BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Petition to Adopt, Amend, or Repeal a Regulation Pursuant to Pub. Util. Code §1708.5	Petition P.23-06-018 (Filed June 20, 2023)

RESPONSE OF RURAL COUNTY REPRESENTATIVES OF CALIFORNIA, CALIFORNIA FORESTRY ASSOCIATION, AND PIONEER COMMUNITY ENERGY TO THE PETITION OF THE CENTER FOR BIOLOGICAL DIVERSITY

JOHN KENNEDY
Senior Policy Advocate
Email: jkennedy@rcrcnet.org
Rural County Representatives of California
1215 K Street, Suite 1650
Sacramento, CA 95814
Tel: (916) 447-4806

MATT DIAS
President/CEO
Email: mattd@calforests.org
California Forestry Association
500 Capitol Mall, Suite 2360
Sacramento, CA 95814
Tel: (916) 444-6592

KIRSTIN KOLPITCKE
Legislative and Regulatory Manager
Email: kirstink@pioneercommunityenergy.org
Pioneer Community Energy
2510 Warren Drive, Suite B
Rocklin, CA 95677
Tel: (916) 818-2560

Dated: July 20, 2023

TABLE OF CONTENTS

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Petition to Adopt, Amend, or Repeal a Regulation Pursuant to Pub. Util. Code §1708.5	Petition P.23-06018 (Filed June 20, 2023)

RESPONSE OF RURAL COUNTY REPRESENTATIVES OF CALIFORNIA, CALIFORNIA FORESTRY ASSOCIATION, AND PIONEER COMMUNITY ENERGY TO THE PETITION OF THE CENTER FOR BIOLOGICAL DIVERSITY

I. INTRODUCTION

Pursuant to Rule 6.3(d) of the California Public Utilities Commission ("Commission" or "CPUC") Rules of Practice and Procedure, the Rural County Representatives of California ("RCRC"), California Forestry Association ("Calforests"), and Pioneer Community Energy ("Pioneer"), collectively the "Joint Parties," submit a joint response to the *Petition of the Center for Biological Diversity for a Rulemaking to Require Generating Facilities Using Biomass That Would Otherwise be Disposed of to Account for their Greenhouse Gas Emissions in Order to Show Compliance with the Emission Performance Standard* ("Petition") filed on June 20, 2023.

RCRC is an association of forty[1] rural California counties, with a Board of Directors comprised of an elected Supervisor from each member county. Calforests is the preeminent trade association for the state's forestry sector. Calforest members are committed to ensuring California has an adequate and sustainable supply of affordable forests products, while maintaining and enhancing wildlife habitat, water resources, air quality, and rural economies. Pioneer is a community choice aggregation (CCA)

[1] RCRC members include Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, Glenn, Humboldt, Imperial, Inyo, Kings, Lake, Lassen, Madera, Mariposa, Mendocino, Merced, Modoc, Mono, Monterey, Napa, Nevada, Placer, Plumas, San Benito, San Luis Obispo, Santa Barbara, Shasta, Sierra, Siskiyou, Solano, Sonoma, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba counties.

organization formed in 2017 that supplies approximately 1,900,000 MWh of electricity to over 160,000 customer accounts in Placer and El Dorado Counties.

The Joint Parties strongly support - and their members undertake - wildfire risk reduction and forest health improvement projects in furtherance of federal, state, and local forest management objectives. The biomass facilities targeted by the Petition are integral to the success of those endeavors. As a result, the Joint Parties strongly oppose the Petition as we believe it will frustrate wildfire risk reduction, forest health improvement, and community safety projects and impede achievement of the state's waste diversion goals.

II. SUMMARY REBUTTAL TO PETITION

The Joint Parties strongly object to the Center for Biological Diversity's (CBD) Petition, which requests that the Commission open a Rulemaking to:

- Remove biomass that would otherwise be disposed of utilizing open burning, forest accumulation, landfill, spreading, or composting from its pre-approved status as emission performance standard (EPS) compliant;
- Require load-serving entities (LSEs) using biomass to calculate their net lifecycle emissions in order to demonstrate compliance with the EPS;
- Require all biomass facilities to calculate their net lifecycle greenhouse gas (GHG) emissions from the process of growing, processing, and generating the electricity from the fuel source;
- Require net emissions calculations to include upstream, downstream, and indirect emissions associated with electricity generation and use counterfactual modeling of alternatives for the biomass materials that offer the greatest potential climate and justice benefits.

These changes complicate and frustrate achievement of the state's declared forest health and wildfire risk reduction objectives, which are themselves intended to reduce and avoid the GHG, black carbon, and criteria air pollutant emissions associated with wildfires.

Just last year, the Legislature extended requirements for utilities to procure energy from biomass facilities.[2] That bill requires investor-owned utilities (IOUs) and consumer choice aggregators (CCAs) with a biomass contract that expires on or before December 31, 2028 to extend the contract's expiration

[2] Senate Bill 1109 (Caballero, Chapter 364, Statutes of 2022).

date by five years and allows contracts to be renewed for up to fifteen years. This built upon a similar biomass procurement contract extension contained in Senate Bill 901 (Dodd, Chapter 626, Statutes of 2018).[3] Imposing the additional qualitative and quantitative requirements outlined in the Petition ignores the Legislature's explicit direction under those and other statutes and the Legislature's implicit approval of the CPUC's existing EPS framework.

Beyond this, the proposed lifecycle analyses are deliberately skewed against biomass energy. The Petition both underestimates carbon sequestration benefits through reliance on an unreasonable short life cycle ***and*** inflates emissions by counting both natural processes and activities unrelated to energy generation. Requiring the calculation of lifecycle emissions as proposed in the Petition - and only for the biomass facilities - is inequitable and ignores the magnitude of emission from wildfires that the facilities themselves are intended to avoid. CBD additionally proposes different standards by requiring calculations of lifecycle GHG emissions to include upstream, downstream, and indirect emissions only for biomass facilities.

The Petition also appears to misunderstand the contours of the state's landfill gas methane control regulations, SB 1383 short lived climate pollutant reduction regulations, and waste management capabilities and realities in rural and forested communities.

The science on the benefits of biomass - specifically the reduced emissions when compared to the alternatives - is solid. CBD's Petition flies in the face of the Decision 07-01-039 and the science which still clearly shows that, "When net emissions are accounted for, as required by SB 1368, generating electricity from biomass, biogas, or landfill gas energy actually *reduces* the net GHG emissions associated with the disposal of society's waste and residue materials."[4] Science supported the Commission's determination in 2007 that biomass reduces net GHG emissions and subsequent studies have bolstered that fact.

The Petition fails to calculate the benefits of biomass beyond being a baseload, clean firm resource, such as the role biomass facilities play in improving forest health, reducing wildfire risk, reducing air pollution, and their assistance in meeting Senate Bill 100 (Chapter 312, Statutes of 2018) goals, Senate Bill 1383 (Chapter 395, Statutes of 2016), Senate Bill 901 (Chapter 626, Statutes of 2018),

[3] Which itself was built upon a previous requirement contained in the 2016 state budget (SB 859 (Budget and Fiscal Review, Chapter 368, Statutes of 2016).

[4] D.07-01-039, *Interim Opinion on Phase 1 Issues: Greenhouse Gas Emissions Performance Standard*, page 116.

and the 2022 Scoping Plan for Achieving Carbon Neutrality goals. Biomass is an important component if California is serious about meeting these goals.

Lastly, the Commission contemplated that there may be a need to revisit the pre-approved list to *add* more resources, not to remove them.[5] Nowhere in the Commission's Decision did the Commission state its ambivalence about biomass as a pre-approved source, nor did it indicate the Commission would want to review the pre-approved list to remove resources in the future.

III. DISCUSSION

A. BACKGROUND

Senate Bill 1368 (Perata, Chapter 598, Statutes of 2006) prohibits any LSE from entering into a "long-term financial commitment unless any baseload generation supplied under the long-term financial commitment complies with the greenhouse gas EPS established by the Commission."[6]

The Commission finalized the EPS rulemaking in 2007, setting the EPS threshold as 1,100 pounds of CO2 per MW and required covered procurements to demonstrate compliance with the EPS. In its regulation, the record shows that electric generation using biomass that would otherwise be disposed of under a variety of conventional methods results in a substantial *net reduction* in GHG emissions. This is because the alternative disposal options for biomass waste emit large quantities of methane gas, whereas energy generation either burns the waste that would become methane or burns the methane itself, generating CO2. Since methane gas is on the order of twenty to twenty-five times more potent as a GHG than CO2, and since methane has an atmospheric residence time of twelve years (after which is it converted to atmospheric CO2), trading off methane for CO2 emissions from energy recovery operations leads to a net reduction of the greenhouse effect."[7]

B. SCIENCE SUPPORTS THE CARBON NEUTRALITY OF BIOMASS AND THE ROLE IT PLAYS IN REDUCING EMISSIONS.

Despite CBD's claims to the contrary, there is a tremendous amount of scientific research supporting the carbon neutrality of biomass and recognizing the compelling need to maintain California's existing (and create new) biomass energy and wood products manufacturing facilities.

---

[5] CPUC, D.07-01-039, Interim Opinion on Phase 1 Issues: Greenhouse Gas Emissions Performance Standard, January 25, 2007, page 270.

[6] Public Utilities Code Section 8341(a).

[7] D.07-01-039, *Interim Opinion on Phase 1 Issues: Greenhouse Gas Emissions Performance Standard*, January 25, 2007, pages 18-19.

While CBD challenges the notion that the Commission had the authority to make "an upfront one-time determination" that biomass is EPS compliant, they raise no concerns that the Commission did this for other baseload powerplants generating electricity such as solar thermal electric, wind, and geothermal. The Petition fails to mention that Decision 07-01-039 noted that all parties generally agreed that the CPUC had the "flexibility to make upfront determinations regarding the emissions rates of renewables and to find them compliant with the EPS based on those determinations."[8] The Commission also indicated that if the record "clearly demonstrates that these resources will pass the standard on a net emissions basis, it would be redundant and costly to require that LSEs demonstrate EPS compliance for each new ownership investment, new contract, or renewed contract. Therefore, the general approach suggested by GPI and others would also enable us to reduce these costs, thereby reducing overall costs to electricity customers as well."[9] It should be noted that similar project-specific GHG calculations were major impediments to the timely distribution of Greenhouse Gas Reduction Fund revenues for forest health improvement and wildfire risk reduction projects. The Legislature and administration shifted away from such burdensome requirements in that context. Imposing them here would represent a significant step backwards and could frustrate the state's use of biomass facilities in pursuit of its forest health improvement and wildfire risk reduction goals.

CBD challenges the validity of the science that was used by the Commission because they believe the studies are old and not credible. However, the 2007 Decision states that the "record fully supports an upfront determination that the renewable resources and technologies listed above are EPS-compliant."[10] Additionally, the Decision states that NRDC, TURN, UCS, WRA, SDG&E, SoCalGas, and PG&E point to the *extensive analysis* (emphasis added) presented by GPI in its Phase 1 comments, that in their view supports the finding that when net emissions are accounted for, as required under SB 1368, generating electricity from biomass, biogas, or landfill gas energy actually *reduces* the net GHG emissions associated with the disposal of society's waste and residue materials." The Decision further states that, "No party disputes the data, or the conclusions drawn from it."[11]

The studies used in the 2007 Decision are not the only studies that show the benefits of biomass. There are newer scientific studies that confirm this earlier data. A 2015 study, conducted by the University

[8] D.07-01-039, *Interim Opinion on Phase 1 Issues: Greenhouse Gas Emissions Performance Standard*, January 25, 2007, page 115.
[9] Id., page 117.
[10] Id., page 120.
[11] Id., page 116.

of California Agricultural and Natural Resources (UC ANR) studied the use of forest waste from fuel hazard reduction projects for electricity production as an alternative to open pile burning. The study showed that air emissions reductions were 98%-99% for PM2.5, carbon monoxide, nonmethane organic compounds, methane, and black carbon, and 20% for NOx and CO2-equivalent greenhouse gases. [12] It is vital to promote the productive use of biomass residuals resulting from forest health improvement and wildfire risk reduction projects, since traditional methods of disposal (open burning and natural decomposition) produce far greater (and uncontrolled) emissions than would occur in a biomass facility. Residuals left in place for natural decomposition add to the fuel load and are increasingly likely to be consumed in a wildfire.

On November 6, 2014, 80 of the country's universities that have programs devoted to forest resources sent a letter to the United States Environmental Protection Agency (U.S. EPA) regarding biomass carbon accounting. The letter was signed by over 100 university experts in the field and provided scientific fundamentals of forest biomass carbon counting. The letter states that "the long-term benefits of forest biomass energy are well-established in science literature. As states in the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, 'In the long term, a sustainable forest management strategy aimed at maintaining or increasing forest carbon stocks, while producing an annual sustained yield of timber, fibre or energy from the forest, will generate the largest sustained mitigation benefit.' Most debates regarding the carbon benefits of forest biomass energy are about the timing of the benefits rather than whether they exist."[13]

The Commission is not the only governmental entity to establish the carbon neutrality of biomass. In 2009, the U.S. EPA adopted rules related to mandatory reporting of greenhouse gases from all sectors of the economy in the United States.[14] But because forest biomass combustion, from a lifecycle assessment standpoint, results in minimal emissions, the rule does not require the control of GHGs from forest biomass combustion. Rather, it requires only those sources above certain threshold levels to monitor and report emissions. Based on the assumption that combustion of biomass is a carbon neutral activity,

[12] 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." California Agriculture Volume 69, Number 3. https://calag.ucanr.edu/archive/?article=ca.v069n03p142

[13] Letter from the National Association of University Forest Resources Programs to the U.S. EPA. https://legacy-assets.eenews.net/open_files/assets/2016/04/20/document_cw_02.pdf

[14] Washington State Department of Natural Resources. "Forest Biomass and Air Emissions." https://www.dnr.wa.gov/Publications/em_forest_biomass_and_air_emissions_factsheet_8.pdf

the rule exempts fuel combustion units that burn biomass from reporting.[15] On April 23, 2018, the U.S. EPA issued a statement of policy making clear that in future regulatory actions biomass from managed forests will be treated as carbon neutral when used for energy production at stationary sources.[16] The 2022 omnibus spending bill declared forest bioenergy carbon neutral and instructed federal agencies to adopt policies supporting that assumption.[17] On September 12, 2022, President Biden released an Executive Order on Advancing Biotechnology and Biomanufacturing Innovation for a Sustainable, Safe, and Secure American Bioeconomy. It states that it is the policy of the Administration "to boost sustainable biomass production and create climate-smart incentives for American agricultural producers and forest landowners."[18]

Closer to home, the State of Washington considers the emissions of carbon dioxide and other greenhouse gases from combustion of forest biomass to produce energy as carbon neutral. This is because these emissions contribute to the already cycling stock of carbon that is being exchanged between the biosphere and the atmosphere as part of the earth's carbon cycle. As CO2 emissions from the combustion of forest biomass for energy production (or from slash burns, forest fires, tree respiration, and forest biomass decomposition) enter the atmosphere, CO2 is simultaneously being reabsorbed by growing forests. Carbon neutrality, in this context, is dependent on maintaining the overall stock of forests. Currently in North American, and specifically in Washington State, forest stocks are increasing in volume.[19] Similarly, Oregon declared biomass carbon neutral in 2015. Legislation signed into law exempts biomass-derived carbon dioxide emissions from regulation under certain pollution laws.[20]

C. BIOMASS FACILITIES ARE INTEGRAL TO THE STATE'S EFFORTS TO REDUCE WILDFIRE RISKS AND EMISSIONS AND PROMOTE FOREST RESILIENCY.

[15] Washington State Department of Natural Resources. "Forest Biomass and Air Emissions." https://www.dnr.wa.gov/Publications/em_forest_biomass_and_air_emissions_factsheet_8.pdf

[16] U.S. EPA. "EPA's Treatment of Biogenic Carbon Dioxide Emissions from Stationary Sources that Use Forest Biomass for Energy Production." https://www.epa.gov/air-and-radiation/epas-treatment-biogenic-carbon-dioxide-emissions-stationary-sources-use-forest

[17] E&E News. "'Carbon neutral' scores another victory in omnibus." December 22,2022. https://www.eenews.net/articles/carbon-neutral-scores-another-victory-in-omnibus/

[18] Executive Order 14081. "Advancing Biotechnology and Biomanufacturing Innovation for a Sustainable, Safe, and Secure Bioeconomy." https://www.whitehouse.gov/briefing-room/presidential-actions/2022/09/12/executive-order-on-advancing-biotechnology-and-biomanufacturing-innovation-for-a-sustainable-safe-and-secure-american-bioeconomy/

[19] Washington State Department of Natural Resources. "Forest Biomass and Air Emissions." https://www.epa.gov/sites/default/files/2016-03/documents/10006.pdf

[20] Biomass Magazine, "Oregon declares biomass carbon neutral," June 25, 2015 https://biomassmagazine.com/articles/12101/oregon-declares-biomass-carbon-neutral

While the science is solid with regards to biomass as a carbon neutral, renewable resource, the benefits of biomass facilities provide another compelling reason to reject the Petition. Senate Bill 901 (Chapter 626, Statutes of 2018) established that it is the policy of the state "to encourage prudent and responsible forest resource management by increasing the pace and scale of fuel reduction, thinning, and the use of prescribed fire."[21] "Significant quantities of woody biomass waste are the unavoidable byproduct of these treatments."[22]

Under the Commission's 2007 Decision, the only biomass facilities that have pre-approval as EPS-compliant are those facilities using biomass that "would otherwise be disposed of" using worse alternatives. Wildfires are the worst alternative to biomass and the GHG emissions resulting from these wildfires negate much of the state's work to reduce emissions. Making it more difficult for the state to rely on biomass facilities to process forest waste would undermine the state's efforts to avoid wildfire emissions that negate many of the hard-earned emissions reductions from other sectors.

Biomass facilities are key to improving forest health and resiliency 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"[23] and have averaged over 1,000,000 acres annually in the last decade. The 2017 wildfires emitted 36.7 million metric tons of greenhouse gases, in 2018 the number jumped to 45 million tons.[24] In 2020, California's wildfires burned over 4 million acres and released over 90 million metric tons of greenhouse gas emissions. Another 2.5 million acres burned in 2021. Emissions from these wildfires undercut much of the state's progress in reducing greenhouse gas emissions and result in widespread hazardous air quality for extended periods of time. According to CARB's Draft 2022 Scoping Plan Update, California's 2020 wildfires put approximately 112 million metric tons of CO2 into the atmosphere.[25] By reducing the risk and intensity of future catastrophic wildfires, fuel reduction projects will help avoid many of these emissions. Biomass facilities are vital for dealing with the residual materials left over from those operations and avoid the uncontrolled emissions that would result from burn piles or combustion of those materials during a wildfire.

---

[21] SB 901 (Dodd, Chapter 626, Statutes of 2018), Section 1(a).
[22] 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." California Agriculture Volume 69, Number 3. https://calag.ucanr.edu/archive/?article=ca.v069n03p142
[23] Senate Bill 901 (Dodd, Chapter 626, Statutes of 2018), Section 1(d).
[24] California Air Resources Board, "*California Wildfire Burn Acreage and Preliminary Emissions Estimates,"* June 17, 2020
[25] California Air Resources Board, Draft 2022 Scoping Plan Update May 10, 2022, Page 3.

Dr. Michael Jerrett, a UCLA professor of environmental health sciences stated that, "Wildfire emissions in 2020 essentially negate 18 years of reductions in greenhouse gas emissions." The Legislature observed, "Wildfires result in significant greenhouse gas emissions. The State Air Resources Board (CARB) acknowledges that wildfires are the largest source of black carbon, a short-lived climate pollutant, and wildfire emissions are orders of magnitude higher than 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."[26]

Fire has always played an important role in California's forest ecosystem, but not the type 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.[27] 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 increased erosion and delivery of sediment into bodies of water and years of recovery for endangered species populations that miss a single breeding season or whose habitat is destroyed.[28]

Biomass facilities play an important role in facilitating much needed forest health improvement, fuels reduction, and vegetation management projects, as they often provide an outlet for the use of waste materials for which there is no market. Without biomass facilities, residual materials may be burned in an open pile, left in the forest to decompose and emit substantial methane emissions, or left in the forest, increasing the likelihood that it will be consumed in a wildfire.

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 appear to be particularly well-suited for

[26] SB 901 (Dodd, Chapter 626, Statutes of 2018), Section 1(e).
[27] Assembly Budget Subcommittee No. 3 on Resources and Transportation, Informational Hearing: Wildfire Mitigation Measures, October 20, 2020, Briefing Materials, Page 5
[28] 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

addressing forest management needs in forested areas close to population centers and far from other wood infrastructure…"[29]

In August of 2020, the State of California entered into an Agreement for Shared Stewardship of California's Forest and Rangelands with the U.S. Forest Service with the goal of restoring healthy forests and rangelands in California. Healthy forests will improve climate resilience and reduce the risk of catastrophic wildfire, safeguard water quality and air quality, protect fish and wildlife habitat, enhance biological diversity, and sequester carbon. This shared stewardship agreement will enable the parties to increase pace and scale of science-based forest and rangeland stewardship efforts. In the agreement, the parties committed to treat one million acres per year by 2025.[30]

Given these state and federal objectives outlined in SB 901 and the Agreement, it is difficult to take seriously Petitioner's suggestion to simply "leave the forest uncut"[31] because of the increased safety risks involved with abandoning fuel treatment. The failure to properly manage our forests and historic fire regiments has resulted in tremendous overgrowth in which densely packed forest stands increase competition for scarce water resources (leading to greater tree mortality and susceptibility to diseases), diminish water yields, and increase the risk and intensity of wildfires.

Biomass can reduce some of the impacts of climate change. The 2007 Decision indicated that renewable resources are valued as being both environmentally and economically sound in the context of addressing the adverse consequences of climate change on the economy, health, and environment of California. In fact, SB 1368 echoes the policy expressed in the Energy Action Plan II that renewables (along with energy efficiency) are to be used to satisfy increasing energy and capacity needs before LSEs turn to fossil-fired generation.[32] The Decision further states that the EPS will help protect Californians from climate change-related phenomena such as: increased number of extremely hot days, air pollution formation, oppressive heat, wildfires, infectious disease vectors, asthma triggers, decreases to the Sierra

[29] CPUC, Bioenergy Market Adjusting Tariff (BioMAT) Program Review and Staff Proposal, October 30, 2018, Pages 9-10. https://www.cpuc.ca.gov/-/media/cpuc-website/industries-and-topics/documents/rps/biomat-program-review-and-staff-proposal.pdf

[30] Memorandum of Understanding between the State of California and the U.S. Forest Service. Agreement for Shared Stewardship of California's Forest and Rangelands. August 12, 2020, https://www.gov.ca.gov/wp-content/uploads/2020/08/8.12.20-CA-Shared-Stewardship-MOU.pdf

[31] Petition of the Center for Biological Diversity for a Rulemaking to Require Generating Facilities Using Biomass that Would Otherwise Be Disposed of to Account for their Greenhouse Gas Emissions in Order to Show Compliance with the Emission Performance Standard (Petition), June 20, 2023, page 16.

[32] D.07-01-039, *Interim Opinion on Phase 1 Issues: Greenhouse Gas Emissions Performance Standard*, Page 117.

Nevada snowpack and its derivative effects on California's water supply, diminished electric supply, sea level rise, and the increased occurrence of extreme oceanic events.[33]

D. THE PETITION IGNORES A LONG LEGISLATIVE HISTORY SUPPORTING AND COMPELLING THE PROCUREMENT OF BIOMASS ENERGY.

The Petition argues that the SB 1368 EPS is overdue for modification; however, it ignores extensive legislative and administrative history both supporting and compelling the procurement of biomass energy since adoption of SB 1368. Senate Bill 1122 (Rubio, Chapter 612, Statutes of 2012) ordered the procurement of up to 250MW of renewable energy from small biomass or biogas technologies, including projects that use the byproducts of sustainable forestry. In 2015, Governor Brown issued a Tree Mortality Emergency Proclamation, which required the CPUC to extend contracts for forest biomass facilities receiving feedstock from high hazard zones and to expedite contracts for new forest biomass facilities receiving feedstock from those zones.[34] In 2016, the state budget[35] directed the CPUC to order 125MW of biomass procurement.[36] These biomass procurement contracts were extended by Senate Bill 901 (Dodd, Chapter 626, Statutes of 2018). Just last year, Senate Bill 1109 (Caballero, Chapter 364, Statutes of 2022) again extended those contracts and allowed IOUs and CCAs to enter into five- to fifteen-year contracts for biomass energy. Assembly Bill 322 (Salas, Chapter 229, Statutes of 2021) required the Energy Commission to consider funding biomass energy projects out of the Electric Program Investment Charge (EPIC).

These measures were adopted after the Legislature enacted Assembly Bill 32 of 2006 and both before and after it adopted even more stringent greenhouse gas emission limits in Senate Bill 32 of 2016. SB 100 (De Leon, Chapter 312, Statutes of 2018) also integrates biomass energy into the requirement for renewable energy resources and zero-carbon resources to supply 100% of retail sales of electricity to California end-use customers by December 31, 2045. Even CalRecycle's Short Lived Climate Pollution Regulations implementing SB 1383 allow local governments to satisfy their organic procurement obligation through the purchase of compost, mulch, anaerobic digestion, or biomass. In the case of

---

[33] Id., Page 227.

[34] Implemented by CPUC Resolution E-4770, Commission Motion Authorizing Procurement from Forest Fuelstock Bioenergy Facilities supplied from High Hazard Zones for wildfires and falling trees pursuant to the Governor's Emergency Proclamation, March 17, 2016.

[35] Public Utilities Code Section 399.20.3 established by Senate Bill 859 (Budget and Fiscal Review, Chapter 368, Statutes of 2016), Section 14.

[36] Implemented by CPUC Resolution E-4805, Commission Motion Authorizing Procurement from Bioenergy Facilities supplied from Forest Fuel High Hazard Zones pursuant to Senate Bill 859, the Governor's Tree Mortality Emergency Proclamation, and the Commission's other legal authority, October 13, 2016.

biomass, jurisdictions contract with a biomass facility to divert urban wood waste from the landfills as feedstock for the biomass facilities. As such (and for the reasons explained in Section F below), biomass facilities are integral to meet the state's solid and organic waste diversion goals.

Imposing the additional qualitative and quantitative requirements outlined in the Petition ignores the Legislature's explicit direction under these statutes and regulations and its implicit approval of the CPUC's existing EPS framework.

E. THE PETITION'S SUGGESTED NET LIFECYCLE EMISSIONS ANALYSIS IS INTENTIONALLY SKEWED TO AVOID CONSIDERATION OF LONG-TERM SEQUESTRATION BENEFITS.

By suggesting an unreasonably short timeframe for calculation of net lifecycle emissions, the Petition seeks to skew the analysis against biomass energy and ignore long-term sequestration benefits. Despite requesting an analysis of lifecycle emissions from biomass, the Petition only seeks to base measurements over just a fraction of the full lifecycle (as few as five to ten years).[37] However, as mentioned by the National Association of University Forest Resources Programs, measuring net cumulative emissions over a 100-year timeframe is consistent with fossil fuels and more accurately captures the cumulative carbon benefits of biomass energy compared to fossil fuels.[38]

The Letter from the National Association of University Forest Resources Programs to the U.S. EPA indicates that measuring carbon benefits of forest biomass energy must consider cumulative carbon emissions over the long term. "Comparisons between forest biomass emissions and fossil fuel emissions at the time of combustion and for short periods thereafter do not account for long term carbon accumulation in the atmosphere and can significantly distort or ignore comparative carbon impacts over time."[39] Unlike CBD, scientists indicates that the most common timeframe for measuring the impacts of greenhouse gases is 100 years because: 1) it provides a more accurate accounting of cumulative emissions than shorter intervals; 2) measuring the net cumulative carbon emissions from forest biomass energy over a 100 years, as is done for fossil fuels, more appropriately demonstrates the cumulative carbon benefits of

[37] Petition of the Center for Biological Diversity for a Rulemaking to Require Generating Facilities Using Biomass that Would Otherwise Be Disposed of to Account for their Greenhouse Gas Emissions in Order to Show Compliance with the Emission Performance Standard (Petition), June 20, 2023, pages 17-18.
[38] Letter from the National Association of University Forest Resources Programs to the U.S. EPA. https://legacy-assets.eenews.net/open_files/assets/2016/04/20/document_cw_02.pdf
[39] Id.

biomass energy compared to fossil fuels; and 3) it is consistent with the widespread use of 100-year global warming potentials.[40]

In arguing against a longer-term life cycle, the Petition conveniently creates a straw man by suggesting that "there is no guarantee that cut forests will be allowed to grow back or that forest won't be converted to other land uses."[41] This ignores the fact that California has perhaps the most rigorous forest management regimes in the world and that any "conversion" project over three acres requires careful analysis and approval by the Department of Forestry and Fire Protection (CalFire).[42] Before approval, CalFire must first determine the conversion would be in the public interest and would not have a substantial and unmitigated adverse effect upon timber-growing or open space-space uses of nearby lands.[43] Considering that "approximately 113,000 acres were converted from private timberland to other uses" between 1969 and 1998,[44] and given that 4.3 million acres burned during the catastrophic 2020 wildfires ***alone***, it is far more likely that our forests will be consumed by wildfires than converted to other uses.

This is also troubling because the Petition's unreasonably short lifecycle period also allows the Petitioners to avoid comparing biomass facility emissions against wildfire-related emissions that are more likely to occur over a medium- or longer-term horizon. Petitioners argue that "it defies common sense – and is unsupported by science – to claim that an in-tact forest produces more GHG emissions than [biomass energy production]."[45] This statement appears to assume that California's forests are healthy and have not experienced years of devastating tree mortality epidemics. California's "intact" forests are in crisis, as evidenced by the fact that nearly 12 million acres have burned over the last six years and eroded much of the reductions achieved by the state's other wide-ranging GHG emissions reduction programs. Simply stated, California's biomass energy facilities are not the problem; they are a key part of the solution to reduce the state's wildfire-related GHG emissions.

---

[40] Id.

[41] Petition of the Center for Biological Diversity for a Rulemaking to Require Generating Facilities Using Biomass that Would Otherwise Be Disposed of to Account for their Greenhouse Gas Emissions in Order to Show Compliance with the Emission Performance Standard (Petition), June 20, 2023, page 24.

[42] Public Resources Code Section 4621, et sec.

[43] Public Resources Code Section 4621.2.

[44] Tian-Ting Shih, Forest Economist, "Timberland Conversion in California from 1969 to 1998," Technical Working Paper 1-01-02, CalFire Fire and Resource Assessment Program.

[45] Petition of the Center for Biological Diversity for a Rulemaking to Require Generating Facilities Using Biomass that Would Otherwise Be Disposed of to Account for their Greenhouse Gas Emissions in Order to Show Compliance with the Emission Performance Standard (Petition), June 20, 2023, page 17.

Forest management and wildfire risk reduction projects are even more important because they help restore the natural tree density of forest ecosystems so that they are more resilient and less prone to devastating high-intensity catastrophic wildfires. Establishing barriers to the continued use of biomass facilities to manage the residues and fuel loads coming from those operations inhibits the state's ability avoid ecological damage and emissions from future wildfires.

The Petition also seeks to require lifecycle GHG emissions from all biomass facilities to include emissions related to the growing, processing, and generating of electricity from the fuel source. This issue was considered as resolved by the CPUC in 2007 in Decision 07-01-039. SB 1368 required the Commission to consider the net emissions from the process of growing, processing, and generating electricity from the fuel sources as well as "the effects of the standard on system reliability and overall costs to electricity customers."[46] The 2007 Decision indicated that for biomass technologies which utilize landfill gas, agricultural and wood waste as the biomass fuel source, "by definition there are no emissions associated with growing the fuel."[47] The reasoning for that determination still holds today and undercuts the Petition's request to have each biomass facility integrate emissions related to growing the feedstock into the net lifecycle GHG emission calculations. Those biomass facilities whose fuel sources would otherwise be disposed of through open burning, forest accumulation, landfilling, spreading, or composting are pre-approved as EPS compliant because the material is not grown for energy production. Unlike coal or natural gas, biomass feedstock is not grown in California for the express purpose of energy production.

Petitioners claim that the studies the CPUC relied upon in 2007 erroneously assumed that only forest residues are used as feedstocks for biomass power plants.[48] Feedstocks used in California for biomass energy production are the byproducts of forest health improvement and wildfire risk reduction projects, residuals from wood products manufacturing, and residuals from agricultural production. Despite Petitioner's claim to the contrary, trees are not harvested expressly for the purpose of fueling the state's biomass energy facilities. Any "log piles" that Petitioners claim are fueling California's biomass facilities are likely explained by the significant decline in California's sawmill capacity over the last few decades.[49] Rural communities have suffered tremendously from the closure of sawmills and would much

[46] Public Utilities Code Section 8341(d)(6).
[47] D.07-01-039, *Interim Opinion on Phase 1 Issues: Greenhouse Gas Emissions Performance Standard*, page 19.
[48] Petition of the Center for Biological Diversity for a Rulemaking to Require Generating Facilities Using Biomass that Would Otherwise Be Disposed of to Account for their Greenhouse Gas Emissions in Order to Show Compliance with the Emission Performance Standard (Petition), June 20, 2023, page 18.
[49] See Kate C. Marcille, Todd A. Morgan, Chelsea P. McIver, and Glenn A. Christensen, United States Department of Agriculture, "California Forest Products Industry and Timber Harvest, 2016," December 2020. "California's forest products

rather see any trees harvested during fuel reduction and forest health projects used to produce building materials and innovative wood products. Most remaining sawmills are operating at capacity and so it can be challenging finding facilities to process trees harvested during fuel reduction and forest health projects. To the extent that Petitioners are arguing that California should *increase* its sawmill and innovative wood products manufacturing capacity so that fewer whole trees (from fuel reduction and forest health projects) are sent to biomass energy facilities, we would strongly agree. Until that happens, it is vital that California continue to maintain the availability of its biomass energy facilities because there is nothing else to do with the material other than open burning or landfill disposal.

Finally, the Petition indicates that solar and wind energy provide virtually carbon-free sources of power, but solar and wind are not baseload energy - they are intermittent. While solar and wind also have pre-approved status as EPS compliant, there are upstream, downstream, and indirect emissions associated with these sources as well. First, there is the raw material extraction, the material production, module manufacturing, system/plant manufacture, and plant construction which accounts for 60-70% of emissions associated with solar energy. There is the power generation and system maintenance which accounts for another 21-26% emissions, and lastly there is the decommissioning and disposal which accounts for 5-20% of the lifecycle emission stages. The lifecycle emissions from solar systems are "similar to other renewables and nuclear energy, and much lower than coal."[50] These lifecycle impacts increase significantly when considering the extraction and manufacturing processes associated with production of energy storage systems that solar and wind must be paired with to ensure grid reliability and that Californians can keep their lights on when they need them the most.

F. THE PETITION IS BASED ON A MISUNDERSTANDING OF SOLID WASTE MANAGEMENT IN RURAL AND FORESTED REGIONS OF THE STATE.

The Petition appears to be based on a misunderstanding of alternative fates for biomass materials and the realities of solid waste management in many of the rural, forested regions of the state that the Petition directly impacts. The Petition suggests that previous emissions estimates are invalid because

industry's annual capacity to process sawtimber has continued to decrease, from 6,000 MMBF Scribner in the late 1980s to 1,870 MMBF in 2016."

[50] National Renewable Energy Laboratory. "Life Cycle Greenhouse Gas Emissions from Solar Photovoltaics." November 2012. https://www.nrel.gov/docs/fy13osti/56487.pdf

subsequent state laws "dramatically change the disposal fates of biomass residues."[51] This is simply not accurate.

The Petition appears to conflate management of urban vs. rural wood waste and organics; however, there are dramatic differences between the two waste management systems that the Petitioners ignore.

First, the Petition argues that the Morris study assumes that "a large portion of biomass residue goes to "uncontrolled landfills" where methane is not captured.[52] Petitioners correctly note that the Air Resources Board adopted regulations requiring solid waste landfills to install methane capture systems, but fail to note that this requirement does not apply to active landfills with less than 450,000 tons of waste in place.[53] This means that many of those landfills in rural and forested areas where forest and wood products residuals would be taken are not subject to ARB's landfill gas recovery requirement, so Morris' alternative fate assumption remains valid.

Second, the Petition notes that SB 1383 requires most organic waste to be diverted from landfills, but this has little applicability in this context. The Petition fails to acknowledge that many of the state's forested areas enjoy either low-population density, elevation, or rural jurisdiction waivers from many of CalRecycle's SB 1383 requirements.[54] The state already has too few organic waste recycling facilities to achieve its organic diversion goals and many of those facilities would be unable to process the amount of woody materials from this waste stream. Furthermore, CalRecycle's Short Lived Climate Pollutant regulations contemplate that biomass facilities are part of SB 1383's compliance portfolio, as local governments may meet their organic procurement obligations through the purchase of compost, mulch, or energy from anaerobic digestion or biomass conversion.[55]

Making it more difficult for biomass facilities to operate in California, as seems to be Petitioner's goal, would make it harder for the state to achieve its waste diversion goals. Diverting forest waste and wood products manufacturing residuals away from biomass facilities would either flood compost facilities with material they cannot use (or do not have the capacity to process), rapidly increase disposal in smaller

[51] Petition of the Center for Biological Diversity for a Rulemaking to Require Generating Facilities Using Biomass that Would Otherwise Be Disposed of to Account for their Greenhouse Gas Emissions in Order to Show Compliance with the Emission Performance Standard (Petition), June 20, 2023, page 19.
[52] Petition of the Center for Biological Diversity for a Rulemaking to Require Generating Facilities Using Biomass that Would Otherwise Be Disposed of to Account for their Greenhouse Gas Emissions in Order to Show Compliance with the Emission Performance Standard (Petition), June 20, 2023, page 19.
[53] 17 California Code of Regulations Section 95463(a).
[54] 14 California Code of Regulations Section 18984.12.
[55] 14 California Code of Regulations Section 18993.1.

rural landfills (necessitating construction of additional landfills to serve those communities), and result in even greater emissions from uncontrolled open burning.

G. THE PETITION'S ARGUMENTS ABOUT THE COST OF BIOMASS ENERGY IGNORES OTHER KEY ISSUES.

The Petition indicates that biomass energy is California's most expensive energy source and is "heavily subsidized;" however, these claims are misleading and ignore the magnitude and diversity of values that biomass energy facilities provide, as noted above.

It must be recognized that the solar industry has been the beneficiary of substantial subsidies such as Net Energy Metering (NEM), the California Million Solar Roofs Initiative (Senate Bill 1, Ch. 132, Statutes of 2006), local property tax exclusions, and many state and federal grants and loans. Nearly 20 years ago, the Senate Energy, Utilities, and Communications Committee analysis for SB 1 indicated that even without the initiative, "solar energy is already heavily subsidized. Since 1976, California has provided $1.1 billion in tax credits and another $1 billion in rebates for solar energy systems."[56]

Petitioners seem to view biomass energy facilities only through the lens of energy production; however, the public reaps tremendous waste management benefits from these facilities. As noted above, these facilities are key to achieving the state's forest health improvement and wildfire risk reduction objectives. These facilities also play an important role in diverting material from landfills, as residuals from wood products manufacturing would otherwise have to be sent to a landfill (it is unlikely that local compost facilities would be able to handle the volume or composition of the material). In recognition of the role these facilities play in waste management, we support finding other sources of (non-energy ratepayer) state funding to pay for these benefits. But until those alternative funding sources materialize, the BioRAM, BioMAT, and related pilot programs are important to achieve the state's forest health, wildfire risk reduction, and solid waste diversion goals.

H. THE COMMISSION NEVER CONTEMPLATED REMOVING RENEWABLE RESOURCES

CBD suggests that as an interim EPS, the Commission needs to review the pre-approval status of biomass as EPS-compliant. However, the only mention of revisiting the EPS was in the event there was data to *add* more resources to the pre-approved list: "If and when there is sufficient data so that the parties believe the Commission could make determination for pre-approval of additional renewable resources and

[56] Senate Energy, Utilities, and Communications Committee analysis of SB 1. August 8, 2006.

technologies, it is reasonable to permit parties to file a Petition for Modification of this decision…"[57] Petitioner's argue that "assuming that California would rely on fossil fuels for energy is untenable and cannot serve as the basis for giving biomass energy a free pass under the EPS."[58] This appears to ignore the fact that California has relied heavily on natural gas to avoid widespread summer brown outs over the last few years. Additionally, there has been a significant increase in the use of backup generators in many forested regions of the state as energy reliability has significantly declined in those areas over the last few years. For these reasons, it is reasonable to continue assuming fossil fuel avoidance as a benefit to biomass energy production.

IV. CONCLUSION

CBD's purpose with the Petition appears to be stopping forest health improvement and wildfire risk reduction projects, and "leaving the forests uncut" and unmanaged.[59] This is directly contrary to the state's efforts to reduce wildfire risk and improve forest health and would further endanger many rural communities and residents. The Petition should be rejected because of the tremendous detrimental impacts it would have on those wildfire and forest health objectives, statutory directives, and the state's other climate-related solid waste management goals.

For the reasons stated above, the Joint Parties strongly oppose this Petition and urge the Commission to dismiss it.

Respectfully submitted,

/s/ *John Kennedy*

John Kennedy
Senior Policy Advocate
Rural County Representatives of California
Tel: (916) 447-4806
E-mail: jkennedy@rcrcnet.org

Dated: July 20, 2023

[57] D.07-01-039, *Interim Opinion on Phase 1 Issues: Greenhouse Gas Emissions Performance Standard*, page 270.
[58] Petition of the Center for Biological Diversity for a Rulemaking to Require Generating Facilities Using Biomass that Would Otherwise Be Disposed of to Account for their Greenhouse Gas Emissions in Order to Show Compliance with the Emission Performance Standard (Petition), June 20, 2023, page 15.
[59] Petition of the Center for Biological Diversity for a Rulemaking to Require Generating Facilities Using Biomass that Would Otherwise Be Disposed of to Account for their Greenhouse Gas Emissions in Order to Show Compliance with the Emission Performance Standard (Petition), June 20, 2023, page 16.