

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA



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Order Instituting Investigation on the Commission's Own Motion to Consider the Ratemaking and Other Implications of a Proposed Plan for Resolution of Voluntary Case filed by Pacific Gas and Electric Company Pursuant to Chapter 11 of the Bankruptcy Code, in the United States Bankruptcy Court, Northern District of California, San Francisco Division, In re Pacific Gas and Electric Corporation and Pacific Gas and Electric Company, Case No. 19-30088.

Investigation 19-09-016
(Filed September 26, 2019)

**JOINT RESPONSE OF THE
CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES
AND THE CLIMATE CENTER TO ORDER INSTITUTING INVESTIGATION**

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October 18, 2019

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The Center for Energy Efficiency and Renewable Technologies and The Climate Center respectfully submit this Joint Response to Order Instituting Investigation (“I.”) 19-09-016 filed on September 26, 2019. This Joint Response is filed and served pursuant to the Commission’s Rules of Practice and Procedure and Ordering Paragraph 4 of I.19-09-016.¹

**I.
BACKGROUND OF CEERT AND THE CENTER**

The Center for Energy Efficiency and Renewable Technologies (“CEERT”) is a nonprofit public-benefit organization founded in 1990 and based in Sacramento, California. CEERT is a partnership of major environmental groups and private-sector clean energy companies. CEERT designs and fights for policies that promote global warming solutions, including achieving mandated carbon reductions through increased reliance on clean, renewable resources to meet California’s energy needs and reduced dependence on fossil fuels.

¹ I.19-09-016, at p. 13.

This work has included CEERT’s participation in I.15-08-019, Pacific Gas and Electric Company’s (“PG&E’s) “Safety Culture Investigation.” In its Comments on the December 21, 2018 Amended Scoping Memo in that proceeding, CEERT noted the Commission’s own recognition of the link between Climate Change and the “catastrophic” wildfires that have imperiled PG&E’s customers and posed financial challenges for the utility and, in turn, the need to consider alternative corporate structures that will address “the ability of the state to implement its energy policies, including the need to reduce greenhouse gas (GHG) emissions and local criteria pollutants in both the utility sector and the economy as a whole.”² In response, CEERT recommended that, for PG&E to provide electric service going forward, the Commission must ensure a corporate structure that will advance and preserve reliance on zero carbon resources to meet customer needs in order to “combat Climate Change [that is] the root cause of PG&E’s current financial difficulties.”³

The Climate Center (formerly the Center for Climate Protection⁴) (“Center”) is a California 501(c)(3) nonprofit organization founded in 2001 with a mission to deliver speed and scale greenhouse gas reductions, starting in California. The Center has also been an active participant in PG&E’s Safety Culture Investigation (I.15-08-019). Most recently, on July 22, 2019, the Center (as the Center for Climate Protection) filed Comments in response to the June 18, 2019 Joint Ruling seeking proposals to improve PG&E’s safety culture. In those Comments, the Center, noting the language of both this Ruling and the December 2018 Amended Scoping

² I.15-08-019 (PG&E Safety Culture) Amended Scoping Memo (December 21, 2018), at p. 2; A.18-10-003 (PG&E Short Term Borrowing), Reporter’s Transcript (“RT”) at 36 (Commissioner Picker (“I think everybody is thinking a lot about climate change, fires and the impact that they are having on our utilities already. We are hearing people compare the incident case of PG&E as being one of the first major business failures due to *climate change*.” (Emphasis added.))

³ I.15-08-019 (PG&E Safety Culture) CEERT Comments on December 21, 2018 Scoping Memo (February 13, 2019), at p. 7.

⁴ In August 2019, the Center for Climate Protection, a party to the Commission’s PG&E Safety Culture Investigation I.15-08-019, formally changed its name to The Climate Center.

Memo, emphasized the urgent need to consider alternatives to PG&E’s current corporate governance “not only to address immediate concerns about safety and reliability of electric and gas service in the face of increased environmental volatility (e.g., ongoing fire risks), but also to determine how PG&E can best be structured to implement California’s energy and environmental policies, particularly decarbonization of our energy systems and of the economy more generally.”⁵

To that end, in its July 22 Comments in I.15-08-019, the Center offered a proposed alternative structure for PG&E’s electric distribution function to address both “near-term concerns about safety and reliability in the face of more extreme and unpredictable disruptions” and “how PG&E will be able to most effectively fulfill its roles and responsibilities in achieving California’s decarbonized future.”⁶ An excerpt from the Center’s July 22 Comments that contains the full description of its proposal (Section 6) is appended and incorporated by reference hereto in Appendix A and discussed further below. Section 6 can also be found at pages 10 through 27 of the Center’s July 22 Comments as filed and docketed in I.15-08-019 at <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M311/K115/311115582.PDF> .

II. PRELIMINARY SCOPING MEMO AND NEEDED CONSOLIDATION WITH SAFETY CULTURE OII

A. PG&E’s Corporate Structure and Governance Is a Central Outcome of this Commission’s Review and Approval of a Plan of Reorganization for PG&E and Must Be Addressed In A Manner that Accounts for Party Input and Record Development to Date on that Issue, Including But Not Limited To, Formal Consolidation of this OII with the Safety Culture OII.

The central purpose of I.19-09-016 (OII) is defined by the Commission as follows:

“We initiate this [OII] to afford parties the opportunity to be heard and comment on any California Public Utilities Commission (Commission) regulatory

⁵ I.15-08-019 (PG&E Safety Culture) Center Comments (July 22, 2019), at p. 2.

⁶ *Id.*, at pp. 10-25 (Center Proposal).

review resulting from a proposed plan of reorganization (including any amendments) filed with the Commission, any proposed settlement agreement resolving PG&E’s Chapter 11 case between PG&E and Commission staff filed in connection with a plan, any regulatory approvals required pursuant to Public Utilities Code Section 3292 in order for PG&E to become eligible to participate in the wildfire fund established pursuant to Assembly Bill 1054 (AB) 1054, any other regulatory approvals required by AB 1054, and any other matters that may need to be decided by this Commission in connection with a plan.”⁷

AB 1054 is, of course, a significant piece of legislation relative to the wildfires that have already occurred and have presented financial and operational challenges for PG&E, as well as those that are anticipated to occur in the future. With respect to referenced Section 3292, this statute, in particular subsection (b), subparts (1)(A) through (E), conditions eligibility to participate in that fund on PG&E’s bankruptcy proceeding having been “resolved pursuant to a plan or similar document not subject to stay” by June 30, 2020.

While this timeline is clearly significant, access to this fund should not stand in the way of this Commission undertaking needed restructuring of PG&E that may *not yet, but should be*, part of any “plan” that will ensure that PG&E provides electric service in a manner that is reliable, safe, and best aligned with achieving this State’s environmental and climate change goals. In fact, that recognition is not only central to other pending investigations of PG&E by the Commission,⁸ but is also part of Section 3292. Thus, Commission approval of any PG&E reorganization plan is not only a prerequisite to wildfire fund eligibility, but also requires the Commission to determine, among other things, that “the reorganization plan and other documents resolving the insolvency proceeding” result in a “governance structure” that is “acceptable in light of the electrical corporation’s safety history, criminal probation, recent financial condition, and other factors deemed relevant by the commission” and “are (i) consistent

⁷ OII, at p. 2.

⁸ These include, but are not limited to, I.15-08-019 (Safety Culture OII) and I.19-06-015 (2017 Northern California Wildfires). See also, PG&E Response to OII (October 11, 2019), at p. 13.

with the state’s climate goals as required pursuant to the California Renewables Portfolio Standard Program and related procurement requirements of the state and (ii) neutral, on average, to the ratepayers of the electrical corporation.”⁹

Further, as of this date, PG&E’s “governance structure” is not one that has effectively dealt with wildfire risks. Thus, as evidenced by last week’s “public safety power shut-off” (“PSPS”), PG&E, even by its own admission, does not have the organizational structure in place necessary to appropriately and safely respond to and protect its customers in wildfire conditions.¹⁰ Where this PSPS event, both as to its size, operation, and impact on customers, was overly broad, confusing, and unnecessarily disruptive to customers, it continues to beg the question whether PG&E, as currently organized, is simply unable to operate efficiently and safely in the public interest.¹¹

Both the OII and PG&E’s proposed plan appear to recognize the significance of the issue of PG&E’s corporate structure in exiting bankruptcy. Thus, the OII and PG&E’s Response to the OII confirm that PG&E’s plan “identifies additional Commission approvals as a condition to a plan confirmation (beyond the statutory findings required for PG&E to participate in the Wildfire Insurance Fund),” which include, notably, “approval of PG&E’s corporate governance

⁹ PU Code §3292(b)(1)(C) and (D).

¹⁰ PG&E CEO Bill Johnson acknowledged that PG&E was “not adequately prepared to support the operational event” of the large-scale power outage that it undertook during October 10 through 11, 2019, and that PG&E had problems with how it rolled out its recent massive planned outage, including failure to communicate the timing of the shut-offs and undertaking power cuts that were too broad.

<https://sanfrancisco.cbslocal.com/2019/10/10/power-outage-pge-ceo-apologizes-customers-not-prepared/>

¹¹ As further evidence of this growing concern, in response to a directive by the Governor, this Commission directed PG&E to perform “an after-action review and take immediate corrective actions” in response to identified “unacceptable” “failures in execution” by PG&E related to this event. That filing, to be made on October 17, was to be followed by an emergency meeting of this Commission to be held today, October 18, 2019.

https://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/News_Room/NewsUpdates/2019/PGE%20Letter%20-%20PSPS%2010-14-19.pdf

structure and disposition of proposals to change PG&E’s corporate structure currently under consideration in PG&E’s Safety Culture Proceeding” (I.15-08-019).¹²

On this point, PG&E contends and “believes” that a Commission “disposition of potential structure changes” under consideration in the Safety Culture OII “should be” decided by the “end of 2019.”¹³ That timing would be inappropriate, however, as the Preliminary Scoping Memo for the present OII includes as an issue whether “it is reasonable to approve a plan of reorganization submitted by PG&E and PG&E Corp.,” along with “any other relevant plan of reorganization,” “taking into consideration...[w]hether to approve a governance structure for the utility, and the appropriate disposition of potential changes to PG&E’s corporate structure and authorizations to operate.”¹⁴ Thus PG&E’s proposal for an end-of-2019 decision in the Safety Culture OII would effectively constrain, if not pre-empt, the Commission’s ability to decide on issues central to the scope of the present OII.

From CEERT’s and the Center’s perspectives, it is not reasonable for the Commission to determine the future structure of PG&E separate from the reorganization plan now presented by PG&E, especially where a competing plan now exists, but was not accounted for in the OII. Thus, as PG&E’s Response confirms, the Bankruptcy Court has now terminated PG&E’s exclusive right to file a plan of reorganization and has permitted the filing of an alternative, competing plan proposed by the Ad Hoc Committee of Senior Unsecured Noteholders, led by Elliot Management Corporation, and the Official Committee of Tort Claimants, referred to by PG&E as the “Elliot Plan Proposal,” a circumstance, as to its specific “evaluation,” not directly addressed by the OII.¹⁵

¹² OII, at p. 5; see also, PG&E Response (October 11, 2019), at pp. 12-13.

¹³ PG&E Response (October 11, 2019), at p. 13.

¹⁴ OII, at pp. 6-7.

¹⁵ PG&E Response (October 11, 2019), at 2.

Clearly, any consideration of what PG&E's corporate structure will be upon exiting bankruptcy should be made with reference to, and in the context of, the proposed plans of reorganization. But, it is also important that the work and record developed to date in the Safety Culture OII be preserved and made part of this OII, especially in terms of efficiency, where time is of the essence, and party input, which this OII has identified as its central purpose, has already been provided on the issue.¹⁶

It is CEERT's and the Center's position that an effective plan of reorganization that meets the goals and requirements of the present OII cannot be accomplished without formal consolidation of the Safety Culture OII with this OII. By Rule 7.4 of the Commission's of Practice and Proceeding, "[p]roceedings involving related questions of law or fact may be consolidated." Clearly, the questions of law and fact between this OII and I.15-08-019 are not just "related," but inextricably intertwined. It should be a matter of primary importance to the Commission, again, especially where time is of the essence, to avoid any duplication of effort on this matter and to ensure that the record in the Safety Culture OII is thoroughly considered and can be relied upon in reaching any decision on PG&E's or alternative plans of reorganization.

It is also not appropriate for the Commission to proceed to a decision on corporate organizational, governance, or structural changes to PG&E by a decision in the Safety Culture OII issued separate from and without consideration of any of the plans of reorganization to be addressed in this OII. Such an outcome would be putting the cart before the horse and exclude, not include, party input on reorganization plans in this proceeding. It would also create a process that would obstruct, rather than advance PG&E's claimed goal of "working cooperatively and

¹⁶ OII, at p. 2.

expeditiously with the Commission and the parties” in this OII to “emerge from Chapter 11...as a strong provider of safe, reliable, affordable and clean energy to customers.”¹⁷

What is clearly not acceptable is to leave the important issues of PG&E’s future structure, especially those being considered and addressed outside of this OII, to some kind of “flexible,” ad hoc determinations by the Commission as PG&E proposes in its Response to this OII. PG&E recommends that “given the relationship between the issues in this proceeding and those being developed in other forums, the process in this proceeding must be flexible.”¹⁸ The “flexibility” proposed by PG&E appears to admit any of a series of potential open-ended decisions that could be made by the Commission as to the scope and manner in which issues that are central to the plan or preliminarily included in the scope of this OII (including PG&E restructuring), but not resolved by December 2019, could be heard, or perhaps not heard at all.¹⁹

Such a vague process undermines not only parties’ due process rights of clear notice and opportunity to be heard, but even the OII’s purpose of providing a venue for party input on any plan for PG&E’s reorganization as it emerges from bankruptcy. While there may be other issues for which formal consolidation should be considered, it is inescapable that those issues being addressed in I.15-08-019 (Safety Culture OII) dealing with PG&E’s corporate structure and governance must be a formal part of this OII and a decision on those issues should not be rendered before or outside of any consideration or approval of a plan of reorganization for PG&E.

To do otherwise will fail to guarantee that PG&E’s future, post-bankruptcy structure will operate in the future as “a strong provider of safe, reliable, affordable and clean energy to its

¹⁷ PG&E Response (October 11, 2019), at p. 17.

¹⁸ *Id.*, at p. 5.

¹⁹ *Id.*, at pp. 5, 12, 14, 15.

customers.”²⁰ Regardless of the deadline set by AB 1054 or the existence of other OIIs, the Commission must take steps to take advantage of, and not lose, this unique opportunity presented by its role in approving PG&E’s plan of reorganization to require a post-bankruptcy structure for PG&E that will best serve both immediate needs for safe and affordable electric service and long-term State policy goals. That approval must not only comply with the requirements of AB 1054, but the Commission’s traditional statutory duties, and requires the Commission to commit here to address and resolve the issue of PG&E’s future corporate structure and governance as part of its approval of any plan of reorganization through formal consolidation of the Safety Culture OII with this OII. To the extent that such consolidation is not undertaken by the Commission prior to the Prehearing Conference to be held on October 23, 2019, CEERT and the Center will make a formal motion requesting such action.

B. The Record of the Safety Culture OII Includes an Effective and Viable Proposal for PG&E’s Post-Bankruptcy Structure, the “Open Access Distribution System Operator” Proposed by the Center.

In addressing the December 2018 Scoping Memo in the Safety Culture OII, CEERT stated that its “primary focus” was on ensuring that “renewable and other carbon-free resource contracts and programs needed to maintain, comply with, and advance the State’s climate change and clean energy mandates are honored regardless of any adopted corporate structure.”²¹ On that point, CEERT contended that the “impact of climate change on safe and reliable electric service clearly cannot be ignored here and requires that explicit ‘measures’ to address or reduce that impact are included in any Commission decision maintaining or adopting an alternative to the

²⁰ PG&E Response (October 11, 2019), at p. 17.

²¹ I.15-08-019 (PG&E Safety Culture) CEERT Comments on December 21, 2018 Scoping Memo (February 13, 2019), at p. 3.

‘current management and operational structures for providing electric and natural gas in Northern California.’”²²

CEERT supported the I.15-08-019 Amended Scoping Memo’s requirement that each of the proposals it identifies are to be addressed in consideration of “the ability of the state to implement its energy policies, including the need to reduce GHG emissions and local criteria pollutants in both the utility sector and the economy as a whole” and “the utility’s ability to raise capital and purchase gas, electricity,” especially as a means to achieve those reductions.²³ Yet, at the time that CEERT filed its Comments on that Scoping Memo in February 2019, CEERT did not believe that this “consideration” was reflected in any specific or meaningful way in any of the “proposals” or “alternatives” put forward by the Scoping Memo.

That circumstance, however, changed for CEERT in July 2019, when the Center filed Comments in I.15-08-019 putting forward its proposal “for modifying PG&E’s structure, regulatory framework and incentives” to address both “near-term concerns about safety and reliability in the face of more extreme and unpredictable disruptions,” while also modifying PG&E’s structure to permit it to “most effectively fulfill its roles and responsibilities in achieving California’s decarbonized future.”²⁴ In Section 6 of those Comments, the Center provided details of its proposal, which is included and incorporated by reference herein in Appendix A.

In sum, the Center’s proposal is founded on the clear need for the Commission to “separate and clarify the distinct roles and responsibilities of PG&E’s distribution service and its retail energy function” and “restructure PG&E’s distribution service function to align better with

²² I.15-08-019 (PG&E Safety Culture) CEERT Comments on December 21, 2018 Scoping Memo (February 13, 2019), at p. 5, with citation I.15-08-019 December 2018 Amended Scoping Memo, at pp. 8-9.

²³ *Id.*, with citation to I.15-08-019 December 2018 Amended Scoping Memo, at pp. 12-13.

²⁴ I.15-08-019 (PG&E Safety Culture) Center Comments on Proposals to Improve PG&E’s Safety Culture (July 22, 2019), at p. 10.

state policy goals for decarbonization and resilience,” especially through reliance on distribution-connected energy resources (DERs) that can “decarbonize buildings, transportation, etc., and ... strengthen local resilience to extreme disruptions.”²⁵

According to the Center those goals can be achieved by restructuring PG&E’s distribution service as an Open Access Distribution System Operator (OA-DSO), which will “maximize the value and benefits of the growing volume and diversity of DER on the system and ensure their critical role in achieving California’s policy goals.”²⁶ According to the Center, the “central concept behind the OA-DSO is analogous to FERC’s open-access rules for transmission service and wholesale markets,” but can be designed for the nature and characteristics of the electric distribution system. Under the OA-DSO structure PG&E would perform several key elements, including, but not limited to: procuring well-defined grid services that end-use customers and third-party DERs can provide to the DSO through non-discriminatory and transparent procurement mechanisms; an open, participatory distribution planning process that maximizes the cost-effective use of non-wires alternatives; a streamlined interconnection process; transparent real-time operating procedures; coordination with the California Independent System Operator (CAISO); and an efficient and non-discriminatory data access framework.²⁷ As part of PG&E’s restructuring, the Commission should develop performance-based regulatory (“PBR”) rules and incentives to support development and performance of OA-DSO functions and recognize and direct the OA-DSO to facilitate the crucial role to be played by local governments and communities in achieving California’s climate, energy and equity goals.²⁸

²⁵ I.15-08-019 (PG&E Safety Culture) Center Comments on Proposals to Improve PG&E’s Safety Culture (July 22, 2019), at p. 12; see also, Appendix A hereto.

²⁶ *Id.*

²⁷ *Id.*, at pp. 12-13; see also, Appendix A hereto.

²⁸ *Id.*, at p. 14.

The OA-DSO as proposed by the Center is in essence a more detailed and practical articulation of the “wires-only” concept that has been raised by other parties in conjunction with restructuring the investor-owned electric utilities to better align with California’s goals. In particular, in the December 2018 Amended Scoping Memo for the Safety Culture OII (I.15-08-019), the Commission posed the question for party comment as to whether PG&E should become a “wires-only company.”²⁹ In PG&E’s Opening Comments in response to the Amended Scoping Memo, PG&E stated that it supported consideration of that proposal, but went on to identify what it considered to be the risks and challenges associated with divesting PG&E’s generation assets and terminating its retail and provider-of-last-resort obligations.³⁰

The OA-DSO proposal described here improves upon the wires-only concept described by PG&E in two important ways. First, the OA-DSO proposal focuses entirely on PG&E’s distribution function with emphasis on functional responsibilities needed to achieve state policy goals. Implementing the OA-DSO does not require divestment of PG&E’s generation assets, only that the OA-DSO function be operated and regulated as a distinct functional entity. Second, the OA-DSO does not require immediate and complete termination of PG&E’s load-serving activities, including its energy contracts and its provider-of-last-resort role;³¹ it only requires that these activities be separated operationally and regulated as functions outside of the OA-DSO function. Thus, the Commission can proceed to develop the OA-DSO regulatory framework without having to simultaneously address generation divestment and elimination of PG&E’s load-serving activities.

²⁹ I.15-08-019 (PG&E Safety Culture) December 2018 Amended Scoping Memo, at p. 12.

³⁰ I.15-08-019 (PG&E Safety Culture) PG&E Opening Comments (February 13, 2019), at pp. 34-35.

³¹ With the passage and Governor Newsom’s signing of SB 520 this year, PG&E’s provider-of-last-resort role and the rules for transferring that role can remain in place without being a barrier to forming the OA-DSO framework for PG&E’s distribution function.

Finally, while the Center’s proposal could “apply to another entity that takes on PG&E’s electric distribution system,”³² it “assumes that PG&E will continue to provide electric distribution service in its service area.”³³ That fact makes the Center’s proposal completely appropriate for consideration by the Commission in reaching a disposition on PG&E’s future corporate structure in its review and approval of any plan of reorganization for PG&E.

C. The Need to Change PG&E’s Operational Structure Is Urgent and Must Be a Condition in Any Plan of Reorganization Approved by the Commission for PG&E.

Current proposals to restructure PG&E financially lean heavily on explicit and implicit State support. In return for this support, PG&E must be required to change the operation of its distribution system in order to become capable of delivering safe, reliable, affordable and resilient electric service. The recent PSPS debacle, on top of the tragic events of the past few years, emphasizes the urgent need for fundamental change.³⁴ It is very much in doubt whether PG&E can achieve any measure of stability with its current culture and business model. Change in senior management by itself is not sufficient to effect change, as witnessed by the failure of PG&E’s post-San Bruno management turnover to have any meaningful effect on improving PG&E’s operational management or communications with its customers. The strongest path toward financial and operational stability is to restructure the core of its functional operation now.

Structural change drives cultural change. Remaking PG&E as a forward-looking organization, focused on safety, resilience, affordability and customer and public preferences

³² In fact SDG&E has also expressed interest in becoming a “wires-only” company. *See*, Sammy Roth, “California’s biggest utilities are losing their monopolies. Is that a good thing?” (Los Angeles Times; February 7, 2019) (<https://www.latimes.com/business/la-fi-monopoly-utilities-california-20190207-story.html>).

³³ *Id.*, at p. 11.

³⁴ *See*, David Roberts, “California’s deliberate blackouts were outrageous and harmful. They’re going to happen again.” (Vox; October 16, 2019) (<https://www.vox.com/energy-and-environment/2019/10/16/20910947/climate-change-wildfires-california-2019-blackouts>).

requires an entirely new, intentional culture. Such a culture requires a re-definition of PG&E's functional roles and responsibilities, its operational structure, and a fundamental change in the Commission's regulatory approach to the company.

Bankruptcy provides unique leverage for the Commission to effectively regulate and focus PG&E on achieving better outcomes for customers and the State. The Commission will have little leverage to effect the changes needed to PG&E's organization and culture if PG&E is allowed to emerge from bankruptcy with its current business model intact. In fact, restoration of the pre-bankruptcy status quo is likely to make PG&E more resistant to future evolution and eliminate options for change to be invoked by this Commission.

The time for the Commission to require PG&E to begin the transition to OA-DSO functionality is clearly now. This requirement can be mandated within the scope of this OII, especially as effectively consolidated with the Safety Culture OII, in the Commission's review and approval of a plan of reorganization for PG&E.

D. OA-DSO Structure Will Facilitate Emergence of Linked Local Grids Necessary for Resilient Electric Service.

The October 2019 PSPS dramatically illustrated the urgent need to develop a system of linked, neighborhood-level grids capable of separating themselves electrically from the larger regional distribution system, with an initial focus on critical facilities in more vulnerable or at-risk communities. Experience from across the U.S. shows that local grids incorporating clean generation and storage are able to continue to provide electric service when the larger distribution or transmission grids are disabled by fire, earthquake, floods, physical or cyber attack, or pre-emptive measures such as PSPS.³⁵ The continuing rapid installation of rooftop solar and storage across the state is laying key elements of the physical foundation that can be

³⁵ <https://microgridknowledge.com/microgrids-california-power-outages/>

built on to create fully functional local grids. Some Community Choice Aggregators (CCAs) already envision development of linked local grids in their service areas.

The now ever-present fire danger and the reality of future PSPS events are likely to incentivize homeowners and businesses to install on-site energy resources in order to be able to function when electric service from the distribution grid is cut off. Installing on-site solar PV and storage in individual buildings, however, will not create the capability to provide electricity for multi-day periods without regional grid power. In fact, absent a state strategy to create carbon-free resilient local power systems many customers are installing fossil-fuel back-up generators, undermining California's climate goals.

Resilience is a community-level attribute that cannot be achieved solely through the actions of individual actors. Carbon-free resilient service depends on community-level planning to link the generation and storage capacity of many buildings together, with intelligent communications and control technologies and with the collaboration of the electric distribution utility in the planning and implementation. State policies can ensure that resilient service becomes available to all Californians and not just those financially capable of installing their own individual systems.

Meeting state GHG reduction goals require, among other things, electrifying building heating and cooling and transportation. As electrification progresses, building energy management controls and electric vehicle charging and discharging will necessarily play a central role in providing and balancing the demand for and supply of electricity. Coordinated building and vehicle energy management systems can provide the infrastructure needed to link individual solar/storage installations into fully functional local grids capable of operating for extended periods without regional grid power.

The technologies and DER providers needed to support rapid evolution of resilient electric service already exist. PG&E's current operational and incentive structure, however, is not suited to rapidly advancing an effective local resilience strategy. Instead, PG&E's current structure complicates DER interconnection to the grid and does not provide the data necessary for third parties to determine optimal locations for local resources considering cost, reliability needs, and grid impacts.

Further, PG&E's distribution platform is not capable of accommodating rapid electrification of buildings and transportation because its distribution operations are not tailored to local needs, which vary considerably across its huge and weather-diverse territory, from Eureka to Bakersfield. PG&E does not engage with cities or counties to understand local needs that necessarily underlie the development of resilient service. Simply "hardening" PG&E's current distribution grid topology will not make it any more resilient to fires or other disasters. Instead, creating the infrastructure for truly resilient service requires distribution system operation to be a platform that welcomes and facilitates DER interconnection, encourages evolution of linked local grids that prioritize neighborhood level needs, developed in conjunction with city and county planners, and that enable all resources on the grid to transact power and grid services and to function as "non-wires alternatives" to offset grid infrastructure investments.

The distribution system architecture necessary to support truly resilient service cannot evolve unless PG&E is required to become an OA-DSO. As explained below, planning and implementing this transition can be expected to take two or more years. In the meantime, the Commission has already informed PG&E, in detail, of the many steps it must take to plan PSPS events, to ensure appropriate communications and services during the events, and to target shutoffs more intelligently and more narrowly. In addition, the Commission's new Rulemaking

(R.19-09-009), instituted to facilitate the commercialization of microgrids for distribution customers of large electrical corporations pursuant to Senate Bill (SB) 1339 (Stats. 2018; ch. 566), can develop specific provisions to do so while the complete OA-DSO framework is being developed in parallel.

E. The OA-DSO Structure Will Promote Revenue Stability and Investor Confidence and Should be Authorized for PG&E With the Development of a Comprehensive Transition Plan.

Like other IOUs, PG&E is losing retail electricity customers rapidly as cities and counties across the State demand greater local control over energy decisions. The Commission projects that PG&E will have lost 80% of its retail customer base by 2025.³⁶ At the same time, customers who depart from PG&E's retail energy service still remain customers of PG&E's distribution service. Given this reality, becoming an OA-DSO offers a more substantial basis for long-term financial stability.

Opening the power system to DERs and new technologies, through a statewide structure that integrates local electrification and resilience initiatives, and reorienting PG&E to facilitate these evolutionary changes have the huge advantage of bringing non-utility capital into electricity production, storage, and delivery. This reduces calls on existing capital and attendant financing risk. These changes position the company to be able to leverage innovation and to earn PBR-based profits. By better aligning the IOU distribution utility with state policy goals, both regulatory and political risks for investors will be reduced.

This transition will require Commission-led stakeholder processes to specify the goals, structure, and operations of OA-DSO functionality, along with performance metrics designed to ensure progress toward the goals of safe, reliable, affordable and resilient electric service. This

³⁶ Commission White Paper, "Consumer and Retail Choice, the Role of the Utility, and an Evolving Regulatory Framework," May 2017, at p. 3.

design process and the transition from PG&E’s current distribution system operation to an OA-DSO structure cannot be rushed and cannot be completed within the June 2020 AB 1054 timeframe. However, that end date does not prevent the Commission from putting into place the framework and direction for achieving that goal as a condition in any plan of reorganization for PG&E that the Commission approves by the AB 1054 deadline. If that step is not taken, there is a legitimate concern, borne out by PG&E’s objections to other proposed restructurings or the Elliot Plan as posing unnecessary risks, costs, and time-consuming regulatory review, that meeting the June 2020 Wildfire Fund deadline will simply result in approval of a plan and corporate structure for PG&E that is simply “business as usual.”

That outcome is not acceptable. PG&E’s current operational structure is misaligned with State goals for the electric sector concerning sustainability, safety, resilience and affordability. Recent events related to the PSPS last week also raise significant questions whether the company can achieve long-term stability with its current culture and business model, regardless of personnel changes in its senior management. More worrisome is the prospect that restoration of PG&E’s pre-bankruptcy status quo will simply make PG&E, and even the Commission, less committed and more resistant to needed future evolution of the utility structure.

F. Transition to OA-DSO Functionality Provides Continuity and Does Not Represent a Change in Control.

Transition to OA-DSO functionality could be minimally disruptive. PG&E’s workforce could remain essentially intact. It would continue to earn its FERC-approved rate of return on its transmission assets. It would continue to own and operate its hydro assets. It would continue to cover its costs for operation and maintenance of its distribution system and, under Performance Based Regulation, could earn additional profits by exceeding safety, service quality, decarbonization, DER interconnection and local collaboration targets. Operation as an open-

access distribution service platform requires no change in ownership and cannot be construed as constituting a change in control.

G. Conclusion

The merits of requiring PG&E to transition into an Open Access-Distribution System Operator are clear. The twin goals of decarbonization and resilience require a combination of local initiatives and state policy, a “bottom-up-meets-top-down” approach. Major sources of GHG emissions derive from low-density housing patterns, massive commuting in private cars, fossil energy uses by inefficient buildings, and other societal patterns and factors within the realm of city and county planning. Further, as renewable resources come to dominate the grid, operational flexibility becomes a top priority for distribution and transmission grid operators. DERs represent a major source of clean flexibility services, capable of accelerating the elimination of gas generators by locally shaping both the demand for and supply of power.

Adoption of an OA-DSO structure for PG&E will not only facilitate increased decarbonization and resilience, but can be accomplished in a timely and efficient manner without any change of utility ownership or adverse impacts on PG&E’s workforce, and will continue to facilitate PG&E’s eligibility in the Wildfire Fund. Thus, PG&E would continue to operate and maintain the poles, wires, transformers, substations, control centers and related assets it now owns, and it would continue to deliver electricity to customers who would continue to pay the costs of the distribution system.

It is without question that the Commission – and even PG&E – have recognized that no plan of reorganization can be approved without the Commission having reached a disposition of PG&E’s post-bankruptcy corporate structure and governance.³⁷ This is not an issue that should be dealt with in a vague or “flexible” way, but should be a clear priority issue for resolution in

³⁷ OII, at pp. 5-6, 7-8.

this OII. That can best and most efficiently be accomplished by the Commission consolidating this OII with the Safety Culture OII (I.15-08-019), including the consolidation of the record that has already been developed to date on PG&E restructuring proposals.

Such an approach will also fulfill the Commission's duty to afford parties the opportunity to be heard on issues critical to PG&E's reorganization plan and post-bankruptcy governance. That input includes the Center's proposal for PG&E to function as an OA-DSO that has already been submitted and supported in I.15-08-019. Such a structure is one that will permit the Commission to fulfill its statutory duties, including the requirements of AB 1054, that requires PG&E's "resulting governance structure" to be one "acceptable" in light of safety, reliability, affordability, and climate change considerations and goals.³⁸

III. REQUEST FOR PARTY STATUS FOR CEERT AND THE CENTER

I.19-09-016 states: "Persons who file responses to this OII become parties to the proceeding and will be added to the 'Parties' category of the official service list upon such filing."³⁹ By filing this Joint Response, CEERT and the Center request confirmation of their party status in I.19-09-016, with the following individuals to be listed as the party appearance for each as follows:

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³⁸ PU Code §3292(b)(1)(C) and (D).

³⁹ OII, at p. 11.

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Respectfully submitted,

October 18, 2019

/s/ SARA STECK MYERS

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APPENDIX A

I.15-08-019 (PG&E Safety Culture OII)

Center for Climate Protection Proposal

**Excerpted from Comments (July 22, 2019), Section 6 (Included at pages 10 to 27 in Filed
Version at <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M311/K115/311115582.PDF>)**

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Investigation on the
Commission's Own Motion to Determine
Whether Pacific Gas and Electric Company and
PG&E Corporation's Organizational Culture and
Governance Prioritize Safety.

PG&E Corporation's Organizational Culture
and Governance Prioritize Safety
Investigation 15-08-019
Filed August 27, 2015

**Comments of the Center for Climate Protection in response to the Joint Assigned
Commissioner's and Administrative Law Judge's ruling on proposals to improve
the safety culture of Pacific Gas and Electric company and PG&E corporation
dated June 18, 2019**

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Submitted July 19, 2019; Resubmitted July 22, 2019

6. Additional Proposals

In the December 21, 2018 *Assigned Commissioner's Scoping Memo and Ruling*, and in the June 18 Ruling, the Commission invited proposed alternatives for addressing “the ability of the state to implement its energy policies, including the need to reduce greenhouse gas (GHG) emissions and local criteria pollutants in both the utility sector and the economy as a whole.”¹ Thus the Commission clearly recognizes that this Investigation must look not only at near-term concerns about safety and reliability in the face of more extreme and unpredictable disruptions, but must also consider how PG&E will be able to most effectively fulfill its roles and responsibilities in achieving California’s decarbonized future. It is this latter concern to which Center focuses its comments and offers a proposal for modifying PG&E’s structure, regulatory framework and incentives. The Center’s proposal will also address other near-term concerns outlined in the Ruling.

6.1 Summary of the Center’s proposal

For California’s energy systems and society at large to achieve the decarbonization, resilience and justice demanded by climate disruption, state policy and regulation needs to support and work with communities throughout the state, to enable them to plan and implement local energy resources that meet local priorities, align with major state policy goals, and help reduce costs for the electric power system. The IOU electric distribution utilities will be key partners in this project, provided some changes are made to their functions and incentives as described below.

Although PG&E is the focus of the present inquiry, the changes the Center proposes could apply to the other IOU distribution utilities and help form the basis of a uniform regulatory framework for evolving electric distribution service to meet today’s needs.

¹ *Assigned Commissioner's Scoping Memo and Ruling*, December 21, 2018, at 2.

The Center's proposal assumes that PG&E will continue to provide electric distribution service in its service area (with or without retaining the gas side) and sets aside possibilities of public ownership or other ownership restructuring. This assumption is not essential; the proposal could apply to another entity that takes on PG&E's electric distribution system.

The Center's proposal consists of the following four elements.

1. The Commission should separate and clarify the distinct roles and responsibilities of PG&E's distribution service and its retail energy function (i.e., the load-serving entity or LSE function).

Assuming PG&E continues to own and operate its current distribution system, its distribution function should remain a regulated natural monopoly service, but clear boundaries are needed between natural monopoly distribution assets and activities versus the LSE function and other areas where innovation and competition among third parties are more beneficial. For example, ownership and operation of end-use facilities such as EV charging stations or battery storage devices on customer premises is not a natural monopoly function and should not be eligible for rate-base cost recovery. In the rapidly evolving technology landscape of today, keeping competitive activities outside the scope of the regulated monopoly is necessary both to create a level playing field for all third-party innovators and to limit the exposure of ratepayers to technology performance and obsolescence risks.

2. The Commission should restructure PG&E's distribution service function to align better with state policy goals for decarbonization and resilience. Achieving these goals will depend to a large extent on initiatives adopted by local governments to decarbonize buildings, transportation, etc., and to strengthen local resilience to extreme disruptions. These initiatives will entail local energy planning and diverse applications of distribution-connected energy resources (DER), on

both the customer side and the utility side of the meter.² DERs offer vast potential benefits to both energy end-users and to the whole power system, but today some of the benefits are barely recognized much less quantified, and there are substantial barriers to DER commercial viability that regulatory reforms could address.³

In order to maximize the value and benefits of the growing volume and diversity of DER on the system and ensure their critical role in achieving California’s policy goals, the Center recommends that PG&E’s distribution service be restructured as an Open Access Distribution System Operator (OA-DSO). The central concept behind the OA-DSO is analogous to FERC’s open-access rules for transmission service and wholesale markets. In California this FERC framework is illustrated by the CAISO’s use of transparent market mechanisms for allocating transmission service, its relationship with its participating transmission owners (PTOs), its management of transmission planning and new resource interconnection processes, and its independence from the participants in the wholesale market it operates. This does not necessarily require a new independent DSO (“IDSO”) entity, but it does mean that the OA-DSO function will need to perform several key elements, including but not limited to:

² These comments use the term distribution-connected or distributed energy resources (“DER”) broadly to mean the full range of electricity resources connected to the power system at distribution level, on either the customer side or the utility side of the end-use meter, as well as smart inverters and advanced control technologies to optimize their use for both meeting the needs of energy customers and providing grid services to support reliable, efficient power system operation.

³ See Scott Murtishaw (January 2019) “Barriers to maximizing the value of behind-the-meter distributed energy resources,” California Solar & Storage Association. This paper provides a detailed examination of DER-related issues raised in some key Commission proceedings and offers specific proposals for how to address them. CCP is not commenting one way or other on Mr. Murtishaw’s specific recommendations, but we suggest that reforming the regulation of the utility distribution function as proposed here will create a more favorable context for DER proliferation that will simplify resolution of many of the more granular issues Mr. Murtishaw identifies.

<https://static1.squarespace.com/static/54c1a3f9e4b04884b35cfef6/t/5c509f774ae23756e03f6161/1548787577591/CALSSA+Whitepaper+on+DER+Barriers-Jan2019.pdf>

- a. Well-defined grid services that third-party DER providers, including energy end-users with customer-side DER, can provide to the DSO through non-discriminatory and transparent procurement mechanisms and will be fairly compensated for;
- b. An open, participatory distribution planning process that provides sufficient information on identified upgrade needs and opportunities for third parties to submit preferred-resource alternatives and have them fairly evaluated;⁴
- c. Streamlined interconnection processes to facilitate development of community-level DER (such as solar + storage) on the utility-side of the meter and formation of community microgrids to ensure continued availability of power to critical and priority facilities in the event of a major system disruption and to enable safety-related de-energizing of a line under high-risk conditions (public safety power shutoffs or PSPS);
- d. Transparent real-time operating procedures that govern curtailment of DER or other mandatory operating instructions, to ensure such procedures are non-discriminatory in their application to third-party assets;
- e. A transmission-distribution coordination framework with CAISO to ensure reliable operation and market integration with high volumes and diversity of DER on the system; and
- f. A data access framework that enables the above elements to work efficiently and with non-discriminatory participation by prosumers and third-party providers.

3. Develop performance-based regulatory (“PBR”) rules and incentives for PG&E’s OA-DSO function. The central concept of PBR is to shift the basis of the utility’s profits from a guaranteed rate return on assets to well-defined metrics that measure the quality of the DSO’s performance of the activities it is responsible for. Under a PBR structure PG&E could still recover the costs of

⁴ The CAISO’s annual Transmission Planning Process offers a useful model for how a new distribution planning process could be structured.

infrastructure investments, but at a rate of return that's closer to its actual cost of capital while performance metrics provide more of the basis for the DSO's profit.

4. The Commission should recognize and direct the OA-DSO to facilitate the crucial role to be played by local governments and communities in achieving California's climate, energy and equity goals.⁵ Many of the factors that drive carbon emissions are in the realm of urban and county planning: housing density, transport-oriented development, building codes, land use and zoning, traffic and mobility services, etc. Local governments are also key actors in creating greater safety and resilience for the more volatile environment we now inhabit, and in addressing equity issues and the needs of disadvantaged communities. And since many of these initiatives will involve electrification of fossil-fuel-using activities and will drive new demand for electricity, the DSO needs to be a collaborative partner in the design and implementation of local energy resources. On that point, the Commission's list of factors for evaluating proposals includes the following: "the utility's relationships with and role in local communities."⁶

To that end the Commission should direct PG&E's OA-DSO function to be an effective collaborator with local governments and their relevant agencies to develop and implement electrification and resilience-related energy projects that address community needs in alignment with power system benefits. In essence this means crafting a convergence between power system planning and city/county planning. PG&E's performance on this requirement should be an element of its PBR-based compensation.

The rest of this section is organized as follows: Section 6.2 describes some outcomes and desirable features of a future decarbonized California energy landscape that may be viewed as

⁵ For expanded discussion of these ideas, see Lorenzo Kristov (November 27, 2017) "Comments in response to the October 31, 2017 informal public workshop on California Customer Choice." [http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy - Electricity and Natural Gas/Lorenzo%20Kristov%20Comments.pdf](http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy_-_Electricity_and_Natural_Gas/Lorenzo%20Kristov%20Comments.pdf)

⁶ *Assigned Commissioner's Scoping Memo and Ruling*, December 21, 2018, at 10.

targets or objectives to which regulatory policies should aim. Section 6.3 identifies legacy 20th century features of PG&E’s current structure and regulatory framework that are in conflict with the desired future. Section 6.4 then outlines the Center’s proposed changes to the current structures, and Section 6.5 offers elements of a transition approach.

6.2 The pathway to California’s decarbonized future

Consider California’s energy landscape in 2030, starting with the electric power system which must deliver 60 percent renewable energy by then. While much of the industry is polarized by a debate between a vision of the future dominated by bulk electric system (“BES”) renewable resources in an optimized western regional grid versus a future dominated by rapid growth of DERs and community power systems, this is a false dichotomy. The power system in 2030 should be a blend of bulk system and decentralized resources for reasons discussed below. However, today’s power industry institutions and the dominant industry culture are biased toward building “utility-scale” BES infrastructure and tend to be dismissive of the role of DER and community power systems,⁷ which are inherently more beneficial from resilience and safety perspectives. It is important to understand why DER and community power systems are valuable and even crucial to California’s goals, and to implement changes to PG&E’s regulatory framework and incentives that will promote their growth.

⁷ These comments use the term “community power system” to mean a system of carbon-free DER and provisions for coordinating their operation, designed and implemented through state-local collaboration to: (a) support the reliable operation of a carbon-free, secure and efficient electric power system; (b) meet local energy, resilience and electrification needs; (c) achieve California’s environment, energy and equity goals; and (d) provide economic, employment and other benefits to communities.

DER and community power systems offer the following capabilities and benefits that can shape a safe, reliable, efficient, low-carbon California power system by 2030:⁸

1. **Electrification.** A major share of projects and strategies to electrify transportation and buildings and more broadly reduce carbon emissions from all sources will come about through city and county planning. General Plans deal with such matters as zoning, building codes, housing densification, affordable housing, traffic and mobility services, land use and habitat protection, etc. As buildings, transportation, and agriculture come to rely more on electricity, coordinating power system planning with city and county planning will enable optimal tradeoffs between local DER and BES-level supply, to electrify current fossil-fuel uses in the most cost-effective and societally beneficial manner, taking into account local resilience and equity benefits in addition to the usual energy cost considerations.
2. **Shaping net load and managing volatility locally.** Customer adoption of DERs will continue to grow with declining costs and increasing capabilities of new local-scale technologies. Combined with electrification-driven demand growth, the resulting increased volatility and extreme production and net load profiles at the grid edge and the circuit level (e.g., “ducklings”) can be managed locally using flexible DER and storage at various scales, rather than exporting grid-edge impacts upstream to create operational challenges and drive infrastructure needs at the BES level.

⁸ The year 2030 holds a number of key milestones in California policy. Senate Bill 100, signed into law by Governor Brown in 2018, requires electricity consumed in the state to be 60 percent from renewable supply resources by 2030. SB-32 passed in 2016 requires a 40 percent reduction in greenhouse gas emissions below 1990 levels by 2030, and a Governor’s executive order sets a 2030 target for 5 million zero-emissions vehicles. For additional milestones and targets see the California Air Resources Board’s Scoping Plan: <https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>

3. **Alternatives to expanding costly and vulnerable grid infrastructure.** There is no reason anymore to build T&D infrastructure to meet peak loads that occur infrequently and leave vast amounts of capacity underutilized most of the time. Flexible DERs, including load management and control systems, can create relatively flat net load profiles at both the distribution circuit level and BES level, enabling rapid growth of carbon-free local energy supply without driving costly T&D capacity expansion and troublesome “duck curve” impacts. (Adoption of PBR as noted above should mitigate incentives to expand grid infrastructure.) Relatively flat, predictable net load profiles at transmission-distribution interfaces can reduce congestion and increase capacity factors on the BES, enabling it to move renewable energy supplies around the western region with less need to invest in massive new grid infrastructure.
4. **Resilience.** While resilience has become a national hot-topic with many notions about what it means and how to achieve it, disruptive events always have local impacts that can drastically affect people’s lives, in many instances fatally. At the local level, resilience objectives include the capability of essential services and infrastructure to withstand more extreme events and continue functioning, the ability to quickly restore or substitute for essential services that fail, and the ability to activate public safety power shutoffs (PSPS) of at-risk T&D lines without totally cutting power in downstream communities. Thus a local resilience strategy is to create power systems at different levels that can operate as electrical islands, i.e., microgrids. A microgrid can be entirely on the customer side of the meter, e.g., an individual building or a campus that does not rely on DSO facilities or services upstream of the point of interconnection, to enable a critical facility such as a hospital or emergency shelter to operate off-grid. A microgrid can also serve a larger

community by coordinating the operation of multiple single facilities and utility-side DERs to sustain electric service over one or more distribution circuits on the DSO grid in coordination with the DSO's distribution service.

5. **Local and statewide economic benefits.** Once we start to advance community power systems designed and implemented collaboratively with the DSO, it opens up numerous job opportunities and diverse economic benefits for disadvantaged communities, cities and counties and all their residents.

To summarize, DER and community power systems offer the potential to achieve major advances in electrification of transportation and buildings with little increase in demand on the BES, even though total electricity consumption could be much greater than today. Key to this outcome is for PG&E's OA-DSO to partner with local planning in all communities across the state. As a result, new electrification demand can mostly be met with local supply and storage resources, while new energy efficiency programs implement weatherization retrofits in the state's entire building stock, and customer-side of the meter technologies transform electricity end-users into flexible resources providing grid services. These local programs can provide hundreds of thousands of well-paying jobs and bring economic benefits to low-income communities, while also reducing congestion on the western grid and moving power from wind and solar rich areas to population centers without having to build massive new infrastructure.

Now consider how California can decarbonize major fuel-intensive activities outside of the electric grid itself, mainly transportation and buildings. Transportation electrification requires much more than people swapping a combustion engine for an electric vehicle. By 2030, with bold initiatives by local governments and state support for planning and projects in all communities, reliance on private cars in urban areas can be diminished immensely. To take

climate adaptation and decarbonization seriously, city and county planning must place sustainability and resilience at the center of all decision making, such as: housing densification in core areas rather than sprawl; affordable housing close to public transit hubs and close to where people work (transit-oriented development); motor-vehicle-free downtown areas with new clean mobility services to move people to and from their destinations; building codes that require energy efficient buildings and all-electric new construction (avoiding new gas infrastructure that will soon be stranded); microgrid features to enable critical and priority facilities to operate as electrical islands; natural sustainability measures such as tree canopy, storm water capture and aquifer replenishment, as well as insect, bird and wildlife habitats and corridors. Many of these measures point to a need for collaboration between electric distribution system planning and city/county planning. The next two sections describe the legacy industry structures in need of updating and the policy actions to achieve the needed reforms.

6.3. Legacy Utility Structure Does Not Well Serve 21st Century Needs

To identify the most effective policy changes it is necessary first to understand how PG&E's existing structure and the regulatory and incentive framework in which it operates constrain California's ability to achieve rapid cost-effective decarbonization throughout the state. The existing structure was created in the last century to expand energy service and supply infrastructure and grow energy consumption rapidly. But now society's needs have shifted while the existing structure continues to embody these legacy characteristics:

1. **Expensive large-scale infrastructure is paid for by captive customers through regulated retail rates.** Traditional power system investment is supply focused, assuming demand to be exogenous, resulting in excess capacity most of the time, with all risk of stranded investment placed on ratepayers, not on the utility companies or their investors. Today DERs are able to both meet and shape electricity demands close to their source to dramatically reduce the need to invest in BES and distribution system infrastructure even while consumption grows due to electrification. The Commission needs to align DER investment incentives and opportunities with this new reality.
2. **PG&E’s compensation is based on the cost of physical assets rather than the quality of service, which incentivizes them to develop large infrastructure projects and to impede growth of DER that can offset the need for large infrastructure.** Today the impediments appear in the form of costly interconnection procedures, opaque distribution planning processes with limited opportunities to adopt carbon-free non-wires alternatives, and multiple complex regulatory proceedings moving very slowly to open the field for competitive, cost-effective DER services. Updated processes for infrastructure planning and selection of preferred solutions would provide ratepayer/customer benefits by adopting more cost-effective technology solutions with less risk of stranded assets, but this requires tying PG&E’s OA-DSO compensation to clear metrics for performance of its defined roles and responsibilities.
3. **Lack of clear boundary between PG&E’s “natural monopoly” functions (owning and operating the systems of wires and transformers) versus functions where open competition would improve results for energy customers (e.g., investment in “grid edge” devices like EV charging stations).** When FERC created the framework for

wholesale power markets in the 1990s, the central principle was open-access transmission service, which is provided in most of the country today by independent system operators, unaffiliated with market participants and with the owners of the transmission assets under their operational control. Today in California there is still no similar unbundling of PG&E's distribution function. One consequence is that as PG&E seeks to expand rate-based asset holdings into new technology areas, they enjoy competitive advantages by, for example, having unique access to customer data held by their distribution function and reduced risk due to guaranteed cost recovery through rates. An urgent issue for the Commission is to define new boundary principles between PG&E's regulated monopoly functions and competitive functions, so as to realize the greatest societal advantage to the vibrant DER technology innovation in progress today.

4. **PG&E has a huge service area under a regulatory framework that requires uniform service offerings and cost allocation and precludes providing more tailored services to different communities.** This is also a legacy structure based on historic economies of scale and the construct of electricity as a homogeneous commodity that can only come from the grid. Today these rationales no longer apply, and the new goals of electrification and resilience require locally-designed DER-based energy systems. Until the advent of Community Choice agencies, the only way for a local government to shape its energy supplies and practices was to form a municipal electric utility. But at this moment the CCA model is preferable to municipalization because it leaves in place PG&E's distribution wires function, retains its workforce and expertise in distribution system planning and operation, and avoids the need to transfer ownership of assets. If the Commission adopts requirements for partnership between PG&E's OA-DSO function

and local governments, including CCAs where they exist, it can expedite locally-based electrification and resilience initiatives and offer a viable 21st century OA-DSO business model for PG&E.

5. **Too much weight is placed on benefit-cost analysis (“BCA”) as a basis for policy and investment decisions.** BCA claims to be an objective tool for making decisions, but in practice it cannot be objective, so its results should be seen as data points, not definitive answers. BCA’s results depend on which benefits and costs are included and how they are measured. But policy decisions are future oriented, intended to achieve future benefits that are excessively discounted based on prevailing financial rates of return, or may not yet have measurement methods. Indeed, benefits of greatest concern in the era of climate disruption — e.g., local resilience and our grandchildren’s quality of life — have thus far been too hard to quantify. Thus BCA has an inherent bias toward preserving the status quo, and therefore it’s often used to preclude an otherwise feasible and desirable solution on the grounds that it “doesn’t pencil out.” As the Commission considers alternatives to address the issues raised in the Ruling, it should bring these urgent but hard-to-quantify, hard-to-monetize societal values into the center of the proceedings.

6.4. Elements of a 21st Century Electricity Policy Framework

The Center recommends that the Commission approach reforms to PG&E’s current structure through adoption of the following major elements:

1. Reform PG&E’s electric distribution function to become an open-access distribution system operator (OA-DSO), based on an open-access structure analogous to the CAISO’s structure for providing non-discriminatory transmission service and operating wholesale

spot energy markets, but designed for the characteristics and operation of electric distribution systems.

2. The open-access structure should include competitive market mechanisms whereby participating energy customers, DER providers and LSEs can develop and be compensated for grid services to the DSO, including deferral of grid asset investment as well as real-time operational services such as voltage support, congestion management and phase balancing. The framework must clearly define details of each distribution grid service, including performance requirements, dispatch, measurement and compensation. It must be non-discriminatory with regard to system planning, interconnection procedures and real-time operations such as curtailments, and these activities must be subject to clear transparency standards and supported by an effective data access framework. This will create a needed foundation for expanding cost-effective DERs on the system, for the commercial viability of DER innovators and providers, and for designing local electrification and resilience projects.
3. Develop and adopt PBR rules and incentives for PG&E's OA-DSO that measure the DSO's performance of specific roles and responsibilities and compensate the utility based on those measures.
4. Include in the PG&E DSO's mandate a requirement to partner with local governments to develop and implement electrification and resilience projects, bringing together city and county planning with power system planning.
5. Implement data access provisions for PG&E's OA-DSO that enables cities and counties to plan electrification and resilience projects and third-party DER developers and CCAs to develop local resources to implement those projects. It is both necessary and possible

to protect customers' rights to privacy and control of their own data, and address infrastructure security concerns, without placing the control under a for-profit monopoly that can realize financial benefits from control of information. Having customer data under PG&E's control is a single major impediment to enabling the demand side to become effective managers of their own impacts on the grid and providers of grid services. From a cost perspective, data access is yet another challenge to third parties seeking to develop non-wires alternatives to grid infrastructure upgrades.

6. Redesign distribution system planning to accommodate broad electrification, resilience and DER growth, and to include an analog to the "loading order" in procurement which establishes preferences for energy efficiency and active customer participation in grid operational needs, and for carbon-free, DER-based non-wires alternatives to grid infrastructure. Distribution planning must become transparent and include meaningful stakeholder participation and opportunities to offer alternative solutions. Distribution planning must also address staged "no regrets" approaches to grid modernization, with PG&E's compensation for such investment based on performance of distribution services rather than straight return on assets.
7. With separation of PG&E's distribution function from its retail function, the Commission needs to reconsider the roles and responsibilities of PG&E's retail function going forward. PG&E's retail kWh service will no longer be "bundled" as it has been historically but will be provided by a distinct functional unit of PG&E whose relationship to the OA-DSO is comparable to that of other non-utility LSEs. With so much of PG&E's load migrating to CCAs, and given the greater flexibility CCAs have to develop local resources to meet local needs and provide grid services (especially in the context of the

DSO reforms the Center proposes), it is reasonable to ask whether PG&E wants to retain its LSE function. If PG&E's retail function is no longer under a regulated monopoly framework, it would seem logical to allow PG&E to make this decision for itself (setting aside issues related to bankruptcy). At the same time, there remains an open question about provider of last resort ("POLR"), i.e., the question of who provides retail service to a customer who opts out of a CCA or whose alternative LSE ceases to function. There are examples from other states of different approaches to POLR the Commission may consider in a proceeding on transition issues. In the meantime the Center recommends that the Commission not assign any additional procurement responsibilities to PG&E until these more basic utility structure provisions can be addressed.⁹

8. The Center fully supports the Commission's adoption of strong oversight of PG&E's performance on reliability and safety of its transmission and distribution systems and explicit tying of PG&E's compensation to metrics in these areas as well as for the other responsibilities discussed above.

6.5. Transition Considerations

The Center recognizes that the reforms we propose to PG&E's operational structure represent significant changes to today's arrangements. At the same time, these or similar reforms have been topics of industry discussions in California and other jurisdictions for many years, and

⁹ For example, the November 21, 2018 Proposed Decision in the Commission's Resource Adequacy Track 2 proceeding (R.17-09-020) proposes to assign the IOUs the role of central buyers for 100 percent of Local Resource Adequacy capacity needs starting in 2019 for the 2020 compliance year. CCP agrees with the many parties who have formally urged the Commission to defer assigning this role to the IOUs to take more time to consider alternative approaches; in view of the issues the Commission raises in this Investigation and the clear need for fundamental reforms to PG&E's structure, it does not seem prudent to assign such an important new function to PG&E at this time.

some elements of the reforms are already being addressed to some extent in ongoing Commission proceedings. The Commission could take up the Center's proposals as follows:

1. At the earliest feasible date open a rulemaking to define the functional elements and regulatory framework for PG&E's distribution function to become an OA-DSO, incorporating the elements described above. This rulemaking should also develop safety and other performance metrics for the OA-DSO's roles and responsibilities and specify their use in determining PG&E's compensation.
2. Within the DRP proceeding (R.14-08-013), define the structure of a cyclical, reformed PG&E distribution planning process, including stakeholder participation and information access provisions, that will facilitate coordination of power system planning with city and county planning for electrification and resilience, support design and implementation of community-level power systems and microgrids, and allow transparent comparison and adoption of zero-carbon DER alternatives to expanding grid infrastructure.
3. Within the IDER proceeding (R.14-10-003), develop the rules for a competitive distribution grid services market in which third-party DER providers, including end-users with customer-side DER, can provide and be fairly compensated for grid services to PG&E's OA-DSO. The proceeding has already made some progress on grid services such as voltage support and congestion relief to support DSO operation (see decision D.16-12-036), and now it needs to develop the details, including performance requirements, measurement, procurement mechanisms and compensation.¹⁰ These should

¹⁰ Building on D.16-12-036, in 2018 PG&E, SCE and SDG&E jointly completed additional work to advance DER-based grid services and provided recommendations for next steps. See the Smart Inverter White Paper and Appendix: <https://aeic.org/committees/power-delivery/distributed-energy-resources-subcommittee/>

be framed in a technology-neutral manner so as to foster innovation, competition and broad participation.