



Together, Building a Better California

DRAFT

PG&E Business Plan – *READ ME FIRST*

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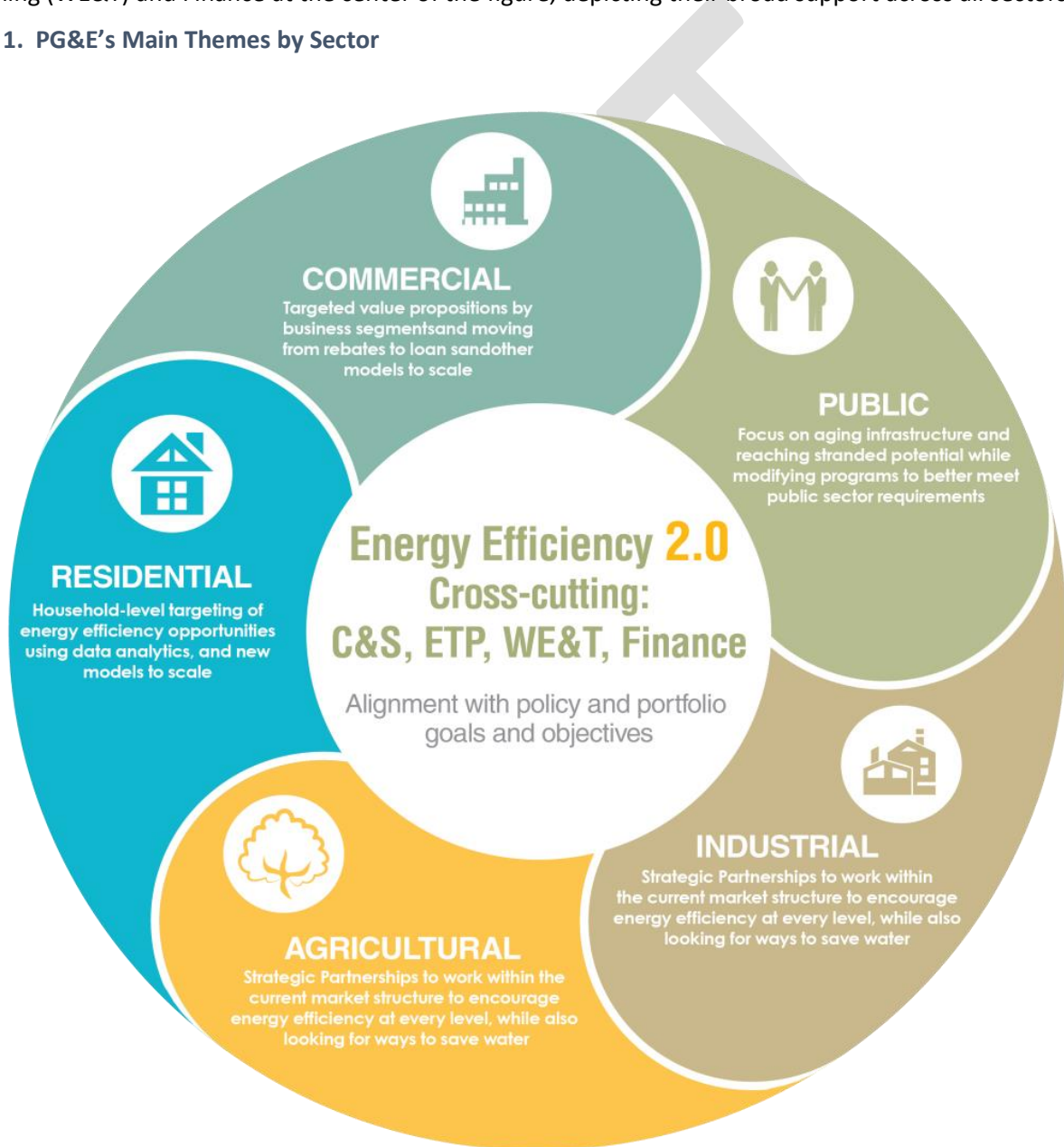
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A. Introduction

PG&E is pleased to present **drafts** of our ten-year business plans (BP). This document provides a listing of known gaps in the current drafts, the typical outline of each chapter, how to navigate certain sections of the plan, as well as a table with all sector level goals. This overarching goal table provides the reader with an “at a glance” view of the overall portfolio.

Despite continuing to work on certain parts of the BPs, PG&E envisions large, main themes for each sector within the energy efficiency portfolio. Figure 1, below, presents the themes for each of the five core sectors, with the cross-cutting programs of Codes & Standards (C&S), Emerging Technologies (ET), Workforce Education & Training (WE&T) and Finance at the center of the figure, depicting their broad support across all sectors.

Figure 1. PG&E’s Main Themes by Sector



Known areas where PG&E expects to add information for the January 2017 filing include:

1. Overview of Portfolio
2. Budgets
3. Cost Effectiveness of Portfolio / Sector
4. Targets in metrics
5. Statewide administration and transition timeline
6. Solicitation strategies
7. Footnotes versus references; references list is incomplete
8. Market transformation specific information as described by Cathy Fogel
9. Stakeholder feedback
10. Other gaps identified throughout the revision process

B. Business Plan Context and Typical Outline

The Rolling Portfolio process adopted in Decision 15-10-028 directs Program Administrators (PAs) to submit high level documents (**BPs**) that describe how PAs will achieve portfolio goals. BPs will be filed on January 15, 2017. PAs may submit updated Business Plans at any time; additionally, the Plans must be revised in response to the following “trigger” events:

- An inability to meet savings goals; stay within the budget parameters of the most recent and prior Business Plan; or meet Commission established cost effectiveness metrics (excluding Codes and Standards and “spillover” adjustments);
- The filing of a new application as a result of a policy track decision in the proceeding; or
- The imminent onset of the final year of funding.¹

The Commission also conceived of **implementation plans** (IPs) that would be uploaded to a publicly accessible website to provide detailed descriptions of the interventions that PAs would pursue to achieve the high level efforts described in the Business Plans.

D. 15-10-028 described and provided a template for the Business Plans,² and it also delegated to Commission staff responsibility to provide additional guidance on Business Plan contents. In doing so, the Commission emphasized a desire to balance the need to receive useful information from PAs with an aim to keep Business Plans “compact and focused, and to reduce administrative costs.”³

In accordance with D.15-12-028, on January 15, 2017 PG&E will file business plans outlining its high-level approach for achieving state policy goals with (TBD) dollars over a ten-year period. In the interim, PG&E puts forth **draft portions of the forthcoming filing** for broad stakeholder input and early vetting.

In January 2017, PG&E will present final plans for the following sectors and activities for CPUC approval:

- Commercial Sector
- Industrial Sector
- Residential Sector
- Public Sector

¹ See D. 15-10-028, pp 56-7

² Appendix 3 of D. 15-10-028 provides the draft Business Plan template.

³ See D. 15-10-028, pg. 57

- Agricultural Sector
- A cross-cutting sector that includes:
 - Codes and Standards
 - Workforce, Education and Training
 - Emerging Technologies
 - Finance

In the draft version of these business plans, each chapter contains the sections listed below and aims to incorporate stakeholder feedback. These plans are drafted at the sector-level and as such contain goals, intervention strategies and metrics at a high-level.

- Vision Statement
- 10 Year Budget *(for January 15, 2017 filing)*
- Energy Savings Goals *(for January 15, 2017 filing)*
- Sector Overview
- Trends and Challenges
- PG&E’s Approach for Achieving Goals
- Integrated Demand-Side Management
- Statewide Administration and Transition Timeline *(for January 15, 2017 filing)*
- Solicitation Strategies *(for January 15, 2017 filing)*
- Metrics and EM&V Considerations

Upon CPUC approval of the filed BPs, PG&E will develop IPs for proposed programs.

D. PG&E Sector-Level Goals and Overview of Strategies

Over the next 10 years, PG&E seeks to:

1. Save energy and reduce demand
2. Reach a greater proportion of customers
3. Increase customers’ ability to manage energy
4. Integrate EE with other DER options to enable a ‘grid of the future’
5. Increase operational efficiencies
6. Assist the state in reaching commercial and residential ZNE goals
7. Transform specific markets

For ease of reference across the various chapters, PG&E has provided a summary view of goals and the specific goals by market sector are shown in Table 1.

Table 1. Market Sector Goals

N	Portfolio Goal	Commercial	Industrial	Agricultural	Residential	Public
1	Save GWh, MW, and MM Therms	Save XX GWh, XX MW, and XX MM therms with an emphasis on business segments and small and medium-sized businesses	Save XX GWh, XX MW, and XX MM therms with an emphasis on three key industrial segments (manufacturing, oil and gas production and refining, and food processing)	Save xxx GWh, xx MW, and xxx MM therms with an emphasis on four key agricultural segments (crops, wineries, dairies, and greenhouses)	Save XX GWh, XX MW, and XX MM therms focusing on high savings opportunities within both single family and multi-family properties	Save XX GWh, XX MW, and XX MM therms with an emphasis on aging facilities
2	Reach a greater proportion of customers...	Reach an increasing percentage of commercial customers (increasing from 3.9% to xx% over the 10-year period) by creating targeted value propositions for specific business segments and opportunities for SMBs	Reach an increasing percentage of industrial customers (increasing from about 2.8% to xx% per year after the 10-year period) – with tracking by size and key segment	Reach an increasing percentage of agricultural customers (increasing from about 1.5% to xx% per year after the 10-year period) – with tracking by size and key segment	Reach an increasing percentage residential customers (increasing from about X% in 2017 to XX% over the 10-year period) and target customers with high savings opportunities – with tracking for SF and MF	Increase public sector participation from XX% to XX% over the 10-year period with additional tracking by HTR (note definition of HTR is still in flux)
3	Increase customers' ability to manage energy	Increase customers' ability to manage energy by increasing the proportion of customer who utilizing EMTs from X% to Y%	Increase industrial customers' ability to manage energy and integrate energy use into decision making by assisting X customers with energy savings commitments through SEM or similar program efforts	Provide X% of agricultural customers with access to technical assistance and tools that break down energy use within their organization (up from <0.05%)	Increase customers' ability to manage energy by increasing the proportion of customer utilizing EMTs from X% to Y%	Increase public customers' capacity to meet their own climate change planning targets and state policy goals by assisting X% of customers with long-term plans through XXX
4	Integrate energy efficiency with other DER options to enable the	Integrate energy efficiency with other DER options within x% of commercial buildings	Integrate energy efficiency with other DER options within x% of industrial customers	--	Integrate energy efficiency with other DER options within x% of residential buildings	--

N	Portfolio Goal	Commercial	Industrial	Agricultural	Residential	Public
	'grid of the future'					
5	Increase operational efficiency	Increase operational efficiency by tracking metrics such as reducing the ratio of \$/kWh and \$/therm saved by x% through the use of cost-effective scalable program models such as financing and third-party programs	(Internal goal only)	Increase operational efficiency by tracking metrics such as reducing the ratio of \$/kWh and \$/therm saved by x% by increasing energy saving through the use of Strategic Partnerships	Increase operational efficiency by tracking metrics such as reducing the ratio of \$/kWh and \$/therm saved by x% through the use of cost-effective scalable program models such as P4P	Increase operational efficiency by tracking metrics such as reducing the ratio of \$/kWh and \$/therm saved as a result of using third-party vendors
Market Transformation Goals Below – These would be measured by market-level studies of ZNE, saturation or sales of Energy Efficiency for particular measures or technologies						
6	Assist in reaching ZNE	Assist in reaching the CEESP goal of ZNE for 100% of all new commercial construction by 2030 through statewide efforts	--	--	Assist in reaching the CEESP goal of ZNE for 100% of all new residential construction [by 2020] by engaging builders and other market actors, and supporting new C&S	Assist in reaching the CEESP goals of 100% of ZNE in new commercial construction and 50% ZNE in retrofits by supporting the public sector (which falls within the commercial goal)
7	Increase market share of energy efficiency	Increase market share of energy efficiency for key end-uses and/or systems [TBD after mid-and upstream efforts are finalized]	--	--	To be added in next draft after coordination with statewide efforts. May include: Increase the market share of efficient lighting Increase plug load efficiency	--

Cross-cutting Sector Draft Goals

Cross-cutting goals are distinct from the goals above, as they play a supporting role, and work to:

1. Support statewide policy objectives including the doubling of energy efficiency by 2030, efforts to work towards ZNE buildings and related GHG and sustainability objectives
2. Support PG&E's energy efficiency portfolio

Each of the cross-cutting programs supports these two statewide goals in its own way:

- **WE&T provides California's energy workforce with the knowledge and skills it needs to meet California's energy efficiency goals. Its four overarching approaches to achieving that goal include:**
 - Educate and train the current energy workforce to support the state policy goals of doubling efficiency and reaching zero net energy (ZNE) by focusing on the sectors with the greatest potential energy savings and targeting efforts at high-impact jobs.
 - Enhance the knowledge and skills of the future energy efficiency workforce through targeted partnerships with training institutions and workforce-development organizations.
 - Support green career awareness by providing K-12 teachers with resources on basic energy concepts and energy careers.
 - Aligning WE&T program structure and offerings with state policy goals through statewide WE&T long-term integrated planning
- **Financing goals:**
 - Overcome customer transaction barriers to investment
 - Increase the supply and access to affordable capital
- **Codes & Standards (C&S) goals:**
 - Save energy (in particular X,XXX GWh across the state over a 10 year period) and water, and reduce greenhouse gases through the adoption of new codes and standards at all levels (i.e., local reach codes, state, and federal)
 - This includes enabling and support state agencies responsible for achieving state policy goals by providing them with research
 - Provide services that support and align with state policy objectives by:
 - Producing high-quality information and data to support code-driven industry transformation (CDIT), which aims to transition a measure or system (bundle of measures) into code during the early stages of the diffusion cycle
 - Maintaining high compliance margins for whole buildings and appliances; and improving compliance margins for selected, high importance codes and standards
 - Increasing adoption of local reach codes that support the development and adoption of statewide and national code changes
- **ETP (TBD). Please see the SCE chapter for how ETP supports statewide goals.**
 - Identify technologies with verifiable energy savings for incentive and rebate programs
 - Inform future product development to a mature supply chain for new measures
 - Support market transformation (MT) by testing and supporting program deployment of measures destined for C&S over the mid- to long-term

C. Navigating the Business Plans

In the following section, PG&E puts forth definitions for frequently-used terms and phrases to support the reader as they review each chapter.

Intervention and Tactics Terms


This section describes two key terms: interventions and tactics. PG&E uses tables in combination with the definitions to help the reader understand abstract definitions.

Intervention Strategy: A deliberate effort by PAs to intervene in the market to reduce market barriers and thereby change the level of investment in (or practice of) energy efficiency. An intervention's success in reducing market barriers, therefore, hinges on whether it leads to or causes a net beneficial outcome from a societal perspective.

Within the business plans, the term intervention refers to the categories of tactics used within a sector or program. As such, multiple tactics reside within each intervention. An intervention may have some existing tactics and some new tactics. It is also possible that some interventions would be wholly new. Interventions can adapt to specific market conditions, but do not change often. (See the figure to the right to see how tactics and intervention strategies relate to each other **Error! Reference source not found.**)

Tactics: An action embodied within a program to carry out a program intervention strategy. A tactic, therefore, is an action carefully planned to achieve the intervention strategy. There are multiple tactics within an intervention. (See figure to the right **Error! Reference source not found.**) For example, using yAccount platform is a specific tactic for a data access intervention. Tactics are denoted as existing, modified, or new and can point to a specific customer type if relevant. The underlying tactics in which the program engages may change dramatically over time in an attempt to successfully intervene. Tactics also specify time period, as follows:

The What, Why, How, When and Who

Intervention Strategy	Barriers	Tactics	Existing, New or Modified	Short, Mid, Long-term
Data-access to facilitate customer awareness of their energy use 	Limited capacity and understanding of energy efficiency benefits Limited technical expertise	Leverage data analytics and customer segmentation to target customers based on high savings potential and market transformation needs	E	S
		Increase customer adoption of the MyAccount platform where customers can access and engage with personalized energy usage data and tools	E	S
		Provide third party implementers with energy management applications such as Share My Data to facilitate data-driven solutions	M	S
		Empower customers with energy usage data after project implementation to promote savings persistence	M	M
Partners: Third party energy management providers; data service providers; customers; implementers; contractors; online vendors; and trainers.				

What are you going to do? (points to Intervention Strategy)

How are you going to intervene? What tactics will you use? (points to Tactics)

When? (points to Existing, New or Modified and Short, Mid, Long-term)

Why? (points to Barriers)

Who are you coordinating with? (points to Partners)

Short Term – up to 3 years (2017 – 2020)

Mid Term – 4 to 7 years (2020 – 2024)

Long Term –8 to 10 years (2023 – 2028)

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The business plans include example tactics that are expected to change as the programs develop. These are provided to help the reader understand the overall intervention strategy.

Intervention strategies

Throughout our plans, PG&E has put forth 10 broad intervention strategies, as well as several cross-cutting efforts, that will help us to achieve our goals. While the details vary by sector, and not all will be used in each of the sectors, these 10 intervention strategies represent the core of our activities. These categories of intervention strategies are intended to guide, but not limit, our efforts over the next 10 years. We expect that both PG&E and third-party implementers will be able to deliver innovative new options within these strategies and/or under new models. Specifically, these broad categories of intervention strategies include:

- **Data analytics** for strategically targeting high-opportunity projects and providing targeted value propositions
- **Data access** for customers and communities to meet AB 758 objectives
- **Technical assistance and tools** for customers to ensure that they have access to benchmarking and are aware of energy management technologies provided by the utilities, as directed by AB 793
- **Financial solutions such as rebates and loans** for customers to help overcome first-cost barriers
- **Outreach and education-related activities such as community social marketing** to raise awareness and broaden engagement with energy efficiency
- **Training for mid-stream market actors** to increase the skills of the workforce
- **Upstream and midstream activities to support EE equipment** and transform end use areas such as lighting and plug load-related markets
- **Incentives for the design community** to support ZNE goals in both the residential and commercial sectors
- **Strategic partnerships** to leverage existing markets to help scale efficiency and meet SB 350 goals
- **New models** such as pay-for-performance and Strategic Energy Management that will also help scale efficiency to meet SB 350 goals, and extract energy savings under AB 802 where there was stranded potential

In addition, we put forth our cross-cutting chapters and strategies, which focus on supporting California's policy goals, as well as supporting our overall portfolio of programs across the five core sectors.

D. Metrics for the Business Plans

PG&E and the other PAs understand the importance of ensuring that all metrics provide value to the CPUC, program administrators, or other stakeholders. We also recognize that listed metrics can have powerful and unintended effects⁴.

In this draft we propose draft metrics as of October 2016. We expect that these metrics will change before the final draft as we attempt to compute and thoroughly document the baseline values. Where the metrics may not make sense, we intend to revise to better capture what will be valuable to the CPUC, program administrators, or other stakeholders.

Ultimately, all of the metrics that we propose for the final BP draft will be consistent with the agreed-upon statewide guiding principles for the metrics that was shared with the Energy Division on Aug 16, 2016 (see Table 2 below).

Table 2. Guiding Principles for Metrics

Metrics should...
Be used and useful by PAs to manage portfolio
Inform on the progress to achieving desired market effect(s) and strategy effectiveness
Rely on data collected during program implementation and/or data reporting to CPUC
Simple to understand and clear of any subjectivity
Outcome metrics preferred, but output metrics have high benefit to cost ratio
Not all metrics have a readily interpretable meaning, context is needed
Not a replacement for EM&V

Each sector includes a table that maps the goals to the metric(s), the baseline for the metric, where PG&E will collect data to track the metric over time, and targets over the same three periods listed above. As we stated at the beginning, targets are blank for now, as are some baselines, but all will be completed for the January 2017 filing.

⁴ Perrin, in an article in the American Journal of Evaluation, discussed certain known limitations of performance metrics. Among these limitations, he described varying interpretation of the "same" term and concepts, goal displacement, use of meaningless and irrelevant measures, and cost-savings vs. cost-shifting. (Perrin, Burt. 1998. *Effective Use and Misuse of Performance Measurement*. American Journal of Evaluation 1998:19;367.)