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

**Senator Steven Bradford, Chair  
2023 - 2024 Regular**

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<b>Bill No:</b>	SB 1062	<b>Hearing Date:</b>	4/16/2024
<b>Author:</b>	Dahle		
<b>Version:</b>	4/3/2024 Amended		
<b>Urgency:</b>	No	<b>Fiscal:</b>	Yes
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**SUBJECT:** Energy: conversion of biomass energy generation facilities

**DIGEST:** This bill contains two related proposals: (1) requires the Department of Conservation (DOC) to develop the Biomass Technology Transition Program to support the conversion of energy generation facilities using biomass and traditional combustion technologies to newer advanced bioenergy technology facilities and proposes related requirements and additional future grant program; and (2) requires electrical corporations with 100,000 or more connections and local publicly owned electric utilities (POUs) with 100,000 or more connections to collectively procure, through financial commitments of 15 years, 125 megawatts (MW) of cumulative rated generation capacity from those facilities.

**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) Requires the CPUC to direct electrical corporations to collectively procure at least 250 MW of cumulative rated generation capacity from developers of bioenergy projects that commence operation on or after June 1, 2013, as provided. (Public Utilities Code §399.20)
- 3) Requires, under the California Renewable Portfolio Standard (RPS) Program, every electrical corporation to file with the CPUC a standard tariff for electricity generated by an electric generation facility, as defined, that qualifies for the tariff, is owned and operated by a retail customer of the electrical corporation, and is located within the service territory of, and developed to sell electricity to, the electrical corporation. The CPUC refers to this requirement as

the renewable feed-in tariff (FIT). Requires the CPUC to direct the electrical corporations, collectively, to procure at least 250 MW of cumulative rated generating capacity from developers of bioenergy projects that commence operation on or after June 1, 2013. Pursuant to this requirement, the CPUC has established and revised the Bioenergy Market Adjusting Tariff (BioMAT) program. (Public Utilities Code §399.20)

- 4) 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 local electric POU 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. Exempts local electric POUs from their proportionate share if on June 1, 2022 the facility operator was in bankruptcy or the contract does not deliver energy to the utility. (Public Utilities Code §399.20.3)
- 5) Requires an electrical corporation, local electric POU, or community choice aggregator (CCA) with a contract to procure electricity generated from biomass that is operative and 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 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) Requires the DOC, in consultation with the CPUC, California Air Resources Board (CARB), GO-Biz, I-Bank, and air pollution control/air quality management districts, to develop the Biomass Technology Transition Program to support the conversion of energy generation facilities using biomass and traditional combustion technologies to newer advanced bioenergy technology facilities that result in reductions in the emissions of criteria pollutants, toxic air contaminants, and greenhouse gases.
- 2) Requires DOC, in consultation with CARB, and GO-Biz, on or before December 1, 2025, to identify generation facilities with a generation capacity of 10 MW or greater that uses, or are in the process of recommissioning or the redevelopment of those facilities to use, any type of clean woody biomass and

the operators of those facilities have demonstrated to the department their sincere interest, to the satisfaction of the department, in converting the facilities to advanced bioenergy technologies that result in a reduction in emissions of criteria pollutants, toxic air contaminants, and greenhouse gases (GHG).

- 3) Requires a relevant local air pollution control district or air quality management district to provide information for each identified generation facility about best available control technologies, and other potential advanced emission control technologies, that would be required if the generation facility requests a permit, as provided.
- 4) Requires the DOC, on or before January 1, 2032, to establish a grant program to support the distribution of advanced bioenergy technologies from those identified generation facilities that meet certain requirements.
- 5) Requires electrical corporations with 100,000 or more connections and local electric POU's with 100,000 or more connections to collectively procure, through financial commitments of 15 years, 125 MW of cumulative rated generation capacity from those facilities identified by the DOC that receive applicable air permits from the relevant air district, develop business plans, and commit to the conversion of the generation facilities to advanced bioenergy technology facilities, as provided.
- 6) By imposing additional requirements on local electric POU's, this bill would impose a state-mandated local program.
- 7) Prohibits the financial commitments from extending beyond January 1, 2041, and authorizes a financial commitment to be terminated early if the facility has converted to an advanced bioenergy technology facility that does not produce electricity, as provided.

## **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 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. 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 high hazard zone (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 10 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 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 96 MW. Specifically, the legislation required 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 required that at least 60 percent of the feedstock must come from HHZs. SB 859 required 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, required 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).* SB 901 required 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.

*State Budget allocated \$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 state budget in 2022 allocated \$10 million for a Biomass Transportation Subsidy targeted at post-fire cleanup and new processing capacity.

SB 1109 (Caballero, Chapter 364, Statutes of 2022) extended requirements on electric IOUs and CCAs to procure energy from biomass generating electric facilities by five years and requires extension of existing contracts by five years.

*BioRAM Contracts.* Pursuant to the Governor's Emergency Order Addressing Tree Mortality, SB 859 and SB 901, the BioRAM program required the large IOUs to procure 146 MW of bioenergy from HHZs to aid in mitigating the threat of wildfires. Since 2016, the IOUs have executed contracts with seven biomass facilities to meet their BioRAM procurement requirements. There are six biomass facilities on contracts for a combined total capacity of 154 MW and an average contract price of 11.3 ¢/kWh, respectively, according to the CPUC's most recent Renewable Portfolio Standard report.

*Integrated Resources Plan (IRP) process.* SB 350 (De León, Chapter 547, Statutes of 2015) required each load-serving entity (LSE) to file a biennial IRP for approval or certification by the CPUC. The CPUC combines all LSEs' IRPs to ensure the state is on its path to meet its clean energy procurement goals. POUs are required to file their own IRPs with the CEC. The goal of the IRP is a two-year planning process to ensure that LSEs are meeting targets that allow the electricity sector to contribute to California's economy-wide GHG emissions reductions goals and that helps to reduce overall costs. The effort is intended to forecast needs on a 10-year horizon. As part of the IRP process, the CPUC has issued several procurement orders on LSEs to address near-term and mid-term procurement needs. Within the procurement orders, the CPUC has directed electric IOUs to serve central procurement entities for local RA and mid-term reliability to serve load to customers, including those of other LSEs. Last year, AB 1373 (Garcia, Chapter 367, Statutes of 2023) authorized the CPUC to request the Department of Water Resources to procure resources identified in the IRP that meet specific requirements, including that they are new long-lead time resources.

*Other incentive programs.* The CEC is currently administering a Clean Hydrogen Program incentive program, established by AB 209 (Committee on Budget, Chapter 251, Statutes of 2022) to demonstrate or scale-up hydrogen projects that produce, process, deliver, store, or use hydrogen derived from water using eligible renewable energy resources, or produced from these eligible renewable energy resources. While initially appropriated at \$100 million, the Governor's most recent budget proposal proposes to reduce the amount to \$65 million. The federal government is also providing significant incentives for hydrogen development. Specifically, the Infrastructure Investment and Jobs Act (IIJA), included \$8 billion to the Department of Energy (DOE) to establish hydrogen research and pilots across the country, known as the Regional Clean Hydrogen Hubs Program (H2Hubs). California has been awarded \$1.2 billion which is being managed by the Alliance for Renewable Clean Hydrogen Energy Systems (ARCHES). Under the Inflation Reduction Act the Treasury Department was tasked with developing a federal tax credit to incentivize the production of clean hydrogen, otherwise known as the 45V production tax credit (45V PTC). The tax credit is structured to provide up to a \$3 tax credit per kilogram of hydrogen produced, with higher credits granted to lower-carbon-intensive hydrogen.

## Comments

*Need for this bill.* The supports of this bill note that CARB Resolution 22-21 in December 2022 stated that non-combustion biomass energy production should be prioritized. They raise concerns that California is moving away from combustion technologies which leaves biomass facilities still using traditional technology

unable to continue operations. Many facilities are idled or in need of new contracts to continue utilizing woody biomass to create electricity but they are left struggling to meet air quality standards or acquire new technologies. The supporters further state that California's forests are tinder boxes that, if left untreated, exacerbate the catastrophic wildfires that have happened throughout the state. Clearing the excess woody biomass that builds up in the forests is one way to reduce the risk of wildfires while also contributing much needed power to the grid. California needs to ensure that it is utilizing all of the woody biomass that it can to protect our forests and our grid. In this regard, the proposed technology transition grant program could help these idled plants resume activity.

*Costs to ratepayers.* Energy procurement is general administered via the Integrated Resources Plan. In general, biomass procurement costs are recovered from electric ratepayers via charges on their utility bills. According to the CPUC's 2021 *Padilla Report, Costs and Cost Savings for the RPS Program*, the average price of contracts executed in 2019 that were greater than three MW was 2.8 ¢/kWh compared to 3.5 ¢/kWh in 2020, compared to average contract price of existing BioRAM contracts of about 12.0 ¢/kWh. In the CPUC RPS November 2021 report, the CPUC notes a number of challenges with accessing fuel for biomass facilities, including insufficient supply chain capacity, long hauling distances, and high transportation costs, as well as, the need for retrofits of existing facilities. The analysis notes: "Overcoming these barriers would require further, possibly substantial, investment and subsidies."

The Southern California Public Power Authority (SCPPA) reports that the BioRAM procurement requirements resulted in procuring resources strictly for the capacity, because the electricity could not be delivered to the procuring electric POU's given the interconnections are out of state and wheeling charges to transmit these resources to their utility service territories are not cost-effective. As a result, electric ratepayers of Southern California POU who entered into these contracts were strictly paying for the capacity on the system to satisfy BioRAM requirements without a direct benefit to serving their load. POU's have argued that the biomass contract was priced 20-30 percent more than other renewable baseload energy contracts for geothermal and landfill gas. Moreover, SCPPA notes on another contract for biomass energy the facility provider went bankrupt.

*Need for amendments.* In order to minimize impacts on electric ratepayers, the committee may wish to delete the provisions of this bill that require an additional biomass procurement requirement. *The author and committee may wish to amend this bill to delete Section 2 of the bill which would require the biomass generation procurement mandate and the reference to this procurement in Section 1 (including in Public Resources Code §25993.13(b) as proposed in this bill).* *The*

*author and committee may also wish to amend the bill to transfer the administration of the incentive program to the California Energy Commission where such programs may be better housed and to clarify that the program is to support conversion of “biomass” generation facilities.*

*Dual Referral.* Should this bill be approved by this committee, it will be re-referred to the Senate Committee on Environmental Quality.

### **Prior/Related Legislation**

AB 843 (Aguiar-Curry, Chapter 234, Statutes of 2022) authorized CCAs to submit eligible bioenergy-projects for cost recovery from electric utility ratepayers, pursuant to the BioMAT program, if open capacity exists within the 250 MW program limit, as specified.

SB 1109 (Caballero, Chapter 364, Statutes of 2022) extended requirements on electric IOUs and CCAs to procure energy from biomass generating electric facilities by five years and required extension of existing contracts by five years.

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 840 (Committee on Budget and Fiscal Review, Chapter 341, Statutes of 2016) expedited transmission interconnections for specified bioenergy or biomass projects in order to give them first priority to commence operations over other renewable energy resources.

SB 859 (Senate Budget and Fiscal Review, 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:**

None received

**OPPOSITION:**

Southern California Public Power Authority

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

California has experienced some of the worst wildfires in state history in recent years. The millions of tons of dry wood waste that have been building up in our forests is one of the many reasons why recent fires have gotten out of control. I have supported the recent efforts to expand the use of biomass energy so we can ensure this harmful waste is removed and wildfire risk is reduced. However, there is more to be done. Biomass facilities across the state are struggling to keep up with emissions regulations and many simply cannot get the contracts needed to continue operations. This bill will help biomass facilities acquire new emissions reducing technology while also providing them with the financial security needed to allow them to continue clearing our forests of the excess woody debris.

**ARGUMENTS IN OPPOSITION:** In opposition to this bill, the Southern California Public Power Authority (SCPPA) states:

This bill would substantially expand the state's current bioenergy procurement mandate and force several utilities, including four of SCPPA's Members – Anaheim, Imperial Irrigation District, Los Angeles, and Riverside – to procure additional capacity from costly bioenergy projects that may provide minimal – if any – benefits to their electricity customers...As recent history has shown, the state's biomass procurement mandates have been costly with little or no benefits to POU customers. SB 1062 comes at a time when California electric utility customers have seen increases in rates that far exceed the national average.

-- END --