

DOCKETED	
Docket Number:	19-SB-100
Project Title:	SB 100 Joint Agency Report: Charting a path to a 100% Clean Energy Future
TN #:	229895
Document Title:	Bioenergy Association of California Comments on SB 100 Report
Description:	N/A
Filer:	System
Organization:	Bioenergy Association of California/Julia A. Levin
Submitter Role:	Public
Submission Date:	10/1/2019 1:07:11 PM
Docketed Date:	10/1/2019

Comment Received From: Julia A. Levin
Submitted On: 10/1/2019
Docket Number: 19-SB-100

BAC Comments on SB 100 Report

Additional submitted attachment is included below.



October 1, 2019

The Honorable Drew Bohan, Executive Director
California Energy Commission
1415 Ninth Street
Sacramento, CA 95814

Re: SB 100 Report – Docket Number 19-SB-100

Dear Director Bohan:

The Bioenergy Association of California submits these preliminary comments on the SB 100 Report. BAC was a strong supporter of Senate Bill 100 (de León, 2018) and welcomes the opportunity to participate in this important proceeding. BAC's comments and recommendations, described more fully below, address critical issues in the SB 100 Report:

1. SB 100 includes both RPS eligible resources and zero-carbon resources and the two should not be confused or conflated.
2. The SB 100 Report should consider reduction of the most damaging climate pollutants and other co-benefits such as wildfire and landfill reduction, as well as energy reliability and affordability.
3. Bioenergy can play an important role in maintaining reliability, which is one of the goals of the SB 100 Report.
4. The SB 100 Report should recommend specific policy changes to accelerate small-scale bioenergy development that reduces climate pollution and provides grid reliability services.

BAC represents more than 70 public agencies, private companies, local governments, utilities, environmental groups, and others working to convert organic waste to energy. BAC members are developing projects needed to meet the requirements of SB 1122 (Rubio, 2012), SB 1383 (Lara, 2016), SB 32 (Pavley, 2017), and SB 100. Bioenergy projects are especially important to reduce climate "super pollutants" also known as Short-Lived Climate Pollutants, particularly the methane from dairies, wastewater and organic waste that would otherwise be landfilled, as well as black carbon from wildfire and controlled burns.

BAC submits the comments below to ensure that the SB 100 Report meets the purposes intended by the Legislature.

1. SB 100 Includes Both RPS Eligible Resources and Zero-Carbon Resources, and Those Two Resource Types Should Not be Conflated.

As the agencies move forward on development of the SB 100 Report, it is very important to include both RPS eligible resources and zero carbon resources. The CEC's SB 100 webpage and some of the workshop materials refer only to "zero carbon power," which is too narrow to comply with SB 100. Several places on the CEC's website refer to SB 100's requirement for "zero carbon electricity," which is not what SB 100 requires. For example, the CEC's webpage states that SB 100 "requires the transition to a zero-carbon electric system." This is not an accurate statement about SB 100, which includes both RPS eligible resources (which may or may not be zero-carbon) and zero-carbon resources (which may or may not be RPS eligible).

SB 100 states that it is the policy of the state that:

"eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers."¹

The Legislature intended the 100 percent requirement to include both RPS eligible resources and zero-carbon resources, but not to combine those into a single category that requires power to be both RPS eligible and zero-carbon. In fact, SB 100 was amended to add the word "resources" after "eligible renewable energy" to ensure that all RPS eligible resources remain included. By using the word "resources" after each type of power, the Legislature made clear that it intended to continue including RPS eligible resources even if they are not zero-carbon. The term "zero-carbon resources" was added to include large hydropower, which is not RPS eligible. On the other hand, some RPS eligible power is not zero-carbon on a lifecycle basis. For example, several kinds of bioenergy can be carbon negative, such as bioenergy from dairy manure and organic waste that would otherwise have been landfilled. Some forms of bioenergy are much lower carbon than the alternative fate of the waste, like bioenergy from agricultural or forest waste that would otherwise have been burned, but may not be zero-carbon when looking at energy production alone.

The CEC and other agencies should be careful not to conflate RPS eligible power with zero-carbon power in the SB 100 Report, on the website, in presentations or other written materials about SB 100. The Legislature included both RPS eligible resources and zero-carbon resources in Public Utilities Code section 454.53(a) to ensure that bioenergy and other RPS eligible resources remain eligible in 2045 and beyond.

¹ Public Utilities Code section 454.53 (a), added by SB 100 (de León, 2018).

2. The SB 100 Report Should Consider Co-Benefits Such as Short-Lived Climate Pollutant Reductions, Wildfire Prevention, and Landfill Reduction.

The SB 100 Report must take into “full consideration the economic and environmental costs and benefits of renewable energy and zero-carbon resources.”² In the case of bioenergy generated from organic waste, it is very important that the SB 100 report consider the full range of co-benefits that bioenergy can provide, many of which are unique to bioenergy and critical to achieve the state’s climate and air quality policies.

At a minimum, the SB 100 Report should consider the following environmental benefits of bioenergy:

- Reduction in Short-Lived Climate Pollutants – methane emissions from dairy waste and diverted organic waste, and black carbon emissions from wildfires and controlled burns of forest and agricultural waste.
- Reduction in Air Pollution - from wildfires, controlled burns of forest and agricultural waste, flaring of biogas at landfills and wastewater treatment facilities, and from dairies. According to the Air Resources Board, bioenergy can cut particulate matter and methane 98 percent compared to wildfire or controlled burns and also cuts smog-forming pollutants.³
- Beneficial Co-Products of Bioenergy - biochar from gasification that can provide long-term carbon sequestration and compost from anaerobic digestion that can replace fossil fuel-based fertilizers.
- Reduction in Landfill Waste – bioenergy can reduce organic waste going to landfills to help meet the requirements of SB 1383.⁴

In considering the climate benefits of bioenergy, it is essential to consider the alternative fate of the organic waste or biogas – either landfilling, pile and decay, or burning. In all cases, bioenergy reduces climate emissions compared to the alternative fate, even if it is not always zero-carbon on the basis of the energy production alone. The CPUC has conducted an analysis of the climate emissions from bioenergy and found that it provides a net reduction in climate pollution compared to the alternative fate in every organic waste sector.

3. Bioenergy Can Play a Critical Role in Maintaining Grid Reliability.

In addition to the environmental benefits of bioenergy, it can also provide essential grid reliability services, which must be considered in the SB 100 Report. The grid benefits of bioenergy include:

² Public Utilities Code section 454.53(b)(2).

³ *California Forest Carbon Plan* at page 135.

⁴ Health and Safety Code section 39730.6.

- Flexible generation (dispatchable) and baseload power,
- Energy storage (in the form of biogas), and
- Renewable hydrogen for fuel cells.

Numerous studies have found that bioenergy will be critical to reach 100 percent renewable electricity because it can be stored and because it can fill in around intermittent renewables.⁵ Southern California Edison, in its white paper on how to achieve 100 percent renewable power, found that as California increases penetration of renewable power, “some amount of gas fired generation will be needed for service reliability.”⁶ SCE determined that over-generation of solar power mid-day and the need for a fast ramp-up later in the day will both get worse as California increases renewable power generation. Biogas can mitigate these challenges by providing storage and a fast ramp-up when intermittent renewables are not available or sufficient to meet demand. These are, as SCE stated in its white paper, critical grid reliability services that bioenergy can provide.

The CEC should, therefore consider the ability of bioenergy to provide flexible generation power, long-term (weeks or months) of energy storage, and renewable hydrogen for fuel cells, all of which will help to ensure grid reliability as the state moves to 100 percent RPS eligible and zero-carbon power.

4. Policy Changes Needed to Accelerate In-State Bioenergy Development.

California has adopted many policies to accelerate development of community scale bioenergy, but too many barriers remain. As the *Short-Lived Climate Pollutant Reduction Strategy* notes:

“Stubborn barriers remain, including connecting distributed electricity and biogas projects, which have slowed previous efforts to reduce emissions of SLCPs and capture a wide array of benefits. These barriers are not insurmountable, and now is the time to solve them. State agencies, utilities, and other stakeholders need to work immediately to identify and resolve remaining obstacles to connecting distributed electricity with the grid and injecting renewable natural gas into the pipeline, as called for in SB 1383.”⁷

⁵ See, eg, Clack, Christopher T.M. et al, *Evaluation Of A Proposal For Reliable Low-Cost Grid Power With 100% Wind, Water, And Solar*, June 26, 2016. Available at: www.pnas.org/cgi/doi/10.1073/pnas.1610381114. See, also, https://static1.squarespace.com/static/58ec123cb3db2bd94e057628/t/5ced6fc515fcc0b190b60cd2/1559064542876/EFI_CA_Decarbonization_Full.pdf.

⁶ Southern California Edison, “*The Clean Power and Electrification Pathway*,” November 2017, at page 6. Available at: <https://www.edison.com/content/dam/eix/documents/our-perspective/g17-pathway-to-2030-white-paper.pdf>.

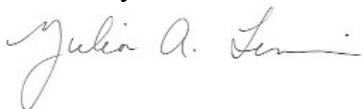
⁷ *Short-Lived Climate Pollutant Reduction Strategy*, at page 4.

BAC urges the CEC and CPUC to consider at least the following policy changes to remove barriers to community-scale bioenergy development to reduce Short-Lived Climate Pollutant emissions and provide the grid benefits described above:

- a. Increase the megawatts required by SB 1122 (the BioMAT program) to meet the requirements of SB 1383, the *California Forest Carbon Plan*, and other state policies.
- b. Provide interconnection incentives for small-scale bioenergy projects similar to the incentive program for interconnection of pipeline biogas projects.
- c. Require accelerated interconnection of small-scale bioenergy projects and authorize use of approved third-party providers where utilities cannot guarantee meeting interconnection timelines.
- d. Correct the definition of “biogas” for pipeline injection purposes (H&S Code section 25420) so that it includes RPS eligible biogas from gasification of organic waste, provide that biogas otherwise meets all applicable pipeline requirements.
- e. Adopt a streamlined and consolidated permitting process for small-scale bioenergy projects.
- f. Allocate 20 percent of EPIC funding to new bioenergy projects that reduce SLCP emissions (the CPUC’s original EPIC decision creating the program did this for the first three years of EPIC and should do so again).
- g. Require that a portion of the gas and electric utilities’ cap and trade allowance revenues be allocated to new bioenergy projects that reduce SLCP emissions and provide grid benefits.

Thank you for your consideration of these comments and recommendations. We look forward to working with the CEC, CPUC, and other agencies in the development of the SB 100 Report.

Sincerely,



Julia A. Levin
Executive Director