Agenda

1. Topic Introduction and Panel Overview (Marc Costa)
2. Global Impacts of Benchmarking (Daniele Horton)
3. Program Updates from the California Energy Commission (Erik Jensen)
4. Local Ordinance Impacts (Barry Hooper)
5. Local Government Perspective (Sarah Farell)
6. Q&A
7. Closing Remarks, Program Next Steps (Marc Costa)
Marc Costa
Policy & Regulatory Manager
The Energy Coalition
$41.21 Billion dollars in total revenue
2017

Retail Energy in California Source: U.S. Energy Information Administration
What if California were a Fortune 500 Company

Do we really understand where $42bn goes?

Every Fortune 500 company could tell you more about their revenue.
California in Comparison to Others

*Cities without % values are 3% or less of the total floor area affected by benchmarking ordinances in the U.S. currently.
Daniele Horton
Founder and President
Verdani Partners
Impacts of Benchmarking
## Building efficiency & global climate resilience

<table>
<thead>
<tr>
<th>nexus</th>
<th>TOP 10 CARBON EMITERS</th>
<th>ENERGY USE IN U.S. BUILDINGS &amp; OTHER NATIONS</th>
<th>GLOBAL TEMPERATURE CHANGE</th>
<th>WHAT HAPPENS IF WE BLOW THE CARBON BUDGET?</th>
<th>PARIS AGREEMENT UPDATE</th>
<th>IMPACT ON EXISTING BUILDINGS</th>
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<tr>
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<td>2. United States</td>
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<td>Carbon emissions need to be cut 80% by 2050.</td>
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<td>4. India</td>
<td>4. Russia</td>
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<td>Nearly 75% of U.S. Commercial Buildings are 20+ yrs. old and ready for a Retrofit.</td>
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<td>5. Russian Federation</td>
<td>5. India</td>
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<td>13. Saudi Arabia</td>
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<td>16. Indonesia</td>
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<td>20. United States</td>
<td>20. United States</td>
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</tbody>
</table>

### Limitations
- Limit global CO2 in the atmosphere to below 350 PPM's
- We've recently exceeded 411 PPM's
- A 2°C global target adopted by 195 countries at the Paris agreement in 2016.
- Scientists recommend limiting temperature to 1.5°C
Since 1980, 215 U.S. disasters at over $1 billion each = $1.2 TRILLION in damage

2017 tied 2011 for the largest total number of events – 16, totaling $396 billion in damages from climate change in the US alone in 2017

Source: NOAA
Motivation for Action

Future Risks

Global temperatures have increased at an unprecedented pace over the past 80 years, and significant further warming could occur, depending on our ability to constrain greenhouse gas emissions. The chapter finds that increases in temperature have unseen macroeconomic effects, with adverse consequences concentrated in countries with relatively low climates, such as most low-income countries. In these countries, a rise in temperatures means per capita output, in both the short and medium terms, by reducing agricultural output, suppressing the productivity of workers exposed to heat, slowing investment, and damaging health. In some cases, even domestic supply chains can be disrupted. Adverse climate impacts are more severe in specific adaptation strategies, could help reduce the adverse consequences of weather shocks. For these countries, the international community must play a key role in supporting their economic efforts to cope with climate change. A global effort is underway to address this threat in which they have contributed little. And while the analysis of the chapter focuses on the impact over long periods, such as fluctuations in and out of the life cycle, the speed at which the climate has changed over the past 30-40 years appears to be unprecedented in the past 20,000 years (Figure 3.5). Most scientists agree that global temperatures are set to rise further, at a scale and pace very much dependent on our ability to constrain greenhouse gas emissions, the central cause of global warming (IPCC 2014). Extreme weather events, such as heat waves, droughts, and floods, are likely to become more frequent and severe. And while there is considerable uncertainty around temperature projections, the scientific consensus is that a degree of climate change can significantly lower temperatures, which would increase the risk of extreme events and potentially lower temperatures. A degree of climate change could result in higher average temperatures, which could then be further exacerbated by other factors such as population growth, urbanization, and land use changes. However, this is a complex issue, and the global effort is underway to address this threat.
Motivation for Action
Recommendations for Reporting

Figure 1
Climate-Related Risks, Opportunities, and Financial Impact

Source: GRESB
Energy Use per Capita

United States vs. other countries

United States vs. California


Source: Based on U.S. Energy Information Administration. Population U.S. Census Bureau (Sources [1]-[9]), as modified by California Energy Commission, Demand Analysis Staff in February 2013.
WE ARE STILL IN

WHO'S IN?

BUSINESSES & INVESTORS
1,904

CITIES & COUNTIES
264

COLLEGES & UNIVERSITIES
345

CULTURAL INSTITUTIONS
11

FAITH GROUPS
18

STATES
10

TRIBES
8

STATE

California
New York
Rhode Island
Connecticut
North Carolina
Virginia
Hawaii
Oregon
Washington

9th Annual SEEC Forum | AB 802
“The estimated cost of meeting the toughest 1.5C climate target is about $0.5tn over the next 30 years but will save the world $30tn in damages,” Marshall Burke, assistant professor at Stanford University

"California's got America's biggest clean energy and carbon reduction goals and faster economic growth than the US national average."
Benefits from CA’s Investment in Energy Efficiency

**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.

**CREASES 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.

**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).

**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.

**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).

**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.
Business Case

**Reduced Operating Costs & Increased NOI**

- Reduced utility bills result in lower operating expenses and increased NOI
- Sustainable buildings provide general and financial benefits to building owners and tenants
- Upfront additional investment costs are usually offset by a decrease in long-term life cycle costs
- Green certified buildings result in
  - 6.2% Increase in rent
  - 6.4% Increased occupancy
  - 8.5% Lower operating costs
  - 6.8% Increase in building values
  - 9.2% Increase in returns on investment

**Asset Value**

- Savings through energy efficiency measures, result in increased NOI and increased asset value
- **For every $10,000 saved through energy efficiency, asset value increases by $153,846 (assuming a 6.5% cap rate)**
- Increased tenant retention, reduction in lost rents, lower vacancy at turnover
Transparency Regulatory Market

Challenges & Solutions

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

9th Annual SEEC Forum | AB 802
Utility Data Tracking Steps

- Track available data such as common areas
- Get whole building data from the utility when available (Green Button)
- Include utility data sharing requirements on leases
- Engage an utility automation provider when whole building data is not available
- Consider master meter hardware solutions that can measure whole building data
- Get individual tenant authorizations for sharing data when options above are not feasible

The following link can be used to find utility providers that offer aggregate whole building data:

https://www.energystar.gov/buildings/owners_and_managers/existing_buildings/use_portfolio_manager/find_utilities_provide_data_benchmarking
Ideal Data Flow

Utility Data

Portfolio Data

Repository

Data Sources:
Utilities, Data Provider + other inputs

Portfolio Level Data Management Tools

Collect Manage Interpret Report

Ongoing reporting of data tracking progress
Daniele Horton, founder and principal of Verdani Partners, outlines the 10 steps that companies with large real estate holdings can take to improve the sustainability performance of their portfolios. Watch the 2 part videos by clicking on the following link: https://www.reit.com/nareit-you/sustainability/reit-esg-jumpstart-program
Portfolio Level Data Management Tools
Environmental Management Software Tools

**KEY FUNCTIONS**
- Collect
- Process
- Deliver
- Bill Pay
- Real Time Energy Management
- Measurement & Verification
- Demand Response
- Peak Load Analysis and Management
- Collect
- Manage
- Interpret
- Report
- Portfolio Level Data Management Tool
- GRESB Reporting Tool
- Programmable Controls
- Dashboards
- More Efficient
- Reduce Labor & Human Error

**MAIN TOOLS**
- Utility Bill Tracking
- Utility Bill Pay
- Energy Star Automation
- Monitoring, Reporting Dashboarding
- Fault Detection Analytics (Continuous Commissioning)
- Automated Controls
- Dashboards
- More Efficient
- Less Downtime

**BENEFITS**
- Automated
- Less Labor
- Improve Data Quality
- Programmable Controls
- Dashboards
- More Efficient
- Less Downtime
When there’s a scoreboard, people play differently.

Source: Boston Properties
Goals and Reductions Targets

1. **Energy Use Intensity**
   - Using 2013 as a baseline, decrease energy use intensity by 20% by 2020.
   - 2013: 0.015
   - 2014: 0.014
   - 2015: 0.013
   - 2016: 0.012
   - 2017: 0.011
   - **2020 Target Achieved!**

2. **Water Use Intensity**
   - Using 2013 as a baseline, decrease water use intensity by 20% by 2020.
   - 2013: 0.007
   - 2014: 0.006
   - 2015: 0.005
   - 2016: 0.004
   - 2017: 0.003
   - **2020 Target Achieved!**

3. **Diversion Rates**
   - Reduce the overall amount of waste generated and increase the diversion rate through recycling and composting by 75% from a 2013 baseline by 2020.
   - 2013: 20%
   - 2014: 21.9%
   - 2015: 20%
   - 2016: 20%
   - 2017: 20%
   - **2020 Target Achieved!**

4. **GHG Emission Intensity**
   - Using 2013 as a baseline, reduce greenhouse gas (GHG) emission intensity across the portfolio by 20% by 2020.
   - 2013: 0.009
   - 2014: 0.008
   - 2015: 0.007
   - 2016: 0.006
   - 2017: 0.005
   - **2020 Target Achieved!**
Data Analytics Tools

Data trends and comparison tools

Median Energy Use Intensity and Cost by City

Office Energy Use Intensity by City

Energy Use by Type and by Property
City of San Diego Climate Action Plan

The City has identified FIVE BOLD STRATEGIES to reduce GHG emissions to achieve the 2020 and 2035 targets:

1. ENERGY & WATER EFFICIENT BUILDINGS
2. CLEAN & RENEWABLE ENERGY
3. BICYCLING, WALKING, TRANSIT & LAND USE
4. ZERO WASTE
5. CLIMATE RESILIENCY

Reducing GHG emissions

For a second consecutive year, San Diego is ahead of pace in reducing GHG emissions.

The reductions are largely due to higher vehicle efficiency standards, increases in renewable energy generation (SDG&E’s higher renewable content and increases in distributed solar systems in the City), and a higher solid waste diversion rate.

Growing a cleaner economy

Since 2010, San Diego’s Gross Domestic Product (GDP) has increased while the City’s GHG inventory has decreased, demonstrating the ability to grow economically while reducing GHG emissions.

Actions + Progress

The five strategies outlined in the Climate Action Plan provide a roadmap to reaching the City’s ambitious goals.

The City continues to measure progress using best available data. As data and methodologies improve, the reported metrics will be updated.

Energy and Water Efficiency

Reducing residential energy use 18% reduction
Reducing municipal energy use 5% reduction
Reducing daily per capita water use 13% reduction

Citywide Greenhouse Gas Emissions Inventory

2016 Update 2015 Forecasts Business as Usual 2010 Baseline Statewide Reduction Targets Projected Citywide Results
Building Level Efficiency Case Studies

**OFFICE**
City National Plaza
Los Angeles, CA
- 2,496,084 leasable sf
- Retrofit project by TPG (2003-2010)
- LEED EB O&M Gold
- 91 Energy Star Rating (100 max)
- Invested $11 Million in efficiency projects
- Uses 38% less energy
- $4.3 million in annual energy savings
- $66 million in additional value

**OFFICE**
Cal/EPa
Sacramento, CA
- First LEED EB Platinum high rise in the US
- Recertified Platinum 3 times since 2001
- Building efficiencies save the tenant, the State of CA, over $1.4 million annually in operating costs
- 26% More Energy Efficient than code
- 52% reduction in overall water use
- 99 Energy Star Score (100 max)
- Less than 1 year payback
- $12 Million increase in asset value

**INDUSTRIAL**
Bryn Mawr
Orlando, FL
- Light industrial distribution center
- Upgraded existing T12 fluorescent fixtures with efficient LED lamps
- Total Project cost - $33,361
- $13,465 Annual Savings
- Total Energy Savings - 103,425 kwh
- Payback less than 2.5 years

**MULTIFAMILY**
Cambridge Park
Cambridge, MA
- 445,533 sf, 398 units
- LEED Gold
- ENERGY STAR score of 93
- 43% more energy efficient compared to average
- 66 Transit Score, 88 Biking Score
- 2,000 sf bike lounge & storage
- LED lighting retrofits
- Occupancy sensor lighting controls
- Bi-level lighting in stairwells
Erik Jensen
Energy Specialist
California Energy Commission
Assembly Bill 802 (2015)

1. Requires energy utilities to provide building-level energy use data upon request.

2. Directed the Energy Commission to create a benchmarking and public disclosure program.
Regulatory Definitions

Covered Building (Data Access):

1. No residential utility accounts, or

2. Five or more active utility accounts, at least one of which is residential
Regulatory Definitions

Disclosable Building (Benchmarking and Public Disclosure) – Larger than 50,000 square feet and:

1. No active residential utility accounts, or

2. 17 or more active residential utility accounts of each energy type serving the building
## Regulatory Schedule

<table>
<thead>
<tr>
<th>Disclosable Building Type</th>
<th>First Reporting Deadline</th>
<th>First Building-Level Public Disclosure</th>
</tr>
</thead>
<tbody>
<tr>
<td>No residential utility accounts</td>
<td>June 1, 2018 (2017 data)</td>
<td>2019 (2018 data)</td>
</tr>
<tr>
<td>17+ residential utility accounts</td>
<td>June 1, 2019 (2018 data)</td>
<td>2020 (2019 data)</td>
</tr>
</tbody>
</table>
Compliance Process Flow

1. Portfolio Assessment

2. ENERGY STAR Portfolio Manager

3. Request Utility Data

4. Final Review of Data

5. Submit and Receive Confirmation Email

Repeat Steps 3-5 every year
2018 Reporting

Compliance Rates

Common Mistakes

Preliminary Analysis
Barry Hooper
Green Built Environment
Senior Coordinator
City of San Francisco
San Francisco Existing Commercial Buildings Ordinance

Results and Lessons

Barry Hooper

SEEC 2018
SF ECBO at a Glance

Applies to:

• Non-Residential Buildings with
• 10,000+ sq ft of conditioned space

Requirements:

• Benchmark Annually with Portfolio Manager
• Energy Audit or RCx every 5 years (ASHRAE I/II)

Adopted: 2011
SF ECBO

Applies to 1,648 private sector buildings and 470 public sector buildings

Publicly disclosed via www.DataSF.org
Municipal Facilities – Results

↓ 26% CO2e
Lesson: Efficient Administration

1. Building Owner submits benchmark
2. Upload benchmarks from Portfolio Manager
3. Quality Checks:
   - Check EUI Range
   - Check ESTAR Score
   - Check Default/temp values
   - Check Alerts
4. Export fields to CSV Contacts & Energy Use
5. Verify Data in Salesforce

- Automatic Email to Benchmark Submitter [Customized Template]
- Manually Mark Building in Salesforce - "Insufficient Data"
- Import fields into Salesforce
- Export Excel File containing Building Data + Energy use
- Automatic Email to Benchmark Submitter [Standard Template]
- Manually Mark Building in Salesforce - "Complied"
Lesson: Data Validation is Key

All Others Must Provide Proof
Does Benchmarking Save Energy?
San Francisco - Private Sector Office: 3% Annual Average Reduction For First 5 Years
Are results similar elsewhere?

- Analyzed NCREIF data
  - Confidential voluntary disclosure
- Compared four cities requiring benchmarking vs. others
- 3% improvement in energy cost over 3 years, after accounting for location, weather, etc.
How Can Benchmarking Inform Action?

• Feedback to building decisionmakers
• Target energy efficiency outreach
• Energy modeling to identify and capture efficiency potential
Feedback to Building Decisionmakers
Regulatory messages from San Francisco to date

Complied

Not Complied

Public Disclosure
Score Card

Hotel Zetta
55 5TH ST
San Francisco CA, 94103

Building type: hotel
Floor area: 105,905 ft²
Parcel Number: 2345/001
Year Built: 1935

Compliance status:
2016: Complied
2015: Complied
2014 Energy Audit: Complied

LOCAL RANKING
#8 out of 23 Similar Size Hotels

Based on the ENERGY STAR score and Energy Use Intensity reported in 2016, energy use at Hotel Zetta is ranked 8 out of 23 hotels between 100,000-250,000 square feet in gross floor area.

LATEST ENERGY STAR SCORE FOR HOTEL BUILDINGS
100,000-250,000 SQUARE FEET IN SAN FRANCISCO

ENERGY STAR Score
68 out of 100

ABOUT THE ENERGY STAR SCORE
- a rating between 1-100 that summarizes at a glance how a building is performing compared to similar buildings nationwide, after accounting for local climate. The higher the score, the better; buildings with a score of 75 or better may qualify for ENERGY STAR certification as top performers. The score uses the information you entered about your building, including: size, location, occupancy, number of computers, etc.

San Francisco Energy Watch can help you save money, save energy, and improve your ENERGY STAR score.
LATEST ENERGY STAR SCORE FOR HOTEL BUILDINGS IN SAN FRANCISCO 100,000-250,000 SQUARE FEET

HOTEL ZETTA - 68
Your Hotel Ranks

#8

out of 23

Similar Sized Hotels
Targeting Outreach
San Francisco Office Building Energy Use 2014 to 2016

Source: SF Energy Watch
Thanks to Warren Seto and Ammon Reagan
San Francisco Office Building Energy Use 2014 to 2016
San Francisco Office Building Energy Use 2014 to 2016
Identifying and Capturing Efficiency Potential
BayREN Integrated Commercial Retrofits (BRICR)

- Regional dataset
  - Iterative
  - Open source
- Energy model for each building
  - Identify potential improvement
  - Target prospects
- Propose retrofits
- Streamline financing
- Measure realized energy savings
BayREN Integrated Commercial Retrofits (BRICR)

<table>
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<tr>
<th>Retrofit Simulated Result for ECM Package 8</th>
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<tbody>
<tr>
<td>ECMs applicable for this building</td>
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<tr>
<td>- Add Economizer</td>
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<tr>
<td>Site Energy Use Intensity Reduction</td>
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<tr>
<td>Source Energy Use Intensity Reduction</td>
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<tr>
<td>CO2 Emission Intensity Reduction</td>
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<td>Peak Electricity Load Intensity Reduction</td>
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<td>Electricity Use Intensity Reduction</td>
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<td>Natural Gas Use Intensity Reduction</td>
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<td>Electricity Cost Saving</td>
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<td>Natural Gas Cost Saving</td>
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<td>Energy Cost Saving</td>
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<td>Investment Cost</td>
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Sarah Farell
Energy Policy Advisor
San Joaquin Valley Clean Energy Organization
BENCHMARKING, AB 802 AND THE LOCAL GOVERNMENT SECTOR

Sarah Farell
Energy Policy Advisor
San Joaquin Valley Clean Energy Organization
Why do we benchmark?

- Track building energy performance and compare to similar buildings nationwide
- Identify buildings that perform inefficiently
- Track results of energy efficiency measures
- Help Local Governments comply with State goals and laws
- Data provides roadmap for:
  - Project investment
  - Energy Action Planning
  - Targeted awareness efforts
Past Efforts

• Conduct LG Training
• Share Results
• Design Policy
• Develop Needs Hierarchy
Municipal Readiness Reports

**WHAT DID WE FIND**

### Energy Use by Fuel Source
- Electricity Use - Grid Purchase (kBtu): 8%
- Natural Gas Use (kBtu): 92%

### Total Energy Use by Category
- Building: 23%
- Irrigation: 13%
- Non-streetlighting: 11%
- Other: 31%
- Parks: 21%
- Pumps: 1%
- Street lighting: 1%
- Wastewater: 1%

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**City of XYZ Energy Cost**

[Graph showing energy cost comparison between City of XYZ and Any Town SJV]
Municipal Readiness Reports

- Snapshot of energy consumption
- Highest users
- Top recommendations
- Resources
- Project Next Steps
- Comparison of highest users to national median
AB 802 IOU Portals & Resources

• PG&E Building Benchmarking Portal (BBP)
  ✧ https://www.pge.com/benchmarking/

• SCE Benchmarking Dashboard
  ✧ www.sce.com/benchmarking

• SCG Energy-Efficiency Benchmarking
  ✧ https://www.socalgas.com/for-your-business/energy-savings/benchmarking

• SDG&E Benchmarking
  ✧ https://www.sdge.com/businesses/savings-center/analyze-my-energy-use/benchmarking
## Data Received Pre- and Post-AB 802

### Data in ESPM pre- AB 802

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<tr>
<th>Meter</th>
<th>Energy Usage</th>
<th>Energy Cost</th>
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<tbody>
<tr>
<td>Electricity Meter #1</td>
<td>4,397 kWh</td>
<td>$685.49</td>
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<tr>
<td>Electricity Meter #2</td>
<td>2,001 kWh</td>
<td>$311.96</td>
</tr>
<tr>
<td>Electricity Meter #3</td>
<td>187 kWh</td>
<td>$29.15</td>
</tr>
<tr>
<td>Gas Meter #1</td>
<td>423 therms</td>
<td>$125.93</td>
</tr>
<tr>
<td>Gas Meter #2</td>
<td>76 therms</td>
<td>$22.63</td>
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</tbody>
</table>

### Data in ESPM post- AB 802

<table>
<thead>
<tr>
<th>Meter</th>
<th>Energy Usage</th>
<th>Energy Cost</th>
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</thead>
<tbody>
<tr>
<td>Electricity Meter - Aggregated</td>
<td>6,585 kWh</td>
<td>$1,026.60</td>
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<tr>
<td>Gas Meter - Aggregated</td>
<td>499 therms</td>
<td>$148.56</td>
</tr>
</tbody>
</table>
Results

VIEW, HDR and METU

➢ 734 buildings benchmarked
➢ 2,992 total accounts benchmarked
➢ 70% of projects completed on non-building accounts

VIEW and HDR Partnerships since 2014

➢ 850,000 kWh saved on projects from buildings
➢ 2,000,000 kWh saved on projects from non-building accounts
Questions?

Thank You!

Sarah Farell
Energy Policy Advisor
sfarell@pesc.com
(877) 748-0841
Ongoing Support by The Energy Coalition

• Direct engagement with key building owners, managers, and operators

• Working through channel partners

• Producing collateral and reference materials

• Establishing statewide Stakeholder groups

• Live Q&A webinars and groups

• In Person Workshops
Density Analysis – All Buildings
Density Analysis – SF, Berkeley, LA

Removed
# Top 10 Lists - Cities

<table>
<thead>
<tr>
<th>Cities</th>
<th>Count of Buildings &gt;50ksf</th>
<th>Floor Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Los Angeles</td>
<td>3,326</td>
<td>552,092,979</td>
</tr>
<tr>
<td>San Diego</td>
<td>2,172</td>
<td>347,828,618</td>
</tr>
<tr>
<td>San Francisco</td>
<td>1,554</td>
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<td>Anaheim</td>
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<td>Moreno Valley</td>
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Online Resources
Policy Fact Sheet

Resources available:

• Policy fact sheet
• Compliance presentation
• Videos

Other possible opportunities for engagement:

• Blogs
• Newsletters and e-mail blasts
• Webinars
• Conferences
Frequently Asked Questions (FAQs)

• AB 802 policy and regulations
• The Energy Benchmarking and Disclosure Program details
• Guidance on how to comply
• Best practices
California Benchmarking Training

Resources to be provided by the California Energy Commission, The Energy Coalition, and Verdani Partners:

• Training webinars
• In-person presentations
• Step-by-step how-to Guide
• Benchmarking hotline

Compliance website: www.energy.ca.gov/benchmarking
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
California Benchmarking Assistance

For questions regarding the reporting requirements or procedure, contact the Energy Commission at:

Benchmarking@energy.ca.gov

(855) 279-6460
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