



September 15, 2016

Richard Corey
Executive Officer
California Air Resources Board
1001 "I" Street
Sacramento, CA 95814

*RE: Bloom Energy Comments on the August 2, 2016 Amendments to the
Cap-and-Trade Regulation*

Dear Mr. Corey,

Bloom Energy¹ provides the following comments on the August 2, 2016 *Proposed Amendments to the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation*. As discussed below, Bloom Energy is concerned by the proposed removal of the exemption for fuel cell energy systems from the Cap-and-Trade program. The Cap-and-Trade Program is an important tool to help California achieve its ambitious environmental goals. The regulations should be thoughtfully promulgated and carefully crafted to encourage all avenues possible to achieve greenhouse gas (GHG) reductions while avoiding unintended consequences as the State achieves the important emissions reduction targets set forth in SB 32. As discussed below, the removal of fuel cell systems from the list of emissions sources without a compliance obligation will have the unintended consequence of discouraging this technology and the state will forego the net reduction in GHG emissions attributable to fuel cells.

1. Existing State Policy Recognizes the Environmental Benefits of Fuel Cells.

The use of clean, onsite distributed energy generation offers a path to move away from California's reliance on centralized power plants that produce harmful health and environmental impacts. Customers who use clean, onsite power are able to generate electricity—using fuel cells and other GHG reducing technologies—at the location where it will be immediately used helping to meet the State's environmental goals. ARB recognized the environmental and energy benefits of

¹ Bloom Energy develops on-site distributed generation using innovative fuel cell energy technology that utilizes natural gas or biogas. Our unique on-site power generation systems utilize an innovative new [fuel cell energy technology](#) with roots in NASA's Mars program. Derived from a common sand-like powder, and leveraging breakthrough advances in materials science, our technology is able to produce clean, reliable, affordable energy, practically anywhere, from a wide range of renewable energy sources or traditional fuels. Our Energy Servers® are among the most efficient energy generators on the planet; providing for significantly reduced electricity costs and dramatically reduced greenhouse gas emissions. By generating power on-site, where it is consumed, Bloom Energy offers increased electrical reliability and improved energy security, providing a clear path to energy independence.

natural gas fuel cells and elected to exempt these GHG emissions from a compliance obligation under the Cap-and-Trade Program.² At the same time, ARB acknowledged that natural gas suppliers would be assessed compliance obligations starting in 2015, and that the supplier would “pass GHG compliance costs to the end user of the fuel as an incentive to spur efficient technology investment such as that provided by fuel cells.”³ It is also important to note that natural gas fuel cells are paving the way for biogas fuel cells as fuel cell technology becomes more common place and the price of biogas decreases.

On any fuel source, whether biogas or natural gas, fuel cells reduce both GHG and criteria air pollutant emissions compared to generation from the current grid. Since the Cap-and-Trade Program began, the ARB has recognized these environmental benefits and the energy system benefits of fuel cell technologies and, accordingly, has not imposed a direct compliance obligation on fuel cell customers. Instead, fuel cell customers will see a GHG price signal and will be part of the Cap-and-Trade program through the inclusion of the natural gas sector in the Cap-and-Trade program. CPUC Decision 15-10-032 directs the natural gas utilities to pass through GHG costs to all customers in the transportation portion of natural gas rates. While the gas utilities have not yet included GHG costs in the natural gas transportation rates, GHG costs since 2015 are accruing in a memorandum account and will be passed on to natural gas fuel cell customers. Regardless of when the Commission lifts the suspension on GHG cost pass through, fuel cell customers will pay for all GHG costs incurred since 2015.

2. The ARB Should Not Remove Fuel Cells from the List of Emissions Without a Compliance Obligation.

Staff has proposed to reverse the treatment of fuel cells under the Cap-and-Trade in the recent proposed amendments before the Board by removing Section 95852.2(b)(2). The Staff’s rationale for the proposed deletion is that emissions from fuel cells are the same as other emissions and therefore fuel cell emissions should count toward compliance obligations in the regulation. However, emissions from natural gas fuel cells are already accounted for through Cap-and-Trade regulation of the natural gas sector and existing law already requires GHG costs to be passed through to natural gas customers. In addition, inclusion of natural gas fuel cells fails to account for the fact that fuel cells are typically much less GHG intensive and displace conventional generation that would otherwise be associated with supplying energy by the utility. By removing fuel cells from Section 95852.2, the ARB may discourage this emissions displacement.

² Letter from ARB to Bloom Energy dated May 23, 2013

³ Ibid.

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3. Natural Gas Fuel Cells Are Already Accounted For In the Cap-and-Trade Regulation.

Beginning in 2015, natural gas suppliers were phased in as covered entities and therefore have a compliance obligation under the Cap-and-Trade program. The level of obligation is determined by “every metric ton of CO₂e of GHG emissions that would result from full combustion or oxidation of all fuel delivered to end users in California.”⁴

Per the definitions in the Sections 95852(c) and 95811(c), “natural gas suppliers” is inclusive of the entities that serve fuel cell customers who choose natural gas as their fuel supply. This is further verified by CPUC inclusion of the compliance fee in natural gas supplier tariffs that outline charges passed on to end-users of natural gas and subsequent utility tariff adjustments:

“Suppliers of natural gas, including Pacific Gas and Electric Company (PG&E), Southern California Gas Company (SoCalGas), San Diego Gas & Electric Company (SDG&E), and Southwest Gas Company (SWG) (collectively, the utilities), must comply with the Cap-and-Trade regulations”⁵

“Consistent with D.14-12-040, the Preliminary Statements provide that GHG compliance costs would be collected from core and non-core customers... GHG compliance costs should be allocated between customer classes on an equal-cents-per-therm basis.”⁶

“PG&E was ordered to file this Tier 2 Advice Letter within 30 days of the effective date of the Decision to update PG&E’s existing transportation tariffs to include GHG costs in transportation rates.”⁷

Therefore, natural gas fuel cell emissions and obligation payments are captured upstream through the natural gas utility.

4. Removal of the Fuel Cell Exemption Will Disincentivizes a GHG Emissions Reduction Technology.

As discussed above, fuel cell technologies can displace higher GHG emissions sources on the grid. Customers also forego service from the electric distribution utility that receives a free allocation of allowances from the ARB for the benefit of their retail ratepayers. By directly regulating fuel cells as an emissions source under Cap-and-Trade, customers will pay for GHG costs they may otherwise avoid

⁴ Cap and Trade Regulation, Section 95852(c)

⁵ Public Utilities Commission D.15-10-032, page 2

⁶ *ibid*, page 23

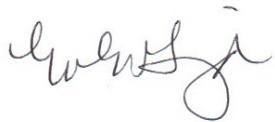
⁷ Pacific Gas & Electric Advice Letter 3651-G

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because the incumbent utility is required to use its freely allocated allowances for the benefit of its customers. This situation will create a disincentive for the lower emitting alternative to utility service – fuel cells, and may lead to the counterproductive result of increasing system GHG emissions.

In conclusion, the removal fuel cells from Section 95852.2 will be detrimental to fuel cell development in California.. Fuel cells reduce GHG emissions compared to system-wide GHG emissions. Under existing law, natural gas fuel cell customers will pay for GHG costs going back to 2015 through the gas transportation rates. The amendment to Section 95852.2(b)(2) will create a disincentive for customers adopting fuel cells and effectively require them to choose between paying GHG costs and subjecting themselves to the administrative requirements of the Cap-and-Trade for a lower-emitting resource or not paying GHG costs (or receiving a climate credit) for a more emissions intensive product from the electric distribution utility. In order to encourage innovative distributed generation technologies, the ARB should not remove fuel cells from Section 95852.2. Bloom Energy appreciates the opportunity to submit these comments.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Erin Grizard', with a stylized flourish at the end.

Erin Grizard
Director, Regulatory and Government Affairs
Bloom Energy