

California Building Energy Benchmarking Program



Eugene Lee, Existing Buildings Office, Efficiency Division
June 20, 2018
California Energy Commission



Assembly Bill 802 (2015)

The State of California passed Assembly Bill 802 (October 2015) to provide data access and to create a benchmarking and public disclosure program.

Data access – establishes standards under which utilities must provide whole-building energy use data upon request by a building owner or their representative

Benchmarking reporting – defines requirements for owners of buildings of certain sizes and uses to benchmark their properties and report the results to the California Energy Commission



Assembly Bill 802 (2015)

Goals

- Provide building owners access to their building energy use from utilities
- Help owners understand and monitor their buildings' energy performance to save energy and money on their utility bills
- Provide potential buyers, tenants, lenders, utilities, and researchers with data on how different buildings are performing to help inform real estate decisions
- Drive more energy efficiency investments to reduce operating expenses and decrease the carbon footprint of buildings



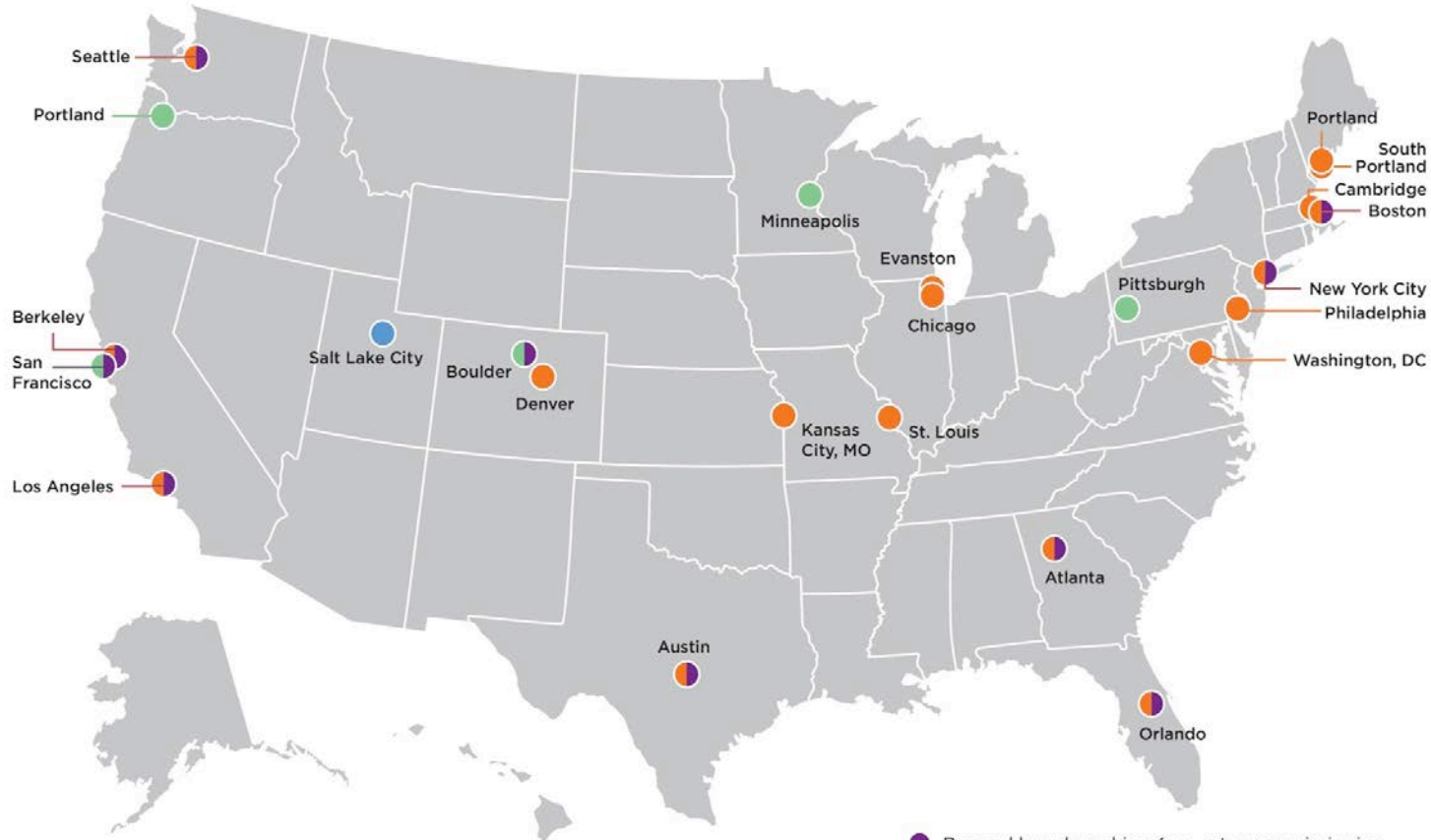
What's New Under AB 802

	AB 1103	AB 802
Date Enacted	Nov 2007	Oct 2015
Utility data access provisions	None	Requires utilities to provide whole-building energy use data upon request
Reporting	Required at the time of sale, lease, or finance.	Annual reporting requirement
Public disclosure of results	None	Public disclosure of building energy performance beginning during second year of reporting
Buildings required to benchmark and report	Non-residential buildings over 5,000 sf	Non-residential and residential buildings over 50,000 sf



Other Cities Have Similar Laws

U.S. City Policies: Building Benchmarking, Transparency, and Beyond

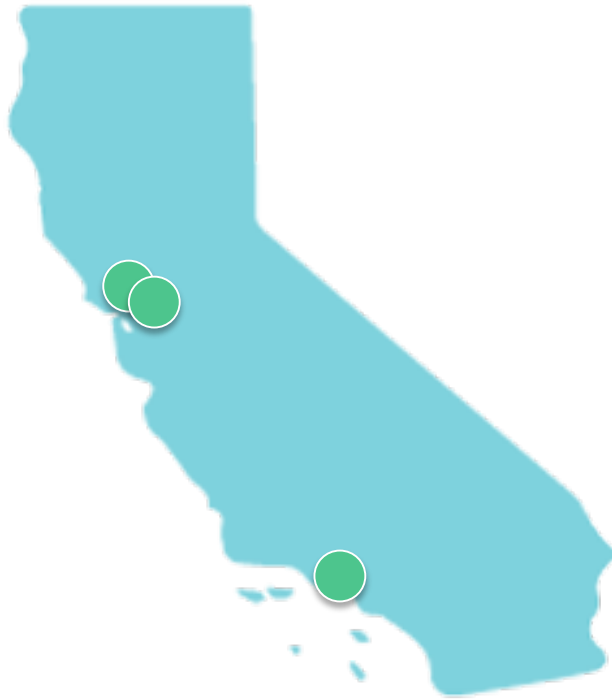


- Beyond benchmarking (e.g. retrocommissioning or audit) policy adopted
- Public, commercial, and multifamily policy adopted
- Public and commercial building benchmarking policy adopted
- Public buildings benchmarked





Role of California Cities

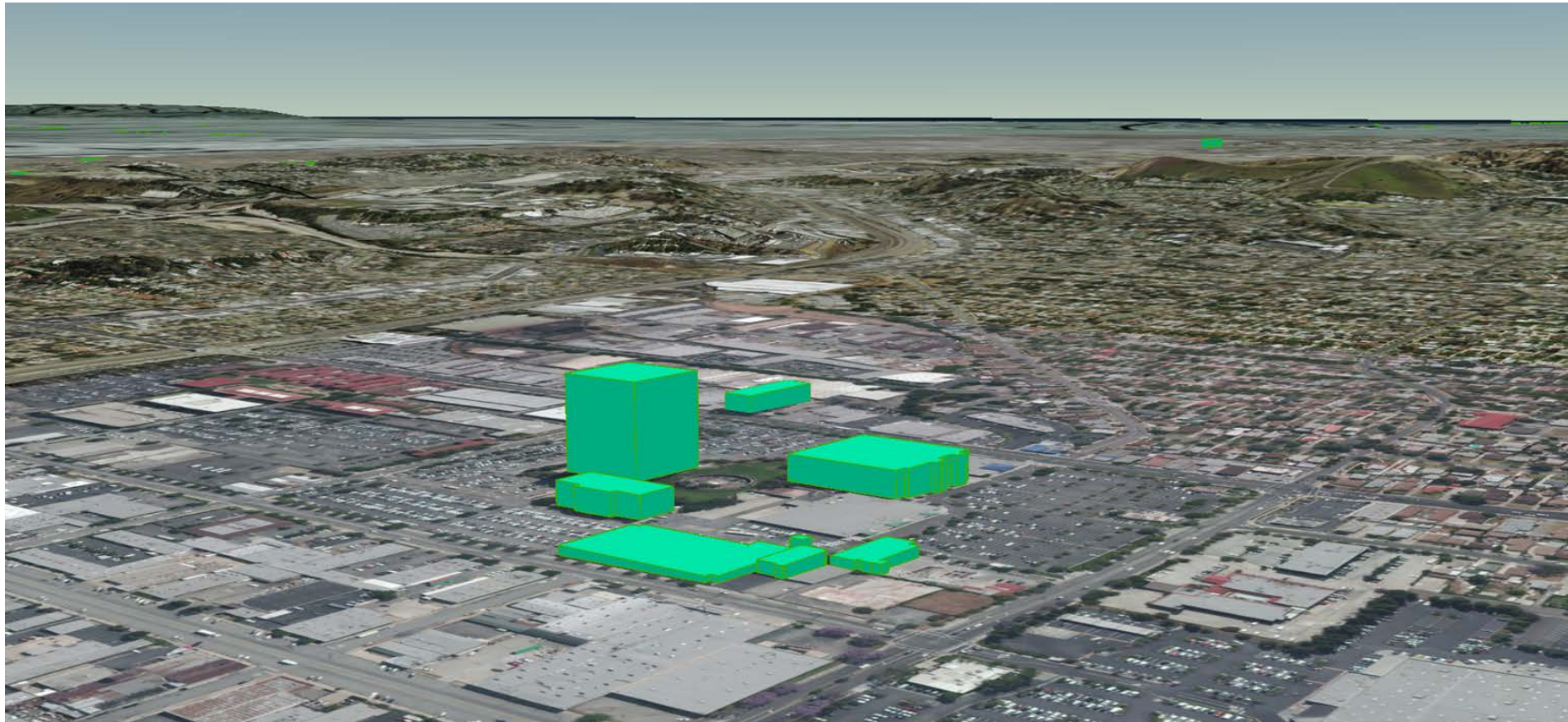


- Los Angeles, San Francisco, and Berkeley currently have local benchmarking requirements
 - Can apply for exemptions for state requirements
- Cities can choose to include additional requirements, or have broader coverage
- California Energy Commission and cities are coordinating to avoid overlap



Example Thought Process

I have a collection of buildings
in my city's 'portfolio'



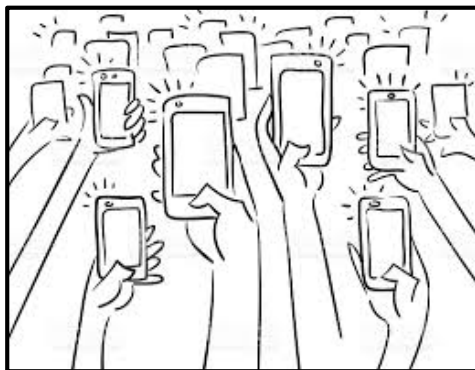


How to Think About Benchmarking

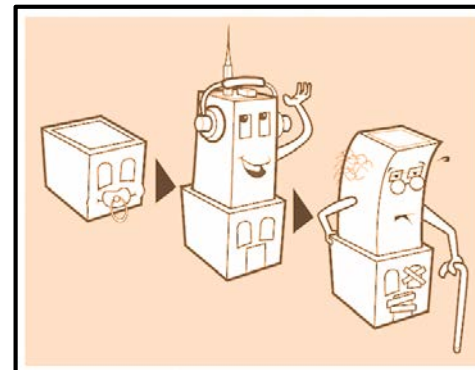
It's all about Comparisons



Self



Peers



Scenarios

These help identify opportunities to save and helps document those savings



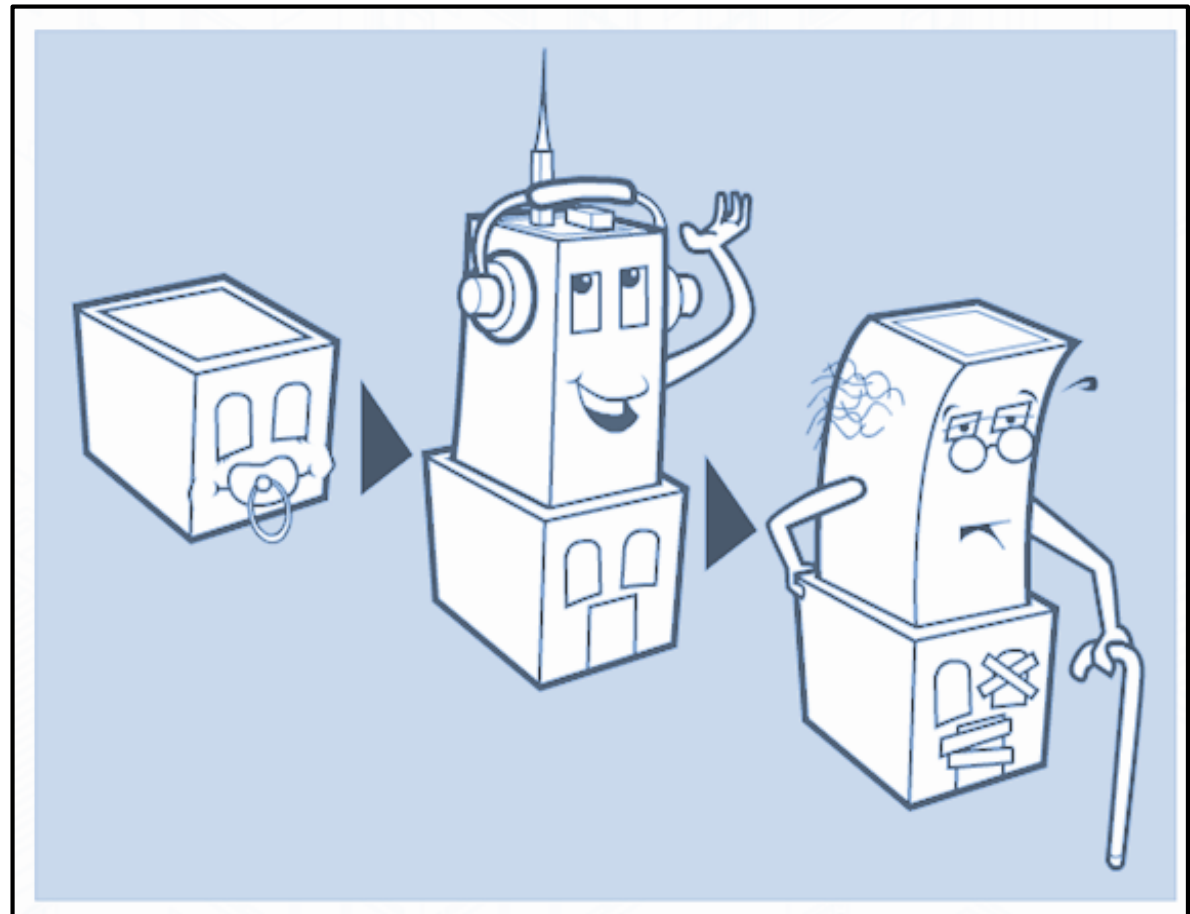
Benchmarking 101: Getting To Know Buildings

Like people:

- **Buildings age**
- **Not all the same**
- **Need care**

Therefore:

- **Parts breakdown**
- **Unique needs**
- **Need upgrades**





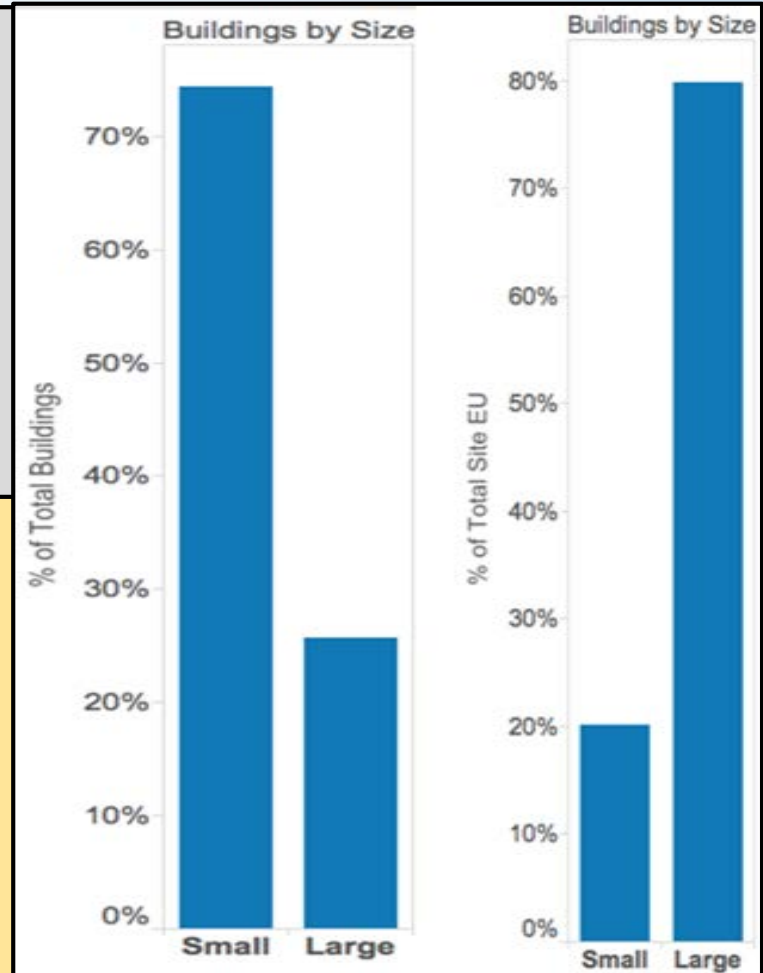
What to Look For

Size

- What are my buildings like?
- Large? Small?
- What type?

But where is the energy going?

- Most buildings are small
- Yet, the energy in my portfolio is dominated by few large buildings





Drilling Down: Benchmarking Metrics

Remember: It's about energy and cost

- **Energy Use Intensity (EUI) = Energy/square foot**
- **Energy Cost Intensity (ECI) = Cost/square foot**

But also remember...

- **Just like people, not all buildings are the same**
- **Compare apples to apples**
- **Do some benchmarking - self, peers, scenarios**



Definitions

Covered Building

A building for which a utility is required to provide energy use data upon request

- No residential utility accounts or
- Five or more active utility accounts, at least one of which is residential

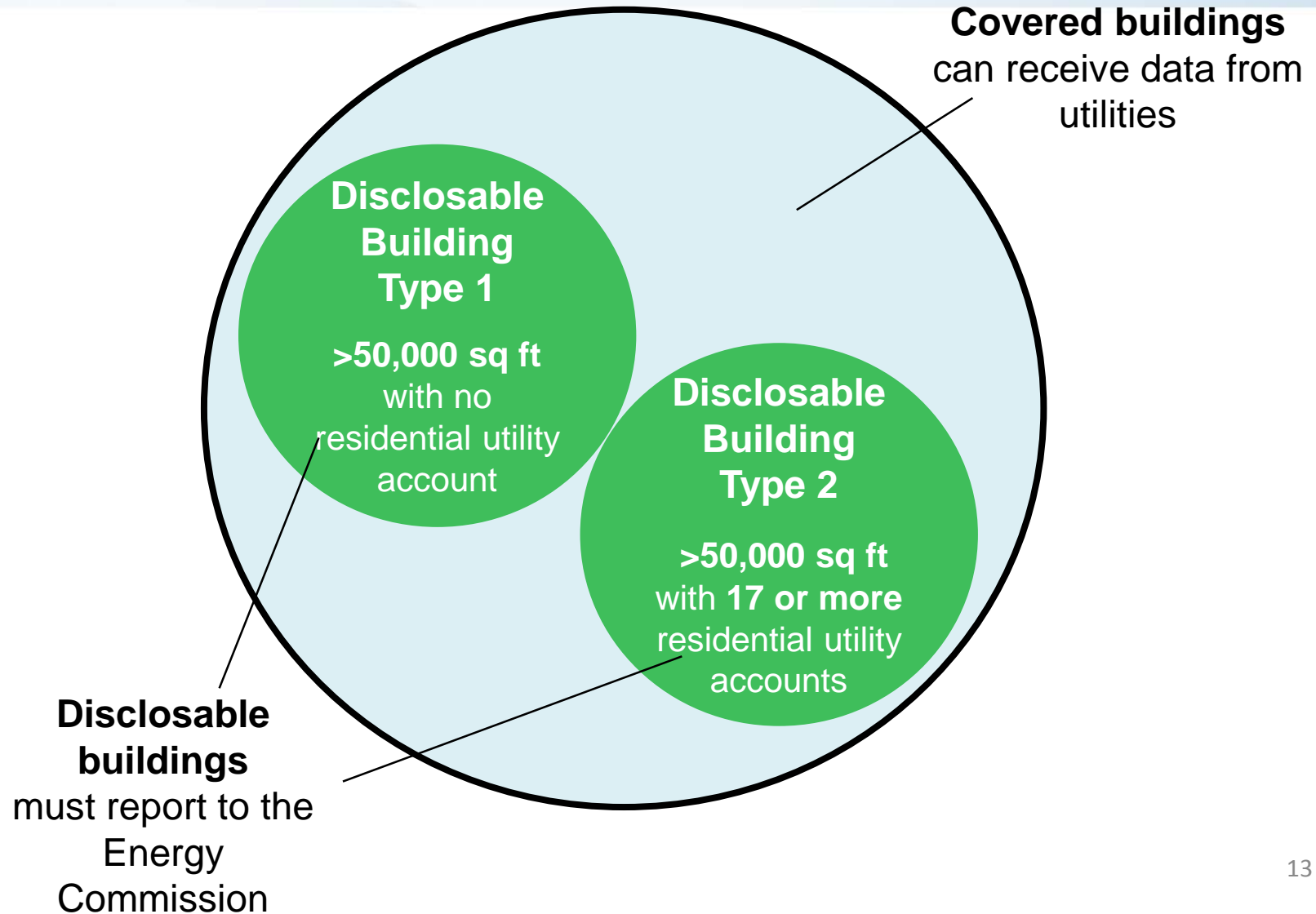
Disclosable Building

A covered building for which annual reporting to the Energy Commission is required

- More than 50,000 square feet of Gross Floor Area and has either
 - No active residential utility accounts or
 - 17 or more active residential utility accounts of each energy type serving the building



Who is Required to Comply?





Data Access Provisions

	At Least One Residential Utility Account	No Residential Utility Accounts
Authorization Needed	Less than 5 utility accounts Not covered under AB 802	Less than 3 utility accounts



Timeline and Deadlines

2018

- March 1 – Regulations went into effect
- April – Compliance instructions posted, hotline goes live
- April to June – In-person and online trainings
- June 1 – Reporting due for commercial buildings

2019

- June 1 – Reporting due for commercial and residential buildings
- Q4 – Public disclosure for commercial buildings

2020

- Q4 – Public disclosure for commercial and residential buildings

Compliance Schedule

Building Type	First Benchmarking Reporting Deadline	First Public Disclosure of Data
No residential utility accounts and > 50,000 sq. ft.	June 1, 2018 (2017 data)	2019 (2018 data)
17 or more residential utility accounts and > 50,000 sq. ft.	June 1, 2019 (2018 data)	2020 (2019 data)



Benchmarking Website and Hotline

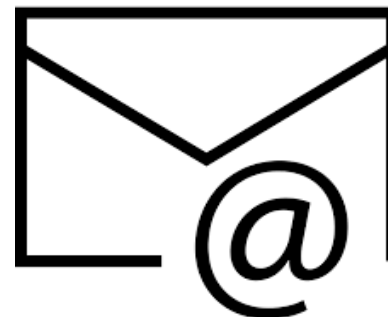
www.energy.ca.gov/benchmarking

For questions regarding the reporting requirements or procedure, contact the Energy Commission's Benchmarking Hotline at

(855) 279-6460 (toll free)

or

Benchmarking@energy.ca.gov





Policy Fact Sheet

Resources available now for you and your members:

- Policy fact sheet
- FAQs
- Newsletter intro

Other possible opportunities for engagement:

- Blogs
- Newsletters and e-mail blasts
- Webinars
- Conferences



In October 2015, the State of California passed Assembly Bill 802 (AB 802) to provide building owners access to their building energy use data from utilities, and to track consumption in their buildings. The purpose of AB 802 is to help building owners, tenants, and others better understand the energy consumption of their buildings through standardized energy use metrics.

Why benchmark?

- You can't manage what you don't measure, and benchmarking provides a baseline understanding of energy use.
- Research suggests that benchmarking, which allows for a building's energy use to be compared to its prior performance and to that of its peers, can lead to savings of about 3 percent in annual energy expenditures.¹
- Benchmarking provides building owners with knowledge that enables smarter and more cost-effective improvements in building energy use.

Who has to benchmark their building under this program?

Owners of buildings in California that have a gross floor area of 50,000 square feet or greater are required to benchmark their energy performance annually, and report the results to the California Energy Commission per the following schedule. Comparative information on each building's performance will be posted on a public website during the second reporting year for each group.

BUILDING TYPE	REPORTING DEADLINE	INITIAL POSTING OF INFORMATION
No residential utility accounts	June 1, 2018, and each June 1 thereafter	After June 1, 2019
17 or more residential utility accounts	June 1, 2019, and each June 1 thereafter	After June 1, 2020

What do building owners need to do to comply?

Benchmarking a building's energy performance requires combining the energy bills from a building's utility with basic physical and operational characteristics of the building (such as size, type of use, and hours of operation). Building owners must enter this information into a free, on-line tool—ENERGY STAR Portfolio Manager—which will generate results that allow for tracking of a building's performance over time, as well as comparing its performance against that of its peer buildings.

How do building owners get information on their buildings' energy use?

AB 802 requires energy utilities in California to provide monthly building-level energy use data for at least the previous calendar year to building owners, owners' agents, and operators of any of the following, upon request:

- Any non-residential building, other than a condominium, with three or more active utility accounts of any one energy type
- Any non-residential building with less than three active utility accounts, where all account holders have agreed to share their energy use information
- Any residential building, other than a condominium, with five or more active utility accounts of any one energy type

Additional information on the process to request this data can be found on the California Energy Commission's website at www.energy.ca.gov/benchmarking or by contacting the utilities serving the building.

1. Palmer, Kane, and Margaret With, Does Information Provision Shrink the Energy Efficiency Gap? (Washington, DC: Resources for the Future, 2015), accessed at <http://www.rff.org/files/attachment/Workshops/Download/RFF-15-12.pdf>



Frequently Asked Questions (FAQs)

The California Energy Commission's [website](#) has a list of FAQs regarding the AB 802 policy, the Energy Benchmarking and Disclosure Program, guidance on how to comply, and best practices.



California Benchmarking Frequently Asked Questions

- ▶ **1. What is AB 802?**
 - ▶ a. *Where can I get more information regarding this program?*
- ▶ **2. When does the law take effect?**
- ▶ **3. What is benchmarking?**
 - ▶ a. *What is the value to me of an energy benchmark?*
 - ▶ b. *What are the benefits of benchmarking?*
- ▶ **4. Am I required to comply?**
 - ▶ a. *Are there any exemptions to the reporting requirement?*
 - ▶ b. *What is considered "industrial"?*
 - ▶ c. *Are government-owned buildings required to comply?*
 - ▶ d. *Are strip and neighborhood open air shopping centers required to comply?*
 - ▶ e. *Does my building square footage include parking areas?*
- ▶ **5. What do I need to comply?**



Other Resources and Additional Information

[Assembly Bill 802](#)

[Clean Energy & Pollution Reduction Act SB 350](#)

[Senate Bill 350: Doubling Energy Efficiency Savings by 2030](#)

[Existing Buildings Energy Efficiency Action Plan \(Sep 2015\)](#)

[Existing Buildings Energy Efficiency Action Plan Update \(Dec 2016\)](#)

[ENERGY STAR website](#)

- [Portfolio Manager training and tutorials](#)
- [Portfolio Manager Glossary of Terms](#)
- [Portfolio Manager FAQs](#)

[California Energy Commission Website](#)



Contact Information

Eugene Lee

Eugene.Lee@energy.ca.gov

Residential Supervisor

California Energy
Commission

Erik Jensen

Erik.Jensen@energy.ca.gov

Energy Specialist

California Energy
Commission

Statewide Energy Efficiency Savings Action Plan

Meeting California's Energy Efficiency Goals



Eugene Lee, Existing Buildings Office, Efficiency Division
June 20, 2018
California Energy Commission



Background

- *2015 and 2016 Update Existing Buildings Energy Efficiency Action Plan*
 - Assembly Bill 758, Skinner, Chapter 470, Statutes of 2009
 - 10 year roadmap to advance energy efficiency across residential, commercial, and public building stock
 - Updated triennially
- *Senate Bill 350 Doubling Energy Efficiency by 2030 Report*
 - Senate Bill 350, De Leon, Chapter 547, Statutes of 2015
 - Target setting report to achieve a statewide cumulative doubling of energy efficiency by January 1, 2030
 - Updated biennially



New Energy Efficiency Report

- Combine the next mandated report updates
- Also include energy efficiency content from:
 - SB 350 Low-Income Barriers Study
 - Clean Energy Low Income Multifamily Buildings (CLIMB) Action Plan (18-IEPR-08)
- Update biennially with intermediate updates in the IEPR
- Energy efficiency savings from SB 350



New Report Structure

- 4 Chapters:
 - Introduction, Vision, and Framework
 - Regulatory and Policy Updates
 - Goals
 - Implementation

- Goals:
 1. Government Leadership in Energy Efficiency
 2. Data-driven Decision Making
 3. Increased Innovation and Performance
 4. Recognized Value of Energy Efficiency Upgrades
 5. Affordable and Accessible Energy Efficiency Solutions



Feedback Requests

Roadshow

- Kickoff workshop completed June 7, 2018.
- Regional presentations in early 2019.

Outline of New Report in Docket

- 18-IEPR-07 – Doubling Energy Efficiency Savings
http://www.energy.ca.gov/2018_energypolicy/

Submit your ideas to the docket!