

UPDATED INFORMATIVE DIGEST

FUEL CELL NET ENERGY METERING GREENHOUSE GAS EMISSION STANDARDS REGULATION

Sections Affected:

Proposed adoption of California Code of Regulations, title 17, subchapter 10, article 4, subarticle 5.2, sections 95408, 95409, 95410, 95411, and 95412.

Documents Incorporated by Reference (Cal. Code Regs., tit. 1, § 20, subd. (c)(3)):

United States Environmental Protection Agency. Mandatory Reporting of Greenhouse Gases; Final Rule. Title 40 Code of Federal Regulations, Part 98, Subpart A, Table A-1. October 30, 2009. <https://www.govinfo.gov/content/pkg/FR-2009-10-30/pdf/E9-23315.pdf>, Section 95410(a)(4).

United States Environmental Protection Agency. Mandatory Reporting of Greenhouse Gases; Final Rule. Title 40 Code of Federal Regulations, Part 98, Subpart A, Table A-1. December 11, 2014. <https://www.govinfo.gov/content/pkg/FR-2014-12-11/pdf/2014-28444.pdf>, Section 95410(a)(4).

Background and Effect of the Proposed Regulatory Action:

California Air Resources Board (CARB or Board) staff is proposing the Fuel Cell Net Energy Metering Greenhouse Gas Emission Standards Regulation (Regulation), as required by Assembly Bill (AB) 1637 (Low, Chapter 658, Statutes of 2016). The Fuel Cell Net Energy Metering (Fuel Cell NEM) Program was established by the legislature in 2003 and has been extended and expanded over the years, most recently by AB 1637 in 2016. The Fuel Cell NEM Program provides eligible customer-generators with a bill credit for electricity generated and exported from a fuel cell system and avoids or limits the amount that fuel cell customer-generators ordinarily pay for various utility costs. The Program is overseen by the California Public Utilities Commission and implemented by three Investor-Owned Utilities: Pacific Gas and Electric, Southern California Edison, and San Diego Gas and Electric.

In addition to extending the Fuel Cell NEM Program, AB 1637 also added the requirement that CARB develop greenhouse gas (GHG) emission standards that fuel cell generation resources must meet in order to be eligible for the Program. By statute the GHG emission standards must reduce “greenhouse gas emissions compared to the electrical grid resources, including renewable resources, that the fuel cell electrical generation resource displaces, accounting for both procurement and operation of the electrical grid” (Public Utilities Code section 2827.10). CARB is to “establish a schedule of annual GHG reduction standards...” and “...update the schedule every three years with applicable standards for each intervening year.”

The Regulation establishes an annual schedule of annual GHG emission standards, to be updated every three years, in accordance with AB 1637 requirements. The Regulation specifies fuel cell NEM GHG emission standards for 2017 through 2022, and establishes a process by which the Executive Officer will update the emission standards every three years beginning in 2022.

Description of the Regulatory Action:

Overview

The initial proposal was described in the Notice of Public Hearing to Consider Proposed Fuel Cell Net Energy Metering Greenhouse Gas Emission Standards Regulation (45-Day Public Notice)¹ and the Staff Report: Initial Statement of Reasons for Proposed Rulemaking (Staff Report), titled “Public Hearing to Consider Proposed Fuel Cell Net Energy Metering Greenhouse Gas Emission Standards Regulation,”² both released on October 22, 2019. After the December 12, 2019 Board Hearing, CARB released the First Notice of Public Availability of Modified Text (15-day Public Notice) on February 10, 2020. Comments that were received during the formal 15-day comment period for the modified text, as well as further staff analysis, were reflected in the modifications made in the Second Notice of Public Availability of Modified Text (30-day Public Notice) that was released on April 27, 2020 for a 30-day public comment period. The changes to the initial proposal were necessary to respond to Board direction in the public hearing and in Resolution 19-36, to determine if additional conforming modifications to the Regulation were appropriate. If no additional modifications were appropriate, the Board directed the Executive Officer to take final action to adopt the Regulation.

Summary of 15-Day Modifications:

The following summary does not include all modifications to correct typographical or grammatical errors, changes in numbering or formatting, nor does it include all of the non-substantive revisions made to improve clarity.

Modifications to Section 95411. Greenhouse Gas Emission Standards.

The annual average GHG emission standards were revised to reflect a more aggressive annual percent reduction. This change was made by staff as directed by the Board at the December 12, 2019, Board Hearing. Staff originally proposed a 2.5 percent annual reduction of the standards to align with 2030 electricity-sector GHG emission targets set pursuant to Senate Bill (SB) 350 and taking into consideration the updated Renewables Portfolio Standard target set by SB 100.

¹ CARB. (2019). *Notice Of Public Hearing To Consider Proposed Fuel Cell Net Energy Metering Greenhouse Gas Emission Standards Regulation*. <https://ww3.arb.ca.gov/regact/2019/fcnem19/notice.pdf>

² CARB. (2019). *Staff Report: Initial Statement of Reasons - Public Hearing To Consider The Proposed Fuel Cell Net Energy Metering Greenhouse Gas Emission Standards Regulation*. <https://ww3.arb.ca.gov/regact/2019/fcnem19/isor.pdf>

Staff reevaluated the annual reduction of the standards and proposed that the reduction be based on the GHG emissions reduction goals of SB 32 (Pavley, Chapter 249, Statutes of 2016), which calls for statewide GHG emissions to be 40 percent below the State's 1990 GHG emission level by 2030. CARB staff calculated the new annual reduction percentage based on the equivalent of reducing the fuel cell NEM 2017 GHG emission standard (409 kg CO₂e/MWh) by 40 percent by 2030 (245 kg CO₂e/MWh). An annual reduction rate of 3.85 percent was needed to achieve this level of reductions, and this new percentage was used to calculate the GHG emission standards starting in the year 2018. Each year's emission standard was proposed to be rounded to the nearest whole number before the subsequent year's emission factor would be calculated. The 2018 to 2022 average annual GHG emission standard values have been modified to reflect these changes.

Modification to Section 95412. Greenhouse Gas Emission Standards Methodology.

In subsections 95412(a)(2), 95412(a)(3), and 95412(a)(4), the values in the "Adjustment to reduce annual GHG emission standard..." were changed from 0.975 (2.50 percent) to 0.9615 (3.85 percent). The change was made to ensure that the calculation method reflects the new reduction percentage, as explained above.

Staff also added text to specify the rounding method that will be used to determine the standards. Staff proposed to round the calculated annual GHG emission standards to the nearest whole number because additional precision is not necessary.

Summary of 30-Day Modifications:

The following summary does not include all modifications to correct typographical or grammatical errors, changes in numbering or formatting, nor does it include all of the non-substantive revisions made to improve clarity.

Modifications to Section 95411. Greenhouse Gas Emission Standards.

Based on comments received in response to the first 15-Day Public Notice, staff reevaluated the annual reduction of the standards and proposed that the 2017 to 2020 standards retain a 2.5 percent annual reduction, as proposed in the 45-Day Public Notice. For years 2021 and beyond, staff proposed that the reduction still be based on the GHG emissions reduction goals of SB 32. To achieve a 40 percent reduction by 2030 (245 kgCO₂e/MWh), an annual reduction of 13.4 kgCO₂e/MWh would be applied to the standard starting in 2021. CARB staff proposed an annual linear reduction in response to stakeholder concerns that larger reductions would be required in the early years under a percentage-based approach. A linear approach is also consistent with the 2017 to 2020 standards proposed in the 45-Day Public Notice because the annual reductions of 2.5 percent are linear when rounded to the nearest whole number.

Beginning with calendar year 2021, the standard moves from rounding to the nearest whole number to rounding to the tenths place (00.0) to accommodate the new annual reduction amount. The 2021 and 2022 average annual GHG emission standard values have been modified to reflect these changes.

Modification to Section 95412. Greenhouse Gas Emission Standards Methodology.

In subsections 95412(a)(2), 95412(a)(3), and 95412(a)(4), the values in the “adjustment to reduce annual GHG emission standard...” were changed to 13.4 kgCO₂e/MWh. The change was made to ensure that the calculation method reflects the new annual reduction, as explained above.

Staff also added text to specify the rounding method that would be used to determine the standards. Beginning with calendar year 2021, the standard moves from rounding to the nearest whole number to rounding to the tenths place (00.0) to accommodate the new annual reduction amount.

Additional Modifications:

After the close of the 30-day comment period and review of the public comments on the 30-Day Public Notice, the Executive Officer determined that no additional modifications should be made to the Regulation, with the exception of non-substantial changes, including punctuation and formatting corrections and corrections of typographical errors, which are fully described in the Final Statement of Reasons for the Rulemaking.

The Board’s Regulatory Action:

On October 22, 2019, CARB released the 45-Day Public Notice and Staff Report for public review. The Staff Report contains a description of the rationale for the proposed Regulation. On October 22, 2019, all references relied upon and identified in the Staff Report were made available to the public. CARB received written comments from 20 commenters during the 45-Day Public Notice comment period.

At its December 12, 2019, public hearing, the Board received oral testimony from 16 commenters. The Board considered the proposed Fuel Cell Regulation for adoption and approved Resolution 19-36.

The Board directed the Executive Officer to adopt the proposed Regulation after making any appropriate conforming modifications, as well as any additional supporting documents and information, available to the public for a period of at least 15 days, in accordance with Government Code section 11346.8. The Board further authorized the Executive Officer to consider such written comments as may be submitted during this period, make such modifications as may be appropriate in light of the comments received, and present the Regulation to the Board for further consideration if warranted.

For both the 15-Day Public Notice (released on February 10, 2020) and the 30-Day Public Notice (released on April 27, 2020), the text of the proposed regulatory and Staff Report modifications were posted on CARB's website at:

<https://ww2.arb.ca.gov/rulemaking/2019/fuelcellnem19>, accessible to all stakeholders and interested parties. The comment period for the 15-Day Public Notice started on February 10, 2020, and closed on February 25, 2020. The comment period for the 30-Day Public Notice started on April 27, 2020, and closed on May 27, 2020.

During the 15-Day Public Notice comment period, seven comment letters were submitted and during the 30-Day Public Notice comment period, one comment letter was submitted. Staff subsequently prepared written responses to the oral and written comments received during the 45-day, 15-day, and the 30-day comment periods, which are included in the Final Statement of Reasons. The Executive Officer adopted the Regulation after addressing all appropriate modifications.

Comparable Federal Regulations:

There are not any federal regulations comparable to the proposed Regulation.

An Evaluation of Inconsistency or Incompatibility with Existing State Regulations (Gov. Code, § 11346.5, subd. (a)(3)(D)):

During the process of developing the proposed regulatory action, CARB conducted a search of any similar regulations on this topic and concluded these regulations are neither inconsistent nor incompatible with existing state regulations.