



May 10, 2018

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

Dear Mr. Corey,

Bloom Energy¹ provides the following comments on the scope of the Amendments to Cap-and-Trade Regulation that the ARB plans to release in 2018. In the 2016 – 2017 Cap-and-Trade Rulemaking, the ARB removed fuel cells from the list of emission sources without a Cap-and-Trade compliance obligation (i.e., Section 95852.2). The rationale provided for removing fuel cells from Section 95852.2 was that the change was needed to maintain consistency with a broader trend towards removing exemptions and fully accounting for all emissions in the Cap-and-Trade. However, as explained below, as a policy matter, fuel cells are regulated through the natural gas sector. By removing fuel cells from Section 95852.2, fuel cell emissions will not be adequately reflected in the cap because fuel cells reduce emissions compared to what customers would otherwise choose. Fuel Cells should be re-listed in Section 95852.2. In doing so, the ARB would help encourage a reliable energy supply that emits no criteria pollutants and reduces GHG emissions.

Regulation of fuel cells as covered entities under the cap-and-trade is counterproductive to the broader goals of AB 32 and AB 197. Fuel cell systems are lower GHG emissions sources than conventional natural gas generation. There is no combustion, and as a result, fuel cells also emit no criteria pollutants. It is precisely the type of activity that will “complement federal and state ambient air quality standards and reduce toxic air contaminant emissions” envisioned in AB 32 (i.e., Cal. Health and Safety Code Sec. 38562(b)(4)). Retaining fuel cells in Section 95852.2 is also consistent with the direction in AB 197 to encourage direct emissions reductions at large stationary sources (i.e., Cal. Health and Safety Code Sec. 38562.5(a)). Retaining fuel cells in Section 95852.2 is a longer-term step that will lead to GHG reductions and reductions in criteria pollutants.

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.

In the original Cap-and-Trade rulemaking, the ARB included fuel cells in Section 95852.2. The significance of including fuel cells in Section 95852.2 and the letter the ARB sent to Bloom Energy dated May 23, 2013 confirming the treatment of fuel cells cannot be overstated-- it offers a clear demarcation that fuel cells are GHG reducing with co-benefits that afford them recognition of these important attributes. The 2016-2017 amendments to the Cap-and-Trade may disrupt the market success of GHG reducing fuel cells. By removing fuel cells from Section 95852.2 and requiring the direct regulation of a small number of operators has impacted the perception of fuel cells for all customers regardless of whether they are a covered entity.

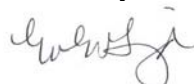
In the past, an important point of comfort for all customers was that fuel cell systems will not be directly regulated by the Cap-and-Trade program because they reduce GHG emissions. There is a broad perception that regulation under the Cap-and-Trade program means that the technology has no GHG-benefits because the Cap-and-Trade program is designed to discourage dirty technologies. We appreciate that this is not the ARB's intent, but we want to make sure that the ARB is aware of the perception.

In addition, customers now must factor into their purchase decision the potential overhead costs of retaining staff to ensure and monitor compliance - costs that would be perceived as directly resulting from the purchase of a fuel cell that is otherwise cleaner than their current source of power. Direct regulation will not only pose a higher cost as small participants cannot manage their administrative costs as well as larger participants such as the natural gas sector, but there will be an intangible cost in the form of a new regulatory burden and risk.

Natural gas fuel cells are already accounted for in the Cap-and-Trade regulation via the phase in of the natural gas sector beginning in 2015. Moreover, the CPUC's recent decision (D.18-03-017) in the natural gas GHG OIR makes clear that the natural gas utilities will pass through GHG costs to all customers that are not directly regulated under the Cap-and-Trade. As the compliance costs are reflected in gas transportation rates and the natural gas sector is subject to a growing allowance consignment ratio, at some point between 2020 and 2030, fuel cell operators will likely face comparable GHG costs as sources directly regulated by the Cap-and-Trade program. In other words, if natural gas fuel cells are listed under Section 95852.2, they will be accounted for under the cap. As outlined in the ARB's 2013 letter, such compliance costs associated with emissions from natural gas use will effectively spur private investment in efficient technologies, such as fuel cells.

We urge you to recognize that direct regulation of fuel cells can actually lead to foregone emission reductions associated with fuel cells and that any associated emissions will be managed in short order via full consignment in the natural gas sector. Thank you again for the opportunity to provide these comments as well as your and your staff's attention to this important matter.

Sincerely,



Erin Grizard