

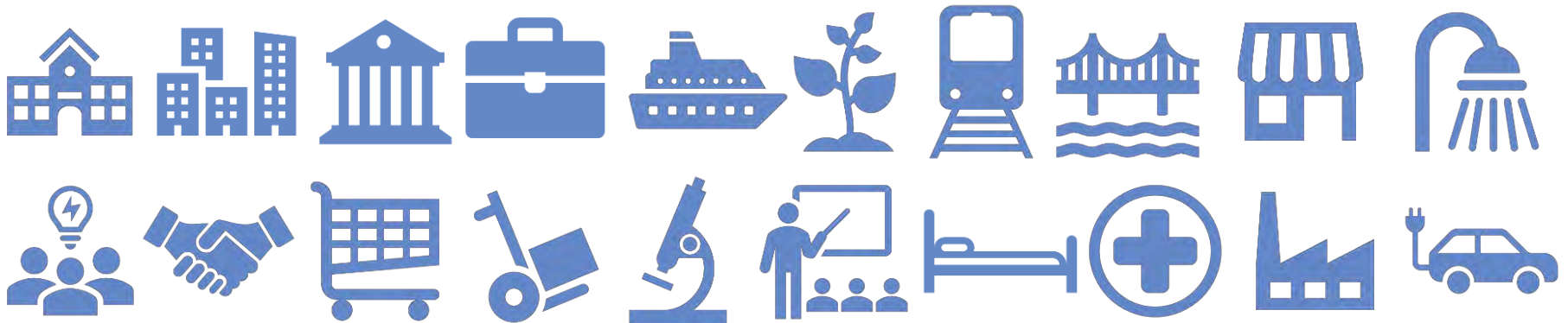


City of Brisbane Energy and Water Benchmarking Workshop

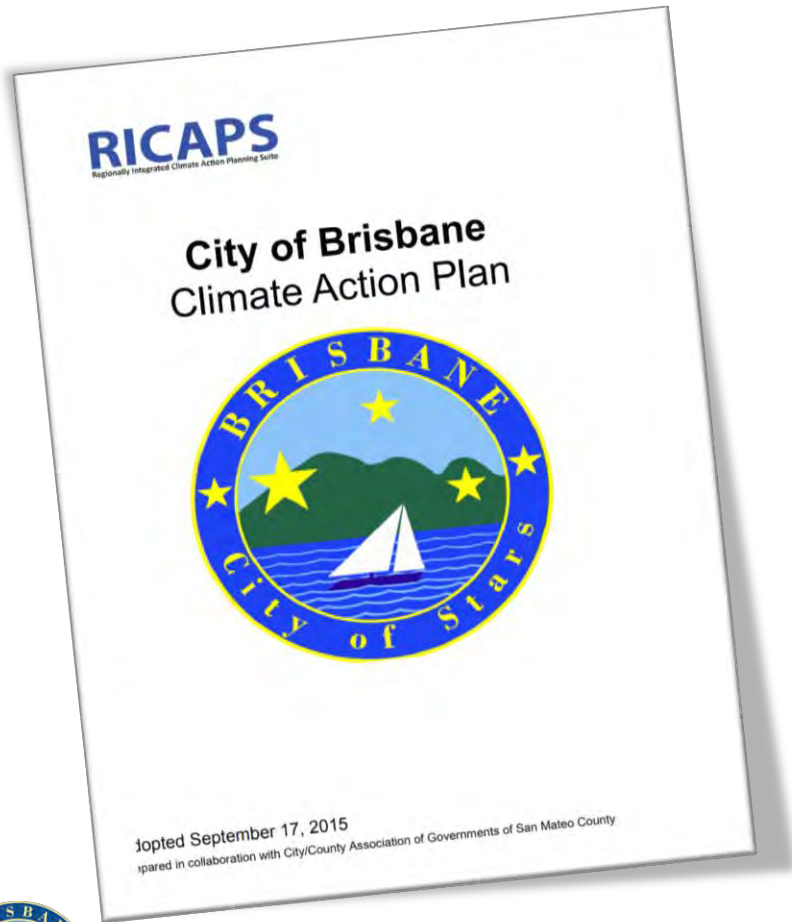
April 9, 2019

Welcome and Introductions

- Introductions
- Brief introduction to ordinance
- Goals of workshop
- Expectation setting (soliciting, adopting input)
- Structure of workshop



Background



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT



Over watering landscapes is a
Turn off.

Reduce outdoor irrigation today.

Hetch Hetchy Regional Water System

BAWSCA

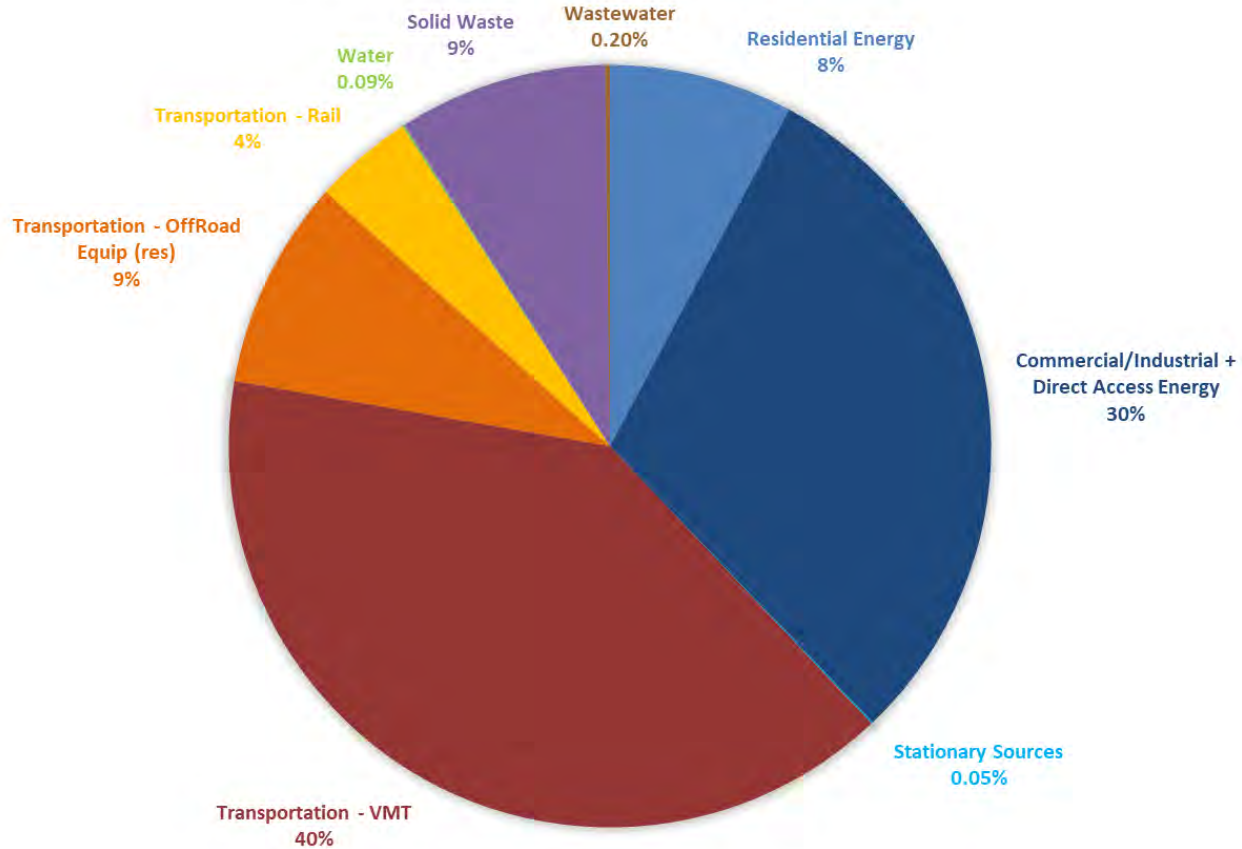
Drought! Hetch Hetchy water – too good to waste. hawsca.org/conservation

Save money with PG&E rebates



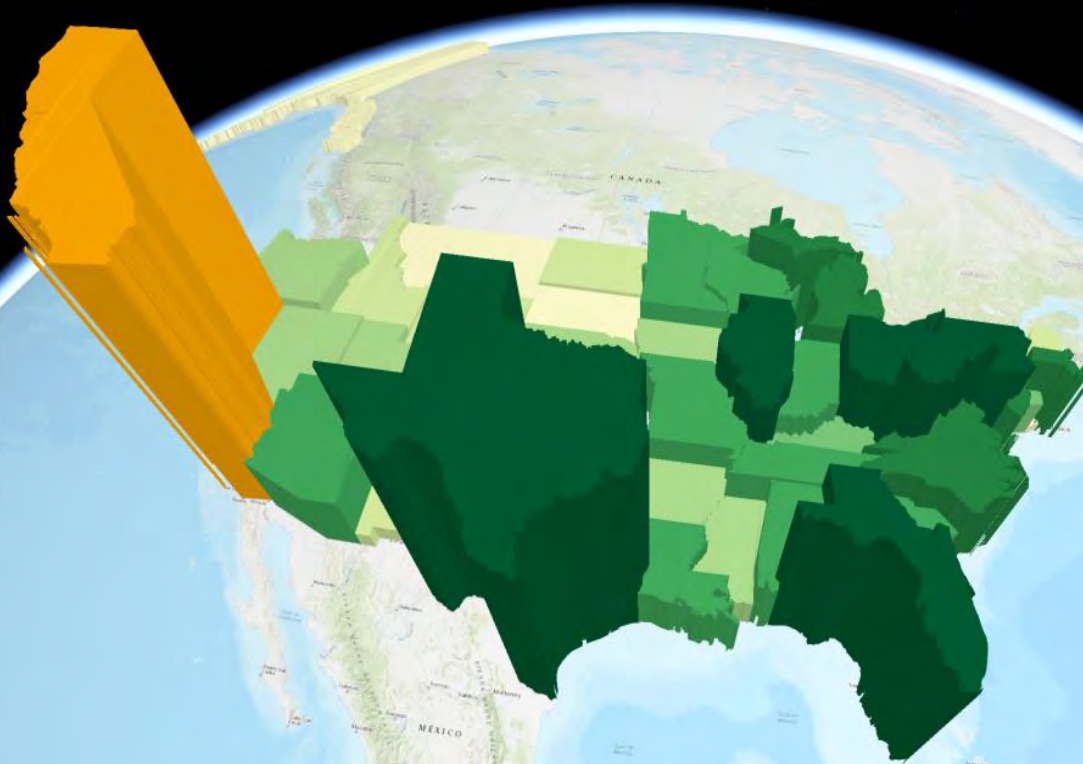
CAP Strategies & Ordinance

Brisbane 2015 Community GHG Inventory



Overview of Sustainability Trends

California spends \$42.21 Billion on energy in a year



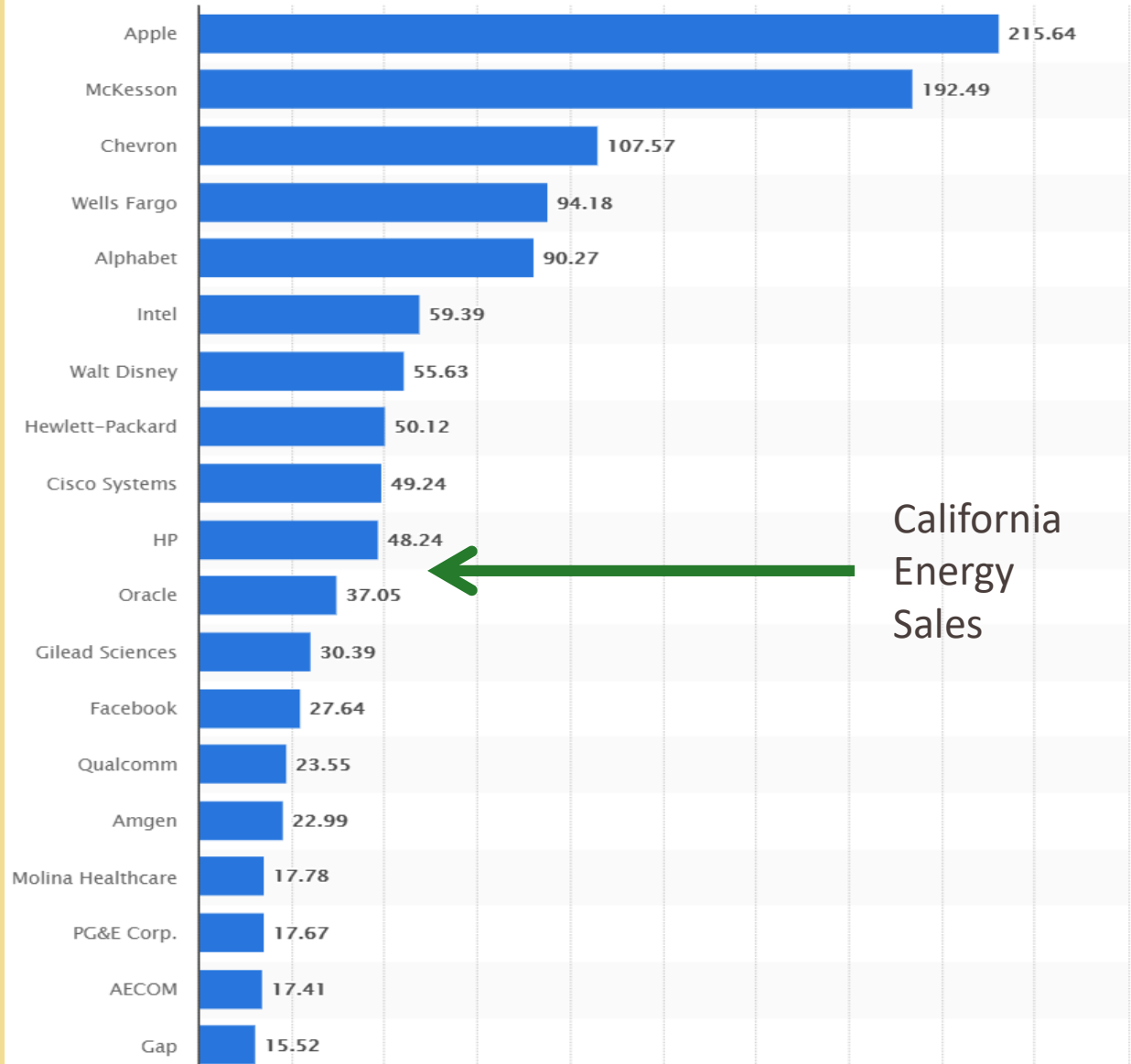
Retail Energy in California Source: U.S. Energy Information Administration



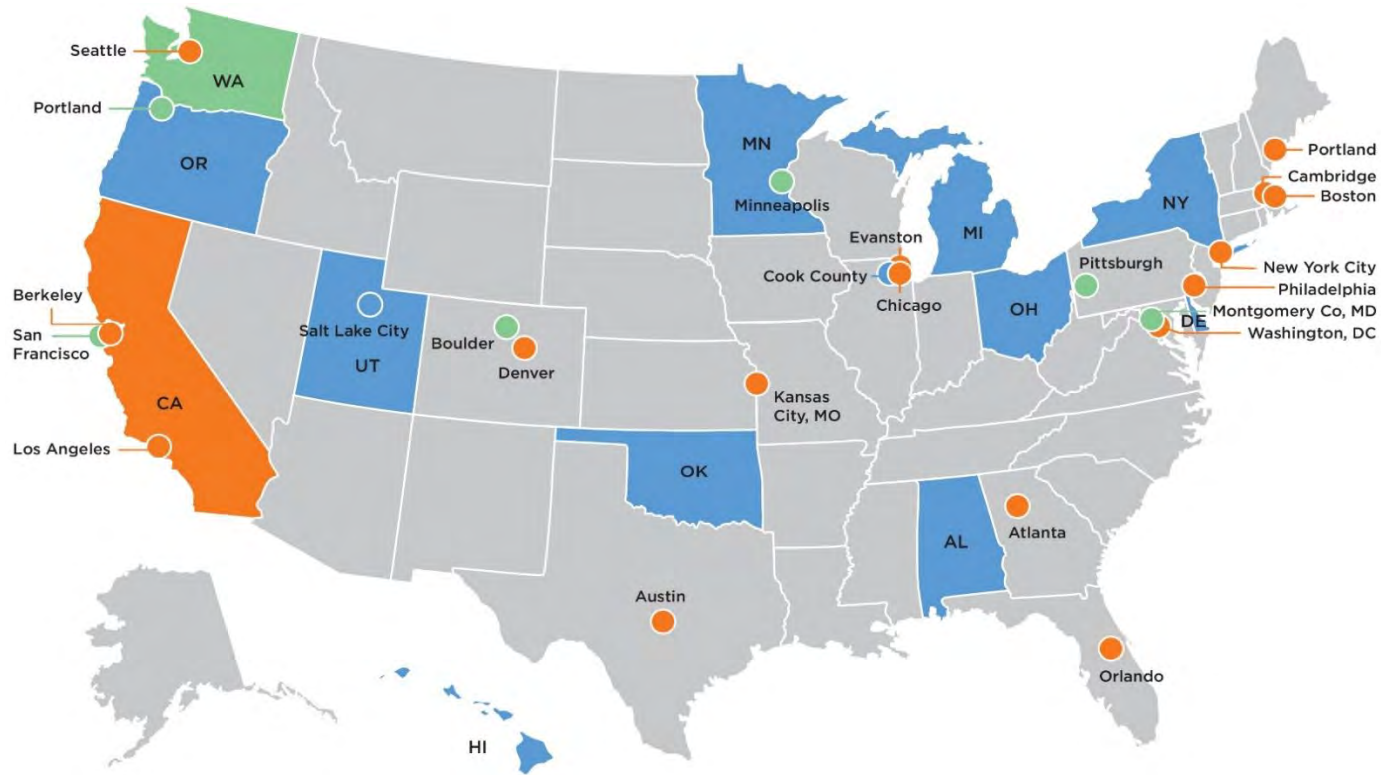
How do CA Utilities Compare to Fortune 500 Companies?

Do we really understand where \$42B goes?

Does CA understand its customers as well as a Fortune 500 company?



Transparency Regulatory Market



- Public, commercial, and multifamily building benchmarking policy adopted
- Public and commercial building benchmarking policy adopted
- Public buildings benchmarked



California Building Energy Benchmarking Program (Assembly Bill 802)

1. Allows building owners (or representatives) to request building-level energy use data from utilities
2. Requires building owners to benchmark and report their buildings on ENERGY STAR Portfolio Manager to the California Energy Commission

The screenshot shows the California Legislative Information website. At the top, there is a navigation bar with links for "skip to content", "home", "accessibility", "FAQ", and "feedback". Below this is the "California LEGISLATIVE INFORMATION" logo and a "Quick Search" box. The main content area is titled "Bill Information >> Bill Search >> Text" and displays details for "AB-802 Energy efficiency. (2015-2016)". It includes a "PDF" link, "Add To My Favorites", and a version dropdown menu. A table of contents is visible with tabs for "Text", "Votes", "History", "Bill Analysis", "Today's Law As Amended", "Compare Versions", "Status", and "Comments To Author". Below the table, there are social media sharing icons for Facebook and Twitter. The bill title "Assembly Bill No. 802" and "CHAPTER 590" are prominently displayed. At the bottom, a summary of the act is provided: "An act to amend Sections 25301 and 25303 of, and to repeal and add Section 25402.10 of, the Public Resources Code, and to amend Section 381.2 of, to amend and renumber Section 384.2 of, and to add Section 913.8 to, the Public Utilities Code, relating to energy efficiency."

Regulations Implementing Building Energy Use Data Access, Benchmarking, and Public Disclosure Procedures of Assembly Bill 802 (Williams, 2015)

California Code of Regulations
Title 20. Public Utilities and Energy
Division 2. State Energy Resources Conservation and Development Commission
Chapter 4. Energy Conservation
Article 9. Building Energy Use Data Access, Benchmarking, and Public Disclosure

Section 1680. Purpose.

This article implements procedures, pursuant to Public Resources Code section 25402.10, for providing energy use data, benchmarking energy performance, and publicly disclosing energy performance for buildings in California.

Note: Authority cited: Sections 25213, 25218(e) and 25402.10, Public Resources Code.
Reference: Section 25402.10, Public Resources Code.

Section 1681. Definitions.

(a) Active: A Utility Account is considered "Active" if (1) it is receiving Energy at the time of the request, and (2) the postal address that the Utility Account is currently serving received Energy at any time during the time period for which Energy use data is requested.

(b) Benchmark: To obtain information on the Energy use in an entire building for a specific period to enable that usage to be tracked or compared against other buildings.

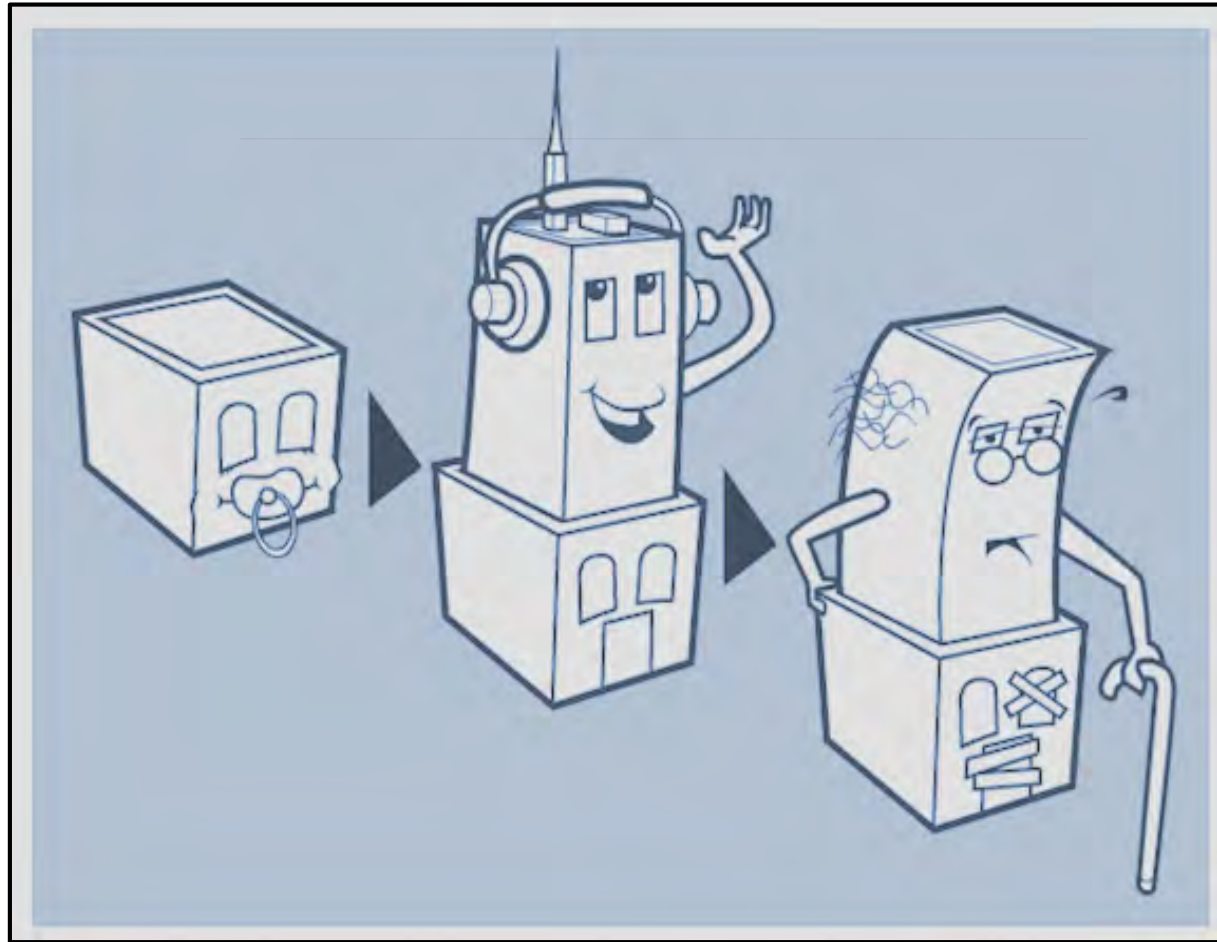
Benchmarking 101: Getting To Know Buildings

Like people:

- Buildings age
- Not all the same
- Need care

Therefore:

- Parts breakdown
- Unique needs
- Need upgrades



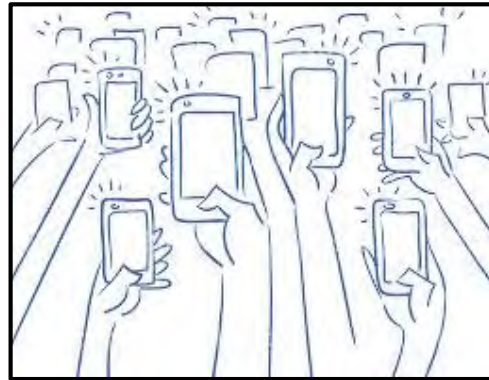
*PNNL Building Retuning Training

How to Think About Benchmarking

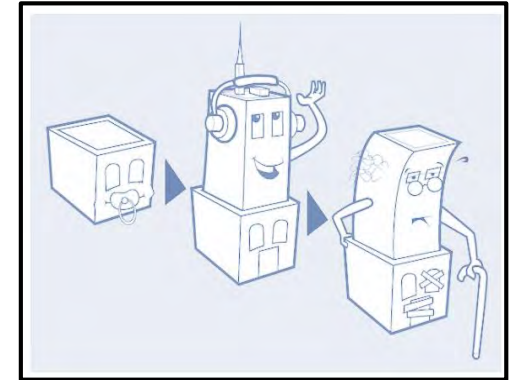
It's all about Comparisons



Self



Peers



Scenarios

These identify opportunities to save and help document those savings

Drilling Down: Benchmarking Metrics

EPA Fuel Economy Estimates

These estimates reflect new EPA methods beginning with 2008 models.

| | | |
|---|---|--|
| CITY MPG 18 Expected range for most drivers 15 to 21 MPG | Estimated Annual Fuel Cost \$2,039 based on 15,000 miles at \$2.80 per gallon | HIGHWAY MPG 25 Expected range for most drivers 21 to 29 MPG |
| Combined Fuel Economy | | |
| This Vehicle 21 | | |
| 10 31 All SUVs | | |

Your actual mileage will vary depending on how you drive and maintain your vehicle.

See the FREE Fuel Economy Guide at dealers or www.fueleconomy.gov

| | | | |
|--|---------------|--|---------------|
| GROC 0106724 12 015 023 | 0002700038205 | GROC 0115774 12 015 023 | 0002700038358 |
| HNTS KETCHUP 44.5 OZ | | HNTS KETCHUP 35 OZ | |
| UNIT PRICE 6.94^c PER OUNCE | 3.09 | UNIT PRICE 6.54^c PER OUNCE | 2.29 |
| 6R 2 2 1 | | 6R 2 3 1 | |
| 2.89 | | 2.09 | |
| 6.49^c PER OUNCE | 03/18/12 | 5.97^c PER OUNCE | 03/18/12 |
| Save 20¢ with Card 8 | | Save 20¢ with Card 8 | |

WOOD FLOORING

\$2.49/SQ. FT. WAS ~~\$6.99~~/SQ. FT.

PRODUCT SELECTED BY ACTION 40 IS AKA EQUARED 10011. PRICES SHOWN ARE NOT BEHIND COUNTER PRICES. SEE STORE FOR DETAILS.



*NRDC. CA Energy Efficiency Opportunity Report



Questions?



How Energy Efficiency Benefits CA

DECREASES POLLUTION

- ▶ Avoided at least **30** **LARGE POWER PLANTS** since 1970s, 11 more expected to be avoided over the next decade 
- ▶ Cuts **MILLIONS OF TONS OF POLLUTANTS** contributing to asthma, other ills



**NRDC. CA Energy Efficiency Opportunity Report*

How Energy Efficiency Benefits CA

CREATES JOBS, SPURS ECONOMY

- ▶ Efficiency jobs grew 15% compared to 2% economy-wide (2002-2012)
- ▶ California produces 2x benefit for every unit of electricity compared to the rest of U.S.



**NRDC. CA Energy Efficiency Opportunity Report*



How Energy Efficiency Benefits CA

CUTS ENERGY WASTE

▶ Saved enough electricity since 2003 to power **MORE THAN HALF OF CALIFORNIA'S HOMES FOR ONE YEAR**



▶ Met about 1/5 of the state's electricity need in 2013

▶ Helped keep per capita electricity use flat vs. 50% increase in rest of U.S. (since 1970s)

**NRDC. CA Energy Efficiency Opportunity Report*



How Energy Efficiency Benefits CA

HELPS LOW-INCOME CUSTOMERS

- ▶ Low-income efficiency programs served almost **3 MILLION HOUSEHOLDS** (since 2003)
- ▶ Saved enough electricity to power **90,000 HOMES** and enough natural gas for nearly **80,000 HOMES** for 1 year

**NRDC. CA Energy Efficiency Opportunity Report*



How Energy Efficiency Benefits CA

SAVES CALIFORNIANS MONEY

- ▶ Efficiency programs saved \$12 billion after costs (2003-2013)
- ▶ Research projects yielded \$446 for every \$1 invested
- ▶ Newest building codes to save \$6,000 per house

- ▶ Codes and standards saved a total of

\$75 billion
(since 1970s)

**NRDC. CA Energy Efficiency Opportunity Report*



How Energy Efficiency Benefits CA

HELPS MEET CLIMATE GOALS

- ▶ Slashed **30 MILLION** metric tons of CO₂ pollution, equal to annual emissions of **6 MILLION** cars (since 2003)



- ▶ Cuts one of the largest sources of California's greenhouse gas emissions



**NRDC. CA Energy Efficiency Opportunity Report*



Goals and Outcomes

A City Perspective



City of Brisbane's 5 Values and Guiding Principles



Safe Community



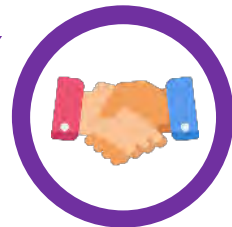
Community Building



Ecological Sustainability



Financially Prudent



Economic Development





★ **Safe Community**

Safe Buildings + Energy + H2O

Connecting
Brisbane's
5 Values
with the
Ordinance



Connecting Brisbane's 5 Values with the Ordinance



★ Community Building

Meeting Shared Goals

Connecting Brisbane's 5 Values with the Ordinance

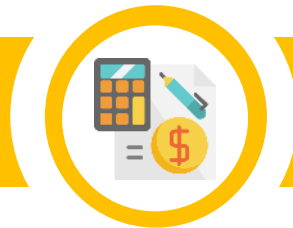


★ Ecological Sustainability

↓ Built Environment Impact

Connecting Brisbane's 5 Values with the Ordinance

★ **Fiscally Prudent** Shared Economic Benefits

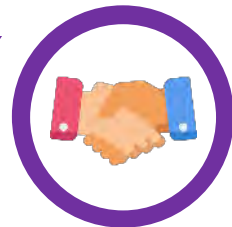


Connecting Brisbane's 5 Values with the Ordinance



★ Economic Development

Job Creation + Productivity



Connecting Brisbane's 5 Values with the Ordinance



Safe Community

Safe Buildings + Energy + H2O



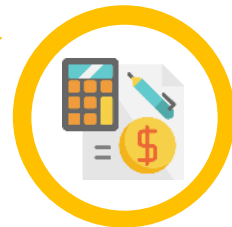
Community Building

Meeting Shared Goals



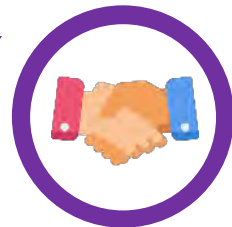
Ecological Sustainability

↓ Built Environment Impact



Financially Prudent

Shared Economic Benefits



Economic Development

Job Creation + Productivity





Identifying Value and Best Practices

Stakeholder Perspectives



Stakeholder Perspectives

Building Owners

Engineers/Consultants

Local Stakeholders

Public Agencies

Industry Organizations



Perspectives

1. Managing what you measure
2. Sustainability and business development
3. Tenant engagement opportunities
4. Operations and maintenance support
5. Organizational goal alignment



Group Feedback



Benchmarking Best Practices



Feedback Areas



- Frequency
- Tools Available
- Relation to AB 802
- Timeframe
- Supporting Materials
- Connection to incentives
- How to use the information
- Gathering data
- Reporting information
- Disclosing information
- Recognition opportunities
- How to act on information
- Compliance process
- Length of time to benchmark

Next Steps

- Workshop 1: Goals and Outcomes
- Survey
- Workshop 2: Strategy and Options
- Survey
- Study Session
- Open Space and Ecology Committee Feedback
- Planning Commission Feedback
- Council Presentation
- Other steps?



Next Steps: Timeline



Thank you!

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