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**SENATE COMMITTEE ON ENERGY, UTILITIES AND  
COMMUNICATIONS**

**Senator Ben Hueso, Chair**

**2021 - 2022 Regular**

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<b>Bill No:</b>	SB 1109	<b>Hearing Date:</b>	4/26/2022
<b>Author:</b>	Caballero		
<b>Version:</b>	3/14/2022 Amended		
<b>Urgency:</b>	No	<b>Fiscal:</b>	Yes
<b>Consultant:</b>	Nidia Bautista		

**SUBJECT:** California Renewables Portfolio Standard Program: bioenergy projects

**DIGEST:** This bill increases, extends, and expands requirements on electric utilities to procure energy from biomass generating electric facilities. This bill expands by 100 megawatts (MW) to 225 MW and extends from December 31, 2016 to December 31, 2023, and financial commitments from five years to 15 years. This bill also makes changes to the compensation provided to the biomass facilities to allow for expansion of the types of fuel sources.

**ANALYSIS:**

Existing law:

- 1) Establishes and vests the California Public Utilities Commission (CPUC) has regulatory authority over public utilities, including electrical corporations. Authorizes the CPUC to fix the rates and charges for every public utility and requires that those rates and charges be just and reasonable. (Article XII of the California Constitution and Public Utilities Code §451)
- 2) Establishes a renewables portfolio standard (RPS) and requires all retail sellers, including electrical corporations, to procure a minimum quantity of electricity products from eligible renewables energy resources, as defined, so that total kilowatt hours of those products sold to their retail end-use customers achieves 25 percent of retail sales by December 31, 2016, 33 percent by December 31, 2020, 44 percent by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030. (Public Utilities Code §399.15)
- 3) Requires electrical corporations, by December 1, 2016, to collectively procure, through financial commitments of five years, their proportionate share of 125 MW of cumulative rated generating capacity from bioenergy projects commencing operation before June 1, 2013. Requires at least 80 percent of the feedstock of a bioenergy project, on an annual basis, to be a byproduct of

sustainable forestry management, which includes removal of dead and dying trees from Tier 1 and Tier 2 high hazard zones (HHZs), and requires at least 60 percent of that feedstock to be from Tier 1 and Tier 2 high hazard zones. Specifies the price to be paid for the output from the facility for that month if, on a monthly basis, a bioenergy facility opts out of, or misses, the mandated fuel or feedstock usage levels or targets. Requires local publicly owned electric utility serving more than 100,000 customers to procure their proportionate shares of 125 MW of cumulative rated generating capacity from those kinds of bioenergy projects subject to terms of at least five years. (Public Utilities Code §399.20.3)

- 4) Requires an electrical corporation, local publicly owned electric utility, or community choice aggregator (CCA) with a contract to procure electricity generated from biomass that is operative at any time in 2018, and expires or expired on or before December 31, 2023, to seek to amend the contract to include, or seek approval for a new contract that includes, an expiration date five years later than the expiration date in the contract that was operative in 2018, so long as the contract extension follows the feedstock requirement described above. Prohibits this requirement from applying to facilities located in federal severe or extreme nonattainment areas for particulate matter or ozone. (Public Utilities Code §8388)

This bill:

- 1) Increases the cumulative rated generating capacity from bioenergy projects to 225 MW and would require electrical corporations collectively to procure that amount by December 31, 2023. Revises the financial commitments by which electrical corporations collectively procure their proportionate share of the cumulative rated generating capacity to five to 15 years, inclusive.
- 2) Revises, for contracts that are entered into or extended on or after January 1, 2023, the prices paid for the output from a bioenergy facility if the mandated feedstock targets are missed by the facility, as provided.
- 3) Requires local publicly owned electric utilities serving more than 100,000 customers to procure their proportionate shares of 225 MW of cumulative rated generating capacity from those kinds of bioenergy projects. Imposes a state-mandated local program by imposing additional duties on local publicly owned electric utilities.
- 4) Requires any incremental procurement of electricity products from bioenergy resources by a new contract or contract extension of 10 years or longer in

duration to be from a resource that meets emission limits equivalent to, or more stringent than, the best available retrofit control technology determined at the time of procurement.

- 5) Requires those entities with a contract to procure electricity generated from biomass that expires or expired on or before December 31, 2028, to seek to amend the contract to include, or seek approval for a new contract that includes, an expiration date five years later than the expiration of the date in the contract that was operative in 2022.

## Background

*Biomass.* Biomass power plant is the general term for waste-to-energy power plants that burn organic material, including wood waste. According to the California Energy Commission (CEC) website, in 2020, biomass electric facilities produced 5,628 gigawatt-hours (GWh) or roughly three percent of the state's in-state electricity generation portfolio. The CEC notes there are just under 90 operating biomass power plants in California, with installed capacity of about 1,259 MW. The number of power plants and generation capacity has largely remained unchanged since 2001, per the CEC *Energy Almanac* data.

*2015 Executive Order.* Over 100 million trees have died and more continue to die due to many years of drought that have weakened the trees and left millions of acres of forestland highly susceptible to insect attacks. The drought stress is exacerbated in forests with too many trees competing for limited resources, especially water. In 2015, then-Governor Brown issued an Emergency Proclamation to protect public safety and property from falling dead and dying trees and wildfire. The proclamation directed the California Department of Forestry and Fire (CalFire), the Natural Resources Agency, the Department of Transportation, and the CEC to identify the state's HHZ as a high priority for tree removal to prevent wildfire and falling trees. The proclamation also directed the CPUC to use its authority to extend contracts for bioenergy facilities receiving feedstock from HHZs.

*BioRAM 1 Contracts.* On March 17, 2016, the CPUC issued Resolution E-4770 requiring each of the electric investor-owned utilities (IOUs) to enter into contracts to purchase their share of at least 50 MW of collective generating capacity from biomass generation facilities that use progressively higher annual minimum prescribed levels of HHZ material as feedstock. Specifically, the biomass facilities were required to use a minimum of 40 percent feedstock from the HHZ in 2016 and grow to 80 percent in 2018 and all subsequent years. The electric IOUs were required to provide five-year contracts to facilities, with the right to extend the

five-year contract term for one year at a time, up to a cumulative total of ten years so long as HHZ fuel is available at the minimum fuel requirement (80 percent). The CPUC utilized a renewable auction mechanism (RAM) as a streamlined procurement process.

*SB 859 (Committee on Budget, Chapter 368, Statutes of 2016).* SB 859 included a new requirement for electric IOUs and publicly owned utilities (POUs) to procure their respective share of 125 MW from existing biomass facilities using prescribed amounts of dead and dying trees located in HHZs as feedstock, with the IOU assigned portion at 96MW. Specifically, the legislation requires that at least 80 percent of the feedstock of an eligible biomass facility, on an annual basis, must be a byproduct of sustainable forestry management. SB 859 requires that at least 60 percent of the feedstock must come from HHZs. SB 859 requires that the procurement costs would be recovered from all customers on a non-bypassable basis.

*CPUC Resolution E-4805.* In October 2016, the CPUC issued Resolution E-4805 to implement the electric IOU procurement requirements of SB 859. Resolution E-4805 provided that the IOUs could meet their proportionate shares of the 125 MW goal using any combination of: (a) the BioRAM ordered by Resolution E-4770; (b) a subsequent RAM (BioRAM 2) authorized in the Resolution; and (c) bilateral procurement. However, in order to allow procurement under option (b), Resolution E-4805 required the IOUs to create an updated BioRAM 2 standard contract rider. Specifically, BioRAM2 contracts must contain the feedstock requirements established in SB 859, specify that the contract length is five years, requires that the contracted facility is an existing bioenergy project that commenced operation prior to June 1, 2013, and update administrative details such as dates, deadlines, and process requirements.

*SB 901 (Dodd, Chapter 626, Statutes of 2018).* After a year of catastrophic fires affected the state, including the North Bay Fires, Thomas Fire, and the Carr Fire, the Legislature passed and the governor signed SB 901. This bill requires a number of actions to reduce and prevent the risk of wildfires and to address issues associated with electric IOU cost recovery of wildfire damages. SB 901 also included specific provisions related to biomass facilities, including provisions to loosen the requirements on the facilities, such as: revising the HHZ fuel definitions, require BioRAM contracts to include a monthly compliance option with updated reporting and payment. SB 901 also prohibits biomass facilities for the BioRAM to operate in areas of the state with severe or extreme federal air quality designations, and revise default terms.

*CPUC Resolution E-4977.* In its efforts to implement the changes noted in SB 901, the CPUC adopted resolution E-4977 in January 2019. The resolution notes, collectively, the BioRAM program requires the IOUs to procure 146 MW of qualifying biomass electricity and that 153 MW is currently under contract – 119 MW under BioRAM 1 contracts and 34 MW under BioRAM2.

*Governor Newsom proposes \$10 million for Biomass Transportation Subsidy.* Transporting fuel and feedstocks to biomass electric generating facilities is one of the main cost drivers that contributes to biomass much higher costs as compared to other generating resources. To help address transportation fuel costs, the Governor's proposed budget includes \$10 million for a Biomass Transportation Subsidy targeted at post-fire cleanup and new processing capacity. The budget proposal stipulates \$10 million divided over next two budget years.

## **Comments**

*SB 1109.* This bill makes numerous changes to the BioRAM program to expand, extend, and increase the procurement requirements on electric utilities for biomass energy. This bill increases the procurement capacity to 225 MW – an additional 100 MW – and revises the financial commitments from five years to up to 15 years. This bill would allow for a new compensation calculation based on the annual proportionate percentage of feedstock from HHZs, instead of a monthly requirement, and provides for the indexing of contracts to inflation. This bill limits the electric IOUs ability to terminate the contract when mandated fuel and feedstock levels are missed. This bill would require existing contracts to be extended for an additional five years. Lastly, SB 1109 requires the best available retrofit control technology at the time of procurement in order to limit criteria air pollution.

*Wildfire prevention or biomass industry support?* As California faces continued threats of wildfires, there continues to be an interest to address the health of the forest. The state has invested in wildfire prevention, mitigation, and also forest health projects to help reduce wildfire risks. Nonetheless, the challenge is daunting and forest waste continues to be a concern that could fuel future catastrophic wildfires. While the state explores opportunities to utilize forest waste in other applications and enterprises, there continues to be demands by some to support procurement requirements on electric utilities for electricity from biomass facilities. However, as drafted this bill's provisions would dilute the focus on forest waste from the HHZs, particularly as it relates to the changes to the compensation structure which would be adjusted to annual targets, as opposed to monthly targets. Such flexibility would like yield less feedstock from HHZs. These changes may not be aligned with the intended efforts to require procurement

of biomass energy in order to alleviate concerns about wildfires. On the other hand, proposals to directly reduce costs, such as those related to transporting the feedstocks to the facilities, could support state efforts to address wildfire concerns.

*Need for energy resources.* In June 2021, the CPUC ordered procurement of 11,500 MW of incremental capacity to meet the mid-term reliability needs from 2023-2023 (D. 21-06-035), as well as 1,000 MW from electric IOUs for firm zero-carbon resources for which biomass would qualify. A December 2021 CPUC decision (D. 21-12-015) has allowed for re-contracting with facilities with expiring contracts to count towards the June procurement decision. The proponents of this bill argue that the changes to SB 1109 would ensure that biomass facilities with the expanded BioRAM program would help electric IOUs meet their requirements for these decisions. However, currently, electric IOUs can procure from biomass facilities without the proposed changes in this bill. Admittedly, the facilities would need to compete with other resources on attributes and price given that biomass is not the only resource that can satisfy the requirements.

*Impacts to ratepayers.* Proponents of this bill argue that any impacts to ratepayers will be *de minimus*. Electric generation costs are passed through directly to electric ratepayers through rates and charges on utility bills. Ideally, electric utilities would select from the various resources that meet the necessary attributes needed to serve their portfolio at the best price for electric ratepayers. The sponsors argue that the additional 100 MW of biomass would assume an above market cost for the biomass of five cents per kWh, the total above market cost added is \$3.9 million, averaging to about 10 cents annually to electric ratepayers. However, in opposition to this bill, POU report that the BioRAM procurement requirements have resulted in some cases procuring resources strictly for the capacity, because the electricity could not get to the procuring electric POUs given the interconnections are out of state and wheeling charges to transmit these resources to their utilities are not cost-effective. As a result, electric ratepayers under these contracts are strictly paying for the capacity on the system to satisfy BioRAM requirements without a direct benefit to serving their load. In another case, the biomass contract was a price 20-30 percent more than other renewable baseload energy contracts for geothermal and landfill gas. They argue that the additional costs are unfair and burdensome to their customers at a time when they are experiencing cumulative effects of increasing electricity costs.

*Air pollution concerns.* The proponents of this bill includes requirements at the time of procurement for the best available retrofit control technology. However, the environmental and environmental justice organizations opposed to this bill take issue with pollution from biomass facilities. They argue that the current fuel and feedstock requirements are already too expansive and allow for commercial

logging waste. They express concerns that biomass operations increase air pollution in local and nearby communities.

*CPUC identifies barriers to HHZ fuel.* In the most recent CPUC RPS report (November 2021), the CPUC notes:

CPUC staff analysis found that there is no shortage of biomass in the forest, but there are barriers to accessing it. Barriers include insufficient supply chain capacity, long hauling distances and high transportation costs, and the need for existing facility retrofits. Overcoming these barriers would require further, possibly substantial, investment and subsidies.

In this regard, an approach that utilizes General Fund revenues to help offset these costs may be a better option to supporting biomass operations for to reduce feedstocks in HHZs.

*Amendments.* In order to maintain the focus of the current BioRAM program on wildfire prevention and to balance the impacts to electric ratepayers, the author and committee may wish to require extension of BioRAM contracts as proposed by this bill. However, to balance costs to electric ratepayers, *the author and committee may wish to delete the provisions of this bill related to expanding the capacity requirements and changes to the compensation calculations.*

### **Prior/Related Legislation**

SB 515 (Caballero, 2019) would have expanded the fuels and feedstocks that are eligible to satisfy requirements related to specified contracts for mandated electricity generation from biomass facilities. The bill was further amended to require a report on available fuel feedstocks. The bill died in the Assembly Committee on Appropriations.

SB 901 (Dodd, Chapter 626, Statutes of 2018) addressed numerous issues concerning wildfire prevention, response and recovery, including provisions related to biomass operations and electricity procurement.

SB 859 (Committee on Budget, Chapter 368, Statutes of 2016) required retail sellers of electricity to purchase a total of 125 MW of power from biomass facilities that generate electricity from forest materials removed from specific high fire hazard zones, as designated by CalFire in the Governor's Proclamation of a State of Emergency issued October 30, 2015.

**FISCAL EFFECT:** Appropriation: No Fiscal Com.: Yes Local: Yes

**SUPPORT:**

California Biomass Energy Alliance, Co-sponsor  
California Forestry Association, Co-sponsor  
Supervisor Rex Bohn, County of Humboldt-District 1  
Agricultural Energy Consumers Association  
Allweather Wood  
American Pistachio Growers  
Associated California Loggers  
Becerra Ag  
Burney Forest Products  
California Apple Commission  
California Blueberry Association  
California Blueberry Commission  
California Compost Coalition  
California Cotton Ginners & Growers Assn.  
California Farm Bureau  
California Fresh Fruit Assn.  
California Licensed Foresters Assn.  
California Rice Commission  
California Walnut Commission  
Chavarin Trucking  
Collins Pine Company  
Far West Equipment Dealers Assn.  
Forest Landowners of California  
Greenleaf Power  
Grower-Shipper Assn. of Central CA  
Humboldt Redwood Company  
Humboldt Sawmill Company  
IHI Power Services Corp.  
IHI Power Services Corp, Rio Bravo Fresno  
IHI Power Services Corp, Rio Bravo Rocklin  
Independent Energy Producers Association  
K. Z. B. Ag  
Mahill Agg  
Mendocino Forest Products  
Mendocino Redwood Company  
Olive Growers Council of California  
Pacific Ultrapower Chinese Station



Placer County Air Pollution Control District  
Rural County Representatives of California  
Sustainable Resource Management  
Terra Novus Ag  
Tuolumne County Board of Supervisors  
Utility Workers Union of America  
Wadham Energy LP  
Western Agricultural Processors Assn.  
Western Plant Health Assn.  
Zanker Recycling  
3 Individuals

**OPPOSITION:**

350 Silicon Valley  
Association of Irrigated Residents  
California Municipal Utilities Association  
Center for Biological Diversity  
Center for Food Safety  
Central Valley Air Quality Coalition  
Earthjustice  
Leadership Counsel for Justice & Accountability  
Pacifica Climate Committee  
Sacramento Municipal Utility District  
Sierra Club California  
Southern California Public Power Authority

**ARGUMENTS IN SUPPORT:** According to the author:

California has seen such significant devastation from wildfires in recent years that it has received global attention more than once. Part of the rapid spread of these fires has been due to the millions of tons of dry wood waste in forests that has yet to be cleared out. This material is marked as a high hazard, and California does have an existing mechanism in place to deal with this issue, in the form of biomass production. Renewable biomass energy facilities have the means with which to safely remove excess forest wood waste and turn it into energy, thereby reducing the carbon output from dead and dying trees. California has made biomass investments in the past, and SB 1109 seeks to expand upon the existing system, specifically the BioRAM program, by expanding and extending its limitations. SB 1109 proposes to continue existing biomass facility contracts for another 5 years and add another 100 megawatts to the utility requirement. This modest proposal would provide for the additional

beneficial reuse of almost 850,000 tons of stranded organic waste annually and ensure the state gets the added benefit of biomass power for a longer term.

**ARGUMENTS IN OPPOSITION:** In opposition to this bill, the CMUA, SCPPA, and SMUD oppose expanding and extending the BioRAM procurement requirements out of concerns for costs and limits their procurement flexibility. All three entities express concerns with the expense of the procurement requirements in this bill and the effects on their customers. SMUD notes that this bill's proposal would hinder their efforts to 2030 Zero Carbon Plan by limiting their flexibility to determine the best fit for their utility.

**-- END --**