



December 2, 2019

California Energy Commission
1516 Ninth Street
Sacramento, California 95814

RE: Comments of Center for Resource Solutions (CRS) on the SB 100 Technologies & Scenarios Workshop held on Monday, November 18, 2019 at the California Public Utilities Commission

Dear Recipient,

CRS appreciates the opportunity to comment on the November 18, 2019 SB 100 Technologies & Scenarios Workshop.

Background on CRS and Green-e®

CRS is a 501(c)(3) nonprofit organization that creates policy and market solutions to advance sustainable energy. CRS provides technical guidance to policymakers and regulators at different levels on matters related to renewable energy policy design, accounting, tracking and verification, market interactions, and consumer protection. CRS also administers the Green-e® programs. For over 20 years, Green-e® has been the leading independent certification for voluntary renewable electricity products in North America. In 2018, Green-e® certified retail sales of over 62 million MWh, serving over 1.2 million retail purchasers of Green-e® certified renewable energy, including 61,000 businesses.¹

Comments

Our comments are limited to the presentation by Mr. Ryan Schauland, California Air Resources Board, on "Options for Defining Eligible Electricity Resources under SB 100." Specifically, our comments address Mr. Schauland's question, "Is it advisable to consider alignment of accounting methodologies under SB 100," referring to the, "different accounting methodologies [that] exist for [Renewable Portfolio Standard] RPS Program and the Mandatory Greenhouse Gas Reporting Regulation [MRR]."

The question is answered in the following language in SB 100:

Section 1(c): "It is the intent of the Legislature in enacting this act to extend and expand policies established pursuant to the California Renewables Portfolio Standard [RPS] Program (Article 16 (commencing with Section 399.11) of Chapter 2.3 of Part 1 of Division 1 of the Public Utilities Code),

¹ See the 2019 (2018 Data) Green-e Verification Report here for more information: <https://resource-solutions.org/q2019/>.

and to codify the policies established pursuant to Section 454.53 of the Public Utilities Code, and that both be incorporated in long-term planning.”

“454.53. (a) 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 and 100 percent of electricity procured to serve all state agencies by December 31, 2045. [emphasis added] [...]

(b) The commission, Energy Commission, state board, and all other state agencies shall ensure that actions taken in furtherance of subdivision (a) do all of the following: [...]

(4) Not affect in any manner the rules and requirements for the oversight of, and enforcement against, retail sellers and local publicly owned utilities pursuant to the California Renewables Portfolio Standard Program (Article 16 (commencing with Section 399.11) of Chapter 2.3) and Sections 454.51, 454.52, 9621, and 9622 [emphasis added].”

It is not advisable to consider alignment of accounting methodologies in the RPS Program and the MRR under SB 100. SB 100 is focused on retail sales and was specifically designed to extend and expand the RPS. This approach is the right one for the reasons outlined below.

1. The accounting methodologies used in the MRR and the RPS Program meet different but complementary policy objectives.

The MRR is not a methodology for calculating greenhouse gas (GHG) emissions from retail electricity sales. The focus of the MRR is: “direct, source-based emissions associated with electricity that is directly delivered.”² These source-based emissions associated with the generation of electricity that is located or meeting physical load in California may be different from the emissions associated with retail sales of electricity. While both numbers may be attributed to California, only the latter can be attributed to retail sales or customers in California, which should reflect exclusive ownership of tracked and verified generation attributes (i.e. renewable energy credits [RECs]³).

Differences between reported emissions by a load-serving entity (LSE) in each program may be due to in-state trading of renewables, banking, single-year reporting vs. multi-year compliance periods for the RPS, etc. There may also be differences between the total generated emissions for the power sector in the MRR and total retail emissions delivered for a number of reasons, including exports, which are not excluded from the MRR but cannot be reported as delivered to customers under the RPS. A consistent application of a requirement that these totals be equal puts California’s likely future situation of having large amounts of excess solar that it needs to export into sharp relief. Namely, all of the exported in-state zero-emissions generation would either need to be assigned emissions under the MRR or it could

² California Air Resources Board. *Staff Report: Final Statement of Reasons, Revisions to the Regulation for Mandatory Reporting of Greenhouse Gases*. October 28, 2011. Pg. 108.

³ See CAL. PUB. UTIL. CODE § 399.12(h)(1) and (2).

not be exported. Another reason is different market boundaries. The RPS Program acknowledges sourcing to meet retail sales from the broader Western Electricity Coordinating Council (WECC) region.

2. Retail sales cannot be source-based.

Compliance with SB 100 can only be verified contractually. Due to the nature of the shared electric grid, the fuel type and GHG emissions of power generation used to serve retail sales cannot be directly measured and can only be determined contractually. The REC is the contractual instrument used in the RPS Program to verify renewable sources of electricity as a percentage of retail sales and represents all environmental attributes of renewable generation (including fuel type and direct GHG emissions).⁴ While RPS compliance is not measured in tons of GHG emissions, the emissions of sources supplying retail sales must correspond to the fuel type. The RPS Program is also explicitly intended to reduce GHG emissions.⁵ It could not meet this objective if the emissions rate of renewable energy did not follow the fuel type and the REC because avoided grid emissions are calculated based on the emissions rate which could be used elsewhere or attributed to a different program, for example.

3. Retaining the accounting methodology used in the RPS Program will provide many benefits with respect to meeting the goals of SB 100.

Retaining the compliance structure of the RPS program, with regional and unbundled procurement options, makes the compliance market larger and brings costs down. These benefits have been well documented, particularly in California Public Utilities Commission (CPUC) Decisions 08-08-028, 10-03-021, and 11-01-025. One study indicates that these gains from trade amount to \$4.3 billion per year and correspond to a 13.4% reduction in annualized cost of generation operations and new investment in generation and transmission. The same study found that this procurement and trading flexibility does not necessarily result in either higher transmission investment costs or a substantial impact on CO₂ emissions.⁶

4. Harmonized policies need to provide multiple pathways to decarbonize the grid. Accurate accounting for each pathway is necessary to support this. The state's regulatory agencies can lead by being transparent about what goes into different emissions totals.

Ultimately, it is entirely appropriate and may in fact be helpful with respect to state and regional climate goals for the state to measure and set targets for different emissions totals under cap-and-

⁴ See CAL. PUB. UTIL. CODE § 399.11(a) and (e)(1); CAL. PUB. UTIL. CODE § 399.12(h)(1) and (2); and CPUC Decision 08-08-028, Sec. 4.1.2.3.2, pg. 17.

⁵ See CAL. PUB. UTIL. CODE § Sec. 399.11(b)(4).

⁶ A.P. Perez, E.E. Sauma, F.D. Munoz, and B.F. Hobbs, "The Economic Effects of Interregional Trading of Renewable Energy Certificates in the WECC," *The Energy Journal*, 37(4), 2016, 267-296. Executive Summary: <https://www.iaee.org/ej/ejexec/ExecSum14-177.pdf>.

trade and SB 100. Targets for each may leverage different pathways and the positions of different entities to decarbonize the grid.

The joint agencies can accept differences between these numbers and that they are not in conflict based on what is being measured for each program. They should help to interpret the differences for customers and lawmakers. A lower total for retail GHG emissions compared with the total for the electricity sector under the MRR, for example, may simply reflect that California customers are not necessarily purchasing all of the emissions associated with the power generating to meet load.

Please let me know if we can provide any further information or answer any other questions.

Sincerely,

_____/s/____

Todd Jones

Director, Policy