July 15, 2026

The Honorable Siva Gunda, Vice Chair
California Energy Commission
1416 Ninth Street
Sacramento, CA 95814

Re: Comments on DEBA Draft Solicitation (Docket No. 22-RENEW-01)

Dear Vice Chair Gunda:

We are writing on behalf of the undersigned organizations to urge the CEC to revise the Draft Solicitation on DEBA. The Draft Solicitation, as currently written, would exclude some of the lowest carbon and highest reliability forms of distributed generation, including biogas, biomethane and biogenic hydrogen that are critical to help the state meet its Short-Lived Climate Pollutant reduction requirements, as set forth in SB 1383 (Lara, 2016). These technologies are currently deployed in California and are ready to 'come online quickly' to meet the program's strict 2030 liquidation deadline. BAC urges the CEC to broaden the solicitation in the following ways to ensure that it helps to meet the state's energy reliability and climate goals:

- Include low-emission technologies (fuel cell, linear generator and engines that use Best Available Control Technologies) that use renewable fuels;

- Include all conversion technologies that use biofuels derived from organic waste or waste biogas; and
- Allow private companies to apply for funding if they are partnering with public agencies, Tribes or non-profit organizations.

These recommendations are described more fully below.

1. The Solicitation Should Include Low- as well as Zero-Emission Technologies.

The Draft Solicitation does not define "zero emission" technologies, so it is not clear whether this term refers to the emission of criteria pollutants or climate pollutants. The term should be clarified and should be broadened to include very low emission technologies such as turbines that use renewable fuels and Best Available Control Technology. No energy source is truly "zero emission" on a lifecycle basis due to the emissions from mining and processing of raw materials, transportation, construction, backup power, end of life disposal of equipment, maintenance, land use disturbance, and more.[1] To set an objective, performance-based standard that maximizes benefits, the CEC should focus on the types of distributed generation that provide the greatest net reductions in climate and air pollution, rather than qualifying or disqualifying broad technology categories.

Ideally, the CEC would judge applicants based on their lifecycle emissions of air and climate pollution. This would lead to far more accurate and beneficial results since many bioenergy projects can provide enormous air quality and climate benefits even if their onsite emissions are more than zero. The Air Board has found for years that biofuels provide the lowest carbon fuels of any kind under the Low Carbon Fuel Standard, which is a lifecycle based program, and the only fuels that can be carbon negative on a lifecycle basis.[2] This is consistent with CalEPA's and CNRA's findings that bioenergy cuts particulate matter, methane and carbon monoxide 98 percent compared to pile burning of forest or agricultural waste.[3] And CAPCOA, the state association of local air districts, found that bioenergy cuts NOx by 40 to 70 percent compared to open burning. And both of these findings are based on older biomass combustion facilities.[4] For new projects, such as DEBA would fund, the technologies will be more advanced and have much more advanced pollution control devices, such as ceramic catalytic air filters, that cut air pollution by 98 percent or more.

Excluding whole technology categories – regardless of performance criteria – ignores the larger lifecycle reductions that some low emission technologies can provide for both air quality and the climate. To maximize climate and air quality benefits, the CEC

[1] See, eg, National Renewal Energy Lab, *Lifecycle Greenhouse Gas Emissions from Solar Photovoltaics,* NREL/FS-6A20-56487 • November 2012.

[2] See, https://ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard.

[3] *California Forest Carbon Plan* adopted by CalEPA, CNRA and CalFire in May 2018, at pages 130, 135.

[4] CAPCOA Biomass Policy Statements (2016) at page 1.

should set performance criteria based on lifecycle emissions rather than excluding certain technologies even when they may provide the greatest overall pollution reductions. Section II.B.3.e of the draft solicitation currently excludes technologies that are not zero-emission throughout their entire 'production, transport, and storage' lifecycle. Since the CEC is already applying lifecycle analysis as a basis for exclusion, it is logically and scientifically inconsistent to ignore the lifecycle benefits—such as the carbon negativity and methane displacement—of bioenergy projects. We urge the CEC to apply a consistent lifecycle standard for both eligibility and exclusion.

Recommended Change: The CEC should allow distributed generation technologies that generate electricity by converting chemical fuel at or near the point of use if the applicant demonstrates that the project will be zero-emission on a lifecycle basis.

2. The Solicitation Should Include All Uses of Biogas, Biomethane and Biogenic Hydrogen.

Secretary Crowfoot, head of the California Natural Resources Agency, recently sent a letter (attached) to seven other agency heads, including the Chair of the CEC, urging them to find ways to convert more forest waste to energy to help mitigate the state's wildfire crisis. California's other waste sectors – urban organic waste, livestock waste, agricultural waste, landfill and wastewater biogas, etc. – also need outlets to help meet the state's methane, black carbon and other climate goals. DEBA could be extremely helpful at spurring organic waste to firm power projects, but not if it excludes the conversion technologies and fuel conversion steps that are needed to convert organic waste to energy.

Climate scientists agree that cutting methane and other Short-Lived Climate Pollutants is the most urgent step we can take to mitigate climate change. That's because it's really the only tool we have left to begin to reverse climate change right away. As the head of the United Nations Environment Program said recently, methane reduction is the climate's emergency brake and we better use it fast before we go over a cliff.

According to CARB, 86 percent of California's methane emissions come from organic waste. An even higher percentage of our black carbon is emitted from burning organic waste, both wildfires and controlled burning of forest and agricultural residues. These climate super pollutant emissions can be eliminated by converting organic waste to energy. As noted above, bioenergy can provide a 98 percent reduction in methane and black carbon (particulate matter) emissions compared to wildfires or open burning.[5]

Bioenergy is also the only form of energy – distributed or utility scale – that can provide carbon negative emissions, which are critical to achieve carbon neutrality by mid-century as required by state law. Both CARB and Lawrence Livermore National Lab have found that bioenergy with CCS is the single biggest opportunity for carbon

[5] *California Forest Carbon Plan* adopted by CalEPA, CNRA and CalFire in May 2018, at pages 130, 135.

negative emissions in California and that it is very cost-effective on a cost per ton of avoided carbon basis.[6]

It makes no sense for the CEC to exclude the most urgent climate solution in the energy sector – the conversion of organic waste to power – either directly or by excluding some of the conversion technologies and interim fuels that bioenergy uses. The CEC should instead follow the science, which makes clear that the Commission should be doing exactly the opposite: prioritizing distributed bioenergy projects that cut SLCP emissions and provide carbon negative emissions.

Allowing bioenergy from organic waste will also help to decarbonize manufacturing sectors such as woodworking that can use its waste to provide its own power. Doing so will reduce costs and increase energy reliability for an important manufacturing sector that is at risk of leaving California due to high energy costs and lack of reliability. It will also save emissions and costs from hauling woody and other waste long distances. For example, one bioenergy system processing 3,000 tons of wood waste annually could eliminate 800 landfill-hauling trips, generate enough electricity to power approximately 100 California homes, and produce 750 tons of biochar. Together, these benefits represent an estimated gross climate impact of approximately 1,440–1,690 metric tons of CO_2e per year, with most of the benefit coming from long-term carbon storage in biochar.[7]

The draft solicitation requires projects to provide capacity that is 'responsive to immediate grid reliability needs' during extreme events. Unlike intermittent resources, distributed bioenergy provides dispatchable, 24/7 firm capacity that can sustain the 'nominated capacity' for the entire five-hour program window (4 p.m. to 9 p.m.) and beyond, which is critical for the multi-day reliability events DEBA is designed to address. In this way, bioenergy resources are exceptionally well-suited for Pathway 1 (Market-Integrated Dispatch). Because they are firm and dispatchable, bioenergy projects can reliably respond to California ISO market instructions or emergency triggers (EEAs) every day during the 4 p.m. to 9 p.m. window without the performance risks associated with weather-dependent resources.

<u>Recommended Change:</u> The solicitation should explicitly allow distributed bioenergy projects that use 1) organic waste that must be diverted from landfills pursuant to SB 1383, 2) landfill or wastewater biogas, 3) livestock waste, 4) agricultural and food processing residues, 5) forest waste or other vegetation removed for wildfire mitigation, pest control or forest restoration projects.

[6] Lawrence Livermore National Lab, *Getting to Neutral – Options for Negative Carbon Emissions in California,* January 2020. LLNL-PRES-795982; *2022 Climate Change Scoping Plan for Achieving Carbon Neutrality*, issued by the California Air Resources Board on November 15, 2022.

[7] Supply Chains for Good, https://supplychainsforgood.org/.

3. **The Solicitation Should Allow Private Companies to Apply if they are Partnering with Public Agencies, Tribes or Non-Profit Organizations.**

We also urge the CEC to allow private companies to apply for DEBA funding if they are working with public agencies, Tribes, non-profit organizations or other entities to achieve the state's climate and air quality objectives. Public agencies, such as the state's conservation districts, water agencies, solid waste and environmental agencies often contract with private companies that provide the development and technological expertise. This approach can better facilitate the 'development and technological expertise' needed to ensure projects meet the rigorous Measurement and Verification (M&V) requirements and can sustain nominated capacity over the project's entire lifespan, which is a key scoring factor in Criterion 1.

There is no reason to exclude private applicants from DEBA, particularly when they are partnering with public agencies to achieve important statewide objectives like methane reduction, wildfire mitigation, landfill diversion and reduction in pile burning of biomass waste to protect air quality. Excluding private companies from this DEBA solicitation will prevent many important SLCP, wildfire mitigation, and circular economy projects from moving forward, including projects supported by other state agencies to meet their statutory goals, such as landfill diversion required by SB 1383, wildfire mitigation, dairy methane reductions and more.

Recommended Change: The solicitation should allow private entities to apply if they are partnering with public agencies, Tribes, non-profits or public research institutions, or if the project is needed to help meet the requirements of SB 1383, the state's methane and black carbon (SLCP) reduction law.

To maximize the benefits that DEBA funding can provide, this solicitation should be revised to focus on lifecycle emissions, rather than excluding some technologies or feedstocks regardless of their lifecycle emissions, and should prioritize those projects that help to meet the most urgent need, which is the reduction of methane and other Short-Lived Climate Pollutants. Including waste biomass also protects public health and safety, air quality and the climate, and ratepayers by helping to mitigate climate change. Excluding bioenergy from this solicitation prevents DEBA funding from going to the most urgently needed and most beneficial form of energy.

Thank you for your consideration of these comments.

Sincerely,

Ross Buckenham
California Bioenergy

Jordan Damerel
Fairfield-Suisun Sewer District

Christiana Darlington
CLERE Inc.

Sarah Deslauriers
California Association of Sanitation Agencies

Jeff Durtschi
Omni Bioenergy

Tom Hobby
Yosemite Clean Energy

Scott Kraynak
Sierra Energy

Steve Jepson
Clean Water SoCal

Julia A. Levin
Bioenergy Association of California

Scott McClelland
Encina Wastewater Authority

C.J. Nord
Supply Chains for Good

Curtis Paxton
Las Gallinas Valley Sanitary District

Dede Smullen
Earth Foundries

Greg Stangl
Phoenix Energy

Matt Summers
West Biofuels

Fred Tornatore
TSS Consultants

Martin Twer
The Watershed Center

Kevin Weddle
Golden State Natural Gas Systems

CALIFORNIA NATURAL RESOURCES AGENCY

GAVIN NEWSOM, *Governor*
WADE CROWFOOT, *Secretary for Natural Resources*

May 7, 2026

Terry O'Brien
Chair, California Board of Forestry and Fire Protection

Joe Tyler
Director and Chief, California Department of Forestry & Fire Protection

John Reynolds
President, California Public Utilities Commission (CPUC)

David Hochschild
Chair, California Energy Commission

Dee Dee Meyers
Director, Governor's Office of Business & Economic Development

Jennifer Lucchessi
Director, California Department of Conservation

Lauren Sanchez
Chair, California Air Resources Board

Patrick Wright
Director, California Wildfire and Forest Resilience Taskforce

Colleagues,

I write to request your focused collaboration this year to explore how we can continue biomass utilization as a key strategy to reduce catastrophic wildfire risks across California.

Broad consensus exists on the need to actively manage our forests. Reducing unsafe and unhealthy density of vegetation in our forests is essential after a century of excluding natural wildfire cycles. Doing so reduces dangerous wildfire threats, restores ecological and watershed health, and returns a safe, natural fire regime across our landscapes.

Unprecedented state and federal funding has vastly increased wildfire resilience projects to achieve these benefits. For these projects to be effective, outlets are needed for the huge volume of forest residues generated by these projects. Today, across tens of thousands of acres, vegetation that has been cut to reduce forest density remains in place— sometimes in piles two stories high—because there is no economically viable way to remove it. This material is either burned in open piles – with impacts on air quality – or is left in place, ready to combust in the next wildfire and drastically reducing the effectiveness of project investments. We need to expand pathways to remove and process this wood waste.

State agencies are actively working to build markets that transform wood waste into new low-carbon products such as mass timber and sustainable aviation fuels. This work is important and promising, but currently inadequate to process existing wood waste. Converting biomass to electricity remains the primary method to remove and process low-value forest residue at scale in California today.

Legacy state energy programs that have supported small biomass-to-electricity projects have expired, and many existing and planned projects have no way forward. These endangered facilities are critical to remove and process fuel loads across numerous high fire severity zones and bridge our needs as we grow the low carbon bioeconomy for wood waste.

Rural communities, wildfire safety organizations, and the forestry sector are joining forces to explore new pathways for biomass. It is important that our agencies engage with this coalition of groups and signal support for finding solutions.

I recognize that a path forward on biomass must meet several criteria: limit or avoid electricity ratepayer impacts as we prioritize energy affordability; provide a durable program framework that attracts sustained private investment; and ensure ecologically based management of our forests. While complex, I believe a path forward is possible.

Over the past decade, our agencies and partners across our state have come together in creative ways to confront our catastrophic wildfire risk. And we've made tremendous progress. We have strengthened wildfire resilience and restored landscape health across millions of acres of land, streamlined processes so projects happen more quickly and cost-effectively, prioritized initiatives to protect communities and ecosystems; and built regional capacity to continue this work for decades to come. Now, enabling biomass utilization to continue is one more important piece of this puzzle.

In coming weeks, I request that we come together across agencies to creatively explore how we can continue to enable biomass utilization. Our work together is timely and important. Thank you very much for your consideration and partnership

Sincerely,

Wade Crowfoot
Secretary, California Natural Resources Agency