

DOCKETED

Docket Number:	21-SIT-01
Project Title:	21-SIT-01, SB100 Implementation Planning for SB100 Resource Build
TN #:	238437
Document Title:	BAC, Placer Air District, CBEA, TSS, SJ Renewables Comments - Joint Comments on SB 100 Presentation
Description:	N/A
Filer:	System
Organization:	BAC, Placer Air District, CBEA, TSS, SJ Renewables
Submitter Role:	Public
Submission Date:	6/22/2021 4:18:57 PM
Docketed Date:	6/22/2021

*Comment Received From: BAC, Placer Air District, CBEA, TSS, SJ Renewables
Submitted On: 6/22/2021
Docket Number: 21-SIT-01*

Joint Comments on SB 100 Presentation (June 2, 2021)

Additional submitted attachment is included below.



June 22, 2021

The Honorable David Hochschild, Chair
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

**Re: Comments on the SB 100 Presentations (June 2, 2021) –
Docket Number 21-SIT-01**

Dear Chair Hochschild:

The undersigned agencies, companies, and associations submit these comments on the CEC Staff Presentation on SB 100, presented June 2, 2021. We strongly support the goals of SB 100 and are working actively to support the state's renewable energy goals. We are extremely concerned, however, about the CEC's projections of zero growth in biomass and hydrogen, and zero mention of biogas at all. These projections contradict statutory requirements for bioenergy, regulations to implement the state's Short-Lived Climate Pollutant Reduction law, numerous Emergency and Executive Orders on wildfire, and several recent CPUC Decisions and proposals.

The Bioenergy Association of California (BAC) represents more than 80 public agencies and private companies that are working to convert organic waste to energy to meet the state's climate change, clean energy, air quality, wildfire reduction, and waste reduction goals. BAC's public sector members include cities and counties in California, air quality and environmental agencies, waste and wastewater agencies and associations, public utilities, community and environmental groups. BAC's private sector members include energy and technology companies, utilities, waste haulers, agricultural and food processing companies, investors, and others.

Our main concerns and recommendations about the CEC's SB 100 Presentation are described below.

1. Projection of Zero Growth in Biomass Energy Contradicts State Laws and Regulations.

The CEC's projection that California will experience no growth in biomass energy contradicts many statutory requirements, regulations and policies in California, including:

- Every one of California's climate plans calls for significant increases in bioenergy, including the *Climate Change Scoping Plan*, *Short-Lived Climate Pollutant Reduction Strategy*, *Natural and Working Lands Plan*, and the *California Forest Carbon Plan*.
- SB 1122 (Rubio, 2012) requires 250 MW of new, small-scale bioenergy generation.
- The Governor's Emergency Order on Tree Mortality, which calls for accelerated development of Forest BioMAT projects.
- CalRecycle's regulations to implement the waste diversion requirements of SB 1383 allow only two alternatives for diverted biomass waste – conversion to electricity and mulch.
- The *California Forest Carbon Plan*, adopted by CalEPA and CNRA, calls for increased forest biomass to energy to reduce open burning of forest waste.
- The *Forest Biomass Utilization Plan*, adopted by the Board of Forestry in November 2020, calls for many measures to increase forest biomass utilization.
- The Air Board's plan to phase out the open burning of agricultural waste (adopted in February 2021) calls for increased bioenergy development as an alternative

In addition to the many climate, air quality, and public safety policies calling for increased biomass energy, California also needs biomass energy for reliability purposes. The CPUC has recognized that recently in several different proceedings, including:

- Proposing 1,000 MW of bioenergy or geothermal in the Integrated Resources Planning proceeding.¹
- Allowing hydrogen from biomass in the Self-Generation Incentive Program.
- Proposing a biomethane procurement program for the gas utilities that will include biomethane from biomass pursuant to SB 1440 (Hueso, 2018) and AB 3163 (Salas, 2020).

In the Integrated Resources Planning proceeding, the CPUC underscored the need for resource diversity to maintain reliability and to spur development of additional firm, renewable power. As the CPUC notes, "Procurement of diverse resources is an important skill and obligation for all LSEs if we are going to achieve our reliability and

¹ Proposed Decisions in R.20-05-003, issued June 2021.

environmental goals.”² Biomass, biogas, and geothermal are the only sources of renewable, firm generation and California is going to need them all to maintain reliability in the electricity sector.

For all these reasons, we urge the CEC to coordinate with the Air Board (agricultural waste), CalRecycle (biomass landfill waste), the Board of Forestry (forest waste) and the CPUC (reliability and RPS portfolio diversity) to determine what are the appropriate projections for biomass energy in California. Projecting zero biomass growth contradicts the many state laws and regulations that these agencies must implement.

2. Omission of Renewable Gas Ignores State laws and Regulations.

The CEC’s omission of renewable gas (biogas and RNG) from the SB 100 presentations also contradicts many state laws and policies. California has enacted numerous laws in the past decade that call for increased production and use of renewable gas, including biogas and biomethane. Those laws include:

- AB 1900 (Gatto, 2012) requires that “the commission shall adopt policies and programs that promote the in-state production and distribution of biomethane. The policies and programs shall facilitate the development of a variety of sources of in-state biomethane.”³
- SB 1122 (Rubio, 2012) requires the commission to “encourage gas and electrical corporations to develop and offer programs and services to facilitate development of in-state biogas for a broad range of purposes.”⁴
- AB 2313 (Williams, 2016) requires the commission to consider options to increase instate biomethane production and use.⁵
- SB 840 (Budget, 2016) states that for “California to meet its goals for reducing emissions of greenhouse gases and short-lived climate pollutants, the state must . . . increase the production and distribution of renewable and low-carbon gas supplies.”⁶
- SB 1383 (Lara, 2016) requires state agencies to “consider and, as appropriate, adopt policies and incentives to significantly increase the sustainable production and use of renewable gas, including biomethane and biogas.”⁷

² Id. At pages 37-38.

³ AB 1900 (Gatto, 2012) adding Section 399.24(a) to the Public Utilities Code.

⁴ SB 1122 (Rubio), Statutes of 2012, Chapter 612, codified at Public Utilities Code § 399.20(f)(2)(D).

⁵ Public Utilities Code § 784.2.

⁶ Senate Bill 840 (Budget), Statutes of 2016, SEC. 10, §§ (b) – (i).

⁷ Health and Safety Code § 39730.8(c).

- SB 1383 also requires the Commission to “consider additional policies to support the development and use in the state of renewable gas, including biomethane and biogas, that reduce short-lived climate pollutants in the state.”⁸
- SB 1440 (Hueso, 2018) requires the California Public Utilities Commission to consider adopting a biomethane procurement program.⁹

In addition to these many laws calling for increased biogas production, CalRecycle’s regulations to implement the landfill diversion requirements of SB 1383 authorize electricity generation from biogas as one of very few alternatives to landfilling. In fact, the first few projects under the BioMAT program (SB 1122) are converting diverted organic waste to electricity for the City of San Jose and San Luis Obispo County. The State Water Resources Control Board has also issued a report on the capacity of wastewater treatment facilities to co-digest food waste and produce biogas that can be used for electricity generation. And the state has adopted a plan to capture and use landfill gas, which could also lead to increased biomethane production.

Capturing and using methane from dairies is also essential to meet the state’s methane reduction goals. While many dairy digesters are producing biomethane for the LCFS program, as California electrifies more transportation and buildings, it is likely that more dairy digesters will produce biomethane for electricity generation.

Biomethane from dairies and from diverted organic waste is the only RPS eligible resource that has been certified as carbon negative on a lifecycle basis.¹⁰ It can also be used to provide dispatchable and renewable power, replace diesel in backup generators -- which provides enormous benefits for air quality and the climate -- and it can be used to provide long-duration storage.

The omission of biogas also contradicts the SB 100 Presentation itself, which suggests that California may need to retain some gas capacity.¹¹ E3 itself has projected that California will continue to rely on gas to some extent and the utilities have also said they need some amount of gas for reliability purposes. To be consistent with SB 100, that gas should be biogas, biomethane, or hydrogen from RPS eligible feedstocks.

For these reasons, we urge the CEC to coordinate with other state agencies that are implementing SB 1383 and other laws that call for increased biogas production. Omitting biogas from the SB 100 projections ignores the requirements of many state laws and would make it much hard for California to meet the dairy methane and diverted organic waste requirements of SB 1383, as well as the specific requirement of SB 1383 to increase in-state renewable gas production.

⁸ Health and Safety Code § 39730.8(d).

⁹ Public Utilities Code § 651(a).

¹⁰ See, <https://ww2.arb.ca.gov/resources/documents/lcfs-pathway-certified-carbon-intensities>.

¹¹ SB 100 Presentation, June 2, 2021, at slide 21.

3. Other Comments on SB 100 Presentation

In addition to the recommendations above, BAC also offers the following comments on the CEC's presentation on SB 100:

a) Long duration storage

We support the state's goal to develop long duration storage. This will be critical for reliability as we continue to increase the proportion of intermittent renewables in the portfolio. It is important, however, to develop definitions of short-, medium-, and long-duration storage that fit the state's needs. In particular, "long-duration" storage should be defined to mean storage that can last multiple days and weeks. Large regions of California have already experienced multi-day grid outages, both planned and unplanned. Several areas of northern California had multi-day PSPS events in 2020 and those are likely to become more common with climate change. It is also entirely foreseeable that California will experience overlapping events that require multi-day and multi-week storage. For example, it is entirely predictable that California, or even the entire western United States, will experience severe heat, outages due to wildfires, reduced hydropower due to prolonged droughts, and reduced solar output due to widespread wildfire smoke.

Given the increasingly severe and widespread impacts of climate change, California must have long duration storage that can provide sufficient power when multiple grid impacts occur simultaneously and for multiple days or weeks at a time.

We urge the CEC to promote long duration storage that ensures reliability even during multiple, overlapping grid constraints and for multiple days and weeks.

b) Importance of Resource Diversity to Reduce Cost

We agree with the SB 100 Presentation finding that resource diversity can lower the cost of the RPS portfolio as a whole.¹² Several studies have reached the same conclusion since increased diversity also increases reliability and prevents reliance on resources that will only be used occasionally. If California over builds solar, wind or batteries, the marginal costs of the resources that are only used occasionally will be very high and will contribute disproportionately to the portfolio costs.

In addition to recognizing the value of resource diversity, though, the CEC's work on SB 100 should also propose specific policies and incentives to ensure diversity in the RPS portfolio. The CPUC's recent Proposed Decisions in the Integrated Resources Planning proceeding are excellent examples of this. In order to ensure reliability mid-decade, after the closure of Diablo Canyon and multiple Once-Through Cooling facilities, the CPUC is calling for 1,000 megawatts of new generation from firm, renewable resources

¹² CEC Staff Presentation on SB 100, June 2, 2021, slide 21.

– namely, bioenergy and geothermal. The CEC should propose additional policy areas to ensure diversity in the renewable portfolio.

c) Reliability Issues

We agree with the SB 100 Presentation that additional study and planning for reliability is critical.¹³ Resource Diversity and long duration storage will be essential to maintain reliability, as will the expansion of firm, renewable power (both baseload and dispatchable). BAC urges the CEC to work with the CPUC and CAISO to develop the diversity goals and the measures needed to ensure that California meets those goals. As the CPUC noted in its IRP Decisions, California's clean energy leadership is only helpful if it is successful and success absolutely depends on reliability.

Reliability planning must also consider the rapid and unprecedented changes in the electricity sector – to meet the goals of SB 100 while rapidly electrifying more and more end uses – while California is also experiencing rapidly increasing impacts of climate change. In particular, the increasing frequency of wildfires – the threat of the fires to infrastructure, the impact of wildfire smoke on power output and demand, the need for PSPS events, etc. – the increasing frequency of droughts and the impact on hydropower supplies and pumped hydro, increasing heat waves and their impact on demand as well as solar output, and more.

d) Cost-Effectiveness of Carbon Reductions

We urge the CEC to include analysis of the cost-effectiveness of different renewable resources and portfolios to reduce carbon emissions. The most urgent reason to accelerate renewable power production is climate change and not all RPS eligible resources contribute equally to the state's climate goals. So, while some RPS resources may be less expensive on a megawatt-hour basis, they may not be as cost-effective for climate mitigation purposes. For example, both solar and wind power reduce CO₂ emissions from the fossil fuels that they displace, but they still have some emissions on a lifecycle basis, due to the raw materials and energy needed for their manufacture, shipping, and construction, as well as emissions from land use disturbance for utility scale solar and wind. Bioenergy, in contrast, can provide significant carbon negative emissions – two to six times the emissions reductions that solar and wind provide – because bioenergy not only displaces fossil fuel emissions, it also reduces carbon emissions from open burning, landfilling, or decay of organic waste.

The California Air Resources Board recently issued a report to the Legislature on the cost-effectiveness of the state's climate investments.¹⁴ There is an extremely wide range in cost-effectiveness, with some investments costing several thousand dollars per ton of carbon reduction while others cost just a few dollars per ton of carbon reduction.

¹³ Id.

¹⁴ California Air Resources Board, *California Climate Investments*, 2021 Report to the California Legislature, Table 2, pages 15-20.

The two most cost-effective of all the state's investments in carbon reductions are the investments in dairy digesters and bioenergy from organic waste that is diverted from landfills, which reduce carbon at a tiny cost of only \$9 and \$10 per ton, respectively.¹⁵ Investments in other forms of bioenergy are also among the most cost-effective of all climate investments.

We urge the CEC, therefore, to assess the cost-effectiveness of California's SB 100 portfolio, not just in terms of costs per megawatt hour but also in terms of the cost-effectiveness of carbon reductions, which is the reason California is moving to 100 percent zero-carbon power.

Thank you for your consideration of these comments.

Sincerely,

Christiana Darlington
Placer County Air Pollution Control District

Julia A. Levin
Bioenergy Association of California

Julee Malinowski-Ball
California Biomass Energy Alliance

Jerod Smeenk
San Joaquin Renewables

Matt Summers
West Biofuels

Fred Tornatore
TSS Consultants

¹⁵ Id.