

Comments on Pacific Gas & Electric's Draft Business Plan

Submitted by: Center for Sustainable Energy

RULEMAKING R.13-11-005, Order Instituting Rulemaking Concerning Energy Efficiency Rolling Portfolios, Policies, Programs, Evaluation, and Related Issues.

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I. Introduction

As a mission-driven nonprofit organization, the Center for Sustainable Energy works with policymakers, regulators, public agencies and business as an expert implementation partner and trusted information resource. We help drive the adoption of clean, sustainable energy solutions.



Energy Programs

CSE designs and implements market development programs and provides policy guidance on future investments.



Public Sector Services

CSE provides sustainable energy planning assistance for local/ regional/ national governments, agencies and organizations.



Workforce Training

CSE provides community education, professional training on energy codes, standards and best practices.

II. Commercial Sector

Overarching Commercial Sector Feedback:

- While the commercial sector includes large, medium, and small commercial buildings, CSE encourages all PAs to empower building owners, of all sizes, to more effectively manage the energy of their buildings. CSE feels there are complementary roles to play among the PAs serving owners in the same territory, specific to building size and customized tools for a specific building subset (e.g., if BayREN and MCE are to focus on the smaller buildings, then how can PG&E's offerings support medium and larger buildings).
 - In particular, large commercial building owners (and large portfolio owners) are already quite sophisticated when it comes to energy management, so the focus becomes how to continue to engage with them effectively to: 1) get persistent savings; and 2) share their stories of success with medium and small business owners.
- As much as PAs are equipped to do so, and CSE would argue that PAs are uniquely equipped (the IOUs in particular), business plans should align with the market as it relates to energy efficiency in the commercial sector. The commercial sector craves standardization and continuity. As such, the business plans play an integral role in laying the groundwork for and enabling continued participation by the commercial sector in improving energy efficiency in their buildings.
 - CSE encourages all of the PAs to engage CRE stakeholders (BOMA, IREM, USGBC) more regularly and uniformly, so as to better understand the needs and opportunities of the commercial sector in improving building performance.
- While numerous business plans touched on AB 802 specific to efficiency standards, few plans elevated the importance of and opportunity in the state's [new benchmarking program](#).
 - The forthcoming statewide benchmarking program has an unprecedented opportunity to weave together building-level information with business plan goals for the commercial and multifamily sectors.
 - The IOUs should create online benchmarking portals allowing them to provide and collect building information; an even more robust data set can be accessed when using Portfolio Manager Web Services as utilities can pull building profile information back from Portfolio Manager submissions.
 - The implementation of the new benchmarking program will require commercial and multifamily buildings (larger than 50,000 sq. ft. according to current draft regulations) to benchmark their buildings. This act, to happen annually, will foster an already growing industry practice to track building performance. Business plans can best serve the commercial sector by not duplicating program offerings, but rather making sure key services (i.e., audits) can be accessed statewide.

- While there will be statewide programs for the commercial sector specific to HVAC (up/midstream) and Savings by Design, CSE strongly encourages PAs and the Commission to consider additional statewide coordination in working with commercial buildings. CSE feels that PG&E included several excellent ideas for engaging commercial owners [e.g., complementing energy audits with project development assistance and partnering with large customers to develop long-term strategic energy management plans. (Pg. 26)], and CSE would like to see those offerings implemented throughout the state. CSE is disappointed that PAs did not choose downstream pilots, such as the Commercial Energy Advisor, as suggested in D.16-08-019.
- CSE was encouraged that several business plans incorporated ideas for elevating the tie between energy efficiency in buildings and grid reliability. In particular, SCE wrote about its IDSM Grid Reliability Rapid Response Pilot, where “this pilot will supply a rapid response set of EE, DR, Solar, and IDSM solutions to help alleviate grid restraints” (Pg. 24). Given the recently published Phase III scoping memo and mention of “locational targeting or sourcing of energy efficiency”, it certainly seems that business plans looking to incorporate and emphasize this strategy are correctly anticipating the strength of these pilots and the potential for scalability.

Specific Comments:

1. **Pg. 4**, PG&E refers frequently to their “EE Recommender” tool as a core component of its Data Analytics intervention strategy, but because customers are also able to access their AMI directly through Green Button Connect My Data (CMD), how would PG&E describe the difference between the two offerings? And if a building owner wants to use CMD to work with a third-party vendor, how does that fit into the commercial sector vision within PG&E’s territory?
2. **Pg. 4**, PG&E refers to Data Access as an intervention strategy, but does not talk about whole-building data access or the opportunity provided in building an online benchmarking portal as promoted and discussed by the Energy Commission as part of the state’s new benchmarking program.¹
3. **Pg. 5**, for the intervention strategy *Technical Assistance and Tools*, PG&E could use an online benchmarking portal (used by building owners to request whole-building data) to interact with

¹ [Building Energy Use Benchmarking and Public Disclosure Program](#)

customers in providing technical assistance. PG&E could use the benchmarking score as a proxy for performance and as a way to first target building owners in need of the most help (i.e., those with the lowest score).²

4. **Pg. 6**, “PG&E will optimize portfolio offerings around the new energy savings paradigms”.
 - To what new paradigms is PG&E referring?
5. **Pg. 6**, PG&E refers to the ability of building controls technologies to “create opportunities for demand and energy savings”.
 - How does PG&E plan to incorporate building controls technology recommendations into their process when working with building owners? Will PG&E offer any financial incentives to cover the cost?
6. **Pg. 10**, “The fact that high tech customers are responsible for 22% of commercial electricity consumption yet have the lowest participation rate in energy efficiency reveals the need to target this segment to capture savings potential”.
 - CSE recommends creating a program specifically for high tech companies, particularly being that Silicon Valley falls within PG&E’s territory.
7. **Pg. 13**, PG&E wrote that Santa Clara, Alameda, San Mateo, and Contra Costa are the counties that used the most electricity in 2015.
 - Does PG&E plan to prioritize targeted EE outreach in these counties?
8. **Pg. 16**, PG&E calls out a lot of great commercial real estate resources specific to energy management.

² [Beyond Benchmarking: Unlocking Value for Utilities](#)

- CSE encourages all of the PAs to engage CRE stakeholders (BOMA, IREM, USGBC) more regularly and uniformly, so as to better understand the needs and opportunities of the commercial sector in improving building performance.
9. **Pg. 18**, PG&E notes the distinctions between small (SMBs) and large buildings.
 - CSE recommends creating size-specific tracks for engaging buildings and providing size-specific technical assistance.
 10. **Pg. 22**, PG&E provides detail on their Data Access and Awareness strategy but does not mention a benchmarking portal nor the need and opportunity for tracking a building's performance.
 11. **Pg. 23**, "Although Portfolio Manager 'is not designed to identify specific energy-saving opportunities within buildings,' 84% of those surveyed reported leveraging improved awareness of their energy usage to identify energy efficiency opportunities, 67% used data access to identify which buildings needed the most improvement, and 63% used the information to set goals for facility performance.⁸³ These findings demonstrate commercial customers desire access to actionable insights on their energy usage."
 - Given the power of benchmarking using Portfolio Manager, CSE strongly encourages PG&E to view the forthcoming statewide benchmarking program as an unprecedented opportunity to weave together building-level information with business plan goals for the commercial and multifamily sectors.
 12. **Pg. 36**, PG&E calls out its partnership with the American Institute of Architects (AIA) on the ZNE competition, but, as echoed above, PG&E should engage the commercial real estate community more robustly (using the new statewide benchmarking program as an opportunity to do so).
 13. **Pg. 38**, Please mark which programs are existing, modified, and new.

III. Residential Sector

1. **Pg. 6**, “Midstream Training: Education and training opportunities have historically been provided to midstream actors such as contractors and technicians. In light of recent policies that set ambitious targets for energy efficiency and ZNE, it will be critical that these market actors receive sales training that incorporates the availability of financing opportunities to promote the adoption of optimal energy management solutions.”
 - Midstream training should address, or at least align with, Codes & Standards (C&S) to bolster compliance efforts.
2. **Pg. 25**, “Streamline access to aggregated whole-building data and consent-based tenant data”.
 - The multifamily sector deserves special attention as this tactic is deployed. The PG&E Business Plan could use additional details on how multifamily tenants and property owners will be provided with actionable data and messaging to drive savings.
3. **Pg. 27**, “Optimize HERs and expand the population of recipients”.
 - CSE wonders if HERs or other tools in this Intervention Strategy include asset ratings or building performance labels?
4. **Pg. 29**, Table 7. Intervention Strategy 4: Financial Solutions
 - CSE feels that none of the example tactics listed address the barrier that EE projects "are not recognized as valuable by the real estate market." PG&E is already active in the real estate and residential asset rating space. Will this activity continue?
 - Will PGE continue to engage realtors and other real estate professionals (i.e, appraisers, etc.) around EE? If so, how will these activities address this barrier?
5. **Pg. 35**, Table 10. Intervention Strategy 7: Upstream and Midstream Partnerships
 - If PG&E has specific market transformation goals in mind for this strategy, CSE asks that PG&E add more information about these goals in this section.
 - Will the strategy focus on specific products? ‘Plug loads’ in general is very broad. More detail on targeted manufacturers would be valuable.
6. **Pg. 39**, Table 12. Intervention Strategy 9: Midstream Training

- Creating market demand for EE during real estate transactions requires engagement of real estate professionals, not just the workforce. CSE asks that PG&E specify intended real estate engagement activities here.
 - Additionally, workforce training should include a C&S component to further prepare contractors for ZNE policies.
 - CSE asks that PG&E discuss alignment with C&S and related readiness activities here.
7. **Pg. 42**, “Codes and Standards (C&S): C&S will coordinate closely with PG&E’s residential program as part of Intervention Strategy 7: Assistance for the Design and Building Communities to support the transition to ZNE for all new residential construction by 2020. Specifically, C&S will continue to collect primary data on equipment performance both in situ and in laboratory conditions to determine how equipment impacts overall building performance uniquely in single family and multifamily communities as well as on the grid as a whole. This detailed information will serve as a key input in the design of PG&E’s broader offerings of technical assistance, tools, and financial solutions (See Intervention Strategy 3: Technical Assistance and Tools and Intervention Strategy 4: Financial Solutions) that contribute to improving the efficiency of existing buildings and doubling efficiency by 2030.”
- Please elaborate on how PG&E intends to assess and address C&S compliance. Opportunities include SB 1414, gathering feedback from midstream and upstream partners regarding feasibility of proposed codes and standards, and continuous evaluation of code readiness activities.
8. **Pg. 78**, Appendix F: Comprehensive HVAC - 3b. Permitting Verification
- CSE encourages collaboration between PG&E and BayREN on their C&S activities; specifically with regard to engagement of building departments in streamlining permitting processes. BayREN has existing activities and relationships with local building departments, and the work would be best served from PG&E and BayREN working together to maximize compliance and savings associated with HVAC.

IV. Codes and Standards Sector

1. CSE is encouraged by the vision laid out for C&S work in the PG&E Business Plan. Because PG&E is the overall statewide lead for C&S, it is that much more critical that the strength and vision of the proposed plan be dynamic and capable of addressing complex challenges and opportunities statewide.
2. **Pg. 1**, “C&S efforts will accelerate the transition of measures into code by being pro-active, targeting interventions earlier in the process to advance energy efficiency faster (i.e., promote code adoption at the earliest feasible date). The increase in coordination, enhanced primary research efforts, and PG&E’s code readiness activities are all examples of how the C&S effort will accelerate the transition into code.”
 - CSE asks that PG&E specify the intended market actor(s) to be included in “increased coordination”.
 - CSE asks that PG&E provide additional detail on its “enhanced primary research efforts”.
3. **Pg. 1**, Can “Code-Directed Industry Transformation (CDIT)” be incorporated into statewide C&S programming? If not, CSE asks PG&E to please provide an explanation for being unable to do so.
4. **Pg.4**, Advocacy to Support Building Codes and Appliance Standards
 - CSE feels the proposed research is well-suited for IOUs, with most tactics presented having been modified from existing programs, with the addition of grid integration and DR tactics.
5. **Pg. 17**, “Proactively engage and foster improved working relationships with a broader range of affected stakeholders and recruit them to directly communicate to the Energy Commission and participate in rulemakings.”
 - CSE agrees engaging stakeholders and asking them to provide their voice in the process is critical but stresses the need to coordinate engagement activities with RENs and LGPs, as those entities are already working closely with local governments and harder-to-reach market actors.
6. **Pg. 12**, “Local governments lack awareness about which reach codes can help them achieve their goals, and lack the resources needed to adopt reach codes”.
 - CSE believes downstream efforts should be led by RENs or LGPs, who already have a track record of success engaging market actors.

- Further, a majority of local governments throughout California are still having difficulty implementing current statewide code. It would be prudent to first help local jurisdictions implement the current code before focusing on reach code adoption.

V. Finance Sector

Overarching Finance Sector Feedback:

1. CSE wants to underscore the importance of a concierge or coach when it comes to financing. Regardless of the quantity of financial product offerings, if there are not consistent resources or points of contact to help customers learn about and understand how different financial offerings are best suited for their needs, then uptake of energy efficiency financing (regardless of quality) may suffer.
2. CSE encourages all PAs to include more information on how they will plan to integrate financing into their portfolios broadly and on how they intend to allocate money to better fund marketing, education, and outreach. Furthermore, CSE encourages all PAs to pair with that information regarding how energy savings associated with financing can be tracked and claimed toward goals.
3. CSE wonders why there is no mention of leveraging Go Green Financing resources. Moreover, CSE finds it problematic that there is no mention of the REEL Financing Program or integrating a financing message into overall program design. Market research has shown that financing cannot be successfully promoted as a stand alone effort; rather, it must be part of the consumer engagement strategy for energy efficiency program participation. States that have had successful uptake in financing have had an interwoven strategy promoting energy efficiency concept benefits with incentives and financing solutions in a way that customers could best achieve their objectives for accessing energy efficiency improvements.

VI. Emerging Technology Sector

Please refer to CSE comments on SCE ETP chapter, as SCE is the assigned statewide lead for Emerging Technologies (Electric ET).

VII. Public Sector

Overarching Public Sector Feedback:

- There is not enough detail in any of the business plans about how to tackle the hurdle of master meters and submeters or how aggregated data will be able to be broken out for analysis. To effectively benchmark a property today, Portfolio Manager requires the input of monthly, whole-building data. The majority of public sector customers do not have building-specific meters, but rather, they have a master meter with submeters. This meter set-up does not give facility managers a clear picture of where energy intensity is highest. For example, a city property may be metered with the street lights around it. As such, it can be very difficult for these public sector customers to determine where energy efficiency measures would be most useful. To address this situation, PAs can offer intensive Portfolio Manager training as well as offer onsite experts at complex public sector sites. Furthermore, PAs can help public sector customers understand their options for other meter configurations or data analytics.
- All IOUs include the need for more robust energy management systems for the public sector in their business plans. While public sector properties would certainly benefit from access to energy management software and its analysis, there also needs to be a process in place for creating an institutional culture around energy management. The strategy to offer more energy management tools to public sector customers should be thoughtfully considered so as not to have possible stranded benefits in the years to come.

Specific Comments:

1. **Pg. 23**, “Intervention 3 – Data Analytics Advanced Metering Infrastructure (AMI): data presents a major opportunity for strategically targeting high opportunity projects and providing value propositions targeting energy efficiency opportunities in the public sector. Offering opportunities for implementers to target public sector customers with AMI data will be a major component of PG&E’s future strategy.”
 - CSE agrees that improved data access via AMI presents a major opportunity for public sector customers. CSE encourages PG&E to think through the ways it can offer

education and training around AMI (accessing and analyzing) so that public sector staff (e.g., facility managers) can best leverage the availability of data with actionable insights leading to the improved operations of their facilities.

VIII. Workforce Education and Training Sector

Overarching WE&T Sector Feedback:

- While PG&E is the assigned statewide program administrator for WE&T specific to K-12 Connections and Career and Workforce Readiness, local WE&T efforts, as proposed in other plans, do not focus on similar elements for outreach and engagement, making it very difficult to compare and understand how the different WE&T offerings in IOU territories will complement one another.

Specific Comments:

1. CSE asks for clarification on the statistics provided for disadvantaged zipcodes. It would be more effective to provide the percentage of the load that is from disadvantaged communities and what percentage of the population is served in PG&E's territory.
2. **Pg. 3**, "As a way to continually improve its WE&T offerings, PG&E will focus more on tracking participants' increased knowledge gain, as well as their incorporation of knowledge, skills, and abilities (KSAs) into their job activities. PG&E will seek the support from its collaborating organizations to assist in documenting outputs such as knowledge gain and on-the-job skills implementation ... PG&E will also focus on producing and tracking outcomes while it tracks the number of students, teachers, and organizations served. Outcomes may include curriculum transformation, using materials in the classroom (for teachers) and at home (for students), and steering students to energy education and career paths."
 - CSE seeks additional clarification on who will pay for these tracking efforts. Will that be PG&E? PG&E writes about administering surveys and record keeping to measure results, but CSE wonders about the capacity of these organizations (e.g., schools, apprenticeship programs, etc.) to do this work? Will PG&E provide resources to these partner organizations in gleaming this participation and knowledge gain data?
3. **Pg. 4**, "To best align with California's energy goals, PG&E will address the sectors that present the largest potential for energy savings, serve the parts of the energy workforce that has the greatest potential to realize those energy savings, and provide the knowledge, resources, and skills required to act on those energy savings opportunities."
 - Disadvantaged communities (census block, zipcodes) may not align exactly with the targets stated above. How will PG&E address the need to provide WE&T to certain populations while also balancing the desire to invest in the areas that have the most savings potential?

4. **Pg. 6**, “California’s clean energy and energy efficiency job market has grown for the last three years, and this trend is expected to continue. This presents WE&T with an opportunity to provide critical resources and skills to this burgeoning segment to drive increased energy efficiency. It also presents a challenge to identify the specific workforce segments that can best impact energy savings and/or exert market influence via education and training.”
 - Does PG&E intend to prioritize certain clean energy technologies for WE&T? CSE noted that demand response was only mentioned once throughout the WE&T chapter. CSE feels training around emerging demand response technologies is a well-aligned opportunity on which PG&E could focus within their WE&T programming.



As a mission-driven nonprofit organization, CSE works with energy policymakers, regulators, public agencies and businesses as an expert implementation partner and trusted information resource. Together, we are the catalysts for sustainable energy market development and transformation.

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