DOCKETED

Docket Number:	15-IEPR-05
Project Title:	Energy Efficiency
TN #:	204448
Document Title:	Pacific Gas and Electric Company: Comments on AB758 Action Plan Data Elements
Description:	N/A
Filer:	System
Organization:	Pacific Gas and Electric Company/Valerie Winn
Submitter Role:	Public
Submission Date:	4/29/2015 4:35:00 PM
Docketed Date:	4/29/2015

Comment Received From: Valerie Winn
Submitted On: 4/29/2015
Docket Number: 15-IEPR-05

Pacific Gas and Electric Company: Comments on AB758 Action Plan Data Elements

Additional submitted attachment is included below.

Valerie Winn
Chief
State Agency Relations

77 Beale Street, B10C
San Francisco, CA 94105

(415) 973-3839
(415) 973-7226 Fax
Valerie.winn @pge.com

April 29, 2015

California Energy Commission
Dockets Office, MS-4
Docket No. 15-IEPR-05
1516 Ninth Street
Sacramento, CA 95814-5512

Re: Docket 15-IEPR-05: California's Existing Buildings Energy Efficiency Action Plan:
Comments of Pacific Gas and Electric Company

I. Introduction

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to provide comments on Strategies 1.2 (Nonresidential Benchmarking and Disclosure) and 2.1 (Modern, Accessible Data Resources) of the California Energy Commission's (CEC or Commission) Draft of California's Existing Buildings Energy Efficiency Action Plan (the Plan or Draft Action Plan).[1] PG&E submitted separate comments on remaining areas of the Draft Action Plan to the CEC on April 21.

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 to provide every customer choices from a comprehensive set of tools and technologies through multiple delivery channels to help them reduce energy usage and save money. These programs and services are supported by utility staff, government partnerships, trade professionals, retailers, distributors, manufacturers, and other third-party providers. From 2010-2014, PG&E's energy efficiency programs helped customers avoid the release of more than 2,000,000 metric tons of carbon dioxide (CO2), which is equal to the annual greenhouse gas emissions from nearly 460,000 passenger cars or more than 1,400,000 homes in PG&E's service territory.[2]

---

[1]   Unless otherwise noted, all page references refer to:
California Energy Commission. (2015) Existing Buildings Draft Energy Efficiency Action Plan. Sacramento, CA. Retrieved from http://www.energy.ca.gov/ab758/

[2]   PG&E Customer Data Warehouse, 2010-2014 inclusive

More specifically, PG&E is dedicated to helping its utility customers meet California's energy efficiency goals in existing buildings and is already utilizing many of the approaches detailed in the Draft Action Plan to help customers make achievement of the goals a reality.

II. PG&E's Energy Data Access Programs and Tools

Many of PG&E's energy efficiency programs, including building benchmarking and energy efficiency programs, give customers access to extensive data to help them drive their energy efficiency decisions. PG&E's customers make energy decisions based upon the information available to them, so having useful, actionable data through PG&E's data access tools and programs allow customers to make choices that help them meet their energy savings goals.

PG&E's data access tools and programs provide convenient access by customers and their approved third-party energy efficiency service providers to customer energy usage data, including whole building energy usage data for building benchmarking. Where needed, PG&E's tools simplify a landlord's process of gaining tenant approvals for data sharing.

In support of all of its customers and their energy efficiency and management needs, PG&E provides a wide variety of customer-specific, as well as aggregated and anonymized energy data, to customers, their service providers, researchers and local governments across several new web-based energy data platforms that provide convenient and comprehensive access to energy usage data. PG&E is continually examining ways to develop and improve its data access tools. As discussed by PG&E's Jan Berman at the April 14, 2015, Energy Commission workshop, current data access tools and programs are as follows.

A. Green Button Download My Data and Download My Data
The Green Button Download My Data tool allows residential and small and medium sized business customers to download their electric and gas interval usage data, interval cost data, and billing data on an individual account-by-account basis, in order to manage and analyze their energy bills themselves or with assistance from third-party energy consultants or service providers. This tool provides customers with energy usage and billing data, in human readable format, across multiple accounts to allow them to analyze their usage or billing data over time.

The Download My Data tool allows selected agricultural (AG) customers to download data about all of their electric accounts in a single, centralized location. They can download up to three years of historical data and daily usage files. This tool enables agriculture customers to download, in human readable format, their electric usage across multiple accounts to analyze energy usage data over time to optimize operations or identify savings opportunities.

B. Building Benchmarking
PG&E has demonstrated its strong support of benchmarking though its partnership with ENERGY STAR Portfolio Manager to support our customers with building performance benchmarking. PG&E is also partnering with twenty utilities across the United States (U.S.) and the U.S. Department of Energy (DOE) to support the DOE Data Accelerator project, which is

designed to share best practices on streamlining and improving access to building benchmarking data and tools.

C. Energy Data Center Program

Pursuant to Decision Nos. 11-07-056, 11-08-045, and 14-05-016 of the California Public Utilities Commission (CPUC), PG&E and the other CPUC-jurisdictional investor-owned energy utilities (IOUs) provide customers, third-parties, researchers and local governments with a variety of standardized energy usage and related data through web-based databases and electronic data request procedures, subject to specific time limits for processing and transferring data as well as specific controls to protect the privacy of customer-specific data as required by the California Legislature and CPUC in Public Utilities Code Section 8380. Quarterly and monthly customer usage data aggregated by ZIP code to protect customer privacy is made available under the program. In addition, an Energy Data Access Advisory Committee (EDAC) meets quarterly to advise on improvements and enhancements to the data access program.

D. Share My Data

Share My Data provides customers with an automated process to provide both historic and ongoing data, across multiple accounts, to third-party energy consultants and providers of their choice. Customers do not have to log in every day to download and send files—once the sharing protocol is completed, no additional work is needed. Share My Data automatically assembles PG&E energy data for the authorizing customer, informs the authorized third-party when the data are ready, and securely transmits it to the third-party at the customer's direction. Share My Data allows multiple customers to provide their data on a bulk basis to third-party consultants and energy efficiency providers to help the customers understand their energy usage, help save money, and/or understand the cost implications of a major energy efficiency retrofit or investment.

E. Customer Information Standardized Release (CISR) Forms

For customers less comfortable with online forms but still interested in learning about their energy use, the CISR form is a manual data release form that allows customers to authorize a designated agent, including a third-party energy consultant of their choice, to receive the customer's account information, including meter interval data and billing data.

F. Stream My Data

This tool helps customers save energy and money by providing real-time electricity data through an energy monitoring device. The device helps customers understand how and when they are using electricity, as well as the related costs. Residential and small and medium business (SMB) customers are able to:

- Monitor real-time electricity usage (kW)
- See real-time price ($/kWh)
- Get estimated costs to date and estimated electric bill this month
- Receive demand response event alerts (SmartRate™ and Peak Day Pricing event alerts).

This tool allows customers to monitor the energy of each load in their home to start conserving energy. The customer has direct control on how and when to save energy and the tool provides a means to involve the entire family in energy conservation efforts. These customers are usually interested in new gadgets and want new tools to understand their electricity usage.

G. Home Energy Reports
PG&E currently provides over 1.2 million residential customers with Home Energy Reports. The reports include a variety of information, including: 1) a "Household Comparison" graph showing the customer's energy use and how it compares to the average use of all selected similar homes and the average use of the most efficient similar homes; 2) a "Last 12 Months Household Comparison", allowing customers to compare energy usage over a series of months; 3) an "Average Day Last Month" graph, using information from SmartRate™ to reflect average electricity use through the day; and 4) "Action Steps" – personalized ideas for customers to consider to help make their homes more energy efficient. PG&E is also piloting a similar report for small business customers.

H. Green Communities
The Green Communities Program allows local or municipal governments within PG&E's service territory to request and download data usage information about their communities. Since its launch as a pilot program in 2010, PG&E's Green Communities Program has supported over 200 greenhouse gas inventories and 60 energy action plans. In addition, through projects supported by the American Recovery and Reinvestment Act (ARRA), PG&E created a set of advanced data reports using Tableau software to give municipal governments in Berkeley and Fresno more insight into their community's energy consumption.

Green Communities data reports are available for 100% of local governments in PG&E's territory and, as of 2014, over 60 percent of the approximately 250 local communities in PG&E's service area had downloaded the reports from the online Green Communities Portal.

I. CPUC Energy Efficiency Data Portal
In addition to energy usage data programs and tools, PG&E supports the CPUC's Energy Efficiency Data web-based data portal, located at http://eeStats.cpuc.ca.gov, which provides extensive and detailed information, data, reports and descriptions of various energy efficiency programs, tools, resource and customer assistance. The CPUC Energy Efficiency portal provides a convenient tool for customers and third parties to explore the availability of different energy efficiency tools and programs to meet their particular energy management needs.

J. Rate Calculators and Tools
In addition to access to different forms of energy usage data, both customer-specific and aggregated, PG&E provides its customers with a variety of rate calculators and tools that allow customers to evaluate the benefits of alternative rates and utility services available to them.

PG&E currently provides the following web-based tools for bill comparisons in its My Energy online customer program: 1) a rate analysis tool that calculates a customer's bill under different

available rate plan options using the last 12 months of interval usage data, showing how much money they would have saved or lost on all other rate plan options over the past year (including by month). For example, customers on the standard tiered rate plan are provided with an estimate of how much they could have saved over the past 12 months on a time-of-use (TOU) rate plan or TOU with SmartRate™; and 2) a bill comparison tool that shows the customer's current bill compared to the previous month and 12 months ago, and provides reasons for the difference, including changes in usage and changes in rate plans.

In the CPUC's rate design reform proceeding (R.12-06-013), PG&E has proposed enhancements to the bill comparison tool to indicate what part of any bill difference is due to rate changes, in addition to variations in usage. As part of this proposal, PG&E intends to provide more robust customer alerts which will be based on bill amount and high usage as opposed to just tiers. Additionally, PG&E is planning to provide "what-if" functionality that will allow customers to better understand how to manage their energy and help them succeed on alternative rate plans. These tools will also help provide residential customers with the information they need if and when time-of-use residential electricity pricing is adopted on a default basis.

III. Data-related Goals and Strategies under AB 758

As a threshold matter, PG&E recommends that the Energy Commission consider and evaluate the numerous data access tools and programs that PG&E and other utilities already have implemented in support of energy efficiency programs in California, including building energy efficiency programs. These data access tools and programs provide customers and their third-party service providers with a rich and detailed variety of energy usage and other data, tailored to their specific needs.

These data access tools and programs also provide protection of customer privacy and security consistent with California's privacy rules and statutes, as well as protection of market-sensitive and other proprietary information.

Under this existing data access framework, many of AB 758's building energy efficiency goals can be supported by leveraging data that are available now to customers and their designated agents and service providers. In addition, access to data under existing frameworks would minimize the need for investments in new databases, data warehouses, or data formats.

The following sections provide PG&E's comments on some specific building energy efficiency initiatives identified in the Draft Plan that can be supported by PG&E's existing data access programs and tools.

A. Strategy 1.2 Nonresidential Benchmarking and Disclosure

Benchmarking is an important tool to promote energy awareness and education. For the last seven years, PG&E has demonstrated its strong support of building performance benchmarking though its partnership with ENERGY STAR Portfolio Manager. PG&E is also working with twenty utilities across the country to support the DOE's Data Accelerator project. Following last year's DOE kick-off, PG&E began to work with the city of San Francisco and other California-based stakeholders to find practical ways to give building owners access to whole building energy data while at the same time preserving the confidentiality of customer-specific billing and energy usage data. PG&E will continue to work on best practices for providing benchmarking data to building owners while also adhering to California privacy laws and regulatory rulings.

In addition to voluntary building energy benchmarking, PG&E supports and is complying with the CEC's current AB 1103 building energy usage benchmarking regulatory program under which commercial building owners and landlords must comply with the CEC's building benchmarking disclosure requirements, subject to the utilities maintain the confidentiality of customer-specific or tenant-specific energy usage data. Implementation of AB 1103's confidentiality protocols is currently the subject of a CEC rulemaking, and PG&E and parties have filed initial comments on the draft regulation.

PG&E is proud to be a national leader in facilitating building performance benchmarking, having helped customers benchmark over 12,000 properties using Web Services – 40% of all buildings benchmarked using Web Services in the nation. PG&E does not inquire or distinguish the purpose of benchmarking when requested by a building owner or manager. PG&E provides support for not only voluntary benchmarking but also multiple mandatory benchmarking programs including AB 1103, the City and County of San Francisco's Existing Commercial Buildings ordinance, and benchmarking of school energy usage under Proposition 39. The table below shows the number of properties benchmarked by PG&E since 2011.

Year	# Properties
2011	3,500
2012	3,536
2013	1,397
2014	3,320
YTD March 1, 2015	649
Total	12,402

In 2011, PG&E was among the first utilities to develop Web Services to speed and simplify benchmarking, by automatically transferring energy usage and billing data directly to ENERGY STAR ® Portfolio Manager. To facilitate these transactions, PG&E applies California privacy laws and CPUC decisions that require PG&E to obtain express and prior written or electronic consent for utility customers of record before releasing their energy usage data to a third party for a purpose

other than utility service. Once authorized by the customer, PG&E automatically transfers up to three years of historical data and billing cycle data every month going forward.

PG&E continues to refine and improve our technical solutions, education, training and outreach to provide proactive support to customers as well as third party building owners and managers. These offerings include:

- All salesforce and account managers are trained on benchmarking and AB 1103 basics for education and outreach.
- Dedicated team of benchmarking specialists provides one-on-one phone and email support. In 2014, 400 hours of personalized assistance were allocated for building benchmarking.
- In-person training and education classes are professionally taught by Energy Efficiency Funding Group, Inc. at the Pacific Energy Center in San Francisco. Attendance rates for "Benchmarking Your Commercial Building" and "Benchmarking as a Business" exceed 50 people per class and receive consistent 5-star reviews.
- PG&E.com corporate website hosts How-to-Guides and benchmarking resources.
- In 2014, PG&E launched an online learning management system to offer a convenient training alternative, especially useful for hard to reach small- and medium-size businesses. The training is modular, based on specific needs, and includes an AB 1103 focused module.
- In 2014, PG&E released an online, electronic data release authorization form to speed and simplify building owner and tenant/customer of record consent.

Like many utilities, PG&E has been working with commercial building owners and business customers for the past thirty years to pursue and actively support energy efficiency improvements. PG&E not only supports building benchmarking programs, we also incorporate benchmarking in several of our newest and most innovative program designs like the Whole Building Pay-for-Performance model.

Additionally, the Commercial Building Energy Saver is a web-based toolkit, especially tailored to small and medium commercial buildings, that identifies optimal energy saving retrofits and operational improvements. The toolkit will be a major technical improvement over current analytic tools by allowing users to:

- Identify no and low-cost energy efficiency operational improvements using smart meter data and actual weather data.
- Analyze retrofits for lighting, windows, and HVAC systems based on building characteristics such as vintage, floor area, climate, energy price, etc.
- Evaluate over 100 energy conservation measures, or combinations with the ability to prioritize based on cost, energy savings, CO_2 emissions, etc.
- Results can compare pre- and post-retrofit building characteristics, energy performance, retrofit savings analysis, etc.
- Provide guidance on impacts of retrofits on indoor environmental quality.

In summary, PG&E not only has robust methods of providing data to support benchmarking by external third-party energy efficiency providers, PG&E also provides training on benchmarking to customers and industry providers, as well as providing engaged customers with actionable information based on their data.

B. Strategy 2.1 Modern, Accessible Data Resources

As discussed above, PG&E's existing energy data access programs and tools are robust and tailored to customers' needs. For this reason, PG&E recommends that the specific data access strategies listed under Strategy 2.1 of the Draft Plan leverage these already-existing data access programs and tools to support any new AB 758-related building energy efficiency initiatives and programs.

For example, PG&E notes the mention of the Urban Footprint as a mapping tool (pp. 59 and 62). PG&E has used Tableau to provide energy consumption heat maps to local governments that have funding for an EE project, such as the EUC projects under ARRA. Under the Green Communities program discussed above, the cities of Berkeley and Fresno received such maps and used the information to improve program performance and to target high energy consumers in their marketing campaigns. Given that we are able to meet the underlying need with an existing tool, it would be an unnecessary expense to require licensing and integration with an additional software tool.

Finally, as mentioned in PG&E's April 21, 2015 comments[3] and as discussed by PG&E's Joanne O'Neill at the April 7, 2015 workshop (and by Efficiency.org's Matt Golden at the April 14, 2015 workshop), PG&E encourages the CEC to leverage the ongoing efforts of the CalTEST/CalTRACK initiative, to better support the confidence and adoption of residential performance assessment software with more persuasive reporting.

IV. PG&E Response to April 14, 2015 Data Workshop Questions

PG&E appreciated the variety of stakeholder opinions put forth at the Data Drives Informed Decisions Workshop held on April 14, 2015.

At the workshop on April 14, 2015, several specific questions were presented to the IOUs by Commissioner McAllister. PG&E responds to each as follows:

---

[3]   Pacific Gas and Electric Company's Comments on California's Existing Buildings Energy Efficiency Action Plan, Docket No. 15-IEPR-05, April 21, 2015, p. 6.

Question: What percentage of customers use Green Button or Green Button Connect?

Response: The current suite of Green Button Products and statistics about adoption are shown below. PG&E tracks the usage statistics by cumulative number of downloads or requests per month (not by individual customers).

Green Button Download, Launched in 2011:
Description:
> This tool allows residential and SMB customers to download their electric and gas interval usage data, interval cost data, billing data one Service Agreement at a time

Adoption:
> ~15,000 downloads/month

Green Button Connect (Beta), Launch in 2012:
Description:
> Green Button Connect My Data is a pilot program designed to test the concept of customers granting authorized third-party service providers on-going access to their electric usage data. Share My Data was built using the lessons learned from the Green Button Connect My Data pilot. The Green Button Connect My Data tool will be decommissioned in Summer 2015 and all third parties will be required to use Share My Data to access customer-authorized data.

Adoption:
> ~14,000 requests/month

Share My Data, Launch in mid-March 2015:
Description:
> A safe and secure method for customers to provide historic and ongoing access to their PG&E electricity usage data to authorized third parties of their choice. Customers do not have to log in every day to download and send files—once set up, Share My Data will package PG&E data, inform the authorized business when the data is ready, and securely send it out.

Adoption:
> To be determined; product recently launched in March 2015

Question: Why are there different Green Button Connect companies authorized by the three different utilities? We would expect more similarity, but it is quite different.

Response: In PG&E's pilot release of Green Button Connect (beta), PG&E limited the number of third parties that could request customer data due to short term nature of application.

In the current Green Button Connect product, Share My Data, any third party that meets the requirements below can register to receive customer authorized data:

- PG&E screens applicants to verify that they are legitimate business entities in good standing with the CPUC (i.e., the CPUC maintains a list of companies that are not allowed to receive customer data);
- The company agrees to abide by the Terms and Conditions and the Customer Data Access Tariff (including the California Public Utilities Commission's privacy rules); and
- The company has the technical capability to use the Share My Data platform

Any company connecting to SDG&E or SCE can also apply to connect to PG&E's Share My Data platform.

Question: Should there be a minimum quality check for companies that can be on the GB Connect? Should the CEC establish it?

Response: No, there should not be a minimum quality check for companies that would like to connect on Green Button Connect. The Green Button standard enables companies to imagine and create innovative, inspiring new ways for customers to relate to, manage, and ultimately reduce their energy usage. The Green Button marketplace is just starting to get off the ground, and it is important to balance protecting customer privacy with more rules and regulations, which can stifle the market.

There are security and privacy safeguards already in place in the current process. Firstly, customers must authorize the third party in order for them to receive customer data. PG&E strongly recommends that customers investigate how the companies that they choose to do business with will manage and protect their data. Additionally, the CPUC maintains a list of companies who are not eligible to receive authorized customer data. The CPUC reviews reports of misuse of customer data and makes final determinations as to whether terms of the Tariff and/or Customer Data Privacy and Protection Rules have been violated. The Commission has the authority to order utilities to immediately revoke access and terminate registration of companies or individuals that are in violation and bar them from future participation.

PG&E also ensures that data transferred via the Share My Data tool are secure. Share My Data follows the Green Button Connect My Data implementation agreements. There is no exchange of identity information between PG&E and the third party, and Share My Data also employs Transport Layer Security (TLS) 1.2, a protocol that ensures privacy. TLS ensures that no third party may eavesdrop or tamper with any message.

V. 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 Winn

cc: D. Ismailyan by email (david.ismailyan@energy.ca.gov)