and thus Clean Air Act policy should not be used to disincentivize science-based forest management that mimics natural fire return intervals.

Another key aspect of the *Wildfire Emissions Prevention Act of 2025* is the priority it places on engagement with states in EPA rulemaking directed by the bill. The Clean Air Act, at its heart, is a success story of cooperation between the federal government and the states, giving States the primary responsibility for implementing national air quality standards. The development of rules around Exceptional Events demonstrations for prescribed fire should be no different, with states retaining the implementation responsibility to submit demonstrations with the associated data and documentation. It only makes sense as best practice to include direct consultation with states - State Foresters, State air pollution control agencies, and State fish and wildlife agencies - in the rulemaking for this effort.

Thank you for the opportunity to appear before the committee today and provide testimony on behalf of NASF. We appreciate the ongoing work of this committee to provide federal and state

forest managers, as well as private landowners, with tools that increase the pace and scale of science-based, sustainable forest management, especially prescribed fire. NASF looks forward to working with the committee and EPA to ensure that federal policy around prescribed fire is robust and science-based, but also streamlined and efficient in implementation.

I look forward to answering any questions the Committee may have.



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Senate Committee on Environment and Public Works
Hearing Entitled, "*A Legislative Hearing to Examine a Discussion Draft of the Wildfire Emissions Prevention Act; and S. 881, the Renewable Fuel for Ocean-Going Vessels Act*"
September 10, 2025
Responses to Questions for the Record for Johnny Sabo, Georgia State Forester

Chairman Capito:

1. Is air pollution from point source emissions included in the Clean Air Act's definition of exceptional event?

My experience in Georgia with the exceptional events demonstration process has been focused on wildfire and prescribed fire events, rather than point source emissions. As a natural resource agency, I am not aware of any criteria that would allow point source emissions to qualify.

a. Does WEPA do anything to change whether point source emissions would fit into the definition of an exceptional event?

I support WEPA's focus on creating certainty within the exceptional events process regarding prescribed fire. From my read of the WEPA discussion draft, I do not see anything that would change the exceptional event regulations other than to codify emissions from prescribed fire and other land management actions that reduce the risk of wildfire as exceptional events.

Senator CAPITO. Thank you.

Our next witness is Jonathan Wood. He is the Vice President of Law and Policy for the Property and Environment Research Center. Mr. Wood has testified before several congressional committee on environmental and conservation issues, and has litigated cases in the Supreme Court and is involved with the Environmental Law Institute Emerging Leaders Institute.

Mr. Wood, you are recognized for your opening statement. Thank you for coming.

STATEMENT OF JONATHAN WOOD, VICE PRESIDENT OF LAW AND POLICY, PROPERTY AND ENVIRONMENT RESEARCH CENTER

Mr. WOOD. Thank you, Chairman Capito, Ranking Member Whitehouse, members of the committee, for inviting me to participate in this morning's hearing.

As the Chairman just said, I am Jonathan Wood with the Property Environment Research Center (PERC), a conservation organization based in Bozeman, Montana.

Forest health has long been a focus of PERC's work. Every summer, the skies over Bozeman remind us of the stakes of the wildfire crisis facing the west. In fact, this weekend as I prepared my testimony, the smoke was so bad, the mountains were invisible, invisible through a brown haze.

While prescribed fire and cultural burning were suppressed for much of the 20th century, a large and growing consensus now recognizes the need for good fire to restore forests throughout the Country. To that end, I and my colleagues at PERC have prioritized policy reforms that will make it easier to apply good fire on the ground, including helping to establish Montana's Prescribed Fire Council through which Federal and State agencies, landowners and conservation groups collaborate to promote prescribed fire's use, as well as passing State legislation earlier this year to establish a permitting, training and certification program in Montana for landowners that want to use this tool.

PERC is happy to support the Wildfire Emissions Prevention Act (WEPA) which would address a persistent and unintended regulatory obstacle to be used for prescribed fire.

In my written testimony, I describe the growing body of evidence including work done by my colleagues showing that prescribed fire is an effective tool for reducing wildfire severity, improving air and water quality and conserving native plants and wildlife. In my short time this morning, I want to focus on why WEPA's policy reforms are so essential.

Despite wildfire smoke being the largest source of several air pollutants, and prescribed fire resulting in net improvements in air quality, the Clean Air Act unintentionally discriminates against prescribed fire smoke. Wildfire smoke, as the Chairman said, is routinely excluded from air quality data. Prescribed fire counts against State compliance, creating incentive for States to limit its use.

To its credit, EPA has long recognized this is a problem and tried to address it through regulations. It is forced to shoehorn prescribed fire into a provision of the Clean Air Act that was clearly

not written with it in mind, and includes requirements that are, at best, an awkward fit for prescribed fire. As a result, those regulations and the attempts to make them work in practice is overly complicated.

The Chairman began by stating that the regulations work in theory but not in practice, and that is the assessment of most of the experts who have studied this issue. Indeed, there has only been one successful application of these regulations in the nearly 20 years since they were first established, and that was a special case that is unlikely to be repeated at the scale required.

While southeastern States, like my colleague represents, have mature prescribed fire programs that may some day be able to run this difficult gauntlet, I am most concerned with what this means for western States like Montana that are only beginning to develop their programs. Within the Montana Prescribed Fire Council, our Department of Environmental Quality regularly expresses concern about the ability to stand up a program like this and be able to navigate EPA's difficult process.

Senator Padilla explained in a 2023 letter to EPA, joined by most of the California delegation that, "The reality is that this process is unworkable for the scale of prescribed fire that will be necessary to protect our communities from increasing catastrophic wildfires." I could not agree more.

We should also note that the regulations are also legally untested. There are lots of unanswered questions there.

The Wildfire Emissions Prevention Act is a straightforward solution to the problem that would give EPA and States much-needed flexibility to promote prescribed fire and improve air quality. It would make prescribed fire an exceptional event, subjected to standards that make sense for prescribed fire, and it would streamline the approval process.

While there is an understandable reluctance to amend the Clean Air Act, which I completely understand, that should not be a concern here. WEPA is a narrowly tailored solution to a very specific problem. It would not affect EPA's regulatory authority, the pollutants covered by the Clean Air Act or any substantive environmental standard.

Ultimately, restoring this Nation's forests on both public and private land is essential to protect air and water quality, to conserve native wildlife and their habitats, and to protect communities from catastrophic wildfire. Prescribed fire is one of our best tools for doing this, but currently is not being used at the scale needed.

WEPA would address a persistent obstacle to its use, and should enjoy the broad support of this committee.

Thank you again for allowing me to join you today. I look forward to your questions.

[The prepared statement of Mr. Wood follows:]



**Prepared Statement of
Jonathan Wood
Vice President of Law and Policy
Property and Environment Research Center (PERC)**

**U.S. Senate
Committee on Environment and Public Works
Hearing on a Discussion Draft of the Wildfire Emissions Prevention Act
September 10, 2025**

Main points:

- Prescribed fire is an essential conservation tool for restoring forests, protecting air and water quality, maintaining habitat for native wildlife, and tackling the wildfire crisis.
- One obstacle to using prescribed fire at the scale needed is an unintended effect of the Clean Air Act, under which smoke from wildfires is routinely excluded from air quality limits while less harmful smoke from prescribed fire is penalized.
- The Wildfire Emissions Prevention Act proposes a narrowly tailored solution to this policy problem. It would give the Environmental Protection Agency and states needed flexibility to treat prescribed fire smoke the same as wildfire smoke, while streamlining the process. It would also have no effect on EPA's authority, the pollutants covered by the CAA, or any substantive environmental standard.

Introduction

Chairwoman Capito, Ranking Member Whitehouse, and members of the committee, thank you for the invitation to testify this morning. We urgently need to increase the use of prescribed fire to restore our nation's forests, protect air and water quality, improve and maintain habitat for native wildlife, and reduce the threat wildfires pose to our communities. PERC supports the discussion draft of the Wildfire Emissions Prevention Act, which would give the Environmental Protection Agency and states needed flexibility to exclude smoke from prescribed fire from air quality limits—a major policy obstacle to using prescribed fire at the scale needed.

The Property and Environment Research Center

PERC is the national leader in market solutions for conservation, with over 40 years of research and a network of respected scholars and practitioners.¹ Founded in 1980, PERC is nonprofit, nonpartisan, and proudly based in Bozeman, Montana. Through research, law and policy, and innovative applied conservation programs, PERC explores how aligning incentives for environmental stewardship produces sustainable outcomes for land, water, and wildlife.

For decades, PERC and its affiliated scholars have researched and championed policies to reduce wildfire risk and promote forest health.² In particular, PERC has long advocated increased use of prescribed burns as a conservation tool for improving air and water quality, wildlife habitat, and wildfire risks.³ Recently, PERC was instrumental in establishing Montana's Prescribed Fire Council and passing state legislation authorizing a training and certification program for prescribed burners.⁴

Prescribed fire is a critical, but underused, conservation tool

Many forest and grassland ecosystems in the United States are fire-adapted, meaning that periodic, low- or moderate-intensity fires are necessary to maintain ecosystem health and to support native plants and wildlife.⁵ For millennia, these ecosystems were assisted by Indigenous cultural burning practices.⁶ However, federal and state policies favoring fire-suppression largely removed fire, including the use of prescribed fire and cultural burning, from many landscapes.⁷ As a result, the health of many of these landscapes has suffered, with the most visible impacts being the growing wildfire crisis in the West.⁸

¹ www.perc.org.

² See, e.g., Sara Sutherland, Eric Edwards, & Frederik Strabo, *Wildfire Risk Map* (2025), <https://perc.org/2025/02/25/perc-wildfire-risk-map/>; PERC, *Good Fire, Bad Fire* (2024), <https://perc.org/good-fire-bad-fire-landing-page/>; Eric Edwards & Sara Sutherland, *Does Environmental Review Worsen the Wildfire Crisis?*, PERC Policy Brief (2022), <https://www.perc.org/wp-content/uploads/2022/06/PERC-PolicyBrief-NEPA-Web.pdf>; Holly Fretwell & Jonathan Wood, *Fix America's Forests* (2021), <https://www.perc.org/wp-content/uploads/2021/04/fix-americas-forests-restore-national-forests-tackle-wildfire-crisis.pdf>; Dean Leuck & Jonathan Yoder, *Clearing the Smoke from Wildfire Policy*, PERC Policy Series (2016), <https://www.perc.org/wp-content/uploads/old/pdfs/PS-56-WEB%20final.pdf>.

³ See, e.g., Andrew P. Morriss, *Fighting Fire with Finance*, PERC Policy Br. (2025), <https://www.perc.org/wp-content/uploads/2025/08/PERC-FightingFire-August2025-Digital.pdf>; Jonathan Wood & Morgan Varner, *Burn Back Better: How Western States Can Encourage Prescribed Fire on Private Lands*, PERC & Tall Timbers Report (2023), <https://perc.org/wp-content/uploads/2023/05/PERC-BBB-Report-UPDATED-230113-web-2.pdf>.

⁴ See Marcus Strange, *Victory for Montana's Landscapes: HB84 Passes with Broad Support and Bold Vision*, PERC.org (2025), <https://www.perc.org/2025/06/26/victory-for-montanas-landscapes-hb84-passes-with-broad-support-and-bold-vision/>.

⁵ U.S. Dep't of Agric., For. Serv., Gen. Tech. Rep. RMRS-GTR-42-vol. 2, *Wildland Fire in Ecosystems: Effects of Fire on Flora* 4 (2001), https://www.fs.usda.gov/rm/pubs/rmrs_gtr042_2.pdf.

⁶ See Nat'l Park Serv., *Indigenous Fire Practices Shape our Land*, <https://www.nps.gov/subjects/fire/indigenous-fire-practices-shape-our-land.htm> (last visited Sept. 5, 2025).

⁷ See Wood & Varner, *Burn Back Better*, *supra* n. 3, at 4.

⁸ See *id.*

According to the National Association of State Foresters and Coalition of Prescribed Fire Councils, prescribed fire was applied to nearly 10 million acres in the U.S. in 2021, the most recent year for which data is available.⁹ While 10 million acres is a lot, there are more than a billion acres of forests and grasslands in the U.S.¹⁰ And use of prescribed fire is concentrated in the southeast, with nearly two-thirds of the acres burned in that region.¹¹ In much of the country, only a tiny fraction of the forests and grasslands that need regular prescribed fire receive it.

In light of the environmental and other consequences of removing fire from forest and grassland ecosystems, there is a broad and growing consensus for increasing the use of prescribed fire and cultural burning. Both involve the intentional application of fire to a landscape, under controlled conditions, to remove fuels, reduce wildfire risk, and improve ecosystem health.¹² While these tools entail risks, including smoke and a tiny chance of escape, they are far preferable to the consequences of catastrophic wildfire.

Despite implementing several thousand prescribed fires each year,¹³ the Forest Service has acknowledged the need to significantly increase the pace and scale of its use of this conservation tool to address an 80 million acre backlog of needed restoration in our national forests.¹⁴ States have also set goals to increase the use of prescribed fire. California, for instance, has set a goal to use prescribed fire on 400,000 acres per year to restore forest and grassland health.¹⁵ And conservation groups, including The Nature Conservancy and Rocky Mountain Elk Foundation, have invested tens of millions of dollars to increase the use of prescribed fire on lands they own or manage, as well as to support public

⁹ See Nat'l Ass'n of State Foresters & Coalition of Prescribed Fire Councils, *2021 Nat'l Prescribed Fire Use Survey Rep't* (2022), https://prescribedfire.net/pdf/2021-National-Rx-Fire-Use-Report_FINAL.pdf.

¹⁰ See Clayton P. Winters-Michaud, *Forest and pasture/rangeland accounted for more than half of U.S. land use in new report*, U.S. Dept. of Ag. Econ. Res. Serv. (2024), <https://www.ers.usda.gov/data-products/charts-of-note/chart-detail?chartId=110056>.

¹¹ See *2021 Nat'l Prescribed Fire Use Survey Rep't*, *supra* n. 13 at 7.

¹² See Kat Kerlin, *How Indigenous Practices Can Help Forests Thrive*, UC Davis (2022), <https://www.ucdavis.edu/news/cultural-burning-illuminated>. In many areas, mechanical and other treatments are needed, in combination with prescribed fire, to initially restore ecosystems. See GAO, *Fully Following Leading Practices for Agency Reforms Would Strengthen Prescribed Fire Program* (2024), <https://www.gao.gov/assets/gao-24-106239.pdf>.

¹³ See GAO, *supra* n. 12.

¹⁴ See U.S. Forest Serv., *Nat'l Prescribed Fire Resource Mobilization Strategy* (2023), <https://www.fs.usda.gov/sites/default/files/2023-06/Rx-Fire-Strategy.pdf>; *Fix America's Forests*, *supra* n. 2 at 4.

¹⁵ California Wildfire and Forest Resilience Task Force, *California's Strategic Plan for Expanding the Use of Beneficial Fire* (2022), <https://wildfiretaskforce.org/wp-content/uploads/2022/05/californias-strategic-plan-for-expanding-the-use-of-beneficial-fire.pdf>.

and private land managers use of prescribed fire.¹⁶ Congress, too, has recognized the need for more prescribed fires, investing billions in recent years to fund forest restoration work.¹⁷

Prescribed fire reduces wildfire risks

Prescribed fire is a proven tool for reducing wildfire risk, which is urgently needed to address the growing wildfire crisis in western forests. Perhaps the best demonstration of this was Oregon's Bootleg Fire in 2021. That July, lightning set fire to the Fremont-Winema National Forest, a fire which quickly spread toward The Nature Conservancy's Sycan Marsh Preserve.¹⁸ As Katie Sauerbrey, a fire manager for The Nature Conservancy, watched the fire's 200-foot high flames move toward the Preserve, "the most extreme fire behavior [she] had ever seen in [her] career," she felt like there was nothing the Conservancy could do.¹⁹ But, then, something miraculous happened. As the fire entered the Preserve, it dramatically reduced in intensity.²⁰

The reason: The Nature Conservancy had for years worked to restore the Preserve's forest.²¹ First, the group mechanically thinned the overgrown forest, removing ladder fuels that encourage destructive crown fires. Then, it used prescribed fire to maintain the forest and control ground-level fuels. As a result of these efforts, the Preserve had less fuel than surrounding forests and was more resilient to the effects of fire. An aerial photo of the Bootleg Fire's aftermath (below) provides some of the most compelling evidence of prescribed fire's benefits.

¹⁶ See, e.g., The Nature Conservancy, *Why We Work With Fire* (2025), <https://www.nature.org/en-us/what-we-do/our-priorities/protect-water-and-land/land-and-water-stories/why-we-work-with-fire/>; Rocky Mountain Elk Found., *Wildfire Restoration Helps Wildlife and Landscapes* (last visited Sept. 5, 2025), <https://www.rmef.org/how-we-conserve/wildfire/>.

¹⁷ See GAO, *Wildfire Smoke: Opportunities to Strengthen Federal Efforts to Manage Growing Risks* (2023), <https://www.gao.gov/assets/gao-23-104723.pdf>.

¹⁸ See Henry Fountain, *This Vast Wildfire Lab Is Helping Foresters Prepare for a Hotter Planet*, N.Y. Times (Jan. 5, 2022), <https://www.nytimes.com/2022/01/05/climate/fire-forest-management-bootleg-oregon.html>.

¹⁹ See *id.*

²⁰ See *id.*

²¹ See *id.*



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This anecdote is no outlier. A recent study by one of my colleagues and several co-authors found that wildfires on lands recently treated with mechanical thinning and prescribed fire had a 32% lower average fire severity.²² The prevalence of high-severity wildfires in areas that received these treatments was reduced by 88%.²³ And these effects were greatest in areas where treatment was done at a larger scale.²⁴ The effect on high-severity wildfires is especially noteworthy because such fires have increased 15-fold since 1985 and cause the most significant damage to forest ecosystems.²⁵

Prescribed fire improves air and water quality

Catastrophic wildfires are one of the greatest threats to air and water quality. Smoke from these fires is the largest source of particulate matter pollution, which has been linked to increased risk of death from

²² See Ethan Yackulic, et al., *Rising from the ashes: treatments stabilize carbon storage in California's frequent-fire forests*, Front. in Forests & Global Change (2025), <https://www.frontiersin.org/journals/forests-and-global-change/articles/10.3389/ffgc.2025.1498430/full>.

²³ See *id.*

²⁴ See *id.*

²⁵ See Sean A. Parks, et al., *Intensifying Fire Season Aridity Portends Ongoing Expansion of Severe Wildfire in Western US Forests*, Global Change Biology (2025), <https://pmc.ncbi.nlm.nih.gov/articles/PMC12365577/pdf/GCB-31-e70429.pdf>.

cardiovascular and respiratory harms.²⁶ Every summer, my community is affected by smoke from upwind wildfires, with air quality levels frequently being unhealthy and occasionally reaching hazardous levels.²⁷ Indeed, as I wrote this testimony, the air quality in Bozeman was bad enough that one could not see the mountains from town through the gray-brown sky. Scorched forests are also prone to substantial erosion, which clogs streams with sediment and other pollutants.²⁸

While prescribed fire also produces smoke that can affect air quality, the available evidence suggests that it is less harmful than smoke from catastrophic wildfires. A recent study out of California, for instance, found that wildfires in areas that had previously been managed with prescribed fire produced 14% less particulate matter pollution compared to untreated areas.²⁹ That study estimates that if one million additional acres were treated with prescribed burns annually, it would reduce PM2.5 pollution by 655,000 tons over the next 5 years.³⁰ Another recent study found that prescribed fire smoke resulted in community exposure to PM2.5 at lower concentrations than wildfires, reflecting the ability of prescribed burners to control when fire is applied and, therefore, smoke is released.³¹ This effect could likely be reduced even further with better public education about prescribed fire. According to one recent study, expanded use of prescribed fire could reduce community exposure to wildfire smoke by 50%.³² While experts continue to study the differences between wildfire and prescribed-fire smoke, the evidence suggests that prescribed fire is an effective tool to improve air quality long term.

Additionally, a recent study suggests that prescribed fire and other active restoration efforts improve forests' ability to sequester carbon. After a wildfire, treated areas resumed operating as carbon sinks while previously untreated areas stagnated or declined.³³ Within 7 years, nearly 75% of treated forests had replaced any carbon lost during the treatment.³⁴ Wildfires, by contrast, are one of the largest sources of carbon emissions.

²⁶ See Env't. Prot. Agency, *Why Wildfire Smoke is a Health Concern* (last visited Sept. 5, 2025), <https://www.epa.gov/wildfire-smoke-course/why-wildfire-smoke-health-concern>.

²⁷ See AirNow, *Air Quality Index (AQI) Basics* (last visited Sept. 7, 2025), <https://www.airnow.gov/aqi/aqi-basics/>.

²⁸ See *Fix America's Forests*, *supra* n.2 at 8, 10.

²⁹ See Makota Kelp, et al., *Effect of Recent Prescribed Burning and Land Management on Wildfire Burn Severity and Smoke Emissions in the Western United States*, AGU Advances (2025), <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2025AV001682>.

³⁰ See *id.*

³¹ See Rosenberg, et al., *Health Impacts of Future Prescribed Fire Smoke: Considerations From an Exposure Scenario in California*, Earth's Future (2024), <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2023EF003778>. See also Don Schweizer, et al., *Assessing relative differences in smoke exposure from prescribed, managed, and full suppression wildland fire*, Air Quality, Atmosphere, & Health (2018), <https://link.springer.com/article/10.1007/s11869-018-0633-x>.

³² See Makota M. Kelp, et al., *Prescribed Burns as a Tool to Mitigate Future Wildfire Smoke Exposure: Lessons for States and Rural Environmental Justice Communities*, Earth's Future (2023), <https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2022EF003468>.

³³ See Yackulic, et al., *supra* n. 21.

³⁴ See *id.*

Prescribed fire benefits native wildlife and their habitats

Finally, because many forest and grassland ecosystems are fire-adapted, native plants and wildlife benefit from restoring fire to these ecosystems through the use of prescribed fire. According to the Audubon Society, for instance, many American bird species can continue to use habitats that have experienced low-intensity burns and often benefit from such burns.³⁵ But catastrophic megafires cause species like the California spotted owl to entirely abandon charred habitats.³⁶ In many ecosystems, periodic, low-intensity fires are also necessary to prevent encroachment by invasive plants and to maintain habitat for native species.³⁷ Therefore, according to The Wildlife Society, prescribed fire “is an important resource management tool that can be effective at maintaining or enhancing habitats for many species of wildlife” and “the benefits of prescribed fire far outweigh negative effects.”³⁸

The Clean Air Act unintentionally discourages prescribed fire by treating prescribed fire smoke differently from wildfire smoke

Under the Clean Air Act, EPA sets air quality standards for regulated pollutants. States, generally, are then responsible for developing and implementing plans to meet these standards. To avoid penalizing states for pollution outside their control, especially natural causes, Congress amended the CAA in 2005 to allow monitoring data influenced by an “exceptional event” to be excluded from compliance analysis.³⁹ Under current law, an exceptional event must (1) affect air quality; (2) be not reasonably controllable or preventable; (3) be a natural event or caused by human activity that is unlikely to recur; and (4) determined by the Secretary to be excludable under EPA regulations.⁴⁰

This provision is frequently applied to exclude the effects of wildfire smoke from CAA compliance.⁴¹ From 2016 to 2023, EPA excluded monitoring data affected by wildfires 139 times, according to a report from *The Guardian*.⁴² And wildfires neatly fit within the exceptional event provision’s terms, as a natural event that cannot reasonably be prevented. Prescribed fire smoke, however, counts against state compliance with the CAA, because it is done intentionally, can be prevented, and, to maximize its

³⁵ See Deborah Petersen, *Recent ‘Megafires’ Imperil Even Fire-Loving Forest Birds*, Audubon.org (2020), <https://www.audubon.org/news/recent-megafires-imperil-even-fire-loving-forest-birds>.

³⁶ See *id.*

³⁷ See The Wildlife Society, *Effects of Prescribed Fire on Wildlife and Wildlife Habitat in Selected Ecosystems of North America* (2016), <https://wildlife.org/wp-content/uploads/2014/05/TechManual16-01FINAL.pdf>.

³⁸ See *id.*

³⁹ 42 U.S.C. § 7619(b).

⁴⁰ *Id.*

⁴¹ See *Fix America’s Forests*, *supra* n.2 at 30.

⁴² See *What is the exceptional events rule? The loophole letting US regulators wipe air pollution from the record*, CapRadio (Oct. 16, 2023), <https://www.capradio.org/articles/2023/10/16/what-is-the-exceptional-events-rule-the-loophole-letting-us-regulators-wipe-air-pollution-from-the-record/>.

benefits, must be repeated periodically.⁴³ This disparate treatment gets the incentives backwards, effectively ignoring the largest source of certain air pollutants while penalizing a conservation practice that improves air quality on net.

The EPA has long recognized this problem and attempted to fix it. In 2007, it issued an exceptional events rule that included a section on prescribed fire.⁴⁴ That rule awkwardly shoehorned prescribed fire into the exceptional event provision's constraints. EPA amended the rule in 2016 and issued guidance with the aim of allowing prescribed fire to qualify as exceptional events.⁴⁵ And it issued additional guidance in 2024.⁴⁶ Because of the awkward fit between prescribed fire and the text of the exceptional events provision, the rule and guidance impose complicated requirements on states, which they have noted is a serious obstacle to their use of the rule to facilitate prescribed burning.⁴⁷ Costly and time-consuming regulatory burdens for states that use or allow the use of prescribed fire discourage the tool at the very time that we need to ramp up its use. According to the GAO, "state and local agencies may not use the provision because exceptional event demonstrations are technically complicated and resource intensive."⁴⁸

A recent study aptly diagnosed the effects of this rule: under it, "prescribed fire can qualify as an exceptional event in theory, but in practice, the rule has created barriers to prescribed fire use."⁴⁹ Between 2016 and 2023, "no Tribe, state, or local agency had successfully used an exceptional events demonstration for prescribed fire[.]"⁵⁰ In 2024, the EPA approved one exceptional event demonstration for a prescribed fire.⁵¹ But this likely doesn't foreshadow a substantial increase in the use of the exceptional event rule for prescribed fire, because it required a unique and likely unsustainable degree of investment from both the state air regulator and EPA.⁵² Indeed, EPA itself has recently

⁴³ See *Fix America's Forests*, *supra* n.2 at 30.

⁴⁴ See EPA, 72 Fed. Reg. 13,560 (Mar. 22, 2007).

⁴⁵ See EPA, *The Final 2016 Exceptional Events Rule, Supporting Guidance Documents, Updated FAQs, and Other Rule Implementation Resources* (last visited Sept. 6, 2025), <https://www.epa.gov/air-quality-analysis/final-2016-exceptional-events-rule-supporting-guidance-documents-updated-faqs#final>.

⁴⁶ See EPA, *Treatment of Air Quality Monitoring Data Influenced by Exceptional Events* (last visited Sept. 6, 2025), <https://www.epa.gov/air-quality-analysis/treatment-air-quality-monitoring-data-influenced-exceptional-events>.

⁴⁷ See, e.g., Letter from Nat'l Ass'n of State Foresters to Joseph Goffman, Principal Dep. Ass't. Admin., EPA (Aug. 5, 2024), https://www.stateforesters.org/wp-content/uploads/2024/08/NASF-EPA-Exceptional-Events-Capacity_FINAL.8.5.24.pdf.

⁴⁸ See GAO, *supra* n.12 at 74.

⁴⁹ Sara A. Clark, et al., *Realignment of federal environmental policies to recognize fire's role*, *Fire Ecology* (2024), <https://fireecology.springeropen.com/articles/10.1186/s42408-024-00301-y>.

⁵⁰ See *id.* at 8.

⁵¹ See EPA, *Exceptional Events Documents Particulate Matter - Nevada County, CA* (last visited Sept. 6, 2025), <https://www.epa.gov/air-quality-analysis/exceptional-events-documents-particulate-matter-nevada-county-ca>.

⁵² See Clark, et al., *supra* n. 44.

announced that it will once again try to improve the rule to make it workable for prescribed fire.⁵³ As Senator Padilla and many of his colleagues in the California delegation recently explained, “this process is unworkable for the scale of prescribed fire that will be necessary to protect our communities from increasingly catastrophic wildfires.”⁵⁴

While some have called to fix the disparate treatment between wildfire and prescribed fire smoke by disqualifying wildfires from the exceptional event provision,⁵⁵ that would be impractical. There is little that state air regulators can do to solve the wildfire crisis, which does not suffer from a lack of motivation by policymakers or landowners/managers. Instead, there is broad agreement, including from the EPA, that the exceptional event process must be made practical for prescribed fire.⁵⁶

The Wildfire Emissions Prevention Act would provide a narrowly tailored solution to this problem, without interfering with the Clean Air Act’s effectiveness

Senator Curtis’ Wildfire Emissions Prevention Act would fix the Clean Air Act’s disparate treatment of wildfire and prescribed fire smoke by giving EPA and states greater flexibility to exclude monitoring data influenced by prescribed fire from state compliance. Importantly, it would do what the EPA can’t: set up a process that makes sense for prescribed fire rather than trying to shoehorn prescribed fire into a process that was intended for natural and uncontrollable events.

WEPA would expand the exceptional event provision to include an event that (1) is not reasonably controllable or preventable, *unless the purpose is to prevent more severe emissions*; (2) is a natural event or caused by human activity that is unlikely to recur, *unless intended to mirror the occurrence of a natural event or the event is an action that mitigates wildfire risk*; and (3) is determined by the state to qualify as an exceptional event and the EPA, pursuant to regulations established by it, does not overrule that determination. WEPA explicitly recognizes prescribed fire as an action that mitigates wildfire risk

⁵³ See EPA, *Administrator Zeldin Takes Action to Decrease Risk of Future Catastrophic Wildfires (“Exceptional Events”)* (last visited Sept. 6, 2025), <https://www.epa.gov/newsreleases/administrator-zeldin-takes-action-decrease-risk-future-catastrophic-wildfires>.

⁵⁴ See Letter from Sen. Padilla, et al., to EPA Administrator Regan (June 13, 2023), <https://costa.house.gov/sites/evo-subsites/costa.house.gov/files/evo-media-document/ac04c9c6b178703ac42203e974625b51-letter-to-epa-re-pm2.5-rule-limiting-prescribed-fire-opportunities1.pdf>.

⁵⁵ See, e.g., Clean Air Scientific Advisory Committee, *CASAC Review of the EPA’s Policy Assessment for the Reconsideration of the National Ambient Air Quality Standards for Particulate Matter (External Review Draft – October 2021)* 12 (2022), <https://www4cleanair.org/wp-content/uploads/PM-NAAQSCASAC-Responses-to-EPA-PM-Draft-PA-031822.pdf>; Molly Peterson & Dillon Bergin, *As US wildfires pollute the skies, a loophole is obscuring the impact. Can it be fixed?*, The Guardian (Oct. 18, 2023), <https://www.theguardian.com/us-news/2023/oct/18/climate-change-wildfire-smoke-pollution-public-health-solutions>.

⁵⁶ See, e.g., Western Governors Assoc., *Policy Resolution 2025-02 Air Quality Protection and Management* (2025), https://westgov.org/images/files/WGA-PR-2025-02-Air-Quality_1.pdf.

under this provision. This amended language would greatly simplify the process for EPA and states to recognize prescribed fire's beneficial effects and avoid penalizing it under the CAA.

We have seen how additional flexibility through technical policy fixes can meaningfully increase opportunities to use prescribed fire. In 2008, for instance, California modified the criteria it uses to determine burn days in the Tahoe Basin, allowing for greater consideration of the atmosphere's ability to absorb smoke. That small, technical change, according to a 2020 study, caused "an abrupt increase in CARB burn day frequency[.]"⁵⁷ Giving EPA and states similar flexibility to increase the use of prescribed fire under the CAA could have similar salutary effects.

While there may be an understandable reluctance to amend a major environmental law like the CAA, such amendment is appropriate here. WEPA offers a narrowly tailored solution to a widely recognized problem that threatens air quality and many other environmental values. And, importantly, it does not constrain EPA's regulatory authority, does not narrow the pollutants covered by the CAA, and does not weaken any substantive environmental standard.

Conclusion

Prescribed fire is a proven conservation tool to restore forest ecosystems, improve air and water quality, maintain habitat for native plants and wildlife, and protect communities from the wildfire crisis. The CAA unintentionally discourages prescribed fire, by counting smoke from it against state compliance with air quality standards while allowing wildfire smoke to be excluded. WEPA would finally fix this problem, by giving EPA and states much needed flexibility to protect air quality by ramping up prescribed fire.

⁵⁷ Randy Striplin et al., *Retrospective Analysis of Burn Windows for Fire and Fuels Management: An Example From the Lake Tahoe Basin, California, USA*, 16 *Fire Ecology* 13 (2020), <https://fireecology.springeropen.com/articles/10.1186/s42408-020-00071-3>.



Senate Committee on Environment and Public Works

Response to Questions for the Record

Re: A Legislative Hearing to Examine a Discussion Draft of the Wildfire Emissions Prevention Act; and S. 881, the Renewable Fuel for Ocean-Going Vessels Act

October 8, 2025

Jonathan Wood

VP of Law and Policy

Property and Environment Research Center

1. Is air pollution from point source emissions included in the Clean Air Act’s definition of exceptional event?

A: The Clean Air Act narrowly defines what can qualify as an “exceptional event,” specifically excluding “air pollution relating to source noncompliance.” 42 U.S.C. § 7619(b). Thus, emissions from traditional or industrial pollution sources, as the phrase “point source” is commonly used, are not eligible.

Currently, the Clean Air Act requires four elements to establish an exceptional event. An event must: 1) affect air quality, 2) not be reasonably controllable or preventable, 3) be caused by human activity that is unlikely to recur at a particular location, or by a natural event, and 4) be determined by the Administrator to qualify under EPA regulations. Industrial pollution sources cannot satisfy these standards, since they are by their nature reasonably controllable or preventable.

But, as noted above, the Clean Air Act takes a belts and suspenders approach to ensuring that traditional or industrial pollution sources are not an exceptional event. Even if the above factors were satisfied, the Act expressly prohibits “air pollution relating to source noncompliance” from qualifying as an exceptional event. 42 U.S.C. § 7619(b)(1)(B)(i).

Moreover, the exceptional events provisions have been in place for two decades and there is no evidence that it has ever been misused to cover industrial sources. This is because the procedure established for reviewing an exceptional event has robust protections against abuse. A state must begin the process by certifying that the data it wishes to exclude satisfies the exceptional events provisions and then EPA must sign-off on that determination.

a. Does WEPA do anything to change whether point source emissions would fit into the definition of an exceptional event?

No, WEPA does not expand the definition of “exceptional event” to include traditional or industrial pollution, modify the express exclusion of these sources, or prevent the EPA from monitoring for abuse of the provision (for which there is no evidence).

WEPA amends the Clean Air Act’s definition of “exceptional event” to reduce barriers currently discouraging states from conducting prescribed burns. This revised definition, however, is narrowly tailored and would not alter how point industrial pollutants are regulated. WEPA’s revised exceptional events provision would allow emissions from prescribed burns to qualify as exceptional events according to the text’s definition, rather than requiring states to navigate EPA’s overly complicated guidelines. Specifically, WEPA expands the exceptional events provision to include an event that (1) is not reasonably controllable or preventable, *unless the purpose is to prevent more severe emissions*; (2) is a natural event or caused by human activity that is unlikely to recur, *unless intended to mirror the occurrence of a natural event or the event is an action that mitigates wildfire risk*; and (3) is determined by the state to qualify as an exceptional event and the EPA, pursuant to regulations established by it, does not overrule that determination. WEPA is also explicit in its definition of “actions that mitigate wildfire risk,” limiting this definition to include prescribed fires and other State-approved actions that reduce wildfire risk, maintain ecosystem health, or conserve at-risk species.

Senator CAPITO. Thank you very much.

Our next witness is Kathy Metcalf. Ms. Metcalf is the President Emeritus, I like the title, of the Chamber of Shipping of America. Ms. Metcalf has worked in shipping issues for more than 30 years, and is well-versed in alternative fuel development for the marine industry.

Ms. Metcalf, you are recognized for your opening statement. Thank you for coming.

**STATEMENT OF KATHY J. METCALF, PRESIDENT EMERITUS,
CHAMBER OF SHIPPING IN AMERICA**

Ms. METCALF. My pleasure, Chairman. Thank you, Ranking Member Whitehouse.

As mentioned, I am testifying on behalf of the Chamber of Shipping of America, well over 30 entities that are engaged in the ship chartering operation of ocean-going vessels.

We also have other members who are interested in those operations as well, such as classification societies.

I have a tendency to do what most aides do not like, and that is to throw the written stuff out, because I find it works better, and listening to the comments from the dais, I think it is in order.

We are in a parallel universe right now; I sort of feel like I am. My colleague from International Council on Clean Transportation (ICCT) may feel the same way. For decarbonization, and new regulations, typically you see industry on a “no” side, and you see governments, both at the national and international level at the “yes” side. What we are experiencing now, as alluded to by Senator Whitehouse, is the flip of that.

First, let me address, and Senator Ricketts, thank you for the bill on renewables. We completely support that bill. We support that bill as only one piece of an overall strategy to address decarbonization of marine transportation.

This is a very large, complicated spider web. If we pull on one side of it, the other one gets distorted, so we have to work together. First, thank you, totally support the bill.

Let me talk a little bit about marine fuels. With the jurisdiction of this committee, I suspect you may be hearing some other discussions on marine transportation, regardless of the administration’s position on climate change.

The global marine industry is agnostic as far as fuels go. We will build ships that burn fuels that are available in the ports in which we call. That is what we need. With that in mind, they need to be in sufficient quantity to supply the world’s fleet.

We also have domestic fleets as well, which is a little easier to manage, because the range of those voyages is much more determined and shorter. We are not talking about the entire globe.

With that in mind, I just want to add that there are a number of fuels that are being discussed over the last 20 agonizing years at the International Maritime Association. We are on the cusp of an agreement with an extraordinary session scheduled for October. We are hopeful that that will move forward, likely without the U.S. as a party, from what we understand.

That is Okay, because global shipping is not just the United States, although a lot of ships come to the United States. The good

news is if we get a global agreement, those ships coming to the United States are going to have to comply with a global standard, even though the U.S. would not require it. That is a side benefit of that happening.

What fuels are we looking at? Well, obviously renewables, biofuels. Biofuels are unique and in fact there are a bunch of different base biofuels. Each one has a different profile. Marine engines have to be designed for a specific profile. I can not just have a marine engine that runs on any biofuel. It is usually a particular biofuel.

With that in mind, the only concern we have with marine fuels, or biofuels, is the fact that we are going to be in direct competition with land-based users. There are some concerns globally and also within the United States as to whether the quantity is going to be available in sufficient measure.

Let us just talk last now about marine vessels. What do we have to look at to make sure that we can keep moving and moving cargo. You have to look at trading patterns. Tramp vessels go anywhere in the world, based upon the charter, or the buses of the seas, which are the container ships, which have very fixed patterns.

We have to look at vessel types, power demand, the vessel age, is it economical to retrofit a vessel to use an alternative fuel, or is it better just to scrap it and build a new one?

Then obviously, we need the infrastructure to be able to take the fuel from the producer to the ship. I thank you for the opportunity to testify. Thank you, Senator Ricketts, for your bill. I am happy to answer any questions. Thank you.

[The prepared statement of Ms. Metcalf follows:]

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Testimony of

Kathy J. Metcalf

On behalf of the

Chamber of Shipping of America

Regarding

**“S. 881 - THE RENEWABLE FUEL FOR
OCEAN-GOING VESSELS ACT”**

Before the

**Senate Environment and Public Works
Committee**

September 10, 2025

Good morning Chairman Capito, Ranking Member Whitehouse and members of the Committee. My name is Kathy Metcalf and I am testifying on behalf of the Chamber of Shipping of America which represents 19 U.S. based companies that own, operate or charter oceangoing tankers, container ships, and other merchant vessels engaged in both the domestic and international trades. The Chamber also represents 19 other entities that maintain a commercial interest in the operation of such oceangoing vessels.

We appreciate the opportunity to provide testimony to you on the important issues addressed in the Renewable Fuel for Ocean-Going Vessels Act. We are supportive of this legislation taking into consideration points made later in our testimony including the need for a comprehensive strategy to promote the transition to alternative fuels.

Decarbonization in any sector is a challenge since it must take into account three key issues which are modification to the emission sources, development of new alternative fuels and the critical infrastructure to ensure the alternative fuels are able to be timely supplied to the emission sources. Marine vessels are no different in the fact that vessels must be built or modified to utilize alternative fuels, the fuels must be produced in sufficient capacity to meet the demand and infrastructure must be developed to ensure the alternative fuel can be delivered to the vessel in port. Marine vessels, however have a unique challenge in that the emissions sources (vessels) are moving literally all over the world unlike the stationary emission sources in other industrial sectors.

CSA has been actively engaged in discussions relating to the decarbonization of shipping at the global level, via the International Maritime Organization, and nationally with various industry coalitions and relevant Executive Branch agencies. For over 20 years, discussions have been ongoing as to how the global shipping industry can decarbonize to the degree and within an agreed upon timeframe. A number of variables need to be considered to progress in this area which are noted below which you may find valuable for future discussions given the jurisdiction of this committee.

Marine Fuels

The global marine industry in general is fuel agnostic. This principle is reflected in the many discussions ongoing at the international and national level given the marine industry's needs across all fuel types relative to supply and demand. However, specific shipping companies and energy producers are not fuel agnostic with individual cases focusing on what alternative fuel(s) will be available in sufficient quantity and which energy producers are in the best position to produce specific alternative fuels in the marketplace. Stating the obvious, there must be a sufficient quantity of alternative fuels in ports at which vessels call which requires a sufficient infrastructure to move the fuels from their point of production to ports. It is expected that hubs based on alternative fuel

types will vary across local/regional/national jurisdictions based on the variability of the marketplace.

The fuels currently being evaluated at this time for marine application include ammonia, hydrogen, methanol, LNG, LPG, biofuels and electric/hybrid. In parallel, marine engine manufacturers are developing propulsion systems that can utilize one or several alternative fuels but it is unlikely that one system could utilize all types of alternative fuels but for the current configuration for dual fuel vessels which can use conventional marine fuel oil or one of the alternative fuels listed above.

The Renewable Fuel for Ocean-Going Vessels Act

From our analysis, the bill would allow renewable fuels used in ocean-going vessels to generate and retain renewable identification numbers (RINs), putting marine fuel applications on an equal footing with fuel used in other applications already included in the renewable fuel program. Retained RINs create a real revenue stream that can be passed through to vessel operators and narrow the price gap between renewable fuels and conventional fuels. Expanding the current program to include marine fuels would provide a strong signal and incentive to producers and blenders to supply alternative (sustainable) marine fuels and access to these fuels in US ports. Incentivization programs, such as this, would accelerate decarbonization in covered sectors and leverage the existing renewable fuel program infrastructure. This expansion would also support domestic fuel production, fuel producers/suppliers, agricultural stakeholders and ports while at the same time advancing practical and real time emissions reductions.

As noted above, biofuels are but one option for alternative fuels across both land based and marine sectors. As such marine users will be in direct competition with land based users. While this is a positive for the producers of biofuels and those providing the base stocks for biofuels production, the availability of biofuels to a particular sector (land vs marine) in sufficient quantity is a continuing concern.

In addition, the technical issues associated with biofuels usage in marine engines must be addressed. Biofuels have a variety of profiles based on base stocks but marine engines must be designed for a specific fuel profile such that a specific marine engine would not be able to utilize biofuels across all profiles.

CSA supports passage of this legislation for the reasons noted above, but with the recognition that this is addressing but one aspect of alternative fuels production and incentivization.

Marine Vessel Operational and Voyage Characteristics

The universe of maritime transportation is broad and complex when viewed within the context of decarbonization and the need for availability of alternate

fuels under all operational profiles. Based on the number of variables that need to be taken account as described below, there is an urgent need to develop a transparent and predictable strategy and legal framework that enable vessel owners and operators to make an informed decision on each of these issues with a focus on engine and alternate fuel availability relative to their trading profiles.

Key considerations that need be taken into account by a ship owner or operator in developing an emissions reduction strategy for their particular fleet are as follows:

- 1) Trading patterns – some vessels have a fixed route with known ports while others, known as “tramp” vessels, are chartered by cargo owners and may call in any port, as determined by the charterer. In this respect, the alternate fuel type and availability determination for fixed route vessels, is more predictable than those on chartered vessels.
- 2) Vessel type – preferred alternate fuel type and propulsion systems will vary across the broad range of ship types, which include containerships, tankers, dry bulk carriers, passenger vessels, tug/barge units and inland harbor service vessels. This variation is a result of the power needs (known as maximum continuous rating) for each vessel type and may in fact vary within a particular vessel type based on the size and tonnage of the vessel.
- 3) Vessel age – older vessels’ propulsion systems are less likely to economically be retrofitted to comply with new emissions requirements than are newer vessels thus owners must answer the question as to whether it is economically feasible to upgrade existing vessels’ propulsion systems for a particular alternative fuel or retire the existing vessel and replace it with a newly built vessel.
- 4) US flag fleet considerations – considerations must be taken into account as to whether the US flag vessel will be engaged solely in domestic trade (the Jones Act fleet) or will be engaged in international trade. In the Jones Act fleet case, those vessels would only need to comply with US requirements while in the latter case relating to international trade, these vessels would need to comply with international requirements, even if the US decided to not adopt the requirements finalized by the International Maritime Organization.
- 5) Availability of engines suitable to use alternative fuels – considerations relative to this issue include the availability of dual fuel engines across all power requirements based on vessel type and size.

Shore Based Infrastructure

Having addressed the vessel and alternative fuels considerations above, the final critical piece of this puzzle is the need for sufficient shore based infrastructure to ensure the alternative fuel can ultimately be transported to the vessel. Failure to address this infrastructure issue would result in sufficient quantities of alternative fuels at its production point, vessels at the dock ready to purchase and use these alternative fuels, but no way to connect these two critical links leaving the alternative fuels stranded and the vessel equally stranded with no access to fuel.

Conclusions and Recommendations

- We support passage of S.881 as an important first step in incentivizing the production of a broad range of alternative fuels for marine vessel use.
- All alternative fuels, including biofuels, should be considered in developing the next generation of emissions reduction strategies for marine vessels.
- The marketplace supply and demand of alternative fuels development should be assessed based on the many variables to be taken into account by specific vessel owners and operators including vessel operational characteristics and voyage type variations.
- Infrastructure development is the key to aligning alternative fuels with the vessels that will use them and provides an excellent business case for the US to be a leader in the provision of alternative fuels to the global and domestic shipping industries.

Thank you for the opportunity to provide our testimony on S.881 and we look forward to answering your questions.

Senator CAPITO. Thank you very much.

Our next witness is Abi Vijayan, did I say that correctly?

Ms. VIJAYAN. It is Vijayan, and thank you, Chair Capito.

Senator CAPITO. Thank you. Ms. Vijayan is a Senior Climate Attorney at the Natural Resources Defense Council. Previously, she was an attorney for EPA's regional office in Texas, and served 11 years in EPA's Office of General Counsel, including as lead for the National Ambient Air Quality Standards (NAAQS) group.

Thank you very much for being here.

**STATEMENT OF ABIRAMI VIJAYAN, SENIOR CLIMATE
ATTORNEY, NATURAL RESOURCES DEFENSE COUNCIL**

Ms. VIJAYAN. Thank you, Chairman Capito, and Ranking Member Whitehouse, for the opportunity to testify today.

As noted, my name is Abi Vijayan, and I am a senior attorney for the Natural Resources Defense Council.

From my experience as a former EPA attorney and working with scientists and experts in air quality, public health and climate science, I know that wildfires are dangerous to human health and welfare, are exacerbated by climate change, and are increasing every year in intensity. Wildfire destruction causes the U.S. billions of dollars annually, and causes a significant amount of air pollution that is unsafe for Americans to breathe, particularly emissions of fine particulate matter, or PM2.5, and ozone.

Over 150 million Americans live in areas that suffer unsafe levels of smog and PM2.5 pollution. Breathing these pollutants can cause a litany of health issues, including lung disease, cardiovascular problems, stroke, and premature death. Under the Clean Air Act, the EPA sets air quality standards for PM2.5 and ozone, and States, of course, have primary responsibility for assuring that the areas within their jurisdiction attain and maintain those standards, with the EPA then determining whether those States are in attainment.

Under Section 319 of the Clean Air Act, there is clear legal authority for finding that both wildfires and prescribed fires are exceptional events, as implemented by EPA's regulations, which again, clearly State that prescribed fires can be qualified as exceptional events. I would note that those regulations have been challenged and upheld in the D.C. Circuit, so remain good and effective law. The time to challenge those regulations has long since passed.

While prescribed fires have been used to address wildfires, they historically have not been demonstrated to be make or break events that push States into non-attainment. They do produce pollution, particularly emissions impacting air concentrations of PM2.5. The EPA has developed a strong regulatory framework and toolkit for States and air agencies that are considering whether to request that prescribed fires be treated as exceptional events and air quality data influenced by such treatment be eligible for certain regulatory exclusions.

The EPA's 2016 Exceptional Events Rule clearly states that, again, prescribed fires can be eligible for treatment as an exceptional event if the required demonstration is made and the regulatory criteria are met. EPA has also explicitly addressed these criteria in those regulations and released a number of helpful guid-

ance documents as well as templates and tools to assist States in meeting those statutory and regulatory requirements, specifically for prescribed fires.

For example, in November 2024, EPA issued a demonstration template for prescribed fire events on wildlands that may impact PM_{2.5}. This template provides clear and helpful information on what data a demonstration or a prescribed fire could look like, as well as a conceptual model for States to assess and develop as appropriate for their particular facts.

Concurrently with this informative template, the EPA also issued a publicly available FAQ document containing numerous questions and answers regarding the treatment of prescribed fires under EPA's regulations and how those States can meet the criteria for exceptional events under Clean Air Act Section 319.

Given the growing wildfire threat, there is increased interest, certainly, in the use of prescribed fire and other tools that may mitigate wildfire risks, and States are, of course, invested in ensuring they attain and maintain the NAAQS.

Having worked on air pollution issues and climate issues for the entirety of my career, with specific expertise in the NAAQS and exceptional events, I believe that the Wildfire Emissions Prevention Act is unnecessary to address this issue. As I have explained, the Clean Air Act and EPA's regulations already clearly provide for the consideration of prescribed fires under the Exceptional Events program.

Amending an already extant authority that is actively being implemented by the States through guidance and other tools would be redundant, at best, and at worst, result in regulatory or legal confusion that could unnecessarily complicate or hinder protection of public health from harmful air pollution resulting from wildfires.

Thank you again for the opportunity to testify today. I would be pleased to answer any questions you may have.

[The prepared statement of Ms. Vijayan follows:]

Testimony to the Committee on Environment and Public Works**Legislative Hearing on Discussion Draft of the Wildfire Emissions Prevention Act****U.S. Senate****Abirami Vijayan**

Senior Attorney

Natural Resources Defense Council

September 10, 2025

Thank you, Chairman Capito and Ranking Member Whitehouse for the opportunity to testify today. My name is Abirami Vijayan, and I am a senior attorney for the Natural Resources Defense Council (NRDC). NRDC is a nonprofit organization of scientists, lawyers, and environmental specialists dedicated to protecting public health and the environment. I have recently joined NRDC, having previously worked as a Clean Air Act attorney for the U.S. Environmental Protection Agency (“EPA”) for 15 years, including three years as Assistant General Counsel for the National Ambient Air Quality Standards (NAAQS) group within the Office of General Counsel.

From my experience as a former EPA attorney, and working with scientists and experts in air quality, public health, and climate science, I know that wildfires are dangerous to human health and welfare, are exacerbated by climate change, and are increasing every year in intensity. NASA satellites and instruments show that over the past twenty years extreme wildfire activity has more than doubled, particularly impacting the American west. Wildfire destruction costs the United States billions of dollars annually, wildfires cause a significant amount of air pollution that are unsafe for Americans to breathe, including emissions of fine particulate matter (PM2.5) and ozone (smog), which are regulated under the Clean Air Act’s NAAQS program. As it is, over 156.1 million Americans live in areas that suffer unsafe levels of smog or PM2.5 pollution, or both. Breathing PM2.5 and smog can cause a litany of health issues including lung disease, cardiovascular problems, heart attacks, stroke, reproductive issues, and premature death.

Under the Clean Air Act, the EPA sets air quality standards for so-called criteria pollutants, including PM2.5 and ozone, at levels that are protective of human health. Once the EPA sets an air quality standard, states have primary responsibility for assuring that areas within their jurisdiction attain and maintain those standards, and the EPA determines whether states are in attainment. Under section 319 of the Clean Air Act, in determining whether an area is in attainment of the NAAQS, the EPA can exclude air quality data for emissions from “exceptional events.” The EPA’s regulations implementing Clean Air Act section 319 clearly authorizes finding both wildfires and prescribed fires are exceptional events under the statute. Some forest managers in wildfire prone states have turned to the use of prescribed burns as one of many wildfire mitigation tools. While prescribed fires that are used to address wildfire risk historically haven’t been demonstrated to be make-or-

break events that drive states into nonattainment, they do produce pollution, particularly emissions impacting air concentrations of PM_{2.5}.

The EPA has developed a strong regulatory framework and toolkit for states and air agencies that are considering whether to request that prescribed fires be treated as exceptional events and air quality data influenced by such treatment be eligible for certain regulatory exclusion. The EPA's 2016 Exceptional Events Rule, which is codified in the Code of Federal Register under 40 C.F.R. part 50.14, clearly states that prescribed fires can be eligible for treatment as an exceptional event if the required demonstration is made and regulatory criteria are met. The EPA's regulations and related guidance for prescribed fires also address each prong of the statutory "exceptional event" definition, including the statute's "not reasonably controllable or preventable" prong.

The EPA has developed a number of publicly available tools to assist states in meeting the statutory and regulatory requirements for exceptional events and specifically for prescribed fires. For example, in November 2024 EPA issued a demonstration template for prescribed fire events on wildlands that may impact PM_{2.5}. This template provides an overview of the relevant statutory and regulatory requirements, information on what data a demonstration for a prescribed fire should include, and an example narrative conceptual model for a prescribed fire demonstration. Concurrently with this informative template, the EPA also issued a publicly available FAQ document for the 2016 Exceptional Events Rule, containing numerous questions and answers regarding the treatment of prescribed fires under the Rule and how they can meet the criteria for exceptional events under Clean Air Act section 319.

As noted above, wildfires have become significantly more frequent and more intense in recent years. As this trend continues, there is increased interest at all levels of government in the use of prescribed fire and other tools that may mitigate wildfire risk, and states are invested in ensuring that they attain and maintain the NAAQS. These are important considerations. However, having worked on air pollution and climate issues for the entirety of my career, with specific expertise in the NAAQS and exceptional events, I believe that the Wildfire Emissions Prevention Act is unnecessary to address this issue. As I have explained, the Clean Air Act and EPA's regulations already clearly provide for the consideration of prescribed fires under the Exceptional Events program.

In conclusion, the Committee should not advance amendments to the Clean Air Act through the Wildfire Emissions Prevention Act, as the treatment of prescribed fire as an exceptional event is already adequately realized through existing statutory and regulatory requirements. Amending an already extant authority would be redundant at best, and at worst, result in regulatory or legal confusion that could unnecessarily complicate or hinder protection of public health from harmful air pollution resulting from wildfires.

Thank you again for the opportunity to testify, and I would be pleased to answer any questions you may have.

Senator CAPITO. Thank you very much.

Last but not least, our final witness is Nikita Pavlenko, Program Director for Fuels and Aviation at the International Council on Clean Transportation.

Mr. Pavlenko, am I saying that correctly?

Mr. PAVLENKO. Yes.

Senator CAPITO. Thank you. He has a background in lifecycle assessment and carbon accounting with a focus on the climate implication and deployment of alternative fuels like sustainable aviation fuels.

Mr. Pavlenko, please proceed with your opening statement. Thank you for coming.

STATEMENT OF NIKITA PAVLENKO, PROGRAM DIRECTOR, FUELS AND AVIATION, THE INTERNATIONAL COUNCIL ON CLEAN TRANSPORTATION

Mr. PAVLENKO. Thank you, Chairman Capito. It is a privilege to be given the opportunity to speak with you today.

My name is Nikita Pavlenko. I am the Director of the Fuels and Aviation Programs at ICCT is an independent, non-profit research organization that provides technical analysis to policymakers and to regulators. Our research is focused on reducing the climate and the public health impacts of transportation.

Our review of the Renewable Fuel for Ocean-Going Vessels Act suggests that it will have a negligible impact on reducing the air pollution and climate impacts of maritime fuels. We can draw upon the example of jet fuel in the Renewable Fuel Standard for some historical context. While jet fuel was introduced in the RFS in a similar provision in 2014, it did not materially affect sustainable aviation fuel production. Even today, a decade later, Sustainable Aviation Fuel (SAF) blending in the aviation sector remains below 1 percent.

This type of opt-in provision does not mandate the production of either renewable maritime or jet fuel, it only means that if a producer produces it, they can opt into the Renewable Fuel Standard (RFS) program and generate Renewable Identification Numbers (RIN) credits. There are also some further reasons why renewable maritime fuels may fail to reach the market and may face an even steeper slope than sustainable aviation fuels. Given compatibility issues, the likeliest renewable maritime fuels produced in the near future would be something akin to biomass-based diesel. In most cases, it is much more lucrative to sell that fuel into the road sector.

There are a few reasons why: renewable diesel commands a higher market price, it qualifies for credits in west coast low-carbon fuel standard policies, and it can be used for compliance under west coast cap and trade programs. By instead selling into the maritime market, a producer is losing out on all these valuable incentives.

Including renewable maritime fuels in the RFS can also create some unintended second order effects as well. For example, the inclusion of a new sector may prompt EPA to propose higher volume targets in future RFS rulemakings. Our analysis of the summer 2025 rulemaking suggests that this may exacerbate underlying issues in the program that we have identified.

The current proposal already raises the advanced biofuel volumes in excess of domestic availability, while also reducing the compliance value of imported feedstocks. This has the contradictory effect of one, further increasing the quantity of advanced biofuel needed to meet obligations leading to even greater reliance on foreign imports, and two, raising prices. All of this for very little, if any, climate benefit.

If the inclusion of maritime fuels is used as a justification for further increases in RFS blending targets, we risk deeper trade imbalances, diversion from food markets, and price increases.

Now, there are several promising pathways for producing sustainable alternative maritime fuels that could achieve deep greenhouse gas savings, whether using biomass waste and residues, cellulosic energy crops, or by e-methanol or e-ammonia. However, the current structure of the RFS, even with this proposed change in eligibility, does not create sufficient value certainty to incentivize producers to enter the market.

Interviews and surveys of project planners and industry stakeholders in the SAF industry suggest that policies that mitigate investment risks and complement top-down mandates such as the RFS are critical to ensure the deployment of the more challenging, lowest-carbon fuel pathways. Further, promising non-biomass-based pathways, such as blue ammonia or e-methanol, are not even eligible in RFS and would thus not generate RINs despite their potential emission savings.

One potential outside development which may influence the impact of this proposed revision to the RFS is the implementation of IMO's net-zero framework, which includes a global fuel standard that could offer a powerful complementary signal to decarbonize maritime fuels. If that policy does move forward, it could then backstop this proposed change in the RFS. To have a meaningful impact on climate, it must, too, correctly account for indirect land-use change emissions, or include some other forms of meaningful safeguards.

To conclude, while the promotion of alternative fuels in the maritime sector is a laudable goal, doing so through the RFS opt-in provision will likely provide a minimal signal. If used as a justification for higher volume targets in future RFS rulemakings, there is a risk that this could further increase the demand for virgin vegetable oils beyond domestic availability, with unintended trade, climate, and price effects.

Thank you for your time, and I am happy to answer any questions.

[The prepared statement of Mr. Pavlenko follows:]



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Written Testimony on Potential Impacts of Renewable Fuel for Ocean-Going Vessels Act

It is a privilege to be given the opportunity to provide technical feedback on this bill. ICCT is an independent, non-profit research organization that provides technical analysis to policymakers and regulators; our research is focused on reducing the climate and public health impacts of transportation.

ICCT's review of the **Renewable Fuel for Ocean-Going Vessels Act** suggests that it will have a negligible impact on reducing the air pollution and climate impacts of maritime fuels. We can draw upon the example of jet fuel in the Renewable Fuel Standard for some historical context. While jet fuel was included in the RFS in a similar provision in 2014, it did not materially affect sustainable aviation fuel production; even today, a decade later, SAF blending in the aviation sector remains below 1%.¹ This type of opt-in provision does not mandate the production of either renewable maritime or jet fuel, it only means that if a producer produces those fuels, they can opt into the RFS program and generate RIN credits.

Weak value signal for sustainable maritime fuel producers

There are also some further reasons why renewable maritime fuels may fail to reach the market and may face an even steeper slope than sustainable aviation fuels. The jet fuel opt-in is a quite popular provision, as renewable diesel producers often produce some renewable jet kerosene fuel as a co-product of renewable diesel production; this provision helps them monetize that. Given compatibility issues, the likeliest renewable maritime

¹ Extrapolating from the 92 million gallons of SAF consumed in 2024 based on California's Low-Carbon Fuel Standard data dashboard, available here: <https://www.energy.gov/eere/bioenergy/articles/federal-agencies-publish-saf-grand-challenge-progress-report-highlighting>

fuels produced in the near-future would be biomass-based diesel. In most cases, it is much more lucrative to sell that fuel into the road sector. There are a few reasons why: renewable diesel commands a higher market price, it qualifies for credits in West Coast low-carbon fuel standard markets, and it can be used to avoid compliance under West Coast cap & trade programs. By instead selling into the maritime market, a producer is losing out on these valuable incentives.

A recent analysis by Stillwater Associates illustrates the “value stack” of selling renewable diesel into the West Coast markets compared to sustainable aviation fuel, which sheds light on the potential market realities that face sustainable maritime fuel even with its inclusion in the RFS.² While the value of a RIN is sizeable for both maritime fuel and renewable diesel, there is more value attributable to renewable diesel blending: the value stack for California refiners includes roughly \$0.11 per gallon for avoided LCFS deficits, \$0.30 per gallon for avoided cap & trade compliance, and roughly \$0.43 per gallon in LCFS credits. Together this amounts to a disparity of roughly \$0.84 per gallon in foregone revenue, even greater than the disparity between SAF and renewable diesel.

Potential second-order effects and risks associated with expanding the Renewable Fuel Standard

Including renewable maritime fuels in the RFS may also create some unintended, second-order effects. For example, the inclusion of a new sector may prompt EPA to propose higher volume targets in future RFS rulemakings. Our analysis of the Summer 2025 rulemaking³ suggests that this may exacerbate underlying issues in the program that we have identified; the current proposal already raises advanced biofuel volumes in excess of domestic availability, while also reducing the compliance value of imported feedstocks. This has the contradictory effect of 1) further increasing the quantity of advanced biofuel needed to meet obligations, leading to even greater reliance on foreign imports, and 2) raising prices, all for little if any climate benefit. If the inclusion of maritime fuels is used as justification for further increases in RFS blending targets, we risk deeper trade imbalances, diversion from food markets, and price increases.

What’s more, this would result in little to no climate benefit. A large component of the lifecycle GHG emissions of crop-based biofuel pathways is induced land-use change (ILUC). ILUC occurs when the increased demand for an agricultural commodity results in direct or indirect cropland expansion to compensate for the shortfall in supply. The

² <https://stillwaterassociates.com/tracking-the-stacks-comparing-incentive-values-for-rd-and-saf-in-west-coast-markets/?cn-reloaded=1>

³ <https://theicct.org/icct-comments-on-rfs-program-aug25/>

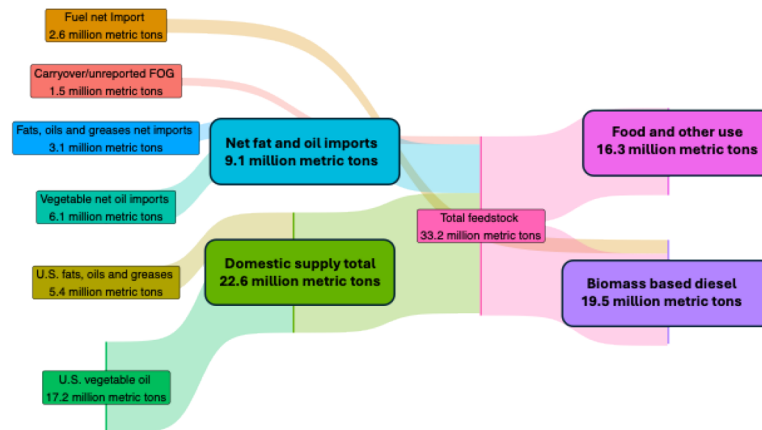
conversion of land into cropland can generate significant greenhouse gas emissions, particularly if the land that is cleared is a major carbon sink, like rainforest. While by statute the RFS is required to account for these ILUC emissions, multiple analyses suggest that the ILUC emissions for some oilseed pathways could be even higher.

Two figures below illustrate the existing status of the RFS and the potential implications from the proposed increase in mandated volumes, based on the rulemaking analysis and additional data collected by ICCT.⁴ The first figure illustrates the flows of US fats, oils and greases in 2024, showing the shares of these feedstocks going to biofuel vs. other sectors, as well as their domestic vs. imported origins. These flows already reflect a large shift since 2019 to support a 3 billion gallon increase in BBD consumption from 2019 to 2024. This significantly outpaced growth in domestic feedstock supply, increasing the overall U.S. trade deficit by the equivalent of 8.2 million metric tons of fats and oils when considering both feedstock and fuel imports. While domestic feedstock production increased by 1.9 million metric tons, a 9% percent increase, the feedstock required to meet domestic BBD consumption more than doubled to 19.5 million metric tons. Naturally, additional imports were required to fill this gap. Note that in 2024 domestic soybean crush was already operating at 95% of capacity.⁵

⁴ <https://theicct.org/icct-comments-on-rfs-program-aug25/>

⁵ The USDA *Oil Crops Yearbook* (March, 2025) records 144,600 million pounds of soybeans crushed domestically compared to a capacity of 153,000 reported by the American Soybean Association: <https://soygrowers.com/news-releases/soybean-crush-expansion-2025-update/>.

Figure 1. U.S. fats and oil supplies in 2024



The subsequent chart illustrates the impact of EPA's proposed 2027 RFS volumes on the market for fats, oils, and greases. This proposal further overshoots domestic availability by simultaneously raising the overall target for biomass-based diesel while simultaneously reducing the RINs generated by foreign feedstocks. Here we see that domestic vegetable oil consumption increases by roughly 2 million metric tons; however, net fat and oil imports are projected to increase substantially by another 7 million metric tons. Considering total global vegetable oil trade is 80 million metric tons,⁶ this would increase the U.S. share of overall global imports from 8 to 14 percent. Changes of this magnitude are highly likely to impact food prices. There is consensus among the literature that biofuel demand increases global food prices and causes food price shocks.⁷ As a back of the envelope illustration, extrapolating a finding from Persson (2014) that global vegetable oil prices will increase by 38% for each EJ/year of additional biodiesel demand,⁸ we find that the 3 billion RIN increase in the BBD volume from the 2025 to the 2027 RVO would increase global

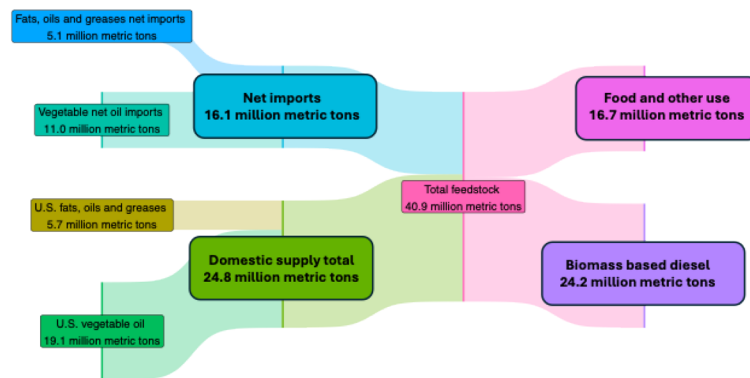
⁶ USDA Foreign Agricultural Service (July, 2025) Oilseeds: World Markets and Trade. <https://apps.fas.usda.gov/psdonline/circulars/oilseeds.pdf>

⁷ Malins, C. (2023, July). How does biofuel demand affect food markets? *Cerulogy*. https://www.cerulogy.com/wp-content/uploads/2024/09/Cerulogy_Biofuels-and-food-markets_July2023.pdf

⁸ Persson, M. (2014). The Impact of Biofuel Demand on Agricultural Commodity Prices: A Systematic Review. *Advances in Bioenergy: The Sustainability Challenge*, 465–482. <https://doi.org/10.1002/9781118957844.ch30>

vegetable oil prices on the order of around 12%. While the exact impact of this sudden shock to global markets is hard to predict, it is clear that significant negative consequences are likely. Specifically, vegetable oil prices could spike domestically and global shortages may contribute to hunger among the world's poor. Note that the estimate of domestic vegetable oil production in figure 3 assumes 100% use of industry-projected domestic soybean crushing capacity, suggesting total domestic vegetable oil production in 2027 is very unlikely to exceed the estimate of 19.1 million tons.⁹

Figure 2. U.S. fats and oil supply and use in 2027 under the EPA RFS volume proposal



Over the longer run, the projected loss in vegetable oil supply in global markets will likely be replaced by expansion of palm and soybean cultivation in areas at high risk for deforestation—with profound consequences for global greenhouse gas emissions. Despite projected increases, U.S. oilseed production has remained flat over the last 5 years, while Brazilian soybean and Indonesian palm oil production have increased by 35% and 13% respectively.² Thus, the proposed BBD RVOs for 2026 and 2027 are likely to increase U.S. dependence on foreign vegetable oil supply, potentially including Brazil's. It is thus conceivable that further volume increases if using the maritime inclusion in the RFS as a justification could further exacerbate this trend and create further pressure on vegetable oil markets, with unintended trade, price and climate impacts.

⁹Gertl, Scott. (April, 2025) Soybean crush expansion, 2025 update. <https://soygrowers.com/news-releases/soybean-crush-expansion-2025-update/>

Separate policies are likely necessary to promote second-generation biofuels and other alternative fuels needed for long-term maritime decarbonization

The global maritime sector consumes nearly 100 million gallons of oil-equivalent annually; making a meaningful reduction in its emissions will require not only substantial volumes of alternative fuels but also for those fuels to be genuinely low-carbon. Shifting small quantities of biomass-based diesel from the road sector to the maritime sector or diverting virgin vegetable oil from existing uses is unlikely to generate substantial GHG reductions. Further, these efforts would not foster a technical stepping stone towards the feedstocks and conversion technologies necessary for long-term decarbonization.

While the RFS was designed at its outset to support a growing volume of ultralow-carbon, cellulosic biofuel made from energy crops, wastes and residues, these intended volumes have largely failed to reach the market. The causes of this shortfall are complex, but are attributable to a combination of technical barriers (particularly on feedstock pre-treatment), high costs, and investment uncertainty.¹⁰ While there are a variety of possible alternative fuels that could be produced in greater volumes and provide much greater GHG savings than virgin vegetable oil-derived fuels, they are likely to be more expensive in the near-term.¹¹ In particular, fuels such as green ammonia and green methanol could offer substantial GHG savings relative to petroleum-based fuels and offer the long-term potential for cost reductions. Interviews and surveys of project planners and industry stakeholders in the SAF industry suggest that policies that mitigate investment risk and complement top-down mandates such as the RFS are critical to ensure the deployment of the more challenging, lowest-carbon fuel conversion pathways.¹²

One potential outside development which may influence the impact of this proposed revision to the RFS program is the implementation of the International Maritime Organization's (IMO) Net Zero Framework (NZF), which includes a global fuel standard. If the proposal is implemented, the average greenhouse gas intensity of maritime fuels would be required to decline over time, paired with a \$380 per ton CO₂e compliance penalty for fuels that fall above the declining threshold, as illustrated below in Figure 3.¹³ While this is in principle a strong penalty, the proposed IMO framework currently lacks safeguards on

¹⁰ Witcover, Julie (2021). What Happened (and Will Happen) with Biofuels? Review and Prospects for Non-Conventional Biofuels in California and the U.S.: Supply, Cost, and Potential GHG Reductions. <https://escholarship.org/uc/item/7624q040>

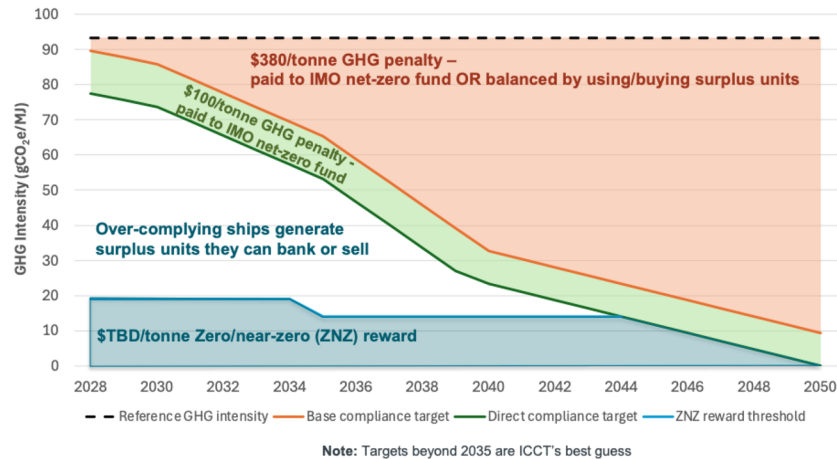
¹¹ <https://theicct.org/publication/the-potential-of-liquid-biofuels-in-reducing-ship-emissions/>

¹² <https://theicct.org/publication/saf-what-barriers-remain-for-these-technologies-to-scale-jul25/>

¹³ <https://www.imo.org/en/mediacentre/pressbriefings/pages/imo-approves-netzero-regulations.aspx>

the GHG accounting and eligibility criteria of alternative fuels, potentially undermining its intended GHG savings.¹⁴ This policy could provide an outside incentive for the use of alternative fuels in the maritime sector, which could be paired with the value provided by RINs from the proposed RFS revision.

Figure 3. GHG Intensity Trajectory of the Proposed IMO Global Fuel Standard for Maritime



Without safeguards against land-use change, any policy seeking to incentivize alternative maritime fuels is likely to further incentivize the use of food and feed—particularly virgin vegetable oils—in the transportation sector. Similar fuels policies all include these safeguards: the California Low-Carbon Fuel Standard (LCFS), the EU’s Renewable Energy Directive (RED III), ICAO’s system for crediting SAF’s under CORSIA, and even the RFS. If the IMO proposal is finalized without language to quantify or safeguard against ILUC, feedstocks such as Southeast Asian palm oil could qualify so long as they were grown on land that itself wasn’t directly deforested. Thus, these fuels would not only be significantly cheaper to produce than more challenging second-generation biofuels or green hydrogen-based fuel pathways, but would also have few meaningful guardrails on their use in the maritime sector. As in the road sector and the aviation sector, land-use change emissions could be significant enough to partially or fully offset the intended benefits of using alternative fuels.¹⁵

¹⁴ <https://theicct.org/four-changes-would-make-the-imo-net-zero-framework-more-effective-apr25/>

¹⁵ <https://theicct.org/publication/assessing-the-sustainability-implications-of-alternative-aviation-fuels/>

Concluding Remarks

While the promotion of alternative fuels in the maritime sector is a laudable goal, doing so through the RFS opt-in provision will likely provide a minimal signal. If used as a justification for higher volume targets in future RFS, there is a risk that this could further increase demand for virgin vegetable oils beyond domestic availability, with unintended trade, climate and price effects.

The International Maritime Organization's proposed global fuel levy, however, could offer a powerful incentive to decarbonize maritime fuels, provided that it correctly accounts for ILUC emissions or includes some other form of meaningful safeguard. Absent a combination of safeguards to mitigate against land conversion in conjunction with de-risking measures to create market certainty, it is unlikely that either policy will create a sufficient signal to foster investment in, and the deployment of more challenging, second-generation fuels in the near-term.

Senator CAPITO. Thank you all. We will proceed to questions. Senator Curtis is going to start us off.

Senator CURTIS. Thank you, Madam Chair, and thank you for letting me slip in line here a little bit.

Senator CAPITO. Of course.

Senator CURTIS. We have a couple of police officers we want to honor in Utah, and I need to be on my way to do that. Ranking Member, thank you as well.

I would love to start with a shout-out to my colleague, Senator Padilla, for his work, and Senators Hickenlooper and Sheehy on Fix Our Forests, which has a section for prescribed fires in it. I think that is important legislation that the Senate will be considering soon.

I am also really pleased to be working on the Wildfire Emission Prevention Act, WEPA. A big thanks to committee staff, to the Chair and Ranking Member, and of course, to my staff, for bringing this to this point.

I think it is fair to say that in Utah, we know first-hand the burdensome problem with wildfires. This year has been a record year, not just for Utah, but for the west. We also know the burdensome problem of waivers and processing through all of this as well.

I also want to start by acknowledging that Utahns very clearly are attuned with leaving this earth better than we found it, and that emissions are a big deal, that this bill is not an attempt to get a loophole into emissions but a firm belief that done well, we can actually reduce emissions through proper prescribed burns.

I would like to begin with Mr. Sabo. Could you just explain, from your perspective, why these prescribed burns are so important, particularly in the west, where we now say that our wildfire season is not seasonal, it is literally year-round?

Mr. SABO. Yes, sir, thank you, Senator.

As you stated, they are extremely important. We spoke about, or I testified about, if we do not have prescribed fire, we are constantly playing defense, which a lot of my colleagues do continually out west. First off, most ecosystems, especially in Georgia, they evolved with fire and need fire to thrive. It naturally thins out stands, is good for the wildlife, early successional species in the southeast, such as species as gopher tortoises, that are keystone species.

Then we also utilize fire in techniques that allow us to both protect the forests and wildlife at the same time, where wildfire does not care. It does not protect anything. It does not hesitate to cause destruction.

Prescribed fire is an essential tool in which we can mitigate those risks and we can protect the timber, protect our communities, and protect the firefighters alike.

Senator CURTIS. We have a unique characteristic in Utah, the dryness. I was in Acadia National Park and was surprised at all of the what we would call fuel on the floor, and that it is not the same problem for them because of the humidity that we have in the west, which also plays into these prescribed burns. They are very complicated. You have to check humidity, you have to check all sorts of weather conditions and so many layers of check-off. I

think that is one of the reasons that more layers of Federal intervention and waivers make this nearer possible.

We had the largest fire in the State this year was the Monroe Fire. I sat down with the Forest Service, and they showed me on a map where they had done prescribed burns. Almost to the inch where they had done prescribed burns, they were able to contain this fire. Had we had more time to do more prescribed fires, we would have been able to contain that fire even more.

Just because of time I want to pivot to Mr. Wood. Can you talk about, so, we have this going on and if in the back of the States' minds they have to worry about litigation, that is an even bigger problem. Can you talk a little bit about why these lawsuits on States that are attempting to use prescribed burns are such a problem, and why that is an issue we need to deal with?

Mr. WOOD. Yes, I absolutely think it is a serious concern. I will note that we have not used this regulation in practice very much. It has only been used successfully once.

States like Alabama have submitted many proposed Exceptional Event determinations to EPA, and there is a notable litigious group, environmental group that has been filing objections to many of them. I think we are still waiting to see what that legal landscape looks like.

From the perspective of States and indeed prescribed burns generally, this is just another risk added to the pile. You are exactly right, that especially out in the west, when we are doing prescribed fire, we are already worrying about humidity, amount of fuels, level of fuels and all sorts of other risks, that this is just another major thing added on top of it that we will not know the answer to for years, and that your bill, I think, could be really helpful in simplifying the process and making it much easier to fight fire on the ground.

Senator CURTIS. I am out of time; I yield my time. Thank you very much. Thanks for your consideration.

Senator CAPITO. Senator Whitehouse?

Senator WHITEHOUSE. Thank you very much. I would just like to echo Senator Curtis' words, "if done well," and relate that I look forward to working with all of my colleagues on trying to make sure we have a good "if done well" solution here.

Ms. Vijayan, has NASA determined that human-caused climate change is the main cause for increase fire weather in the American west?

Ms. VIJAYAN. Thank you for the question, Senator. There is significant research, including by NASA, showing that climate change is a primary driver and intensifier of wildfires. There is also significant research showing that climate change is also exacerbating wildfire threats to the west in particular.

Senator WHITEHOUSE. Our work has shown that from 2013 to 2022, home insurance costs have more than doubled. Is there evidence that these insurance increases relate to wildfire risk in areas that are subject to wildfire risk, and would it be reasonable to say that that is likely to get worse if we do not tackle the underlying NASA-designated climate problem?

Ms. VIJAYAN. I appreciate the question, Senator. I will note that I am not an insurance expert. Based on my expertise as an air at-

torney and climate attorney, and given the incontrovertible evidence that climate change is causing and exacerbating the problem, wildfires certainly, again, are leading to billions of dollars in property damage.

Given that the wildfire threat is ongoing and worsening, I think it is reasonable to say that threats to property damage will also be at great risk and likely of recurrence. As a homeowner, even though I am not an insurance expert, I do know and have experienced one insurance company's rising costs. They do pass those costs on to property owners and homeowners and homeowners that are at risk of rising costs as well.

Senator WHITEHOUSE. While a prescribed burn is likely and hopefully less of a conflagration than a full-on wildfire, it nevertheless creates the same risks of health impact that a full-on wildfire does, although as a lesser conflagration to a lesser degree. Is that a fair way to look at this?

Ms. VIJAYAN. Yes, definitely, Senator. It is unquestionable that smoke from fire does cause emissions that lead to PM2.5 and ozone impacts among other pollutants.

Senator WHITEHOUSE. The fire does not care whether it was prescribed or not prescribed?

Ms. VIJAYAN. It does not distinguish between the type of fire.

Senator WHITEHOUSE. Mr. Pavlenko, the IMO has put forward a proposed carbon price for marine shipping emissions with strong support from within the industry, the international industry. Why do you believe the industry supports those market-based mechanisms?

Mr. PAVLENKO. Thank you for the question, Senator.

When it comes to industry, in my view, what they value is stability and predictability. When it comes to investing in maritime decarbonization, you are dealing with an industry that is very risk-averse. Ships have a very long lifetime, much longer than a passenger car, for example. When you are thinking about what investments you are making for your choice of ship, your choice of fuel, you want stability and predictability. A global scheme that is consistent across different jurisdictions will help to ensure level playing fields for the international maritime shipping industry.

Senator WHITEHOUSE. To the question of a level playing field, presumably those that want to behave well do not want to see people who cheat get a price advantage. The emissions fee would protect against that as well, would it not?

Mr. PAVLENKO. Yes, definitely. However, with respect to the emissions fee, there are still important decisions to be made at IMO on how it is levied and how greenhouse gas reductions are counted. It is still critical for IMO to ensure a truly level playing field by ensuring accurate carbon accounting and—

Senator WHITEHOUSE. To that point, let me ask you about the phrase you used, "indirect land-use change." Why does that matter and why should it be counted?

Mr. PAVLENKO. It is critical because it is an important component of the well-to-wake life cycle emissions attributable to different fuels. All else equal, when you create demand, let's say new demand for the maritime sector, for something that uses dedicated crop land, let's say a crop-based biofuel, you are increasing pres-

sure on land use and that could lead to indirect market negative effects like deforestation.

Now, it is not just limited to deforestation. You can increase yields; you can use marginal lands. You can shift food away from other sectors. That is why you have to use these complex economic models to balance all these different ways of responding to that demand and figuring out what the emissions from indirect land use change might be.

Senator WHITEHOUSE. Short answer: proper scoring matters, correct?

Mr. PAVLENKO. Yes.

Senator WHITEHOUSE. Thank you. My time is up.

Senator CAPITO. Thank you.

I will begin my questions. I want to start with you, Mr. Sabo.

You mentioned in your opening statement that you had 3,821 certified burn—describe to me: are those individuals that can actually have a prescribed burn on their personal property? Is that how that works?

Mr. SABO. That is correct, Chairman, to the degree, those are the professional practitioners. Georgia offers what we call a certified prescribe burn program, where we educate land managers, private forestry consultants, and we will teach them how to best manage their smoke, if they are burning next to critical infrastructure, State laws, resources that are available to them, and give them knowledge to where we know that when we issue them an authorization to burn, they are a little bit better than just somebody that has never done it before.

Senator CAPITO. Right.

Mr. SABO. Then they also have to have a few burns under their belt before we actually issue them a certified number.

Senator CAPITO. Okay. Mr. Wood, as I look at it from a practical standpoint, obviously I am on the east coast. I think Mr. Sabo mentioned West Virginia; we have a lot of forest land. We have had our experience with wildfires, although nothing compared to what you are seeing in Montana.

If I look at it from a practical matter, what I am hearing are prescribed burns are smaller, more contained, to prevent a larger, uncontained, which would have more pollution associated with it. From a practical standpoint, what you are trying to prevent are the larger fires that are more damaging to our atmosphere and particulate matter and all that.

That is the crux of the argument that we are having here, am I corrected in that?

Mr. WOOD. Yes, that is exactly right. Prescribed fires are lower intensity, and you can control when they happen, so the smoke is less destructive. I described in my oral testimony that this weekend you could not see the mountains from Bozeman because of wildfire smoke.

Senator CAPITO. Right.

Mr. WOOD. That does not happen from prescribed fire.

Senator CAPITO. When you say the Exceptional Event prescription that you can use through EPA, nobody is using it? Sounds like very few use that.

Mr. WOOD. They are trying, and my colleague can speak to that. It is just not working.

Senator CAPITO. Right. Why is it not working? Is it just pent up in regulation? This bill would clarify those?

Mr. SABO. It would help bring clarity. Georgia, in February 2025, submitted 129 exceptional events. Eighty-nine of those were prescribed fire. That was from 2021 to 2023. That took that long to quantify everything. We have still not heard back from EPA.

We are ready to submit another 20 for 2024, but as these stacked up, if they are denied, if somehow this gets viewed to where prescribed fire is not an exceptional event, then we start seeing non-attainment areas potentially and we lose the ability for prescribed fire. Then States like Georgia then become States that are not utilizing prescribed fire and have catastrophic wildfires.

Senator CAPITO. Being in non-containment damages your State how? Obviously, the health aspects.

Mr. SABO. Right. We could lose the ability for prescribed fire, and then even things from, when we are talking about attracting industry, different levels in there.

Senator CAPITO. Right.

Mr. SABO. It takes away that head space.

Senator CAPITO. Ms. Metcalf, let me talk a little bit about alternative shipping fuel. I thought you did a really nice job of sort of educating the uneducated on this issue. We obviously do not have big shippers going out of the State of West Virginia; they can not quite get through Virginia. That is a problem.

[Laughter.]

Senator WHITEHOUSE. Give it time.

Senator CAPITO. Give it time—oh, I fed right into that, did I not?

In terms of the options, it sounds like the industry is very active in trying to find alternatives or at least additives in certain areas to be able to bring down the carbon footprint. Where do you see this going? Will it eventually get to a full-out non-carbon-intensive industry? Or will it be a blend, in your mind?

Ms. METCALF. Thank you for the question. First of all, ammonia, hydrogen, my colleague at ICCT went through a number of them, methanol, slightly politically a hot one, nuclear. There are some small nuclear reactors that people are looking at as potential energy sources for port operations.

No, I do not think it is going to be a mix. The ultimate goal is to go to zero emissions by 2050. That is the IMO goal.

Now, whether we get there or not, we can have that discussion over a beer later. That is the goal, and there will be no room for high-polluting or high-Green House Gases (GHG)-emitting vessels as we move forward.

The point I wanted to make also is that we need to look at decarbonization of any source, but especially maritime transportation. It is not a light switch; it is a transition.

Senator CAPITO. Right.

Ms. METCALF. It takes time to get there in a wise and economical way. Thank you.

Senator CAPITO. Right. Thank you.

Senator Kelly?

Senator KELLY. Thank you, Madam Chair. I want to also discuss the Wildfire Emissions Prevention Act. I wish I had more time to talk about ships, something I am very interested in.

The goal of this bill is to reform the Exceptional Event process under the Clean Air Act, so basically the process is intended to make sure that local regions are not penalized for air pollution that they cannot control. This process needs improvements, and we need to do this in a way that also protects air quality.

I have some technical questions for our witnesses about the specifics of this bill. Let's start with the definition of exceptional events. The Clean Air Act does not explicitly list these types of exceptional events. It just says an exceptional event is something that is not reasonably controllable or preventable.

Mr. Wood, can you very briefly explain why that is an issue when it comes to prescribed fires?

Mr. WOOD. The simple reason is that if you are doing prescribed fire well, it is controllable, and it is done on a recurring cycle. As we have talked a lot today, EPA has tried to make prescribed fire fit in that language. If you were writing from scratch, you would never include that language to cover a prescribed fire.

Senator KELLY. Prescribed fires can help prevent worse wildfires in States like Arizona, States in the west, that is pretty clear. Right now, the Clean Air Act could penalize a State for using prescribed fires if it makes emissions worse, which just means that we get worse wildfires in the future and then we also get worse air quality.

That seems like something we should fix. This bill seems to go far, too far in certain places. It redefines exceptional event as an event that prevents more severe emissions. Do you agree with that?

Mr. WOOD. Yes, that is one of the factors that would be required for a prescribed burn to qualify under the current text.

Senator KELLY. Ms. Vijayan, there is also a new definition added for actions that mitigate wildfire risks. My read of this is it also could be read to include industrial emissions. Is that correct?

Ms. VIJAYAN. Senator, I think that is a reasonable read of that new language. I do just want to note that as per my opening statements as well that the existing EPA regulations do squarely provide for prescribed fire under the statutory language that you are raising concern about as events that are reasonably controllable, or not reasonable controllable.

Senator KELLY. To avoid the confusion here, we could solve this, right? Most exceptional events are wildfire-related.

Ms. VIJAYAN. Most exceptional events are wildfire-related. I would just note that those definitions that I am alluding to that make clear prescribed fires are covered under EPA's regulations, those regulations have been challenged and upheld by the court. They do remain good law.

Senator KELLY. There is also an important procedural change in this bill. Right now, a State has to request an exceptional event designation from the EPA. The bill kind of flips that on its head. Now, a State could deem a day to be an exceptional event unless EPA subsequently disapproves the determination. Is that correct?

Ms. VIJAYAN. That is right, Senator.

Senator KELLY. Mr. Wood, is it true that EPA takes a long time to approve exceptional events?

Mr. WOOD. Yes, as my colleague was saying, they submitted dozens of requests and they are also pending.

Senator KELLY. If a State is trying to put together their latest attainment plan, not knowing if an exceptional event is approved or not, it can become a real issue?

Mr. WOOD. Yes. I would say it is broader than that. If a State is deciding whether to approve a prescribed burn today, they need to know how this process is going to work three, 4 years down the road.

Senator KELLY. I am hearing the same thing from our air quality planners in Arizona. I am sympathetic to this.

The language in this draft bill seems pretty easy to exploit right now. Is there anything that will prevent a State from deeming hundreds of days a year as exceptional events, and then overwhelming an already overworked EPA staff?

Ms. VIJAYAN. In this bill, I do not think there is really a way to prevent that sort of exploitation you are referring to, Senator. As you note, it shifts the ability for the base to determine whether something is an exceptional event and just gives EPA the ability but not the mandate to step in after the fact to evaluate the State's determination.

Definitely, this bill does give States a lot of latitude without really seemingly many protective parameters in determining what an exceptional event would be in the first instance.

Senator KELLY. What if we were more specific?

Ms. VIJAYAN. I do think that the regulations in their current form give a lot of those parameters that we think are protective, even if this bill were to similarly put in some of those parameters, a cause for great concern would still be shifting the authority to the States in the first instance.

The Clean Air Act, as we all know, is a great success in terms of cooperative federalism. This would kind of turn that on its head. EPA has a great amount of expertise and resources to do the necessary technical and scientific evaluation to determine whether something is actually an exceptional event.

As we have seen, States sometimes do not have those resources, whether it is because of funding or just limitations on those resources. They often approach EPA for assistance.

To leave States kind of out there on their own without that benefit of technical rigor could result in risks to having exceptional events that might be exploitative of such a large loophole.

Senator KELLY. Madam Chair, carrying out prescribed burns and fixing the exceptional event process is an important issue for Arizona. I hope we can agree that the goal of this legislation is not to add vague new terms and a cumbersome new process with the Clean Air Act.

My staff and I are happy to work with you to improve the language to be more specific and to try to get a better bill.

Senator CAPITO. Thank you. Thank you, Senator Kelly.

Senator Ricketts?

Senator RICKETTS. Thank you, Chairman Capito, and of course, the Ranking Member for holding this hearing today. Thank you for

our witnesses coming to talk about these pieces of legislation, especially the one that I am going to talk about, which is the Renewable Fuels for Ocean-Going Vessels Act, our bipartisan bill, which I introduced with Senator Klobuchar.

As you know, Chairman, I love this committee, because we get to talk about biofuels. It is one of the things I love. The previous Chairman knew that as well.

In Nebraska, agriculture is the backbone of our economy, and biofuels provide an important market and benefit energy consumers, agricultural producers, and the environment. It is really a win-win-win. Last time I went and filled up with E10, 89 octane at my local Hy-Vee, I saved 45 cents a gallon versus the regular 89 octane gasoline. Again, this is just a big benefit for not only consumers, but it helps cleanup the environment, and it is great for farmers and ranchers as it creates a premium market for producers, offering crucial support in challenging years, when staying profitable could be difficult.

This would be one of those years where it is difficult, with corn at 350 roughly and soybeans 9 and change. I will tell you right now; our farmers are really in a bad position right now. The feedstock to manufacture biofuel production helps stabilize prices for corn and soybeans. About 40 percent of our corn crop goes to actually producing ethanol. Is really critical at times like these when we see these commodity prices down.

One of the things we have also seen is Brazil continuing to increase its exports of soybeans. Right now, Brazil is projected to export 80 million tons more of soybeans than the U.S. Put that in perspective; they are going to export over 100 million tons, we are going to be about 24. By the way, that has dropped about 20 million tons from just last year.

What we are seeing is Brazil having the ability to double crop and so forth, that they are significantly increasing their soybean production. Getting back to what Ms. Metcalf was looking for, with regard to, do we have supply, between the U.S. and Brazil there is lots of soybeans out there in the world. In fact, that is one of the reasons suppressing soybean prices right now.

That is a big challenge for us as well, and of course, this really just may sound ridiculous to just say that somehow, biofuels are taking away from the food supply. It is just simply not true.

Expanding in new and diverse markets is critical for driving demand for U.S.-grown soybeans, especially with Brazil displacing the United States in the Chinese marketplace, and ensuring stronger returns for American farmers. One market to tap that we have just talked about is the maritime sector, where ocean-going cargo tanker and passenger ships are driving greater demand for biofuels.

At its core, the renewable fuels standard supports American agriculture. It directly impacts what farmers receive for what they grow. However, because the RFS excludes ocean-going vessels, the shipping industry is missing out on a proven cleaner fuel.

The Renewable Fuel for Ocean-Going Vessels Act would clear a major roadblock by allowing U.S. biodiesel and renewable diesel producers to meet the needs of ocean-going vessels while preserving RFS credits. It would expand agricultural marketplaces and en-

hance American energy security, and create parity for maritime fuels with over-the-road and aviation fuel types in the Renewable Fuels Standard.

The vast majority of ocean-going vessels that are operating today were originally designed to use liquid fuels derived from crude oil meeting the International Organization for Standardization's, ISO, marine fuel standard. The ISO recently modified the standard to allow ship owners to utilize blends of up to 100 percent biodiesel or renewable diesel in their existing ships. This change would help make these fuels a cost-competitive option for ship owners who want to decarbonize using domestically produced fuel in their existing ships without the need to invest in new vessels or undergo extensive retrofitting.

Additionally, the use of cleaner fuels such as biodiesel or renewable diesel is a part of cleaning up the environment. The Ports of Los Angeles and Long Beach, which together handle 40 percent of the containers entering the United States, produce 100 million tons of smog every day, more than the daily emissions of 6 million cars in Southern California.

A typical ocean-going vessel carries between 1 and 4 million gallons of fuel, depending on the size and route. If a vessel runs on, say, 2 million gallons of fuel blended with just 5 percent biodiesel, that is 100 million gallons of biodiesel used on a single ship.

When just one ship makes that switch, it cuts about 504 pounds of particulate matter and 564 pounds of hydrocarbons from the air. That is only with a 5 percent blend. A 100 percent biodiesel blend with one vessel using 2 million gallons would cut particulate matter by 5.04 tons and hydrocarbons by 5.64 tons. Obviously, the more you multiply, the more the savings goes up.

It seems to me it is common sense, and a common-sense immediate solution is to reduce particulate and carbon emissions around our ports and waterways would be to use more biodiesel or renewable diesel. The Port of Portland, Oregon is already utilizing renewable diesel to reduce environmental impact. In addition, the Port of Tacoma in Washington began using renewable diesel called R99, a drop-in fuel that is part of their efforts to reach net-zero greenhouse gas emissions by 2040.

The maritime industry is responding, and now policy needs to keep up. Expanding biofuel use in the maritime sector strengthens our energy security and energy security is national security. Domestic biofuel production is a key piece of the pie.

Administrator Zeldin has unleashed American energy by setting unprecedented RVOs that reflect the capacity of the industry. The administrator has also committed to following the law by releasing them on time and in line with statutory requirements, unlike the previous Biden administration. Biden's EPA missed the mark for advanced biofuels by setting volumes for the targets at over 2 billion gallons below, and finalizing the RVOs below industry capacity.

Unlike the Biden's delays and low-ball targets, the Trump administration restored confidence in the program with timely and achievable RVOs. This is critical getting industry to invest.

As the administration and EPA have shown support for these efforts with domestic production already strong, the solution is here

and ready to grow. This bipartisan bill will deliver new market opportunities for Nebraska farmers who have played a critical role in creating the strong biofuel economy.

Thank you, Chairman, for letting me go on. You told me I could do that ahead of time; just remember you said that.

[Laughter.]

Senator RICKETTS. Ms. Metcalf, do you agree that biofuels are a practical part of the fuel mix for ocean-going vessels?

Ms. METCALF. Absolutely.

Senator RICKETTS. Do you agree that the maritime industry has a need to expand access to these fuels?

Ms. METCALF. Maritime industry has a need to expand access to all fuels across the spectrum. Biofuels is certainly one of the big ones we are looking at.

Senator RICKETTS. Can you just talk about, could you mention some of the other technologies that are in the marketplace right now? Can you just talk about what is being developed and relative, where is that being adopted? I mentioned the Port of Tacoma, I mentioned the Port of Portland using biofuels. What else is out there and where is it relative to biofuels as far as the maritime industry?

Ms. METCALF. We speak globally. In the U.S., we have a lot of detached good ideas that I would like to get some sort of an idea magnet and get them all in one room, so we could have a really concerted strategy development. Globally, we are looking at ammonia, hydrogen, methanol, LNG, LPG, biofuels, and electric hybrid.

Although I will warn you that people think electric is the answer. If you are going to have a 50,000-deadweight ton tanker and expect to get it across the Pacific with batteries, you are probably going to have room for about 100 gallons of fuel. The rest of the vessel is going to be carrying batteries.

There are hubs globally. There are hubs in Singapore, hubs in northern Europe. The Maersk Foundation is looking at a variety of fuels. What we are seeing is certain areas are focusing on certain fuels. Let us say northern Europe is looking at methanol. Some other area is looking at hydrogen.

We do not expect one fuel to be the fuel of choice globally. The technology development obviously relative to the development of engines that can burn these, not burn, propel themselves. We do not use burn anymore, right? We are taking fossil fuels out of the mix.

Senator CAPITO. Controlled burn.

Ms. METCALF. Controlled burn.

Senator RICKETTS. A very different thing right there. If it is controlled burn it is——

Ms. METCALF. That is when my ship sails into your forest.

[Laughter.]

Ms. METCALF. There are a number of technologies out there. Again, the fuels development. In one case it is biofuels, it is a little bit of chemistry but a lot of agriculture. In the case of these other fuels, it is a lot of chemistry. Obviously, when I say ammonia, hydrogen, we also have safety issues, carriage issues, how to deal with those fuels. It is a whole new world.

I hope I have answered your question.

Senator RICKETTS. Yes, great. Thank you, Ms. Metcalf. I appreciate that.

Again, I just emphasize that if you look at the soybean exports of both Brazil and the United States, and frankly, one of the things that I have been told is that we have shipped a lot of soybeans to the Pacific Northwest right now, and there are zero orders from China. We have a lot of soybeans on hand.

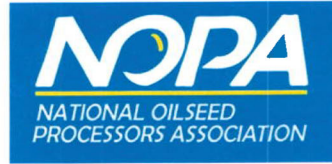
Getting back to your point about, is there a supply available to handle it, obviously there would have to be more investment in crush plants to be able to do that. We are seeing that investment in Nebraska. I think with a robust RFS you would see continued investment in being able to get that done.

I would also like to submit a couple of letters I have got for the record indicating support from stakeholders for the Renewable Fuel for Ocean-Going Vessels Act.

Thank you, Chairman Capito and Ranking Member, for our hearing today. I look forward to continuing to work on this.

Senator CAPITO. Thank you. We will submit those, without objection.

[The referenced information follows:]



September 10, 2025

The Honorable Pete Ricketts
 Senator, U.S. Congress
 Russell 139
 Washington, DC 20002

Re: Renewable Fuel for Ocean-Going Vessels Act

Dear Senator Ricketts:

As farmers and feedstock producers who play a critical role in the biomass-based diesel value chain, we write to share our support for the Renewable Fuel for Ocean-Going Vessels Act (S. 881) and to thank you for your continued leadership and advocacy for domestic biofuel feedstock producers. U.S. soybean farmers and oilseed crushers are excited about new and growing opportunities in the biofuel sector, and this legislation supports our efforts to expand domestic demand for the agricultural feedstocks we produce and process.

The Renewable Fuel for Ocean-Going Vessels Act will create an additional domestic market for biomass-based diesel, and in turn the feedstocks we produce. The legislation makes a simple modification to the Renewable Fuel Standard (RFS) by adding biomass-based fuel for ocean-going vessels explicitly in the definition of "additional renewable fuel." By allowing biofuels for ocean-going vessels to participate in the RFS, maritime transportation will receive the same benefits as other transportation methods for using biofuels. To be effective, this legislation should be paired with an increase in renewable volume obligations to reflect the new pathway and the additional demand it creates. Further, in addition to expanding domestic markets for U.S. agricultural products, this legislation compliments the goal of this administration to achieve American energy dominance.

We appreciate the leadership of the Senate Environment and Public Works Committee for including S. 881 in a legislative hearing. Thank you for your continued support for U.S. agriculture and the value chain that produces feedstocks for biofuel production.

Sincerely,

Caleb Ragland
 President
 American Soybean Association

Devin Mogler
 President and CEO
 National Oilseed Processors Association

September 10, 2025

The Honorable Pete Ricketts
Senator, U.S. Congress
Russell 139
Washington, DC 20002

Re: Letter of support for S. 881, the Renewable Fuel for Ocean-Going Vessels Act

Dear Senator Ricketts:

As associations representing America's renewable fuel supply chains and related maritime interests, we write to express our support for Senator Ricketts' bill, the Renewable Fuel for Ocean-Going Vessels Act, which would amend the definition of "additional renewable fuel" in the Renewable Fuel Standard to include all biofuels covered under the RFS for ocean-going vessels.

Biofuels benefit energy consumers, agricultural producers, and the environment. This legislation would expand agricultural marketplaces, enhance American energy security, and create parity for maritime fuels with over-the-road and aviation fuel types in the Renewable Fuel Standard.

We are appreciative that U.S. Senate Committee on Environment and Public Works Chairman Capito has included S. 881 in a legislative hearing, and stand committed to working with staff to see this legislation enacted.

Sincerely,

American Biogas Council
California Advanced Biofuels Alliance
Clean Fuels Alliance
Coalition for Renewable Natural Gas
Iowa Biodiesel Board
Maritime Innovation Coalition
Minnesota Biodiesel Council
Nebraska Soybean Association
North American Renderers Association
Renewable Fuels Association
U.S. Grains and Bioproducts Council

Senator CAPITO. Senator Blunt Rochester?

Senator BLUNT ROCHESTER. Thank you, Chairman Capito and to the Ranking Member. Thank you to the witnesses for being here today.

Although as written, I cannot support the Renewable Fuels for Ocean-Going Vessels Act, I want to recognize the bipartisan effort to focus on legislative solutions that support decarbonizing the marine vessel industry. I hope that we can continue the conversation by focusing our efforts on bipartisan solutions that make significant reductions in pollution for maritime fuels.

During my time in the House, I fought for the EPA Clean Ports Program, which was based on my Climate Action Planning for Ports Act. That program was an important step to help ports decarbonize by investing in climate action plans and zero emissions port equipment infrastructure. Decarbonizing marine vessels is another critical component to reducing air pollution at ports and in coastal communities like those outside the Port of Wilmington.

Congress established the Renewable Fuel Standard to reduce greenhouse gas emissions and help expand the renewable energy industry. Mr. Pavlenko, can you discuss to what extent the Renewable Fuel for Ocean-Going Vessels Act will help reduce greenhouse gas emissions at ports and in coastal communities?

Mr. PAVLENKO. Sure, thank you for the question, Senator.

I expect that the effects of this bill as proposed will be minimal. On its own, this bill only allows maritime fuel producers to tap into the RFS, but it at its core is fundamentally a mandate for road-sector biofuels. It does little to stimulate demand. All it does is narrow the price gap somewhat between producing a fuel for the maritime sector and producing one for the road sector.

However, absent some kind of outside policy, say, IMO's net-zero framework, or a separate, dedicated maritime fuel policy here in the U.S., it just will not make very much economic sense to sell fuels into the maritime market, because you're losing out on incentives from west coast cap and trade policies, from west coast low carbon fuel standards.

Furthermore, it also, by including this within the RFS, you are leaving a few very important options off the table. For example, on-shore power supply, using electricity to power ships when they are at berth is a relatively low-hanging fruit to reduce emissions at ports. It is cost-effective, reduces climate impact significantly, not eligible in the RFS.

Similarly, e-methanol, e-ammonia, those are not biomass based in many cases. Therefore, they are not eligible.

Based on that, I do not expect this to have a very meaningful impact on port emissions.

Senator BLUNT ROCHESTER. Thank you. In your testimony, you drew a comparison to a similar provision in 2014 that expanded the RFS program by including jet fuel. You noted that the provision was not successful in materially affecting sustainable aviation fuel production.

What else can we learn from this provision in helping to support the decarbonization of the maritime industry and encouraging the production of renewable energy fuel?

Mr. PAVLENKO. Definitely. The jet fuel often has not really lifted the SAF market in the U.S. I would say that SAF is a bit easier than biomass-based diesel for the maritime sector. When you produce renewable diesel, you get some SAF anyway as a co-part for the process. That provision at least helped them monetize a little bit.

What we can learn from the aviation sector is that you need a stable source of demand. It is not nearly enough to allow a fuel to opt in for the program. The aviation sector is very price-sensitive. The maritime sector as well. Without a meaningful lever to create a market for those fuels, in most cases those consumers will not purchase them unless you subsidize it down to parity.

This bill, and the RFS opt-in for jet do not fully subsidize fuels down to parity. Hence, their uptake has been small.

Senator BLUNT ROCHESTER. I know I have about 28 seconds, but I will leave this question for you and you can answer later. Expanding renewable maritime fuel production is just one way to support decarbonization in the maritime industry and at ports. Mr. Pavlenko, can you discuss other steps that Congress can take to support maritime decarbonization, in 7 seconds?

[Laughter.]

Mr. PAVLENKO. I am happy to followup.

Senator BLUNT ROCHESTER. Thank you so much, and I yield back, Madam Chairman.

Senator CAPITO. Thank you, and thank all of you. I would like to just, since I am the only one left here, ask Mr. Sabo, as really the practitioner in your State, as the State forester, how long have you been the State forester?

Mr. SABO. September 1st was a year, and I was a deputy prior to that.

Senator CAPITO. Kind of to respond to Senator Kelly's questioning, in my view it sort of left an impression that as a State forester, that you would try to take advantage of loopholes and just go full forward and controlled burns and have it be—I do not know. That is not in Georgia's best interest. I mean, do you want to make a response to that?

Mr. SABO. Thank you, Madam Chairman.

Absolutely, as a prescribed fire practitioner, we really try to uphold that practice to the highest standard. We do not want smoke in population centers; we do not want to take advantage of any rules or loopholes. We really just want to keep our citizens safe and our forests healthy.

All WEPA does from how I read it is ensure that we keep that practice. I have heard today that it is already there and it is approved. I go back to Georgia submitted 129 exceptional events and are yet to hear back. Other than the one that was in, I believe, Nevada County, California, nothing has ever been approved. That was a single fire.

In Georgia, on a good prescribed burn day, so a good winter day, good dormancies and burn, there is nothing to have hundreds of fires going on around an area at any given time. When we look at that, and all those practitioners are managing their smoke, they are keeping it off of roadways, they are using firing techniques that do not impact communities or homes, they stop their practice early

enough to where the smoke dissipates before nighttime settles in, so we do not have smoke on the road issues, everything is like that.

Nobody wants to be a bad actor in the prescribed fire community. To a degree, there is kind of a social license to do it, right. We have a culture of fire in Georgia. Other States, like Mr. Wood here alluded to it, is they start getting into it, there will be a little bit of, how do we get into it, what is accepted, what is not.

We do not even want to lose that social license, if you will, to continue to practice prescribed fire.

Senator CAPITO. Thank you. Thank you very much.

With no further questions, I would like to thank the witnesses and all of my colleagues for your participation in today's hearing. Senators who wish to submit written questions for the record have until 5 p.m. on Wednesday, September 24th, to do so. The witnesses' responses to those questions are due back to the committee no later than close of business on Wednesday, October 1st. Those will be submitted for the record.

With that, this hearing is adjourned. Thank you all again very much.

[Whereupon, at 11:19 a.m., the hearing was adjourned.]



American
Fuel & Petrochemical
Manufacturers

Chet Thompson
President

Tuesday, September 9, 2025

The Honorable Shelley Moore Capito
Chairman
Committee on Environment and Public Works
United States Senate
410 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Chairman Capito,

The American Fuel & Petrochemical Manufacturers (AFPM) greatly appreciates the work you and your colleagues on the Committee on Environment and Public Works have done to advance commonsense energy policy. We have always appreciated your willingness to work with our industry to support affordable fuels for American consumers across our great nation.

We write today to express our concerns regarding the Renewable Fuel for Ocean-Going Vessels Act under consideration by the committee. In particular, the legislation does not prohibit EPA from utilizing new compliance credits for marine fuels to justify higher Renewable Fuel Standard (RFS) mandates.

This legislation is under consideration against the backdrop of the Environmental Protection Agency's recent proposal for the largest expansion of the RFS since the program's inception, expected to cost refiners and consumers nearly \$140 billion over the next two years. EPA is also considering adding as much as \$10-16 billion in additional compliance costs by reallocating recently granted small refinery exemptions. New analysis conducted by S&P Global Commodities confirms that the U.S. does not produce enough feedstock to meet these aggressive mandates, which will require the import of feedstocks for nearly 30 percent of the mandated demand.

Without adequate guardrails, this legislation could add to these burdens. Given the current imbalance in fuels policy disadvantaging American producers, AFPM encourages the committee to ensure that any legislation under consideration not further tip the scales.



We welcome the opportunity and stand ready to work with the Committee on this legislation and look forward to supporting our shared goal of advancing America's energy dominance.

Sincerely,

A handwritten signature in black ink, appearing to read 'Chet Thompson'. The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Chet Thompson
President & CEO

Cc:

The Honorable Kevin Cramer
The Honorable Cynthia Lummis
The Honorable John Curtis
The Honorable Lindsey Graham
The Honorable Dan Sullivan
The Honorable Pete Ricketts
The Honorable Roger Wicker
The Honorable John Boozman
The Honorable Jon Husted



September 9, 2025

The Honorable Shelley Moore Capito
Chair
Committee on Environment and Public Works
U.S. Senate
410 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Sheldon Whitehouse
Ranking Member
Committee on Environment and Public Works
U.S. Senate
410 Dirksen Senate Office Building
Washington, DC 20510

Dear Chair Capito and Ranking Member Whitehouse:

As retailers and distributors of advanced, low-carbon renewable liquid fuels, we have a long track record of supporting energy tax policies that strengthen domestic energy security, reduce fuel costs for consumers, and lower transportation-related emissions. We write to you today to express our opposition to the Renewable Fuel for Ocean-Going Vessels Act as currently drafted.¹

The trucking, home heating oil, and rail industries all rely on a steady supply of biodiesel and renewable diesel facilitated by the Renewable Fuel Standard (RFS) to help lower the cost of the fuel. The Renewable Fuel for Ocean-Going Vessels Act (S. 881), though well-intentioned, would allow marine biofuels to generate credits under the RFS without creating a Renewable Volume Obligation (RVO) for petroleum-based marine fuel. This would confer an unearned compliance advantage on marine fuel producers by awarding them Renewable Identification Numbers (RINs) untethered to any proportional obligation.

Congress should avoid incentivizing additional renewable marine fuel production solely through RFS credits. This asymmetry would serve only to siphon feedstock and renewable fuel gallons away from the over-the-road sector and to the marine sector. This is because renewable marine fuel relies on the same limited feedstocks as over-the-road renewable fuels. Allowing renewable marine fuel producers to monetize RINs without an obligation depresses incentives to produce over-the-road biofuels and will *reduce* overall biofuel consumption.

If existing biodiesel production capacity is diverted to new marine fuel production, diesel prices will increase, and Americans will pay more for all goods transported by truck. Retail diesel markets, particularly in the Midwest, are already facing inflationary pressures as a result of the recent expiration of the Section 40A Biodiesel Tax Credit at the end of 2024 and continued implementation delays of the Section 45Z Clean Fuel Production Credit.

¹ “Ricketts, Klobuchar Introduce Renewable Fuel for Ocean-Going Vessels Act,” Senator Pete Ricketts, March 6, 2025, <https://www.ricketts.senate.gov/news/press-releases/ricketts-klobuchar-introduce-renewable-fuel-for-ocean-going-vessels-act/>.

If Congress is interested in allowing renewable marine fuel to qualify for credits under the RFS, it should also require obligated parties to assume an RVO for each gallon of petroleum-based marine fuel that they produce. Congress should also ensure that biodiesel and renewable diesel generate more RINs on a per-gallon basis than renewable marine fuel.

Sincerely,

National Association of Convenience Stores (NACS)
NATSO, Representing America's Travel Centers and Truck Stops
SIGMA: America's Leading Fuel Marketers

Cc: Members of the Environment and Public Works Committee



The Nature Conservancy in Oregon and University of Washington Forest Resilience Lab

TNC Sycan Marsh Preserve and the 2021 Bootleg Wildfire



As the Bootleg Fire burned through this area from the bottom of the image to the top, the area seen on the left, which had been previously treated with mechanical thinning and controlled burning, fared significantly better than the untreated area on the right. Photo © Brady Holden

Early Analysis: Controlled burning was key to lowering fire severity during the 2021 Bootleg wildfire.

**Ecological
forest
restoration
treatments
=
Ecologically-
based
thinning of
smaller trees
and controlled
burning
during safe
conditions.**

In July 2021, the Bootleg wildfire burned across approximately 412,000 acres in south-central Oregon, including 12,000 acres of The Nature Conservancy's Sycan Marsh Preserve. For the past two decades the Conservancy's Sycan Marsh Preserve has been a center for investigation and learning. At Sycan, the Conservancy and numerous tribal, academic and public agency scientists have studied the ability to safely restore the natural role of fire in these dry forests through ecological thinning of the smaller trees, which have grown in the absence of natural wildfire and cultural burning, and by reintroducing fire via controlled burning during safe conditions. These ecological forest restoration treatments were conducted to improve the health of the ecosystem, promote biodiversity conservation, increase resilience to warmer and drier weather and to moderate the intensity and severity of wildfires.

During the Bootleg wildfire, frontline fire personnel saw fire behavior change in forested areas in and around Sycan which had previously received a full suite of ecological restoration treatments (including ecological thinning of small trees and controlled burning). They recounted that in these areas, the fire burned with lower intensity and suffered less tree mortality. While these initial observations from Sycan were promising, the Conservancy

committed to conducting a rigorous and thorough scientific evaluation of the effectiveness of forest restoration treatments, and whether they moderated the severity of the Bootleg wildfire. To conduct this assessment, the Conservancy partnered with the University of Washington Forest Resilience Laboratory, headed by Dr. Van R. Kane and Dr. C. Alina Cansler.

[learn more >](#)

Preliminary Results

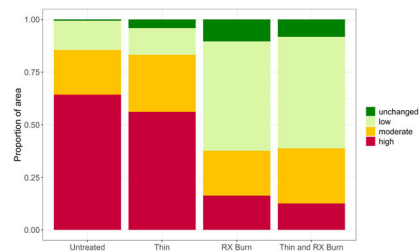
Preliminary results from this analysis at both the plot and landscape scales support the initial observations made by frontline fire personnel during the Bootleg wildfire; **areas previously treated with controlled burning, either alone or in combination with thinning, burned with lower severity during the 2021 Bootleg wildfire.**

In particular, the initial analyses indicate:

- Controlled burning was key to lowering fire severity: In forests previously treated with controlled burning, either alone or in combination with ecological thinning, the majority was either unchanged or burned with low severity (0-25% of trees killed), while in untreated areas the majority burned with high severity (>75% tree mortality).
- Thinning alone was less effective than thinning + controlled burning: Areas that had been ecologically thinned without controlled burning after the thinning burned during Bootleg with moderate to high severity. However, wildfire severity in these areas was lower than untreated areas.
- Results were consistent when accounting for daily fire weather and biophysical site differences.

Key Results:

Even under extreme fire weather conditions, wildfire severity was moderated in areas that had received controlled burning, either in combination with ecological thinning or alone, prior to the Bootleg Fire. Treatments to reduce fuels also allowed firefighters more and safer options to conduct effective fire suppression efforts.



The proportion of area burned by burn severity class, for Sycan forests that were (from left to right): untreated, had previous thinning only, had controlled (rx) burn only, and had thinning + controlled burn prior to the Bootleg wildfire. Burn severity was mapped using pre-fire and immediate post-fire Landsat satellite data by the Rapid Assessment of Vegetation Condition after Wildfire (RAVG) program.

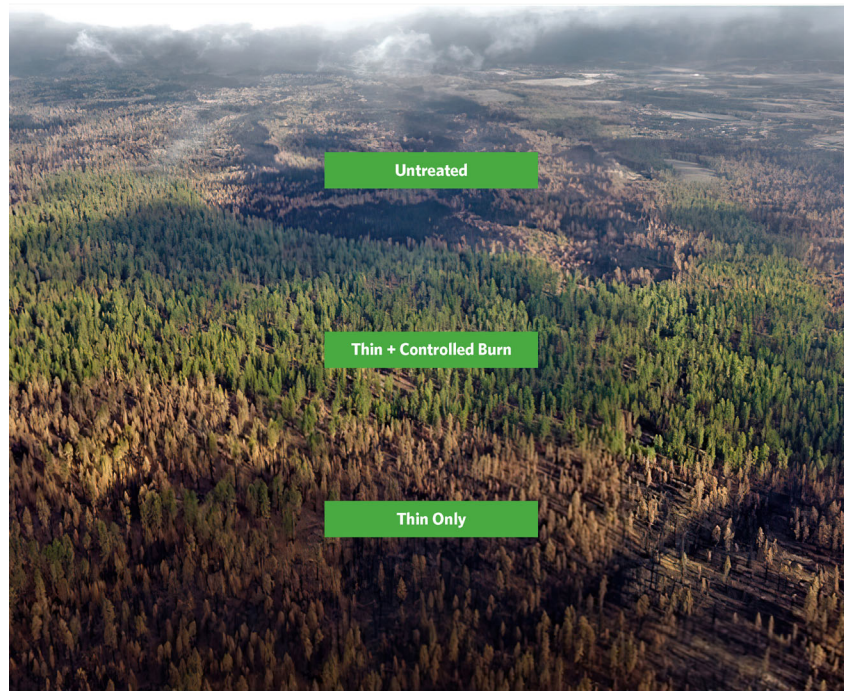


Post-Bootleg photos from Sycan Marsh Preserve of areas that had previously received ecological restoration treatments including ecological thinning and controlled burning, ecological thinning only, controlled burning only, or were untreated.

Next Steps

The preliminary results from our evaluation at Sycan are well aligned with a robust and growing body of research across Western North America demonstrating the effectiveness of ecological forest restoration treatments that include the reintroduction of fire (Prichard et al. 2021). Our evaluation at Sycan is ongoing and intended for submission to a peer-reviewed scientific journal in 2023. The Conservancy and our partners including The Klamath Tribe and the US Forest Service will continue to integrate the lessons from the Bootleg wildfire into our ongoing forest restoration efforts.

Methods: Our overarching research question is whether different types or combinations of ecological forest restoration treatments, including mechanical thinning only, controlled burning only, and thinning and controlled burning in combination, were effective at moderating the severity of the Bootleg wildfire. To address this question, we integrated data from 126 composite burn index (CBI) plots measured during the fall of 2021 with satellite-based mapping of fire severity from the Rapid Assessment of Vegetation Condition after Wildfire (RAVG) program. We evaluated both treated and untreated forests on the Sycan preserve as well as adjacent treated and untreated US Forest Service lands within the "Coyote" project area. Our evaluation of treatment effectiveness used random forests modeling to account for the influence of other factors such as fire weather and biophysical site conditions on wildfire severity. Day of burning weather conditions for each sample location were interpolated from MODIS satellite data while biophysical differences were mapped using climatic: water balance and potential vegetation groups datasets. Subsequent analysis will evaluate these questions across the entire 412k acre Bootleg Fire footprint.



Post-Bootleg photos from the Black Hills Project Area on the Fremont-Winema National Forest, south of the Sycan Marsh Preserve. Photo © Steve Rondeau, The Klamath Tribes



For more information, contact:

RYAN HAUGO
rhaugo@tnc.org | 503 802.8120
Oregon Director of Conservation Science, The Nature Conservancy

www.NatureOregon.org

