



November 28, 2017

California Customer Choice Project
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Re: October 31, 2017 California Customer Choice Project Workshop

Dear California Customer Choice Staff,

Bloom Energy (Bloom) appreciates the opportunity to provide these comments on the recent Customer Choice Workshop and to provide insight as the State considers models that will allow for customer choice while maintaining a clean, reliable, and affordable electric grid. The energy landscape in California is evolving to view electricity as a customizable service rather than as a static commodity. Bloom has installed our fuel cells at over 400 sites in California and has extensive experience in discussing customer wants and needs in the context of energy supply. We wish to be productive participants in the discussion around customer choice in California. As discussed in the workshop, customer choice is not limited to choosing between an investor-owned utility, community choice aggregator, or direct access provider for energy supply, but is an expansive concept that also includes self-generation, rate structures, and demand management. Another important part of the conversation must be understanding how each of these individual components interact with each other as part of the overall framework that guides energy supply in the State.

As a technology provider and active participants in the energy marketplace in direct contact with customers, Bloom recommends beginning this thought process with the following question posed by Staff in the Post Workshop Questions: *What are the motivations and entities driving customer choice in California?* Put another way, *what do customers want?* The primary drivers we see that motivate customers to consider options for their electricity are economics, sustainability, cost predictability, and reliability. These principles apply in varying degrees depending on the customer's particular business and energy needs. Each customer is unique in their operations and priorities, therefore choice and flexibility in designing their energy portfolios must be maintained (no matter their incumbent IOU, POU or chosen provider). Onsite generation technologies such as fuel cells are a key component of many energy strategies and must continue to be an option for all customers as any framework moves forward.

Principles and Key Questions in Considering Customer Choice

Bloom agrees with the principles of affordability, decarbonization, and reliability as key principles that should guide the Commission in considering customer choice models. We would add one principle to this list: clean air.

As evidenced by the passage of AB 398 and AB 617, ensuring that all communities achieve high air quality is a priority of the State and should be incorporated into any analysis of customer choice models through considering how the grid will operate under a given model and whether that mitigates or exacerbates air quality in local communities. This principle complements seeking out low carbon solutions to achieve our environmental goals as well as clearly prioritizes maintaining public health and equity.

Bloom also recommends one additional key question to consider when evaluating a given customer choice model: *Does this choice model provide flexibility for different types of customers?* The Commission should ensure that any evaluation includes thinking through what customer choice means for different types of customers. For example, the commercial & industrial market is a very different market from the residential market with different needs. The distinctions among these and other customer classes should be considered as policies are developed and any proposed solutions should be clear about which sector is being addressed.

Insights from New York's Reforming the Energy Vision Proceeding

Bloom has been actively involved in the NY REV process and has found that NY REV's premise of leveraging DERs to offset grid infrastructure upgrades is a significant step forward to realizing their full potential to both provide customer choice as well as add value to the grid, which is in turn recognized. In particular, the Staff White Paper on Benefit-Cost Analysis¹ closely examines the benefits that DERs can provide to the distribution system and also presents robust modeling to determine the societal cost of environmental externalities beyond what is captured by existing policies and markets. This resource can provide staff with insights into several of the key questions outlined Scoping Question 1 including *How does the choice model leverage investment necessary to finance the evolution of the electric grid? And How does this choice model support development and incorporation of innovation driven by customer demand?*

While there is valuable information to be gained from examining New York's paradigm for incorporating DERs as a customer choice option, the details of the proposed framework undervalues the benefits that DERs can have from behind the meter. For example, behind the meter generation that will provide load relief to the transmission and distribution system receives zero compensation for those services. This discrepancy highlights that it is important to fully capture all benefits, whether to the customer themselves, the grid, or society at large.

Consider Multiple Interactions in a Complex Ecosystem

As any model of customer choice moves forward, staff should consider not only each individual component of the model and how it provides service and choice to customers, but also how each will interact with the other options customers would have. Some customers will design their energy portfolios such that they are choosing

¹ Staff White Paper on Benefit-Cost Analysis in the Reforming Energy Vision Proceeding, 14-M-0101; July 1, 2015.
[https://www3.dps.ny.gov/W/PSCWeb.nsf/96f0fec0b45a3c6485257688006a701a/c12c0a18f55877e785257e6f005d533e/\\$FILE/Staff_BCA_Whitepaper_Final.pdf](https://www3.dps.ny.gov/W/PSCWeb.nsf/96f0fec0b45a3c6485257688006a701a/c12c0a18f55877e785257e6f005d533e/$FILE/Staff_BCA_Whitepaper_Final.pdf)

multiple options and interacting with multiple entities to supply their electricity. Clear rules and strong customer-centric protections must be established around these interactions to prevent anti-competitive behavior and to preserve choice. For example, under current statute customers in IOU territories are able to interconnect distributed generation systems to serve a portion of their facility loads. Customers in CCAs should be able to maintain that same choice in the same manner that they had as bundled customers of the IOU. Microgrids are another example. The CEC is currently developing a roadmap to identify policies that are needed to overcome barriers to increasing microgrid deployment across the state. Any customer choice model analysis should assess the effect that policies would have on this unique grid resource and energy supply paradigm to ensure that new barriers to deployment are not introduced.

The Commission should also prioritize ensuring that any customer choice model is simple for customers to understand and interact with. As the energy policy landscape in California evolves to expand customer options while addressing the simultaneous goals of affordability, reliability, and sustainability, customers are facing an uncertain and increasingly complicated regulatory future. As further changes are made to the energy structure in California, focusing efforts on providing policy certainty and clarity as much as is possible during this transition is important in order to avoid any unintended consequences for customers or for ensuring a reliable supply of clean, and affordable electricity.

Respectfully,

A handwritten signature in black ink, appearing to read "Erin Grizard".

Erin Grizard
Senior Director, Regulatory and Government Affairs