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## **PG&E Comments on Draft 2019 IEPR**

This comment letter supersedes previous comment letter submitted  
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*Additional submitted attachment is included below.*



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1516 Ninth Street  
Sacramento, CA 95814-5512

Re: Pacific Gas and Electric Company Comments on the Draft 2019 Integrated Energy Policy Report

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to provide comments on the Draft 2019 Integrated Energy Policy Report (IEPR or Draft Report). The IEPR is the leading energy policy report for the State of California and profoundly impacts energy policy discussions.

PG&E broadly supports the findings and recommendations of the 2019 Draft IEPR, which appropriately puts Senate Bill 100's (SB 100) mandate for 100% clean energy by 2045 at the forefront of the policy discussions. PG&E supports California's clean energy goals and is committed to partnering with the CEC to chart a cost-effective and sustainable path to meeting the state's goal of 100 percent of retail electricity sales coming from renewable and zero-carbon resources by 2045. In partnership with industry stakeholders like PG&E, California has made remarkable strides in recent years toward achieving climate goals to prevent and mitigate the effects of climate change, but meeting SB 100's targets will require even more coordination and planning than before. PG&E recognizes this challenge and is committed to achieving California's climate goals while continuing to meet customer energy needs safely, reliably and affordably.

PG&E provides the following comments structured to mirror the organization of the Draft Report:

I. Electricity Sector

PG&E suggests two clarifications and two corrections for Chapter 1: Electricity Sector of the Draft Report. The two suggested clarifications occur on page 9. First, energy storage and demand management are labeled as "carbon-free resources" to help integrate renewables and ensure reliability, yet they are not necessarily carbon-free. Therefore, energy storage and demand management should simply be considered

resources that help serve the state’s renewables integration and reliability needs. Second, the statement regarding new building standards that require rooftop solar on new homes should specify that these requirements only impact new residential homes under three stories.

The first suggested correction needed in Chapter 1 occurs on pages 32-33. The section titled, “Changes Related to Electric Service Providers” and subsequent section language should be revised to say “load-serving entities” rather than “electric service providers”. In California, the term “load-serving entity” collectively refers to investor-owned utilities, publicly-owned utilities, community choice aggregators, and electric service providers. Load-serving entities have traditionally been the primary mechanism for implementing California energy policies, of which electric service providers are a subset.

The second correction needed occurs on page 34, footnote 90, which states, “In 2019 community choice aggregators are expected to account for 36 percent of load in Pacific Gas and Electric (PG&E) service territory...” However, in 2019 community choice aggregators are expected to account for 36 percent of load in PG&E’s transmission access charge (TAC) area, but approximately 52 percent of load in PG&E’s service territory.<sup>1</sup>

## II. Building Decarbonization and Energy Efficiency

PG&E appreciates the CEC’s acknowledgement of recent work by both Energy and Environmental Economics (E3) and Gridworks that demonstrates the need for a long-term gas transition plan in light of California’s decarbonization objectives. The next IEPR would be an ideal venue to begin outlining what elements should be included in a statewide, integrated long-term gas planning process. The next IEPR should also incorporate the impacts of the state’s decarbonization objectives into a least one sensitivity scenario in the natural gas demand forecast. This could include an exploration into changes to the composition of fuels flowing through California’s gas delivery system (e.g., RNG and hydrogen) as well as the impacts to demand, particularly from the residential and electric generation sectors

PG&E suggests several clarifications for Chapter 2: Building Decarbonization and Energy Efficiency. On page 39, the use of Figure 15 to support the discussion about direct GHG emissions is misleading since it also includes GHG emissions related to electric usage in building. PG&E suggests splitting the sectors of Residential and Commercial in two parts: direct GHG and electric usage GHG. This can easily be done using the data calculated by the CEC staff for Figure 16 on page 40.

The reference to PG&E’s proposed pilots (p 55) in the San Joaquin Valley should be updated to reflect that in December 2018, the California Public Utilities Commission (CPUC) approved pilots for eight communities in PG&E territory without access to natural gas. Those pilots will attempt to expand access to affordable energy options by replacing propane and wood appliances with efficient electric appliances along with other efficiency and electric bill reduction programs.

PG&E questions reference 102 on page 40 that CARB would currently include methane leaks from homes in its inventory. The reference does not support the statement and could be an error of assignment.

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<sup>1</sup> See CED 2019 Preliminary Forecast – LSE and BA Tables Mid Demand Case filed in the CEC’s IEPR Docket (19-IEPR-03) on August 28, 2019.

PG&E appreciates that the CEC called out the potential opportunity of using grid-interactive commercial buildings to help with renewable energy integration (pp. 51 – 52). PG&E believes residential loads also have the potential of providing this type of service, and investigation of grid-interactive buildings should not be restricted to commercial buildings.

### III. Clean Transportation

PG&E appreciates the comprehensive review of the ZEV market and policy drivers outlined in Chapter 3: Clean Transportation. We offer the following suggestions to highlight additional regulations supporting the non-light duty sector and clarify the section on vehicle grid integration (VGI).

PG&E agrees that the Innovative Clean Transit Regulation is a critical regulation to increase adoption in the non-light duty sector. However, this is only one of several CARB regulations (approved or under development) that are likely to influence adoption of ZEVs in this sector. PG&E suggests adding these other initiatives (pp. 65) to demonstrate the full breadth of California’s activities in clean transportation. With regards to VGI, PG&E suggests using the formal definition of VGI in SB 676 at the beginning of the Section “*Updating the Vehicle Grid Integration Roadmap*”, for consistency. We also commend the CEC for its expressed commitment to collaborating with other state agencies on VGI policy and rollout. Such collaboration is indeed necessary. In that regard, the report states that “... *agencies will present their contributions to the working group and develop a strategic VGI valuation method (p 84).*” PG&E notes that the inter-agency VGI Working Group within the DRIVE OIR has already taken on the task of articulating a VGI valuation method<sup>2</sup> so close coordination might be needed to ensure efficiency and avoid duplicating efforts.

### IV. Advancing Energy Equity

PG&E strongly supports efforts to advance energy equity among the customers and communities we serve. We applaud the many efforts underway by the state to improve and increase access to clean energy and clean transportation for environmental and social justice communities, including low-income households and designated disadvantaged communities. More broadly, PG&E is committed to supporting the CPUC’s Environmental and Social Justice Action Plan and goals as a means for supporting the state’s mandate to improve the equity of how clean energy benefits are realized.

PG&E has and will continue to support the state’s development of clean energy and equity strategy and policies. PG&E will also continue to serve an important role in implementing a wide range of programs and services to support customers facing financial challenges, and those who live in designated disadvantaged communities. This includes continuing to offer programs for economically disadvantaged customers such as California Alternative Rates for Energy (CARE), Family Electric Rate Alternative (FERA) and the Energy Savings Assistance Program, as well as programs to increase access to clean energy technologies and support the state’s clean air and greenhouse gas reduction mandates, such as the Disadvantaged Communities Green Tariff, DAC Community Solar, Green Tariff and Empower Electric Vehicle program.

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<sup>2</sup> VGI Valuation Method Available here: <https://gridworks.org/wp-content/uploads/2019/09/Updated-Joint-IOU-Proposal-on-VGI-Valuation-Methodology-9.24.pdf>

PG&E supports the state's efforts to strengthen partnerships with California Native American tribes and provide access to funding opportunities to advance climate resilience and clean energy equity goals. This includes uniform use of a definition of environmental and social justice, vulnerable, or disadvantaged communities in state legislation and state agency programs and regulations to include tribal and rural communities. PG&E recognizes the importance of tribal leadership and tribal communities as both key governmental partners and customers in the success of our work to provide safe, reliable and affordable service and improving how energy equity and climate resilience are realized in California. Reflecting this commitment, PG&E's recently-named tribal liaison is leading the company's efforts to better serve tribal communities and help tribes access clean energy strategies and become more resilient to climate change.

PG&E also supports the state's broad energy equity objectives to develop feasible opportunities to finance energy upgrades, create one-stop shops to increase access to clean technologies, advance retrofits and energy storage in low-income multi-family housing, and work with community-based organizations to reach disadvantaged communities.

PG&E notes that our on-bill financing program for non-residential customers has responsibly expanded access to capital for energy efficiency projects. PG&E is committed to working with stakeholders to ensure that any utility tariffed on-bill financing is developed in a way that responsibly provides customers opportunities to invest in advanced energy technologies.

## V. Climate Change Adaptation

PG&E appreciates the Commission's attention to the critical issue of climate change adaptation. As a critical service provider and the largest investor-owned energy utility serving California communities, PG&E submits these comments on Chapter 5 with acute awareness of how climate change has increased the risk of various catastrophic and chronic natural hazards. Currently, PG&E is most prominently engaged in the efforts to adapt to extreme wildfire risk; however, PG&E is also working to address other priority climate-driven natural hazards, including extreme heat, changes in precipitation such as extreme storms and drought, subsidence, and sea-level rise<sup>3</sup>.

Effective adaptation to climate change in California will require exactly the kind of collaborative, cross-sectoral, community-focused approach outlined in Chapter 5, underpinned by increasingly sophisticated forward-looking climate data to inform action.

PG&E suggests the following clarifications in the section titled "California Public Utility Commission's Adaptation Rulemaking". The Report mentions hardening infrastructure as an effort used by IOUs to make more effective use of public safety power shutoffs (PSPS). While IOUs are hardening infrastructure to mitigate risk of wildfire, it is not directly related to making shutoffs more effective. To that end, PG&E utilizes the same technique as San Diego Gas & Electric, described as de-energizing portions of a circuit rather than the entire circuit to reduce customer impacts. Sectionalizing portions of the circuit that are not experiencing high-risk weather or that are not within CPUC defined High-Fire Threat District areas lead to more effective shutoffs.

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<sup>3</sup> PG&E 2017 Risk Assessment Mitigation Phase Filing, Chapter 22 available here: <https://efiling.energy.ca.gov/GetDocument.aspx?tn=221908&DocumentContentId=29705>

Additionally, on page 110, the Report states that PG&E de-energized 735,000 customers during the October 5-6 event. While PG&E did de-energize customers, approximately 11,000 customers were de-energized in that event. During the October 9-12 event, PG&E de-energized approximately 732,000 customers.

Regarding climate data and research, the Commission is astute in recognizing that “developing climate projections on a scale that utilities request to inform infrastructure investments, risk analysis, and highly granular demand forecast and management strategies is challenging.” (Chapter 5, p. 121). In line with CPUC guidance, PG&E relies on information from California’s 4<sup>th</sup> Climate Assessment as made available through Cal-Adapt to inform relevant planning and procedures. While Cal-Adapt is a useful tool, there can be a lack of alignment between the information provided and the types of information used in utility planning. For this reason, PG&E is especially gratified that Chapter 5 recognizes the need for further research to be coproduced with end users to enable better climate-informed energy investment and planning. It should be mentioned that the Geospatial Innovation Facility (GIF) at the University of California, Berkeley, which manages Cal-Adapt, is already working to incorporate user needs and perspectives via its technical advisory group in which PG&E is a participant. PG&E looks forward to working with the CEC, CPUC, and others to advance climate science via California’s Fifth Climate Change Assessment to fill key climate research gaps.

Additional research empowers utilities with better information for decision-making. The other critical element of adaptation action is coordination, across sectors and between communities, local jurisdictions, tribes and critical service providers. As noted in Chapter 5, the complex interconnections between modern infrastructure systems are difficult to capture in traditional risk analysis. (Chapter 5, p. 118). Because these systems are interdependent, and because communities have different levels of adaptive capacity, the State of California has a critical role to play as a convener to avoid disjointed and ineffective adaptation action. As noted in Chapter 5, the CPUC is developing guidance for energy utilities with regard to climate adaptation, and has indicated that guidance will be developed for water utilities as well. However, truly coordinated climate adaptation planning will require the participation of other entities, from local governments to CalTrans, that are not within CPUC jurisdiction. To achieve a coordinated, whole-of-government approach, PG&E suggests that the existing Integrated Climate Adaptation and Resiliency Program (ICARP) housed within the Governor’s Office of Planning and Research (OPR) could be further empowered to perform this function. A partnership between ICARP and the Strategic Growth Council (SGC), also housed within the OPR, would also be advantageous, as some communities lack the capacity and/or resources to develop climate adaptation plans in line with Senate Bill 379. SGC is well-positioned to provide grant and other assistance to local jurisdictions to address this challenge.

Finally, a note on microgrids. PG&E agrees that microgrids can provide resiliency to individual customers or communities during grid outages; however, many microgrid projects also include supplemental back-up generators to enable cost-effective long-duration power continuity. Furthermore, while it is correct that distributed energy resources (DERs) such as solar and storage can “improve the resiliency of the distribution system,” the distribution facilities have to be facing load constraints and the utility must be able to call on DERs when needed (Chapter 5, p. 128). Finally, while these same DERs that can provide grid services under specific conditions -- and when in grid connected mode -- might be part of a microgrid, what makes a microgrid unique is its ability to disconnect from the macrogrid and operate independently. These details are important to consider to avoid a false attribution of value to a microgrid, versus the underlying DERs.

## VI. Transportation Energy Demand Forecast

PG&E greatly appreciates CEC's acknowledgement of stakeholders' comments and the subsequent integration of feedback in the scenarios and attributes of the 2019 IEPR electric transportation forecast, especially battery prices. PG&E also recognizes the great value of CEC's updated heavy duty and medium duty vehicle forecast. In future iterations of the electric transportation energy demand forecast, PG&E would like to see an assessment of charging infrastructure availability and its integration as a separate attribute to the model. Similarly, we encourage CEC to provide an assessment of carsharing electrification in the framework provided in SB 1014.

## VII. Conclusion

Thank you for the opportunity to comment on the Draft 2019 IEPR. PG&E looks forward to continued participation in the development of the updated report and is happy to meet with CEC staff to discuss these comments.

Sincerely,

Jessica M Melton