Pacific Gas and Electric Company

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Dave Mehl
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California Air Resources Board
1001 "I" Street
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RE: PG&E Comments on ARB Draft Regulation Setting a GHG Standard for Fuel Cell Net Energy Metering Program Eligibility

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to provide feedback on the above-referenced draft regulation, which satisfies Public Utilities Code Section 2827.10(b), creating the obligation on the part of Air Resources Board (ARB) to regularly publish greenhouse gas (GHG) emissions standards for use under the California Public Utilities Commission (CPUC)'s net metering tariffs for fuel cells. As it exists today, PG&E's Net Energy Metering Fuel Cell (NEMFC) tariff requires fuel cells to meet the GHG emissions standards developed by the ARB, once those standards have been approved and implemented by the CPUC.

PG&E appreciates ARB staff's ongoing efforts to engage stakeholders, including through the February 13, 2018, workshop. PG&E recognizes that this topic is complex and disagreement over how to set NEMFC annual GHG standards will exist. PG&E notes that the standards in the latest draft are based on the CPUC-adopted 2017 Avoided Cost Calculator (ACC), as recommended by PG&E and many other stakeholders. The ACC will likely produce the most accurate publicly available estimate of annual average emissions on a per-megawatt-hour basis for electricity used in California. To ensure that a fuel cell reduces GHG emissions during its life (about 10 years), the emissions from the fuel cell must be less than the ARB emissions standard. PG&E agrees that the values provided in the ARB draft regulation are a good measure of average annual marginal emissions in California.

PG&E suggests the ARB include GHG emissions values for additional years in the regulation. Doing so would give the CPUC more flexibility to design a program that is less complex, easier for customers to understand, more economical for utilities to implement, and

provides more financial certainty for customers. For example, rather than measuring customer emissions annually, the CPUC could determine a 10-year value that could be verified at the time of installation. This provides certainty and simplicity for the customer. Such a program would deliver at least the same GHG emissions reductions while achieving more customer acceptance.

PG&E believes the ACC can provide a richer set of data to support CPUC tariff design (as seen in Table 1 of the Attachment) and is available to meet with staff to discuss in detail. We look forward to continuing to collaborate with all stakeholders in this process.

Please feel free to contact me if you have any questions or concerns.

Sincerely,

/s/

Jessica Melton

Representative, State Agency Relations
Pacific Gas and Electric

Attachment: Description of PG&E's Proposed Annual and Ten-Year Forward Average Marginal Emissions Rates

Explanation of Table 1: The table was developed using the same version of the ACC model used to develop the original Subarticle 5.2 GHG standards (see rows 58-61 on tab "Emissions").

Table 1

Annual and Ten-Year Forward Average Marginal Emissions Rates from ACC Model v1

10-year life average marginal emissions rate	290.71	276.55	268.83	261.49	254.59	249.56	245.27	241.89	240.48	235.94	232.16	229.14
Annual emissions rate (matches CPUC proposal	396.40	324.37	313.18	301.19	274.98	267.62	258.45	238.61	270.01	262.35	254.75	247.20
	Long-Run Marginal Emission Rate											
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027