BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Continue Implementation and Administration of California Renewables Portfolio Standard Program.	Rulemaking 11-05-005 (Filed May 11, 2017)

COMMENTS OF RURAL COUNTY REPRESENTATIVES OF CALIFORNIA ON PETITION FOR MODIFICATION OF DECISION 14-12-081 AND THE BIOMAT TARIFF

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I. Introduction

Rural County Representatives of California (RCRC) respectfully provides comments on the Center for Biological Diversity's Motion to Modify D.14-12-081 and the BioMAT Tariff pursuant to the California Public Utilities Commission (Commission) Rules of Practice and Procedure. RCRC submitted a motion seeking party status on October 14, 2020 and provides these comments in anticipation of that motion being granted.

RCRC is an association of thirty-seven rural California counties and its Board of Directors is comprised of elected supervisors from those member counties. RCRC member counties contain much of California's forested lands and high fire hazard severity zones. Our communities have borne the lion's share of destruction caused by wildfires and have experienced most of the state's Public Safety Power Shut-off (PSPS) events. As such, we strongly support wildfire risk reduction efforts, including forest health and restoration projects. Our counties host many biomass facilities and believe they play an integral role in forest health improvement and wildfire protection.

II. Summary

RCRC urges the Commission to reject the Center for Biological Diversity's petition to modify D.14-12-081 and the BioMAT Tariff. Granting the petition will hinder the state's ability to undertake forest health improvement projects, protect our communities, and reduce the risk of

future catastrophic wildfires. We believe the petition ignores the key role biomass facilities play in forest health and wildfire risk reduction. Biomass facilities convert residual materials (for which there is often no marketable use) into energy and avoid the emissions that result when material is managed through open burning, left to decompose naturally, or fuels future wildfires. Finally, we believe that the petition is grossly misleading as to the nature and purpose of California's biomass operations, their environmental impacts, and the costs of those resources.

III. Comments

A. Biomass facilities are key to improving forest health and reducing wildfire risk.

"Wildfires have grown larger and increased in intensity over the last several decades. Forest fires have increased from an average of about 60,000 acres annually between the 1950s and 1990s to 175,000 acres annually in the 2000s"[1] and have averaged over 1,000,000 acres annually this decade.

Fire has always played an important role in California's forest ecosystem, but not the types of high-intensity fires we are currently experiencing. Historically, low-intensity fires helped clear brush and competing species, thereby maintaining a healthy ecosystem. Unfortunately, decades of fire suppression, have resulted in unsustainable tree density and accumulation of high fuel loads, which "are the dominant factor driving large fire events" in northern California conifer forests.[2] When combined with hotter temperatures and drought conditions, this has created a virtual tinderbox out of much of the state's forests. Traditional low-intensity fires have given way to catastrophic wildfires that burn hotter and with far more devastating ecological consequences, including to water bodies and endangered species.[3]

In addition to the ecological devastation caused by modern California wildfires, the greenhouse gas emissions resulting from wildfires negate much of the state's climate change efforts. As the Legislature observed:

> *"Wildfires result in significant greenhouse gas emissions. The State Air Resources Board acknowledges that wildfires are the largest source of black carbon, a short-lived climate pollutant, and wildfire emissions are orders of magnitude higher than*

[1] SB 901 (Dodd) (Chapter 626, Statutes of 2018) Section 1(d)

[2] Assembly Budget Subcommittee No. 3 on Resources and Transportation, Informational Hearing: Wildfire Mitigation Measures, October 20, 2020, *Briefing Materials*, page 5.

[3] Louis Sahagun, "Bobcat fire aftermath threatens endangered species in San Gabriel Mountains," *Los Angeles Times*, October 14, 2020. https://www.latimes.com/environment/story/2020-10-14/fire-stripped-slopes-and-winter-storms-point-to-a-bleak-scenario-for-wildlife-in-the-san-gabriel-mountains

black carbon emissions from anthropogenic sources. Furthermore, the combustion of forest material during a fire may only contribute a relatively small portion of the total emissions, since a high-intensity fire that kills vegetation may actually contribute four to five times as many emissions during post-fire decomposition."[4]

In 2020, California's wildfires have burned over 4 million acres and have released over 90 million metric tons of greenhouse gas emissions.[5] That is more than all the greenhouse emissions from industrial sources in 2018, well over half of emissions from the entire transportation sector, more than double all emissions from the commercial and residential sectors, and nearly three times the emissions from agriculture.[6] The 2020 wildfires also resulted in widespread hazardous air quality for extended periods of time. In 2017, wildfires burned 1.34 million acres of land and emitted 36.7 million metric tons of greenhouse gases.[7] In 2018, wildfires burned 1.59 million acres of land and resulted in over 45 million tons of greenhouse gas emissions.[8] That's nearly 7% of the state's land mass that has burned in just those *three* years.

Senate Bill 901 also established a state policy "to encourage prudent and responsible forest resource management by increasing the pace and scale of fuel reduction, thinning, and the use of prescribed fire."[9] "Significant quantities of woody biomass wastes are the unavoidable byproduct of these treatments."[10]

Biomass facilities play a key role in facilitating much needed forest health improvement, fuels reduction, and vegetation management projects, as they often provide a pathway for use of residual materials for which there is no market. Without biomass facilities, residual materials from thinning operations are often left in the forest where they are either left to burn in piles or decompose naturally. Open pile burning

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[4] SB 901, Section 1(e)

[5] Dino Grandoni, "The Energy 202: California's fires and putting a huge amount of carbon dioxide into the air," *The Washington Post*, September 17, 2020. https://www.washingtonpost.com/politics/2020/09/17/energy-202-california-fires-are-putting-huge-amount-carbon-dioxide-into-air/

[6] California Air Resources Board, "California Greenhouse Gas Inventory for 2000-2018 – by Category as Defined in the 2008 Scoping Plan," October 15, 2020, https://ww3.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_sum_2000-18.pdf

[7] California Air Resources Board, "California Wildfire Burn Acreage and Preliminary Emissions Estimates," June 17, 2020. https://ww3.arb.ca.gov/cc/inventory/pubs/ca_wildfire_co2_emissions_estimates.pdf

[8] Id.

[9] SB 901, Section 1(a).

[10] Springsteen B, Christofk T, York R, Mason T, Baker S, Lincoln E, Hartsough B, Yoshioka T. 2015. "Forest biomass diversion in the Sierra Nevada: Energy, economics and emissions." *Calif Agr* 69(3):142-149. https://doi.org/10.3733/ca.v069n03p142.

is more commonly used than natural decomposition because of the fire hazard risks associated with leaving materials to decompose naturally.[11] That being said, it can be difficult to find windows of time in which to perform the pile burns. As the *California Forest Carbon Plan* observed:

> *"Biomass projects can potentially offer net benefits to the public in scenarios where utilizing waste from commercial timber harvests will help reduce risk of damage to forest watershed, reduce costs of fire suppression and wildfire emissions, and/or meet other forest management objectives."*[12]

The Commission also recognized the role that biomass energy, and the BioMAT program in particular, can play in addressing wildfire risk and forest health:

> *"BioMAT is one of several tools that the state is using to address wildfire threats and tree mortality and appears to be particularly well-suited for addressing forest management needs in forested areas close to population centers and far from other wood infrastructure… Among the various forest management options, BioMAT Category 3 appears particularly well-suited to forested areas close to population centers where forest treatment is needed, but where prescribed burns and open burning are restricted or face local opposition, larger-scale biomass operations are not nearby or limited by smaller need, or where other more economically lucrative end-uses for the feedstock do not currently exist."*[13]

RCRC agrees with the Commission that new BioMAT facilities can "potentially offer communities a wood utilization option where forest treatment needs are high and where other post-thinning wood utilization options do not currently exist."[14] Rather than establish new barriers and skewed evaluation methodologies that inhibit the use of biomass energy, we believe that the state should work to expand the use of biomass facilities and promote the development of newer, even more environmentally friendly biomass technologies. This aligns with California's goal of focusing state investments in energy technology development and deployment "on the next generation of low-emission bioenergy technologies and construction of facilities located close to forest biomass sources."[15] Such efforts will naturally "promote forest health and economic development in rural forested regions."[16]

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[11] Id.

[12] California Forest Climate Action Team, *California Forest Carbon Plan*, May 2018, Pages 131-132.

[13] CPUC, *Bioenergy Market Adjusting Tariff (BioMAT) Program Review and Staff Proposal*, October 30, 2018, pages 9-10.

[14] Id., page 10.

[15] *California Forest Carbon Plan*, page 130.

[16] Id.

B. Biomass facilities avoid even greater pollution that would occur when material is left to decompose naturally, be managed through open burning, or fuel future wildfires.

Despite petitioners' claims to the contrary, biomass facilities reduce greenhouse gas emissions, including black carbon, that would otherwise result from alternative management of those materials. Without biomass facilities, the woody residuals that would be used as fuel are typically managed through open burning or are left in place to decompose naturally. This is largely because of the absence of other markets for those materials and the high cost of transportation. Unfortunately, residuals left in place for natural decomposition add to the fuel load and are increasingly likely to be consumed in a wildfire.

As noted by the Congressional Research Service, "removal of woody biomass (e.g., thinnings) in large quantities may reduce carbon, and some methane, emissions on a CO2-equivalent basis that would have been released if the woody biomass remained in the forest to decompose."[17] The *California Forest Carbon Plan* noted that when compared with emission of criteria air pollutants, black carbon, and greenhouse gas emissions resulting from burning biomass in open piles, emissions from biomass facilities were significantly lower – even after considering transportation and processing emissions.[18] A recent field study indicates that biomass energy generation results in 98-99% lower PM2.5, carbon monoxide, methane, and black carbon emissions compared to open pile burning (along with a significant reduction in NOx and carbon dioxide equivalent greenhouse gas emissions).[19]

This is why the state suggests integration of biomass energy in forest carbon policy and emphasizes the use of materials from projects intended to improve forest health and reduce the risk of wildfire.[20]

To achieve the state's ambitious greenhouse gas reduction targets, the Air Resources Board's *2017 Climate Change Scoping Plan* recommends the innovative use of biomass energy to help achieve the state's renewable energy and fuels goals and to

[17] Kelsoi Bracmort, *Is Biopower Carbon Neutral?* Congressional Research Service, February 4, 2016, page 10.
[18] *California Forest Carbon Plan*, page 130.
[19] Springsteen, et al.
[20] *California Forest Carbon Plan*, page 130.

facilitate wood product manufacturing and agricultural markets. It argues that these activities will result "in avoided GHG emissions relative to traditional utilization pathways" and "should increase the resilience of rural communities and economies."[21]

Petitioners bemoan the fact that four active biomass plants in the San Joaquin Valley are located in disadvantaged communities.[22] However, this concern ignores the fact that the CPUC found these facilities have a net benefit on local air quality and greenhouse gas emissions through reducing short-lived climate pollutants, biogas flaring, open burning, and wildfire intensity when looking at net emissions on a lifecycle basis. [23]

C. **The petition should be denied because it is grossly misleading as to the nature and purpose of California's biomass operations, their environmental impact, and the costs of those resources.**

1. *Petitioners create a false narrative that biomass energy is focused on incinerating whole trees that are grown exclusively for energy production*.[24]

Perhaps petitioners rely upon forestry and biomass generation policies and practices from other states and nations. The types of operations contemplated in their petition are not characteristic of modern California, which has perhaps the most stringent and environmentally protective timber harvesting regulatory regime in the world. Rather than clearcutting trees for biomass energy generation, biomass facilities in California are used to manage residual woody materials for which there is no other marketable use. As such, biomass facilities provide an environmentally beneficial alternative to leaving those materials in the forest to be burned in open piles, decompose naturally, or be consumed by wildfire.

With respect to biomass derived from normal farm activities related to orchards and vineyards, biomass facilities present a preferable waste disposal option compared to open burning, which releases uncontrolled emissions into the environment and is often performed near sensitive communities. Furthermore, not all orchard and vineyard

[21] California Air Resources Board, *California's 2017 Climate Change scoping Plan,* November 2017, page 82.
[22] *Petition of the Center for Biological Diversity, Central California Environmental Justice Network, Central Valley Air Quality Coalition, The John Muir Project, and the California Chaparral Institute to Modify Decision 14-12-081 and the BioMAT Tariff*, September 24, 2020, page 21.
[23] CPUC, *Bioenergy Market Adjusting Tariff (BioMAT) Program Review and Staff Proposal*, page 11.
[24] *Petition,* pages 1, 20.

prunings can easily be turned into compost or reincorporated into the soil because of the quantity of materials involved and the rate at which they decay.

Petitioners' efforts to call CalFire's credibility into question are also misleading. Petitioners allege that CalFire's interpretation of what constitutes "sustainable forest management" is "susceptible to bias" because "CalFire's mission is firefighting and fire prevention – not ecological or climate sustainability."[25] The California Department of Forestry and Fire Protection is charged with both protecting the state's forests and protecting the state from wildfires. To the extent that wildfires are the state's largest source of black carbon emissions, these are often complimentary (not competing) goals. In terms of forest and ecosystem protection, CalFire oversees implementation of the state's landmark Z'Berg-Nejedly Forest Practice Act of 1973 and has over 500 personnel devoted to resource management and protection. That program is intended to maintain and enhance forest ecosystems and to "minimize damage to these resources from natural catastrophes and human development."[26] RCRC disagrees with petitioners' notion that sustainable forest management cannot result in any net greenhouse gas emissions on a project-by-project basis. Sustainability is and should be viewed holistically.

2. *Petitioners mistakenly believe that California's forests are currently healthy and that all of the state's trees could continue to pull carbon out of the atmosphere if only they are allowed to continue growing*.[27]

Unfortunately, petitioners ignore the fact that many of the state's forests are much denser and at far greater risk for high-intensity, catastrophic wildfire than has historically been the case. As previously stated, this is due in part to overly-aggressive fire suppression efforts that have inhibited the natural low-intensity regenerative fire regime. Furthermore, the densification of our forests has increased competition for scarce resources (water and nutrients) and made them more susceptible to drought and wildfire-related mortality. California must focus on improving forest health to ensure that we have healthier, more naturally resilient ecosystems. Until historic tree density

[25] *Petition,* pages 13-14.
[26] California Department of Finance 2020-21 State Budget Detail – Department of Forestry and Fire Protection, www.ebudget.ca.gov/2020-21/pdf/Enacted/GovernorsBudget/3000/3540.pdf
[27] *Petition*, 20.

is achieved and low-intensity wildfires can be safely reintroduced into the forest ecosystem, we cannot simply let fuels accumulate as the inevitable wildfires will be environmentally devastating.

3. Petitioners selectively cite the legislative record and ignore SB 901 of 2018, which acknowledged that unchecked wildfires undercut the state's climate change reduction efforts and support continued use of biomass energy generation.

While petitioners cite several laws and executive orders related to greenhouse gas emissions reduction and carbon neutrality goals, they ignore one of the most significant forest health and biomass-related efforts.

Senate Bill 901 made extensive legislative findings and declarations about forest health, changes in wildfire intensity and devastation, and comparisons between wildfire-related emissions and the state's climate change mitigation efforts. SB 901 made significant regulatory changes to help facilitate the types of forest health improvement and vegetation management activities that are long overdue and devoted $1 billion over five years to forest health improvement projects. Even more apropos to the petition, SB 901 acknowledged the important role that biomass energy facilities play by directing utilities to extend many biomass energy procurement contracts for an additional five years.[28]

4. *In claiming that harvesting woody biomass feedstock harms forest ecosystems,*[29] *petitioners turn a blind eye to the devastating consequences that high-intensity wildfires have on sensitive species, ecosystems, and water quality*.

Modern high-intensity wildfires are far more destructive than those commonly experienced by our forests from time immemorial. SB 901 described the difference in ecosystem impacts between modern and historic wildfires:

> *"High-intensity burn patches were historically less than 10 acres in size, sizes that facilitated habitat diversity and that could be quickly reseeded from the surrounding forests. In stark contrast, the King Fire had a single high-intensity burn patch of over 30,000 acres and the Rim Fire had a burn patch of over 50,000 acres (over 78 square miles). In contrast to historic low-intensity wildfires that play an important role in the forest ecosystem, high-intensity wildfires are far more ecologically devastating and lead to the growth of fewer fire-resistant species, which further increases fire risk."*[30]

[28] Public Utilities Code Section 8388.
[29] *Petition,* page 17.
[30] SB 901 (Dodd), Section 1(d)

High intensity wildfires can completely denude large swaths of land and significantly increase the risk of and damage caused by erosion and sedimentation, potentially resulting in devastating consequences for species and impairing the quality of water from watersheds that nourish much of the state.[31]

5. *Petitioners perpetuate a false and dangerous dichotomy when they claim that "forest thinning is ineffective at protecting homes and communities and that the state should exclusively focus on home hardening and fire-proofing*.[32]

To improve forest health, reduce wildfire risk, and protect our communities from wildfire, California must use many different tools, as there is no "silver bullet" solution. RCRC agrees with petitioners that we must invest considerable resources in home hardening and making our communities fire resilient. At the same time, those strategies cannot be pursued at the exclusion of all others.

Different communities face different fire risks. While vegetation management may not be as crucial of a defense mechanism in areas at highest risk of wind-driven wildfires, fuel loads in those areas still need to be addressed. Wind-driven fires can change into fuel-driven fires once the winds die down. Where home and community defense are key for communities at risk of fuel-driven wildfires in the Northern and Eastern parts of the state, failure to reduce the fuel load could undermine those efforts. While home and community hardening are vital, so too is fuel load reduction. Effective fuel load reduction will require utilization of biomass energy facilities to avoid emissions that would otherwise result from alternative fates of those materials.

6. *Petitioners statement that "the science is clear that burning trees is a not a climate solution"*[33] *is true, but not for the reasons they assert*.

Petitioners argue that burning trees is not a way to meet our climate goals; however, recent experiences have shown that failing to adequately manage our forests – and letting the trees within them burn in high-intensity wildfires - will ensure that we will never be able to achieve our climate goals.

[31] Sahagun, "Bobcat fire aftermath threatens endangered species in San Gabriel Mountains"
[32] *Petition,* pages 23-24.
[33] *Petition,* page 1.

7. *Petitioners comparison of the costs of biomass energy are misleading*.

Petitioners argue that biomass is inferior to wind and solar energy, as the BioMAT program costs PG&E customers $3 billion, of which $2 billion is above-market relative to renewable portfolio standard procurement.[34] Unfortunately, petitioners fail to acknowledge the intermittent nature of wind and solar and the fact that biomass can provide baseload generation to help avoid debilitating rolling blackouts. The comparison also fails to acknowledge the magnitude and diversity of ecosystem, forest health, and wildfire risk reduction benefits that result from biomass energy generation and that are not provided by either wind or solar generation.

Petitioners' cost claims are also misleading in light of the similar costs from the subsidization of rooftop solar under the state's Net Energy Metering (NEM) program. Under that program, utilities estimate that non-solar customers currently pay an extra $2.5 billion annually by overcompensating NEM eligible generators for rooftop solar. They further estimate that those costs will rise to $4.4 billion 2030.[35] While we are happy to discuss the costs associated with the state's energy decisions, we believe those conversations should include all resource types and policy decisions.

D. The petition should be rejected because the proposed carbon accounting horizon is skewed to ignore the long-term carbon savings from new growth and could inhibit achievement of the state's forest health and wildfire risk reduction goals.

Aside from petitioners' misleading narrative and flawed justifications, the Commission should reject the Petition because the proposed modifications to Decision 14-12-081 are intentionally skewed against the use of biomass facilities and could make it more difficult to undertake much needed fuels management projects.

Petitioners seek to require use of a greenhouse gas emission lifecycle assessment calculator in order for biomass facilities to participate in the BioMAT program.[36] The 30-year time horizon suggested for use in the lifecycle analysis is far too short to provide a meaningful assessment of net emissions and so will be prejudiced against

[34] *Petition,* page 27,

[35] *Joint Opening Comments of Southern California Edison Company (U 338-E), Pacific Gas and Electric Company (U 39-E), and San Diego Gas & Electric Company (U 902-E) on Order Instituting Rulemaking to Revisit Net Energy Metering Tariffs Pursuant to D.16-01-044, and to Address Other Issues Related to Net Energy Metering*, October 5, 2020, page 2.

[36] *Petition,* pages 32-35.

biomass facilities. This is because much of the carbon sequestration of new growth will occur after that period. A longer timeframe is necessary to adequately evaluate carbon sequestration, since the growth periods for trees are often measured in decades and, depending on the species, the greatest sequestration may occur after 2050.[37]

Development of the models suggested by petitioners could take an extended period of time and jeopardize biomass projects' eligibility for BioMAT until those models are completed. We fear that this type of myopic rigidity in greenhouse gas emission accounting could paralyze the state's efforts to undertake forest health and fire prevention projects, as biomass energy serves a crucial role in those efforts.

Our fear is informed by recent experiences with other similar state programs. Greenhouse Gas Reduction Fund moneys have already been significantly delayed for vital forest health and wildfire prevention projects because of rigid greenhouse gas emission accounting and environmental analysis requirements. These concerns are even more troubling given the abundant materials showing that energy generation is a far better strategy for dealing with biomass materials than alternative fates like open burning, wildfire ignition, and natural decomposition.

IV. Conclusion

RCRC strongly urges the Commission to reject the Center for Biological Diversity's petition to modify D.14-12-081 and the BioMAT Tariff.

Dated: October 22, 2020

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[37] Bracmort, page 10.