BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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OPENING COMMENTS OF SILICON VALLEY CLEAN ENERGY

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For Silicon Valley Clean Energy

Dated: February 13, 2019

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In accordance with the Rules of Practice and Procedure of the California Public Utilities Commission ("Commission") and the *Assigned Commissioner's Scoping Memo and Ruling* ("Scoping Memo"), filed December 21, 2018, and the *Email Ruling Granting Extension of Time*, issued on January 24, 2019, Silicon Valley Clean Energy ("SVCE") respectfully submits these comments.

In addition to these comments, SVCE also joins in the opening comments jointly submitted by East Bay Community Energy Authority, Peninsula Clean Energy Authority, Pioneer Community Energy, Sonoma Clean Power Authority, SVCE, Valley Clean Energy Alliance, and City of San Jose ("San Jose Clean Energy"), ("Joint CCA Comments"). In light of the breadth of issues raised in the Scoping Memo, SVCE files these separate comments to provide more a detailed response on certain matters.

I. INTRODUCTION

The purpose of this investigation is to determine what changes should be made to Pacific Gas and Electric Company's ("PG&E") corporate governance, structure, and operations in order to avoid repeating the safety failures of the past. However, we cannot do this effectively without considering the broader needs and incentive misalignments present in today's electricity system.

California's electricity system today faces unprecedented change from both without and within. The electric utility regulatory and oversight regime that has been in place for decades is not currently prepared for a future dominated by climate adaptation, decentralization, digitization, and decarbonization. Moreover, the current alignment of incentives within the IOU-Commission structure does not lead naturally to achieving the goals of safety, decarbonization, reliability, and affordability. In order to better protect public safety going forward, the results of this investigation must not only prevent blatant safety violations, but also realign the incentives for all utility stakeholders to achieve state goals more effectively. SVCE thanks the Commission for recognizing the value of stakeholder input in this critical conversation, and we look forward to working with the Commission and our fellow stakeholders to craft a solution that moves our entire state forward.

II. RESPONSE TO THE SCOPING MEMO QUESTIONS

A. Should PG&E be a "wires-only company" that only provides electric distribution and transmission services with other entities providing generation services? If so, what entities should provide generation services?

1. PG&E Should Be a Wires-Only Company.

SVCE concurs with the position expressed in the Joint CCA Comments that PG&E should be a "wires-only" company and not have a role in retail generation service. However, in order for PG&E to be an effective wires-only company, there are other changes that need to be considered.

2. To Properly Align Incentives to Meet State Policy Goals and Ensure the Reliability, Safety, and Affordability of the Wires-Only Company, the Commission Should: (a) create a Statewide Safety Standards, Monitoring, and Enforcement Organization Similar to the National Electric Reliability Corporation; and (b) Consider Mechanisms for Transferring Control of PG&E's Distribution Assets to a Distribution System Operator.

(a) *Create a Statewide Safety Standards, Monitoring and Enforcement Organization Similar to the National Electric Reliability Corporation.*

On November 9, 1965, the largest blackout to date in the electric system occurred, with 30 million customers losing power in the northeastern United States and southeastern Ontario, Canada.[1] Some customers were without power for 13 hours.[2] In 1968, the National Electric Reliability Council ("NERC") was established by industry in response to the 1965 blackout and recommendation of the Federal Power Commission.[3] Utilities maintained and practiced voluntary operating coordination in accordance with operating criteria and guides.[4] NERC was an informal, voluntary organization of operating personnel to facilitate coordination of the bulk power system in the United States and Canada.[5] On August 14, 2003, North America experienced its worst blackout to date, as 50 million people lost power in the northeastern and midwestern United States and Ontario, Canada.[6] The United States-Canada Power System Outage Task Force was formed to investigate the cause and make recommendations to prevent future blackouts.[7] On April 4, 2004, the final report of the United States-Canada Power System Outage Task Force on the 2003 blackout concluded that the most important recommendation for preventing future blackouts is for the U.S. government to make reliability standards mandatory and enforceable.[8]

The change from a utility-driven reliability standard to a mandatory and enforceable standard changed NERC and the culture of utilities all over the country. SVCE urges the Commission to consider, amongst other ideas, a not-for-profit statewide safety standards,

[1] NERC, History of NERC, July 2018, at 1, *available at:* *https://www.nerc.com/news/Documents/HistoryofNERC01JUL18.pdf*
[2] *Id.*
[3] *Id.*
[4] *Id.*
[5] *Id.*
[6] *Id.* at 3.
[7] *Id.*
[8] *Id.*

monitoring, and enforcement organization that is independent and formulated based on lessons-learned from NERC. In order to change safety culture, fundamental changes to oversight organizations, proper funding for monitoring, and penalties for non-compliance are necessary.

(b) Consider Mechanisms for Transferring Control of PG&E's Distribution Assets to a Distribution System Operator.

i. The Distribution Grid is Becoming More Dynamic, and a Distribution System Operator ("DSO") Would Provide Visibility that Enhances Reliability, Safety, and Innovation.

Over the next two decades, the distribution grid will continue its transformation from a hub-and-spoke radial system to a multidirectional network that functions closer to a dynamic transmission network. This transformation is driven by the proliferation of innovative time-varying rates, distributed energy resources ("DER"), electric vehicles ("EVs"), behind-the-meter ("BTM") storage, demand response ("DR"), and other innovations at the grid edge that will continue to diversify. In order for this transformation to be successful, it is critical that we improve visibility at the transmission-distribution interface. No independently run markets exist at the distribution level, and consequently neither does this visibility.

DERs arguably impact the distribution grid even more than the transmission grid, but distribution operators ("DOs") such as PG&E do not currently have access to California Independent System Operator ("CAISO") dispatch instructions to DERs or accurate forecasts of DER generation. Without such information, it is difficult for DOs to predict where and when high DER adoption may cause reliability issues on the distribution grid. Conversely, DER operators and aggregators have no way of knowing when unusual conditions on the distribution grid may prevent them from obeying CAISO dispatch instructions. This lack of coordinating ability can lead to congestion and, in the worst-case scenario, loss of reliability on distribution circuits. This kind of unpredictable disruption is particularly dangerous given that distribution

lines in remote areas are some of the most vulnerable parts of the grid during extreme weather events. In the longer term, a lack of visibility into DER impacts on the distribution grid hinders optimal siting of DERs and distribution upgrades so as to maximize benefits and minimize the costs of the entire system for ratepayers.

The most straightforward solution to this lack of visibility is to create a market for grid services at the distribution level that is analogous to the CAISO market. Such a market would have multiple benefits similar to those of the transmission wholesale markets. Monetizing the value of benefits such as voltage regulation and ancillary services at the distribution level would provide new revenue streams that would further stimulate DER growth and innovation. Reliability could be better protected through improved forecasting of DER generation, and the cost of the distribution system could be minimized by drawing on existing DER resources to delay infrastructure upgrades. Moreover, the operator of these markets would gain enhanced visibility into the behavior and expected production of DERs, allowing them to compile an integrated picture of DER behavior for presentation to the CAISO at the transmission-distribution interface. The CAISO could then account for any constraints from the distribution grid in its dispatch instructions, improving DERs' ability to comply with those instructions and completing the cycle of improved cost-effectiveness, decarbonization, reliability, and ultimately public safety.

ii. The CAISO, Though Not a Perfect Mouse Trap is a Huge Improvement from the Balkanized, Closed Transmission Systems Run by and for the IOUs for Decades.

The CAISO – a not-or-profit public benefit corporation and a potential model for a DSO – was created in the late 1990s to run the transmission system reliably. The idea for the CAISO was seeded by the Commission via its Yellow Book and Blue Book initiatives from the early 1990s. Today, the CAISO is a mature organization that operates multiple energy markets and

includes many market participants. This is a huge advance from the previous balkanized, inefficient, and closed regime where California's transmission system was run by and for the three large IOUs. Within the CAISO structure, the IOUs continue to own and obtain a rate-of-return on their transmission assets, but they cannot withhold transmission access and cannot invest in transmission until the CAISO approves such investment. Hundreds of market players are able to participate in the markets run by the CAISO. By creating a DSO, California could similarly expand opportunities, visibility, and market participation for stakeholders at the distribution level.

iii. PG&E Operation and Investment in the Distribution Grid is Marred by Misaligned Incentives & Therefore Should Not Be Considered as the DSO.

The major changes happening in the distribution grid, and the increased focus on reliability and safety, requires we consider similar changes to the oversight and operation of the distribution grid. Today, the IOUs control the distribution grid and invest and operate it in a manner that is not transparent to market participants. The IOUs have incentives to over-build the distribution grid. An example of misaligned incentives, in the case of PG&E, is that their ownership of the gas system and their fiduciary duty to their shareholders puts them in an untenable position related to decarbonizing the energy system and promoting electrification. In order to align incentives related to reliability, decarbonization, and safety, SVCE proposes that the Commission consider a not-for-profit DSO model that would allow for PG&E to continue to own its distribution grid, but all decisions related to investment and operations would be handled by the DSO.

PG&E's current role as both a load serving entity ("LSE") and the owner and operator of the distribution grid hinders this evolution, because as long as PG&E makes a rate of return on large centralized generators, makes a return on its gas business, makes a return proportional to

the investment in its distribution assets, it has little incentive to optimize the distribution system for DERs that reduce reliance on large generators, reduce reliance on natural gas, and reduce over-building of distribution assets. When paired with our lack of visibility into how DERs affect and are affected by distribution grid functions, this conflict of interest creates a significant challenge for reliability and thus for public safety.

iv. The Commission Should Consider the Introduction of an Open-Access Distribution Tariff During the Transition to the DSO.

Since the creation of a DSO would take several years, SVCE urges the Commission to consider requiring PG&E to offer open-access distribution tariffs in the interim.

v. The Commission Should Enhance Skilled Worker Training and Development.

This transformation will also require a highly skilled workforce to install and maintain DERs and upgrade distribution grid circuits where necessary. The more complex, multi-directional distribution grid that DER adoption demands will present new challenges for construction and maintenance. PG&E's current team of skilled line workers will be a vital part of this transformation, and there would likely be an increased need for workers with these skills. New jobs will be created as the building and transportation sectors are electrified. Therefore, skills in the plumbing, mechanical, and low-voltage electrician trades must be identified and supported. Local governments and counties are essential partners in this effort to create workforce development programs to meet state environmental goals.

vi. Others Provide Models We Can Learn from and Adapt to California's Goals.

Other jurisdictions throughout the country and world are already taking steps to test and establish DSO structures. In the United States, New York is leading this effort through its "Reforming the Energy Vision" ("REV") strategy. In 2015, the New York Public Service

Commission ("NYPSC") issued an order[9] adopting a regulatory policy framework for the development a Distributed System Platform ("DSP"), which among many other transformations, will create a statewide wholesale distribution market. To help achieve this goal, the NYPSC directed the state's six large IOUs to develop demonstration projects to test the functionalities of a DSP, measure customer responses, and measure price impacts.[10] In one such demonstration project, National Grid (an IOU) has created a transactive marketplace for owners of DERs within a medical campus in downtown Buffalo to provide electricity and ancillary services to National Grid's distribution system.[11] The goal of this demonstration project is to create new revenue streams for the DER owners, while enabling National Grid to better manage the existing distribution system and improve system resiliency and reliability.[12] California should learn from and build on these existing examples.

3. The Commission Should Prioritize Increased Transparency in Evaluating a Future Role and Structure for PG&E.

Apart from setting up distribution wholesale markets and removing PG&E from the retail generation business, SVCE would like to emphasize the role that enhanced overall transparency has to play in upholding public safety. The vast majority of the Commission's and California's policy goals for electricity, from affordability to reliability to decarbonization, could benefit from improved transparency (assuming adequate protections for grid security purposes). Transparency enhances our ability to catch potential problems before they materialize, especially in a system

[9] New York Public Service Commission, *Order Adopting Regulatory Policy Framework and Implementation Plan*, February 26, 2015.
[10] *See*, REV Demonstration Projects, *available at* http://www3.dps.ny.gov/W/PSCWeb.nsf/All/B2D9D834B0D307C685257F3F006FF1D9?OpenDocument.
[11] National Grid Proposed REV Demonstration Project Filing, Case 14-M-0101, Reforming the Energy Vision, July 1, 2015; Case 14-M-0101, Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision (REV), Niagara Mohawk Power Corporation D/B/A National Grid: Distributed System Platform Rev Demonstration Project – Q2 2018 Report ("Q2 2018 Report), July 31, 2018.
[12] *Id.*

changing as rapidly as California's is. Moreover, it stimulates innovation by making it easier to identify gaps in existing frameworks and thus develop solutions that can fill them. We need all hands on deck as we move into this period of exciting innovation but also unprecedented environmental change, and improving transparency is one of the best ways to encourage that. A system whose parts, strengths, and weaknesses are known will be more reliable and ultimately safer than one whose workings are shrouded in a black box to all but a few.

III. CONCLUSION

SVCE thanks the Commission for this opportunity to provide input, and we look forward to further participation in this critical conversation for the benefit of all Californians.

Dated: February 13, 2019

Respectfully submitted,

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