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**SENATE COMMITTEE ON ENERGY, UTILITIES AND  
COMMUNICATIONS**  
**Senator Ben Hueso, Chair**  
**2019 - 2020 Regular**

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**Bill No:** SB 515 **Hearing Date:** 4/2/2019  
**Author:** Caballero  
**Version:** 3/25/2019 As Amended  
**Urgency:** No **Fiscal:** Yes  
**Consultant:** Nidia Bautista

**SUBJECT:** California Renewables Portfolio Standard Program: bioenergy renewable feed-in tariff

**DIGEST:** This bill would expand the fuels and feedstocks that are eligible to satisfy requirements related to specified contracts for mandated electricity generation from biomass facilities.

**ANALYSIS:**

Existing law:

- 1) Establishes the California Public Utilities Commission (CPUC) has regulatory authority over public utilities, including gas corporations. (California Constitution, Article XII)
- 2) Authorizes the CPUC to fix the rates and charges for every public utility and requires that those rates and charges be just and reasonable. (Public Utilities Code §451)
- 3) 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)
- 4) Establishes a program that requires electrical corporations, by December 1, 2016, to collectively procure, through five-year financial commitments, their proportionate share of 125 megawatts (MW) of cumulative rated generating capacity from bioenergy projects commencing operation prior to June 1, 2013, and that each produces its generation using specified minimum percentages of certain types of forest feedstock. (Public Utilities Code §399.20.3)

- 5) Requires an electrical corporation, local publicly owned electric utility, or community choice aggregator with a contract to procure electricity generated from biomass pursuant to subdivision (b) of Section 399.20.3, CPUC Resolution E-4770 (March 17, 2016), or CPUC Resolution E-4805 (October 13, 2016) or with a contract 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 of subdivision (b) of Section 399.20.3. Prohibits this section from applying to facilities located in federal severe or extreme nonattainment areas for particulate matter or ozone. (Public Utilities Code §8388)

This bill:

- 1) Expands the fuels and feedstocks that are eligible to meet the requirements of at least 80 percent of the feedstock on an annual basis of mandated 125 MW of generating capacity from biomass generation facilities to include:
  - a) Biomass removed within the perimeter of a wildland fire occurring since January 1, 2012.
  - b) Biomass diverted from moderate, high, and very high fire threat zones designated on the most recent version of the Department of Forestry and Fire Protection's Fire Hazard Severity Zone Map.
  - c) Biomass diverted from a CPUC-approved Tier 2 and Tier 3 High Fire-Threat District.
  - d) Any other biomass sources may later be designated by the CPUC.
- 2) Makes a clarifying correction by replacing the word "wildlife" with "wildfire."

## **Background**

*Biomass.* In California, there are just over 20 operational biomass facilities for a total of about 540 MW of generating capacity. Biomass was just over two percent of the total system power used in the California. It is considered a renewable energy resource for the purposes of meeting the state's RPS requirements.

*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. On October 30, 2015, Governor Brown issued an Emergency Proclamation to protect

public safety and property from falling dead and dying trees and wildfire. The executive order directed the California Department of Forestry and Fire (CalFire), the Natural Resources Agency, the Department of Transportation, and the California Energy Commission (CEC) to identify the state's high-hazard zones (HHZ) as a high priority for tree removal to prevent wildfire and falling trees. The executive order also directed the CPUC to use its authority to extend contracts for bioenergy facilities receiving feedstock from high hazard zones.

*BioRAM 1 Contracts.* On March 17, 2016, the CPUC issued Resolution E-4770 requiring each of the 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 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 streamlined procurement process. These contracts are referred to as the BioRAM 1 contracts.

*SB 859 (Committee on Budget, Chapter 368, Statutes of 2016).* SB 859 includes a new requirement for IOUs and publicly owned utilities (POUs) to procure their respective shares of 125 MW from existing biomass facilities using prescribed amounts of dead and dying trees located in HHZs as feedstock. The IOU assigned portion is 96 MW. 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. This bill defines sustainable forestry management to include the removal of trees from HHZs and prohibited trees from lands that have been clear-cut. Further, 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 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, require 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 SB 901, which was signed into law by the governor on September 21, 2018. The bill requires a number of actions to reduce and prevent the risk of wildfires and to address issues associated with electrical corporation cost recovery of wildfire damages. Additionally, SB 901 included specific provisions to 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 and salvaged biomass.* In its efforts to implement the changes noted in SB 901, the CPUC adopted resolution E-4977 Resolution which was issued January 31, 2019. The resolution notes that 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. As part of the adoption of the resolution, the CPUC contemplated how to address salvaged biomass. The resolution noted the need to provide clear direction to IOUs and biomass facilities regarding the classification of salvaged biomass material due to wildfires, stating: “in post-wildfire situations where early recovery efforts may focus on salvage logging to restore impacted areas, BioRAM facilities may be an important utilization option for communities and local governments.” The CPUC recognized that program rules and reporting requirements should not be an impediment to BioRAM facilities. The CPUC authorized the IOUs to amend their contracts to allow a BioRAM facility to accept salvaged biomass from a burn area, if the IOUs find that doing so aligns with the fuel use terms of the contract. As such, the CPUC allowed for the use of salvaged biomass on a case-by-case basis, subject to CPUC review.

*Mapping the maps.* The state has initiated a few different maps to better account for the dangers of wildfire, however, each with a specified focus.

- *Tree Mortality Taskforce Mapping.* CalFire Tier 1 and Tier 2 HHZ are identified through the Tree Mortality Taskforce. CalFire utilizes the Fire and Resources Assessment Program (FRAP) map to identify and map areas of tree mortality that pose the greatest potential of harm to people and property. These areas, known as HHZs, are the areas prioritized for tree removal.

These zones are identified pursuant to the Governor's State of Emergency Executive Order in 2015. Tier 1 High Hazard Zones are areas where tree mortality, caused by drought, coincides with critical infrastructure, including but not limited to roads, utilities, and public schools. They represent a direct threat to public safety and identify areas to be prioritized for hazardous tree removal. Tier 2 High Hazard Zones are areas defined by: 1) watersheds that have significant tree mortality combined with community and natural resource assets; or 2) the perimeter of any wildland fire since 2012 (the beginning of the drought). Work at the Tier 2 level addresses the immediate threat of falling trees and fire risk, and supports broader forest health and landscape level fire planning issues. They represent areas to be prioritized for hazard mitigation as well as forest health restoration.

- *CalFire Hazard Severity Zone Map.* CalFire identifies moderate, high, and very high fire threat zones in order to classify lands in the state where a very high fire hazard is present so that public officials, especially local officials, are able to identify and adopt measures to mitigate against fire risk, pursuant to Government Code §§51175 and 51177. These maps have been used to inform mitigation and regulatory requirements in local responsibility areas and state responsibility areas.
- *CPUC High Fire-Threat District.* The CPUC's efforts to map high-fire threat stem from the catastrophic wildfires caused by utility infrastructure in San Diego County in the 2000s. The CPUC mapping efforts combine the Tree Mortality Taskforce Map with CPUC/CalFire Tier 2 and Tier 3 designations. Tier 2 fire-threat areas depict areas where there is an elevated risk (including likelihood and potential impacts on people and property) from utility associated wildfires. Tier 3 fire-threat areas depict areas where there is an extreme risk (including likelihood and potential impacts on people and property) from utility associated wildfires. (Note: Tier 2 and Tier 3 fire-threat areas on the CPUC Fire-Threat Map may overlap Tier 1 HHZs on the Tree Mortality HHZ Map.)

*HHZ Fuel Availability Study underway.* As noted in the CPUC's RPS Report (November 2018), in response to stakeholder concerns that BioRAM facilities may be unable to access enough HHZ fuel to achieve their requirements, the CPUC is working with key stakeholders to undertake a HHZ Fuel Availability Study. The CPUC is collaborating with CalFire, the CEC, Pacific, Gas & Electric (PG&E), California Biomass Energy Alliance, and the U.S. Forestry Service, through the Bioenergy sub-working group of the Governor's Forest Management Task Force, to manage the study's assessment of the availability and cost of using HHZ fuel for bioenergy. The HHZ fuel study is expected to be completed by the first half of

2019. The study is expected to inform stakeholders on the availability of HHZ biomass and appropriate strategies addressing bioenergy within the framework of the state's wildfire prevention goals.

*This bill.* SB 515 seeks to further expand and loosen the definition of eligible fuel and feedstock to satisfy the requirements for the mandated 125 MW procurement established by SB 859 to address the dead and dying tree crisis and increase the likelihood of continued contract extensions, as authorized by SB 901. Specifically, SB 501 would authorize biomass: removed from within the perimeter of a wildland fire occurring since January 1, 2012; diverted from moderate, high, and very high fire threat zones designated on the most recent version of the Department of Forestry and Fire Protection's Fire Hazard Severity Zone Map; diverted from a CPUC-approved Tier 2 and Tier 3 High Fire-Threat District; and any other biomass sources as may later be designated by the CPUC.

*Is a bill necessary?* With recent catastrophic wildfires, there has been much attention directed towards efforts to prevent and mitigate the risks of wildfires. As noted above, just six months ago, then-Governor Brown signed SB 901 which loosened the definitions of HHZ fuel and requirements for biomass facilities operating in the state to help further address the risk of wildfires. The proponents of this bill seek to further expand the definitions for what can be considered eligible HHZ fuel and feedstock to satisfy the existing procurement mandate requirements and to increase the likelihood of extending the current contracts for biomass electricity generation. However, as also noted above, the CPUC is in the midst of completing a study to assess the ability to access enough HHZ fuel to achieve the existing biomass procurement requirements. The study is expected to be available this quarter. As such, this bill may be premature and could benefit from the findings of that study. Further, in the recently adopted HHZ map, CalFire included the perimeter of a wildland fire occurring since January 1, 2012 (the start of the drought). Furthermore, the CPUC has already decided to allow salvage biomass from a fire, on a case-by-case basis, subject to further review. As such, a bill designating the land from a previous wildland fire is included as HHZ may not be necessary.

*Diluting the state's efforts to address the highest wildfire threats?* As noted above, the initial procurement mandates of biomass electricity generation capacity was as a strategy to reduce wildfire risks posed by dead and dying trees. Continued efforts to expand the definitions of eligible fuel and feedstock, as this bill proposes, may result in a dilution of the state's efforts to mitigate the greatest wildfire threat that could benefit the most from biomass operations. The use of the multiple maps, each with different intended actions, and the inclusion of even a "moderate" threat when high and very high threats are not fully addressed raises concerns that this bill may be

less focused on addressing wildfire threats and more about propping up biomass electricity generation. *At a minimum, the author and committee may wish to consider removing the moderate designations and to direct the CPUC to consider whether to include any of the other designations as part of the fuel study, instead of the requirements proposed in this bill.*

*Impacts to ratepayers.* Electricity generated from biomass facilities is considered to be more expensive than generation from other renewables, particularly, solar and wind. According to the CPUC's 2018 RPS Report on Costs and Costs Savings, average contract prices for the six mandated biomass contracts (BioRAM contracts) were more than \$115/MWh, whereas wind and solar contracts were priced at less than \$50/MWh. The BioRAM program requires IOUs to procure 146 MW of bioenergy from forest fuel in HHZs from dead and dying trees to aid in mitigating the threat of wildfires. Combined, the state's three largest IOUs have procured 153 MW of the required biomass generating capacity. Although this bill does not alter the procurement mandate for electricity generation from biomass facilities, the proposed expanded definitions for qualifying fuel and feedstock can have an impact on ratepayers. On the one hand, expanding the definition to allow for the use of more readily available fuel that may require less fuel to acquire and transport can result in reduced costs of the required procurement. However, the expansion of eligible fuels and feedstock can also result in the extension of contracts that might otherwise expire or terminate, resulting in increased costs to ratepayers.

### **Prior/Related Legislation**

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: No

### **SUPPORT:**

California Forestry Association (Sponsor)  
Associated California Loggers  
California Biomass Energy Alliance  
California Chamber of Commerce

California Farm Bureau Federation  
California Licensed Foresters Association  
California State Association of Counties  
Forest Landowners of California  
Fruit Growers Supply  
League of California Cities  
Low Carbon Fuel and Energy Coalition  
Rural County Representatives of California  
Sierra Business Council  
Sierra Pacific Industries  
The Forest Products Industry National Labor Management Committee

**OPPOSITION:**

Sierra Club California

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

“Biomass keeps our forests healthy and puts byproducts like trimmings, sawmill residue, and agricultural residuals to good use. In addition to serving as a local energy source, biomass is responsible for sustaining over 1,000 California jobs, many in rural communities where unemployment is highest. However, since the 1990s, biomass facilities have dropped from 63 to just 23 in California. With the nearly 148 million dead and dying trees, it is imperative that the state takes a proactive approach to dealing with this extra fuel. By expanding the definition of high hazard materials, we can ensure that biomass facilities will be able to take in extra forest waste that would otherwise end up in an open-pile burn or left on the ground as fuel for the next wildfire.”

**ARGUMENTS IN OPPOSITION:** In opposition to this bill, Sierra Club California raises concerns about: 1) greenhouse gas, particulate matter, and smog-forming pollution from biomass facilities, 2) the costs of biomass compared to other cleaner energy sources, 3) the impacts of the bill’s language to catalyze salvage logging and potentially unnecessary logging operations. Sierra Club further raises concerns about the bill potentially overriding a recent CPUC decision to allow for the use of salvaged biomass on a case-by-case basis to ensure that salvaged biomass was indeed hazardous or sources from a Sustainable Forest Management activity.

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