

July 12, 2013

**VIA E-MAIL DOCKET@ENERGY.  
CA.GOV**California Energy Commission  
Dockets Office, MS-4  
Re: Docket No. 12-EBP-1  
1516 Ninth Street  
Sacramento, CA 95814-5512Re: Comprehensive Energy Efficiency Program for Existing Buildings: Staff Workshop on the Comprehensive Energy Efficiency Program for Existing Buildings Draft Action Plan—Comments of Pacific Gas and Electric Company

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to provide comments on the California Energy Commission's (CEC or Commission) Staff Workshop on the Comprehensive Energy Efficiency Program for Existing Buildings (EEPEB) Draft Action Plan (Action Plan),<sup>1</sup> pursuant to Assembly Bill (AB) 758, Skinner, Chapter 470, Statutes of 2009.

On June 24, 25, and 28, the CEC held workshops to discuss the numerous initiatives contained in the draft Plan and PG&E participated in each of those workshops. Below, in Section I, PG&E provides comments on the overall Draft Action Plan. In Section II, PG&E provides input on Chapter 2, "No Regrets Strategies" (NRS); PG&E comments on Chapter 3, "Voluntary Pathways" (VP), can be found in Section III.

## I. INTRODUCTION

Since the 1970s, PG&E has been a leader in energy efficiency and has worked closely with government, nonprofit, and private sector partners to design and implement programs and policies that allow Californians to do more with less energy. PG&E's energy efficiency portfolio includes a robust suite of rebates, incentives, services, and tools for targeting every customer segment with a comprehensive set of technologies through multiple delivery channels to help customers reduce energy usage and save money. These channels include utility staff, government partnerships, trade professionals, retailers, distributors, manufacturers, and other third-party providers. In 2012 alone, PG&E's energy efficiency programs avoided the release of more than 900,000 metric tons of carbon dioxide (CO<sub>2</sub>), which is equal to the annual greenhouse

---

<sup>1</sup> Unless otherwise noted, all page references refer to:

Efficiency and Renewable Energy Division. (2013). Draft Action Plan for the Comprehensive Energy Efficiency Program for Existing Buildings (CEC-400-2013-006-D). Sacramento, CA: California Energy Commission. Retrieved from <http://www.energy.ca.gov/2013publications/CEC-400-2013-006/CEC-400-2013-006-D.pdf>

gas emissions from nearly 200,000 passenger cars in California or more than 250,000 homes in PG&E's service territory. PG&E is dedicated to helping California meet its energy efficiency goals in existing buildings and is already utilizing many of the approaches detailed in the Draft Action Plan to help make achievement of the goals a reality.

PG&E is pleased to see that the Draft Action Plan will utilize a wide array of tools and multiple pathways to achieve meaningful energy savings in the existing building stock. Many of these pathways are already aligned with existing PG&E initiatives. Strategies such as promoting cost-effective energy efficiency improvements, enhancing our clean energy workforce, increasing outreach and education, leveraging data, and promoting rebates and financing options, are all vital components in achieving the State's energy goals. PG&E looks forward to continued collaboration with the many stakeholders involved in this proceeding to ensure that the EEPEB is successful.

PG&E is in agreement with many elements of the Draft Action Plan and key points are summarized below.

- No Regrets Strategy (NRS) 1: PG&E agrees that access to objective building performance data is a foundational element of any comprehensive effort to improve building performance. However, a centralized database would create new risks and uncertainties around consumer privacy and is unnecessary and costly. Common data sharing protocols between utilities and third parties to provide customer data are already in place, and the CEC should focus its efforts in other areas. PG&E is committed to improving and streamlining data exchange processes but is likewise committed to ensuring that such processes do not violate customer privacy rules, and that utility proprietary data is protected from disclosure.
- NRS 2: PG&E supports the CEC's focus on alterations to existing buildings: retrofits and additions to existing buildings constitute the vast majority of construction work. PG&E agrees that simplifying code implementation means providing market actors with better tools and targeted training.
- NRS 3: Marketing, education and outreach (ME&O) strategies should be updated to provide additional implementation details.
- NRS 4: PG&E applauds the CEC for providing a comprehensive and multi-pronged approach to workforce education and training. The CEC should model existing best practices and leverage existing educational infrastructure, which already have a track record of success.
- Voluntary Pathway (VP) 1: PG&E recommends continuing to direct customers to and leveraging each utility's existing energy efficiency offerings. Creating separate pathways could lead to a duplication of effort and cause confusion in the market.

- VP 2: Potential energy efficiency savings is an important driver of customer adoption. The CEC should encourage multi-stakeholder engagement, structured in a way that promotes action.
- VP 3: PG&E supports the CEC's efforts to minimize the amount of time and attention needed from customers to move to the next step in the upgrade process.
- VP 4: PG&E encourages the CEC to expand public sector leadership to include the creation and utilization of privately-funded financial products.
- VP 5: PG&E supports incorporating the dollar-for-dollar value of energy efficiency performance into the property valuation and appraisal process.
- VP 6: PG&E agrees with the CEC's overall vision of promoting financing opportunities and policies that enable maximum energy efficiency upgrades. However private sector finance should be viewed as a way to maximize or build upon ratepayer funded programs—not as a replacement.

Additionally, as the CEC incorporates stakeholder feedback into the Draft Action Plan, PG&E recommends including more specific implementation details be included, where possible. Information on who would implement each strategy, rough estimates for the cost and time for implementation, and more detailed execution steps would help stakeholders and policymakers better understand the timelines to ramp up the programs and for customers to gain the important benefits from this program. While the CEC has indicated that implementation will begin after adoption of the Final Action Plan, and that the CEC will review and update the Action Plan during the 2014 Integrated Energy Policy Report proceeding, more specifics in the Final Action Plan would help stakeholders better understand the path forward and to offer more targeted feedback.

Moreover, as the CEC finalizes the Action Plan, it will be important to ensure that EEPEB goals are consistent with, and in line with, the objectives, directives, and resources allocated to the investor-owned utilities (IOU) from the California Public Utilities Commission (CPUC). In turn, the CPUC should take into consideration the initiatives that come out of the Action Plan, and ensure sufficient funding is available for the IOUs to support incremental opportunities that are identified.

Furthermore, PG&E is pleased that the Draft Action Plan considers cost-effective solutions as a fundamental objective of the program. However, more specifics are needed on how cost-effectiveness will be measured and by whom. This is a key distinction. Due to differences in the cost-effective methodologies of the CEC and the CPUC, an activity deemed "cost-effective" by the CEC would not necessarily be viewed as "cost-effective" by the CPUC. This information is important to evaluating the Draft Action Plan's short- and long-term strategies and should be explicitly incorporated. Also, as the CEC notes, cost effectiveness plays a critical role in the long-term success of the EEPEB. When analyzing and implementing the specific initiatives in

the Draft Action Plan, the Commission should engage in an ongoing dialogue with the CPUC to fully address these issues.

In many cases, the strategies described in the Draft Action Plan provide an obvious benefit. For example, VP 5, which seeks to include energy efficiency in a property appraisal, includes the following Key Initiative: “Conduct pilot projects in local regions to demonstrate the value of energy efficiency upgrades in conjunction with property values.”<sup>2</sup> PG&E fully supports attributing a dollar-for-dollar valuation of energy efficiency upgrades. Moreover, pilot projects are a proven method to test a full-scale program design. However, it is unclear how and by whom such strategies and initiatives would be implemented, and at what cost.

Finally, the Draft Action Plan clearly acknowledges that gaps remain (e.g., plug load, multi-family, low income). PG&E looks forward to working with the CEC to address these important issues.

## **II. NO REGRETS STRATEGIES**

In Chapter 2, “No Regrets Strategies,” the Commission sets out the foundational strategies that provide the basis for the EEPEB. Below, PG&E offers input on specific NRS.

### **A. THE CEC SHOULD RELY ON COMMON PROTOCOLS BETWEEN UTILITIES AND THIRD PARTIES IN COLLECTING CUSTOMER DATA**

#### **“No Regrets Strategy 1: Data Reporting and Management”**

As discussed at a recent CPUC workshop on customer privacy rules and data access,<sup>3</sup> PG&E committed to streamlining processes which provide appropriate access to useful energy usage data for the EEPEB building energy efficiency ratings, provided that customer privacy and proprietary data is protected from disclosure consistent with California laws, including the California Information Practices Act and Public Utilities Code Section 8380. Similarly, PG&E is working to coordinate and streamline access to customer-specific energy usage data, in compliance with the CPUC’s privacy rules and all applicable laws.

For example, PG&E has implemented the Green Button program with the support of the U.S. Department of Energy and the White House. The Green Button program is a streamlined option for customers and third-party energy management application developers to share customer-specific energy usage data. This enables numerous

---

<sup>2</sup> Pg. 59.

<sup>3</sup> Please see the CPUC’s Energy Data Workshop: <http://www.cpuc.ca.gov/NR/rdonlyres/8D998B51-8A6A-4BCB-8D86-A2A59CD48661/0/EnergyDataWorkshopAgendaFinalR0812009.pdf>

customer-directed energy management applications and tools consistent with customer privacy protections.

The Draft Action Plan does not precisely specify how energy performance data will be made available to market participants. However, NRS 1 does include language (*e.g.*, “a centralized and accessible data repository” or “a complete database”) that suggest the Commission may be considering a centralized database. This is unnecessary and costly. Additionally, it would raise serious risks and issues regarding protection of customer privacy.

PG&E would recommend the Commission instead rely on common protocols between utilities and third parties. Such protocols can provide a balanced, consistent approach to sharing energy usage data to third parties with a legitimate interest in accessing the data at much less cost and consistent with customer privacy protections. PG&E already makes such energy usage data available to various third-parties, research institutions, and public agencies in a mutually beneficial and efficient way.

For example, PG&E utilized this model for Energy Upgrade California. PG&E provided residential heat maps to local jurisdictions, like the City of Fresno. The heat maps enabled an advanced analytical approach to targeting. Moreover, the partnership with Fresno was able to be quickly replicated and distributed to other local governments, using PG&E’s existing infrastructure and resources.

Additionally, under PG&E’s Green Communities program, PG&E routinely shares non-customer specific energy usage data with local governments for climate planning purposes under non-disclosure agreements. PG&E also shares similar data with academic and government researchers under similar non-disclosure agreements for the benefit of its customers or its utility services.

Any data sharing must protect customer privacy and the customer funded value of the data. PG&E is pleased to see the CEC acknowledge this explicitly in the Draft Action Plan.<sup>4</sup>

**B. PG&E SUPPORTS INCREASING PERMITTING TOOLS, EDUCATION, AND CODE ENFORCEMENT ACTIVITIES**

**“No Regrets Strategy 2: Support for Standards Compliance and Enforcement”**

---

<sup>4</sup> Specifically, NRS 1.1, Key Initiative 2, which reads: “Develop requirements and protocols to ensure customer confidentiality and data security.”

PG&E appreciates the CEC's focus on additions and alterations to existing buildings. The Statewide Codes and Standards (C&S) Program necessarily serves many industries and professions (*e.g.*, local building department employees, energy consultants, heating ventilation and air conditioning [HVAC] contractors, and lighting installers). However, retrofits and additions constitute the vast majority of construction work and thus deserve commensurate treatment in the C&S Program. PG&E sees tremendous potential energy savings from bringing additions and alterations to code and has designed its compliance and improvement activities accordingly.

PG&E agrees that simplifying code implementation means providing market actors with better tools and targeted training. PG&E values the collaborative relationship it has with the CEC's Building Standards Implementation Office and respectfully requests that the CEC continue its work with the IOUs and only develop programs that complement and expand upon existing, effective compliance improvement efforts.

Specifically, PG&E would like to highlight the following efforts that pertain to NRS 2 and offer points of future collaboration between the Commission and the Statewide C&S Program's compliance improvement efforts. The Statewide C&S is a collaborative effort between the three IOU, among others.

- C&S is in the process of rolling out new tools designed to help people better navigate the codes, identify and access the appropriate compliance forms, and recognize quality installation in the field. The tools included in the C&S Program's new Ace Toolkit are a result of the program's Building Department Best Practices Study and can be found at [www.T24Ace.com](http://www.T24Ace.com).
- C&S is expanding its outreach and training efforts: reaching-out to the building trades, in addition to continuing to work with building departments and energy consultants; launching a series of on-line, self-paced courses; and preparing to facilitate live training in virtual classrooms. These efforts allow C&S to deliver accurate, consistent, repetitive, and cost effective messages to all market actors in California. The new curriculum will launch after the new compliance software becomes available this fall.
- Additionally, C&S is preparing to conduct outreach campaigns designed to raise both consumers' and contractors' awareness about code requirements, when codes are triggered, and the benefits of compliance. C&S will begin by targeting the HVAC alteration industry early this fall in collaboration with the CEC.
- C&S is also continuing the Compliance Improvement Advisory Group (CIAG) to identify barriers and potential solutions to code compliance. The CIAG has drafted seven white papers to date on various compliance challenges, available at: <http://www.caciag.com/Issues>.

**C. ADDITIONAL CLARITY IS NEEDED ON MARKETING STRATEGIES**

**“No Regrets Strategy 3: Foundational Marketing, Education, and Outreach Resources.”**

PG&E supports NRS 3.1, which describes the Commission’s strategy of using marketing, education, and outreach (ME&O) to motivate building owners and managers to take action to make energy efficient improvements. However, PG&E suggests that additional specifics be included to ensure clarity and understanding of the proposed key initiatives.

- PG&E agrees, as described in NRS 3.1, that additional research is necessary to assess the needs and benefits of each customer segment, their attitudes towards energy efficiency, and what motivates each to be engaged.
- Further clarity is needed on how the proposed key initiatives would be targeted to business owners and managers. Currently it is unclear if the reference to targeting other priority customer segments, identified by using future data and best practices analysis, is a subset of the business owners and managers or if these would be additional targets. Additionally, it would be helpful to have a definition of what constitutes the highest energy users for small businesses customers.
- PG&E reiterates the points made in Section II, Part A, regarding leveraging the existing protocols between utilities and third parties in collecting and sharing specific data.
- Key Initiatives 3 and 7 appear to be very similar; additional clarity is needed to understand the distinction between the two.

Similar to NRS 3.1, PG&E is in support of the strategy where power management programs for all building sectors are considered complementary to the ME&O efforts; however, further details are needed to strengthen the tie between the key initiatives and strategy NR 3.2.

- Further clarity could be achieved by streamlining the target audience and their associated initiatives. In the current draft, it is difficult to follow which tactics are applicable to which audience.
- All messaging—increased property value, safety, health and comfort—should be validated by consumers’ motivators identified through research.
- Additional information on the associated cost is needed to validate key initiatives outlined for both strategies.

**D. PG&E SUPPORTS A COMPREHENSIVE AND MULTI-PRONGED APPROACH TO WORKFORCE EDUCATION AND TRAINING**

**“No Regrets Strategy 4: Foundational Workforce Resources.”**

PG&E applauds the Commission for providing a comprehensive and multi-pronged approach to workforce education and training. This emphasis aligns well with PG&E’s efforts. PG&E looks forward to leveraging these to support the workforce education and training goals in the Draft Action Plan.

NRS 4.1 sets out to streamline workforce development to ensure that workforce education and training programs meet industry and market needs. This is incredibly important. The CEC should model existing best practices, which already have an existing track record of success. Additionally, the CEC should leverage existing education infrastructure, like community colleges and community-based organizations, to develop and deliver trainings. PG&E’s training centers can also play a role in supporting workforce development.

Training investments should be prioritized on industry need. To gauge need, the Commission should use real-time labor market information, in conjunction with workforce projections, to determine the priority of occupations for which training is offered.

Additionally, NRS 4 rightly mentions and incorporates certification, which is important for creating a skilled workforce. When done properly, a certification conveys a level of quality and competency, improving transparency in market interactions. However, the proliferation of competing programs and certifying organizations, in many cases, undermines the value of certification in general. The Commission can remedy this situation by establishing comprehensive standards or choosing certain certification programs. Ensuring core competencies is as important as enforcing certifications.

Finally, PG&E agrees with the cross-sector based approach to coordinate workforce development efforts, as outlined in NRS 4.2. PG&E is involved in and, in some cases, leading cross-sectorial strategies consistent with this approach.

**III. VOLUNTARY PATHWAYS**

In Chapter 3, “Voluntary Pathways,” the Commission describes market supported strategies. PG&E offers input on individual Voluntary Pathway (VP) strategies below.

**A. CEC SHOULD LEVERAGE EXISTING UTILITY OFFERINGS**

**“Voluntary Pathway 1: Create Multiple Pathways for Residential Property Owners”**

PG&E appreciates the approach and ideas presented in VP 1. However, PG&E recommends continuing to direct customers to and leveraging each utility's existing energy efficiency offerings. Creating separate pathways could lead to a duplication of effort and cause confusion in the market.

Utilities currently offer a spectrum of program options designed help engage customers in managing their energy use. Through education, PG&E assists customers in choosing the right demand response, energy efficiency, or self-generation program: one that fits their needs and unique circumstances. These activities, as noted in VP 1, are constantly being evaluated and improved based on customer feedback, market insights, and findings from various evaluation, measurement and verification (EM&V) outcomes. Additionally, the incentive programs are based on driving towards the Strategic Plan<sup>5</sup> goals and are coordinated closely with the CPUC to ensure the ability to achieve cost effective energy savings.

**B. GREATER CUSTOMER UNDERSTANDING IS AN IMPORTANT DRIVER OF ADOPTION**

**“Voluntary Pathway 2: Standardize Tools for Benchmarking”**

PG&E sees greater understanding of potential energy efficiency savings as an important driver of customer adoption. Customers are more likely to make a given energy efficiency upgrade if they are confident in the expected result. Therefore it is critical that each customer segment is offered a variety of tools and approaches. Moving forward, the CEC should work to encourage multi-stakeholder engagement, structured in a way that promotes action.

To facilitate greater customer understanding, PG&E and other IOUs developed the Universal Energy Audit Tool (UEAT). These tools combine a customer-driven audit experience with delivered energy audit services, and customer assistance, as needed. The UEAT is intended to improve small and medium business customers' understanding of their energy use and identify savings opportunities. This allows customers to make improvements that are applicable to their particular needs at a cost that is scalable.

In addition to the above overall comments, PG&E offers the following input on VP 2:

- PG&E agrees, as described on page 42 of the Draft Action Plan, that the Environmental Protection Agency's (EPA) Energy Star Portfolio Manager is the industry standard for commercial building benchmarking. PG&E suggests that the CEC leverage the EPA's Portfolio Manager, which has strong support structure,

---

<sup>5</sup> Please see the CPUC Energy Efficiency Strategic Plan webpage for additional information:  
<http://www.cpuc.ca.gov/PUC/energy/Energy+Efficiency/eesp/>

respect in the industry, and allows for scalability, rather than developing a new benchmarking tool. While Portfolio Manager does not produce a rating for all building types, it does produce Energy Usage Intensity (EUI) measurements, which is the primary benchmarking value used to evaluate energy savings opportunities.

Additionally, a single, trusted benchmarking tool will ensure a clear process for customers as they take their first step towards understanding their energy usage and savings opportunities. IOUs and the EPA provide substantial portfolio management training to customers, which help them understand the Energy Star tool and leverage the results to identify energy savings opportunities.

- On page 43, the Draft Action Plan discussed energy audits, citing the American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE) Audits as a “baseline for what constitutes ‘investment-grade’ evaluation.” The use of investment grade in this context is incorrect and should be dropped from the Draft Action Plan.

A true “investment grade” audit allows the customer to make decisions and take actions (*i.e.*, investments). For small and medium business customers, this may be as simple as a walkthrough analysis of their energy use or an online self-assessment. ASHRAE guidelines represent the best practices for providers of energy audit services, not investment grade audits.

- PG&E agrees, as described in VP 2.2, that a sound calculation methodology is important in suggesting energy efficiency improvements. However, there is a tradeoff between calculation accuracy and the cost of the assessment. Given the behavior change elements of energy efficiency, calculations that are exact will often not represent a customer’s actual savings except in large buildings where management systems control the behavior. Therefore it is more important that the savings are based in reliable sources to yield good estimates rather than exact calculation methodology.
- PG&E agrees, as outlined in VP 2.2, that it is important to pursue standardized tools that can provide reliable energy savings estimates based on different levels of auditing. However, standard auditing techniques cost out energy efficiency measures based on traditional estimates of equipment and labor costs. The CEC should also integrate industry standard costing techniques for retrocommissioning,<sup>6</sup> which includes costs associated with energy efficiency measure investigation,

---

<sup>6</sup> Note that retrocommissioning refers to the systematic process for identifying less-than-optimal performance in equipment, lighting and control systems and making the necessary adjustments; whereas retrofitting refers to replacing outdated equipment, retrocommissioning focuses on improving the efficiency of what is already in place.

implementation, and measurement and verification. All these activities take place post audit and go beyond traditional audit cost estimation.

**C. PG&E SUPPORTS EFFORTS TO MINIMIZE THE AMOUNT OF TIME AND ATTENTION NEEDED FROM CUSTOMERS**

**“Voluntary Pathway 3: Upgrades for Small and Medium Commercial Buildings”**

PG&E supports efforts to minimize the amount of time and attention needed from customers to move to the next step in the upgrade process, as discussed in VP 3. Ensuring that programs are simple for customers to utilize and participate in is crucial for increasing adoption of energy efficiency measures. However, a balance needs to be struck between achieving comprehensive savings per site, which produces large individual reductions, and getting greater customer initiation, which leads to broader engagement across a class of customers.

Broad customer engagement with energy efficiency is needed to fully utilize the proposed and existing marketing education and outreach, and behavioral program efforts. Comprehensive engagement creates a deep pipeline of active customers to help achieve long term goals. In addition to the above overall comments, PG&E offers the following input on VP 3:

- The Commission mentions that the collection of energy performance data will support audit protocols that rely on user profiles.<sup>7</sup> PG&E agrees that continuing to leverage customer data and exploring software solutions is an important method of providing energy audits to small and medium business. Moreover, this was a critical component of the design of the UEAT, as discussed above.
- The CEC also notes that developing cost-effective energy audit protocols will require approaches less expensive than the ASHRAE processes.<sup>8</sup> PG&E notes that ASHRAE processes in and of themselves are not necessarily cost-prohibitive for small and medium business owners. Rather, a small and medium business may be best suited by a less in-depth ASHRAE assessment. This would minimize cost while providing the awareness and education needed to make energy efficiency changes.
- VP 3.3, Key Initiative 3 regards assessing opportunities to extend and enhance solutions for retrocommissioning.<sup>9</sup> PG&E suggests that the phrase “retrocommissioning for small and medium buildings” be replaced with “comprehensive retrofit and operational tune-ups of small and medium commercial

---

<sup>7</sup> Pg. 49

<sup>8</sup> Pg. 49

<sup>9</sup> Pg. 50

buildings.” Structures undergo an intensive and costly quality assurance process, referred to as commissioning. Retrocommissioning applies this same process to existing buildings to improve how building equipment and systems function. While extremely valuable, retrocommissioning it is often cost prohibitive for small business customers. Changing the description would broaden VP 3.3, while still promoting energy efficiency upgrades in existing buildings.

- PG&E would also encourage the CEC to include additional discussion in VP 3.3 on the hand-off between the users of new and existing tools for energy efficiency measure identification in small and medium commercial buildings and the trade professionals that can implement these measures in the field. Identifying innovative business models and delivery mechanisms will improve overall cost-effectiveness.

**D. PUBLIC SECTOR SHOULD EXPAND USE OF PRIVATELY FUNDED FINANCIAL PRODUCTS**

**“Voluntary Pathway 4: Public Sector Leadership”**

PG&E encourages the CEC to expand public sector leadership to include the creation and utilization of privately funded financial products. For example, public sector leaders could mandate the use of some of new innovative financing structures for energy efficiency projects on public buildings which could increase deal flow for these new market entrants and provide demonstration models for these new financial innovations. Risks to taxpayers must be mitigated and any incremental costs (which should be minimal) should not significantly impact transaction economics.

Additionally, the public sector typically has access to private capital at attractive rates once energy efficiency investments are identified and approved. Public sector leaders could free up heavily subsidized government and ratepayer funds for harder to reach customer segments such as small businesses, by looking at limiting government entities from utility and taxpayer subsidized financing. Additionally, by engaging the private market, the public sector can demonstrate the possibility of leveraging private capital for energy efficiency investments.

**E. DOLLAR-FOR-DOLLAR VALUE OF ENERGY EFFICIENCY UPGRADES SHOULD BE RECOGNIZED**

**“Voluntary Pathway 5: Energy Efficiency in Property Valuation”**

As the Commission recognizes in VP 5, the value of energy efficiency upgrades should be recognized in the appraisal of nonresidential buildings. Doing so will provide a tremendous incentive to upgrade existing buildings; a building that can demonstrate lower energy costs will have a market advantage compared to similar structures.

PG&E supports Key Strategy VP 5.1, which seeks to incorporate energy efficiency performance into the property valuation and appraisal process. However, PG&E recommends that the CEC strengthen this important measure by ensuring that, in addition to being incorporated, energy efficiency in property valuation is given a dollar-for-dollar valuation. If a business, for example, installs an energy efficiency project that has a 5 year payback through energy savings, and goes through an IOU or other quality driven program, then there are few reasons that the full value of the project cash flow for the subsequent owners would not be included in the valuation of the building.

PG&E is concerned that, due to market confusion, some appraisers may improperly discount project cash flows. Thus, PG&E recommends strengthening VP 5.1 to include a goal of educating appraisers to incorporate the full value of building level energy savings into their valuations. Additionally, the IOUs should be highlighted as a key stakeholder because the IOU expertise in energy efficiency and energy data will be integral to support energy efficiency valuation.

**F. CEC SHOULD DEVELOP AND ENCOURAGE FINANCING OPTIONS IN CONJUNCTION WITH EXISTING ENERGY EFFICIENCY PROGRAMS**

**“Voluntary Pathway 6: Encourage Development of Innovative Financing Mechanisms for Energy Efficiency Upgrades”**

The Commission recognizes that a lack of affordable financing is a major barrier to investment in energy upgrades. PG&E believes that financing programs should be carefully designed and targeted to reflect the needs of specific markets for which they are intended and where they will be most effective. PG&E also agrees with the CEC’s overall vision of promoting financing opportunities and policies that enable maximum energy efficiency upgrades.

However, the Commission appears to view new financing methods and programs as augmenting or replacing traditional, energy efficiency programs. To this point, the Draft Action Plan asserts that “it is the CPUC’s goal . . . to retire the existing plethora of programs that are local or regional or rely excessively on ratepayer funding,” to be replaced by a “uniform system of leveraged statewide private sector financing products.”<sup>10</sup> Instead, private sector finance should be viewed as a way to maximize or build upon energy efficiency investments made through ratepayer funded programs—not as a replacement.

Customer demand for energy efficiency upgrades is ultimately driven by strong energy efficiency programs. Strong programs provide the short- and long-term economic incentives to compensate for the direct and opportunity cost of a given upgrade. Once a

---

<sup>10</sup> Pg. 63.

program has generated sufficient demand, private capital investment will be attracted by the resultant pipeline of quality lending opportunities and can help maximize funding.

Given the central role of energy efficiency programs, the Commission should encourage and develop financing options in conjunction with the existing energy efficiency infrastructure—not as a replacement. Successful financing programs provide both flexibility to customer needs and meet operational requirements, like quality assurance and program goals. Financing programs should be marketed and delivered in conjunction with existing energy efficiency programs; the programs themselves should be flexible enough to meet financial market needs while also satisfying program goals.

Proper program design, including integration with existing delivery channels and integrated marketing efforts, result in quality lending opportunities. This demand, combined with carefully crafted programs, can be used to attract private investment.

#### **IV. CONCLUSION**

PG&E thanks the CEC for the opportunity to review and provide comment on the Draft Action Plan. PG&E looks forward to continued collaboration with the CEC on this subject in the future.

Sincerely,

/s/

Valerie J. Winn

cc: A. McAllister ([andrew.mcallister@energy.ca.gov](mailto:andrew.mcallister@energy.ca.gov))  
C. Collopy ([christine.collopy@energy.ca.gov](mailto:christine.collopy@energy.ca.gov))  
S. Baker ([seb@cpuc.ca.gov](mailto:seb@cpuc.ca.gov))