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CBEA Comments on the Draft Senate Bill 423 Emerging Renewable and Firm Zero-Carbon Resources Report

CBEA Comments on the Draft Senate Bill 423 Emerging Renewable and Firm Zero-Carbon Resources Report; Docket No. 21-ESR-01

Additional submitted attachment is included below.

E-filed on 08/16/2024

August 16, 2024

The Honorable Siva Gunda, Vice Chair
California Energy Commission
Docket Unit, MS-4
Docket No. 21-ESR-01
715 P Street
Sacramento, CA 95814-5512

Re: CBEA Comments on the *Draft Senate Bill 423 Emerging Renewable and Firm Zero-Carbon Resources Report*
Docket No.: 21-ESR-01

Dear Vice Chair Gunda:

The California Biomass Energy Alliance (CBEA) submits these comments on the August 2, 2024, Draft Senate Bill 423 report. CBEA strongly supports the goals of SB 423 to promote the development of firm zero-carbon resources, which is essential to meeting California's climate goals while maintaining energy reliability on the grid. However, while the report provides helpful data, it omits one key category of qualified firm RPS resources – biomass-to-electricity technologies. These key resources need to be included in the final SB 423 report.

CBEA is the industry organization representing the solid-fuel biomass electric generating facilities in California. The biomass industry reuses approximately 7.3 million tons of the state's solid wastes and residues annually and produces around 530 MW of electricity. Biomass generators produce dependable, baseload renewable power that can be scheduled to supply power when it is needed most. California's biomass power plants combust wood residues and byproducts to produce electricity — material whose disposal using conventional disposal options creates serious adverse environmental impacts. Solid biomass fuels are materials that are diverted primarily from three kinds of disposal or disposition fates: open burning, landfill disposal, and accumulation as overgrowth material and wildfire fodder in the state's forests.

The SB 423 report is titled: *SB 423 Emerging Renewable and Firm Zero-Carbon Resources Report*. The subtitle is: *Assessment of Firm Zero-Carbon Resources to Support a Clean, Reliable, and Resilient California Grid*. The problem is that at various points the report confuses emerging firm clean technologies with all firm clean technologies. It appears that the report uses the rationale of examining emerging technologies to leave out biomass-to-electricity resources, while using the rationale of considering all firm clean technologies to include geothermal resources. Biomass and geothermal resources both include commercially proven technologies and emerging technologies, so including geothermal but leaving out biomass makes no sense at all and weakens the report. Biomass electric technologies need to be included in the report.

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Biomass is included in the report as a potential feedstock for RNG and hydrogen fuels, but not as a potential electricity generating resource. This glaring absence weakens the conclusions in the report on all fronts. Biomass is not only a legitimate firm clean generating resource, but uniquely among renewables biomass energy production also provides a variety of beneficial environmental services in terms of the disposition and disposal of some of California's difficult-to-treat organic wastes, in the process reducing air pollution, reducing organic waste disposal in landfills, and reducing the risks of destructive wildfires in the state's forests.

Appendices F (RNG) and G (hydrogen) of the report express concerns about the availability of the supply of biomass resources in California. For example:

> The largest limiting factor for biomass and waste feedstocks is the availability, transportation, and processing required to properly operate a gasifier. While this is not entirely a supply chain concern the availability of these feedstocks, especially biomass, is limited as the infrastructure to collect them is not currently extensive and is also expected to be limited as more markets look to biomass and waste as potential feedstocks and competition for these resources may be high. [SB 423 Report, pg. F-5.]

This statement is highly misleading. The solid-fuel biomass industry in California currently uses approximately 7.3 million tons annually of fuel, and it is clear that the availability of biomass resources is not a limiting factor in the amount of fuel that is used by the industry. Rather, the limiting factor is the amount of operating biomass capacity, which is itself limited by the availability of power purchase contracts that can support biomass power generation. The infrastructure needed to support the existing industry is in place and operating, and it could be expanded easily if there was sufficient demand to justify doing so. In addition to the currently operating biomass capacity in the state there are a number of idle facilities that could be returned to service, which would be accompanied by a concomitant increase in the biomass fuel production infrastructure, and if new greenfield biomass development was stimulated in the state, the fuel supply infrastructure would expand appropriately.

The potential supply of in-forest biomass residues alone is much greater than the existing biomass energy industry is able to process. Public and private forest managers are stymied in their desire to increase forest treatment operations across the state due in part to a lack of environmentally acceptable outlets for the treatment residues. These treatment operations are a primary tool in the state's efforts to decrease the risks of destructive wildfire in the state's forests. State regulators are also trying to reduce the disposal of organic materials in landfills, and the amount of open burning of agricultural and forestry wastes and residues. Biomass power production is the environmentally preferred beneficial use for much of the state's organic wastes and residues.

It is also important to note that the biomass power industry does not compete with other end uses for biomass resources, as suggested in the passage quoted above from the SB 423 report. Energy is the lowest-valued use for biomass resources, so if a higher-valued use is available that use will absorb the

portion of the resource that is suitable for the application, and the waste or residue from the process will be available for power generation. That is how the entire supply chain for biomass-based products works in the marketplace. The energy industry acts as the beneficial use outlet for parts of the resource that are byproducts of the higher-valued use options, such as residues from the manufacture of lumber, paper, and many other examples of higher-valued products made from biomass.

Our final point is that on pages 46-47 of the SB 423 report a finding is made that scenarios with increasing quantities of firm clean resources need increasing quantities of natural gas-based power generation in order to make up for the fact that the clean portion of the portfolios produce less total energy than the clean portion of portfolios with greater quantities of intermittent renewables. This conclusion is entirely an artifact of the methodology used in the study – it is not generally true. The energy deficit of these scenarios, which have had their solar and storage installations reduced as more clean firm capacity is added, could still use solar or wind to make up the energy deficit, possibly without the need for accompanying storage since the added intermittent capacity could be designed for energy production rather than the provision of reliable capacity.

Thank you for your kind attention and consideration of these comments.

Sincerely,
California Biomass Energy Alliance (CBEA)

Julee Malinowski-Ball, Executive Director