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
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

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

Disclosable buildings must report to the Energy Commission.

- **Covered buildings** can receive data from utilities.

**Disclosable Building Type 1**
- >50,000 sq ft
- with no residential utility account

**Disclosable Building Type 2**
- >50,000 sq ft
- with 17 or more residential utility accounts
# Data Access Provisions

<table>
<thead>
<tr>
<th>Authorization Needed</th>
<th>At Least One Residential Utility Account</th>
<th>No Residential Utility Accounts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less than 5 utility accounts Not covered under AB 802</td>
<td>Less than 3 utility accounts</td>
</tr>
</tbody>
</table>
Timeline and Deadlines

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
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<tbody>
<tr>
<td>2018</td>
<td>March 1 – Regulations went into effect</td>
</tr>
<tr>
<td></td>
<td>April – Compliance instructions posted, hotline goes live</td>
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<tr>
<td></td>
<td>April to June – In-person and online trainings</td>
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<tr>
<td></td>
<td>June 1 – Reporting due for commercial buildings</td>
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<tr>
<td>2019</td>
<td>June 1 – Reporting due for commercial and residential buildings</td>
</tr>
<tr>
<td></td>
<td>Q4 – Public disclosure for commercial buildings</td>
</tr>
<tr>
<td>2020</td>
<td>Q4 – Public disclosure for commercial and residential buildings</td>
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</tbody>
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Compliance Schedule

<table>
<thead>
<tr>
<th>Building Type</th>
<th>First Benchmarking Reporting Deadline</th>
<th>First Public Disclosure of Data</th>
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<tbody>
<tr>
<td>No residential utility accounts and &gt; 50,000 sq. ft.</td>
<td>June 1, 2018 (2017 data)</td>
<td>2019 (2018 data)</td>
</tr>
<tr>
<td>17 or more residential utility accounts and &gt; 50,000 sq. ft.</td>
<td>June 1, 2019 (2018 data)</td>
<td>2020 (2019 data)</td>
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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
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.

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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

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Statewide Energy Efficiency Savings Action Plan

Meeting California’s Energy Efficiency Goals

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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:
  o Introduction, Vision, and Framework
  o Regulatory and Policy Updates
  o Goals
  o 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!