

Benchmarking Lunch-n-Learn

March 18, 2019

Agenda

1. Why Benchmarking?
2. Introduction to SoCalREN
3. Benchmarking and Compliance Overview
 - What is Energy Benchmarking
 - What is ENERGY STAR Portfolio Manager
 - California Building Energy Benchmarking Program
 - Compliance Process
4. Local Experience: Pomona

Southern California REGIONAL ENERGY NETWORK

The logo for the Southern California Regional Energy Network features a stylized map of California in dark blue. To the right of the map is a circular graphic composed of several colored segments (red, orange, yellow, green, blue, purple) arranged in a ring, resembling a sun or a multi-colored wheel.

Ratepayer-funded utility energy
efficiency program authorized by the
California Public Utilities
Commission

Administered by County of Los
Angeles and currently implemented
by The Energy Coalition

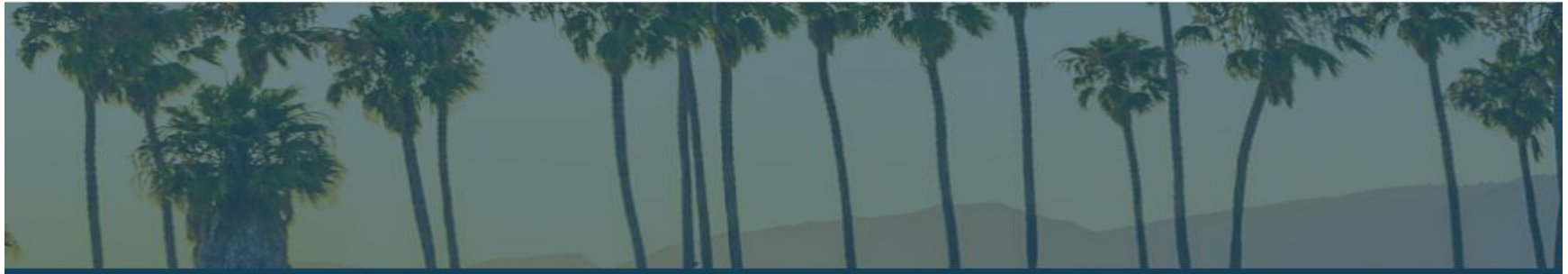


*The program is administered by the County of Los Angeles and funded by
California utility ratepayers under the auspices of the CPUC*

Southern California REGIONAL ENERGY NETWORK



The County of Los Angeles/Southern California Regional Energy Network (SoCalREN) was created to harness the collective power of residents, businesses and the public sector to achieve an unprecedented level of energy savings across Southern California.



Residential



Multifamily



Financing



Public Agencies

Learn more about the Southern California Regional Energy Network at www.socalren.com

SoCalREN's Utility Coordination



What Can SoCalREN Do For Your Agency?

- ✓ Project management support
- ✓ Energy use analysis
- ✓ Energy audits
- ✓ Financial services
- ✓ Project performance specifications
- ✓ Construction management support
- ✓ Expedited construction
- ✓ Objective third party review

Southern California REGIONAL ENERGY NETWORK

SoCalREN Public Agency Program
One-Stop Solution for Energy Efficiency Upgrades
www.socalren.com

Our Services
The County of Los Angeles/Southern California Regional Energy Network Public Agency Program (SoCalREN) offers no-cost services to help public agencies reduce energy costs through energy efficiency improvements. The program provides objective, third-party expertise to give agencies peace of mind that they are implementing the best measures to maximize energy cost savings. All services can be leveraged at the same time with our Turnkey Project Delivery option that takes projects from start to finish, or services can be customized to fit project needs.
*Noting non-availability of services.

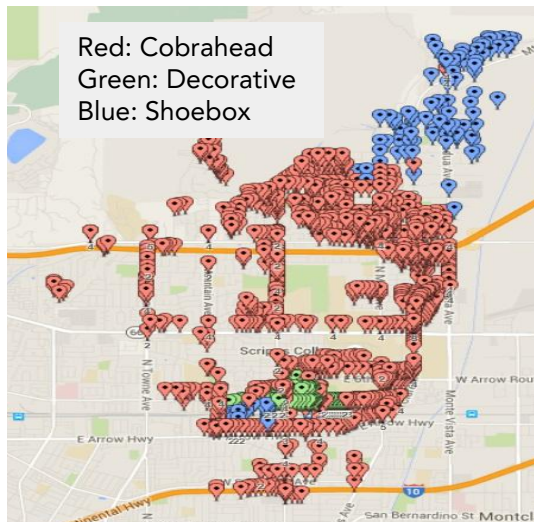
Available Services

Technical Support <ul style="list-style-type: none">✓ Facility energy audits✓ Streetlight LED retrofit assistance✓ Pumping optimization, waste-water plant improvements and other measures✓ Energy consumption benchmarking✓ Recommissioning support✓ Energy efficiency performance specifications	 Financing Support <ul style="list-style-type: none">✓ Project financial analysis✓ Financing options including On-Bill Financing (OBF), Energy Lease Financing (ELF) and others✓ Utility rebate & incentive application support✓ Access to financial advisory services through FPM Financial Advisors LLC.
Staff Support <ul style="list-style-type: none">✓ Project management and energy consulting team throughout the project cycle✓ Staff report and documentation for project approval assistance	 Proposal & Construction Support <ul style="list-style-type: none">✓ Cooperative procurement for project delivery✓ Procurement and project delivery option analysis✓ Third-party review of project bids and proposals✓ Development of contractor scope of work with performance specifications✓ Contractor cost estimate review✓ Construction management support✓ Project close-out support

Project Spotlight: City of Claremont

Street & Outdoor Lighting

- Savings of 480,000 kWh
- over 1,060 LED retrofits
- \$181,000 Incentives
- \$490,000 OBF



SoCalREN services used

- Technical Assistance (Lighting Audit)
- Application Assistance
- Simplified Procurement (via Sourcewell)
- Project Management Support

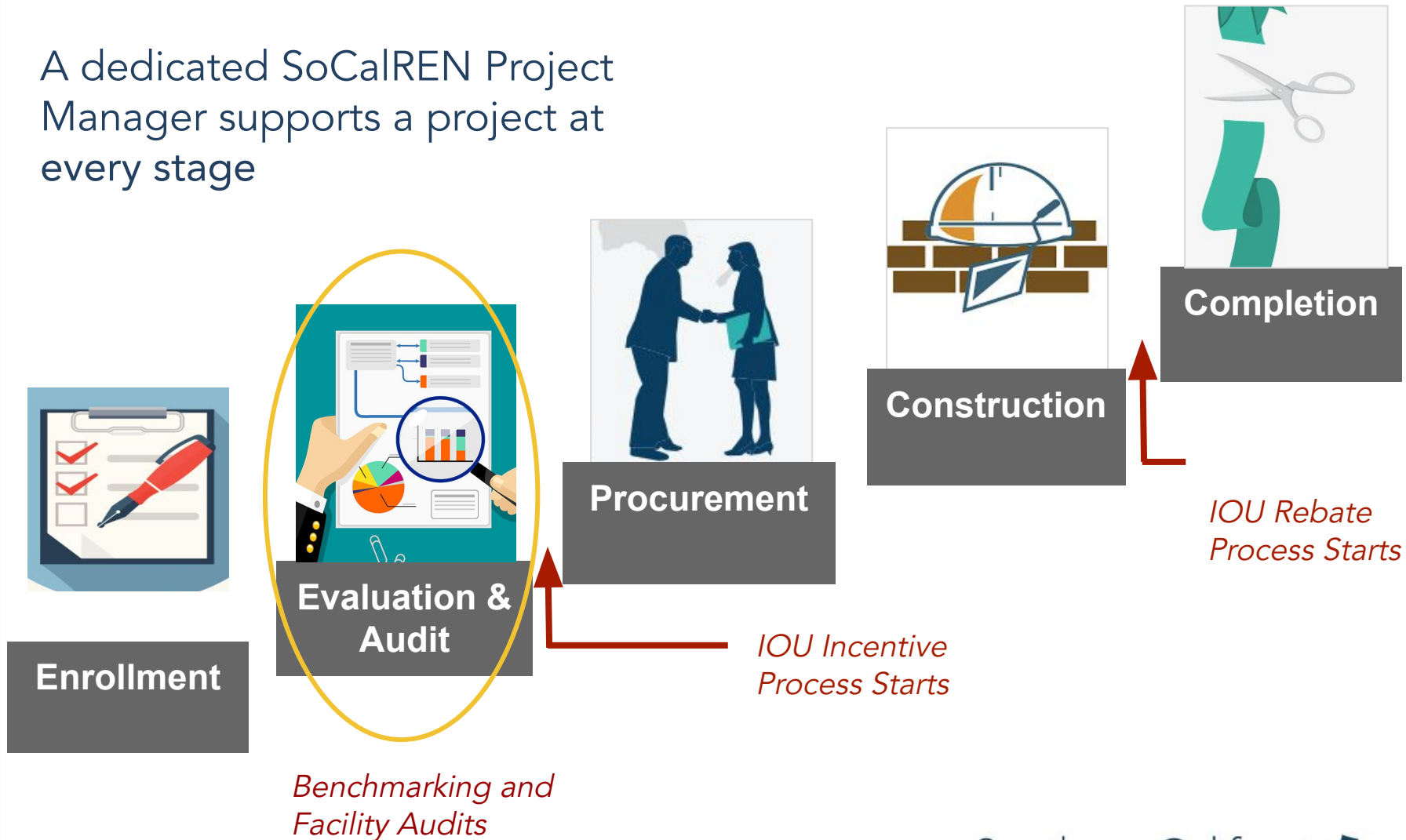


City Sustainability Goals

- Supported Claremont Energy Challenge Kick-Off
- Projects encouraged LS-1 Feasibility Analysis Deposit

A Tailored Project Delivery Approach

A dedicated SoCalREN Project Manager supports a project at every stage



Benchmarking and Compliance Overview

Your Energy Bills

Details of your new charges

Your rate: DOMESTIC

Billing period: Feb 17 '17 to Mar 21 '17 (32 days)

Delivery charges

Basic charge	32 days x \$0.02400	\$0.77
Energy-Winter		
Tier 1 (100% of baseline)	307 kWh x \$0.08291	\$25.45
Tier 2 (101% to 400%)	77 kWh x \$0.16838	\$12.97
DWR bond charge	384 kWh x \$0.00549	\$2.11

Generation charges

SCE		
Energy-Winter		
Tier 1 (100% of baseline)	307 kWh x \$0.07477	\$22.95
Tier 2 (101% to 400%)	77 kWh x \$0.07477	\$5.76

Subtotal of your new charges		\$70.01
State tax	384 kWh x \$0.00029	\$0.11
Your new charges		\$70.12

Your Delivery charges include:

- \$6.17 transmission charges
- \$32.11 distribution charges
- -\$9.04 conservation incentive adjustment
- \$5.85 public purpose programs charge
- \$3.91 new system generation charge

Your Generation charges include:

- -\$0.13 competition transition charge

Your overall energy charges include:

- \$0.64 franchise fees

Additional information:

- Service voltage: 240 volts
- Your winter baseline allowance: 307.0 kWh
- High Usage Charge applies at: 1,229.0 kWh
- High Usage Charge applies to all usage above 400% of baseline allowance.

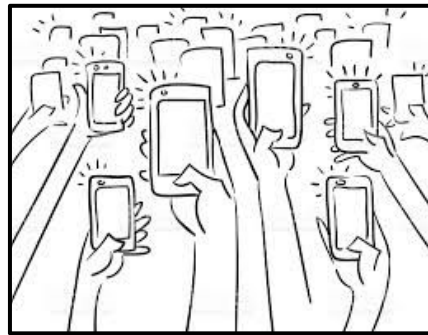
How much was
your last energy
bill?

How to Think About Benchmarking

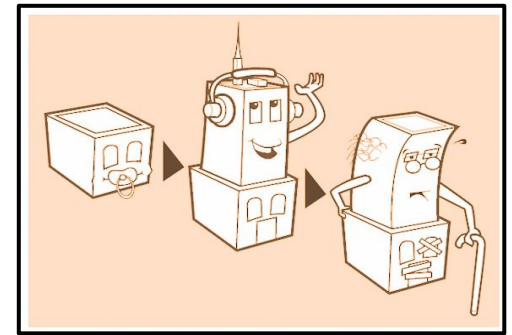
It's all about ***Comparisons***



Self



Peers

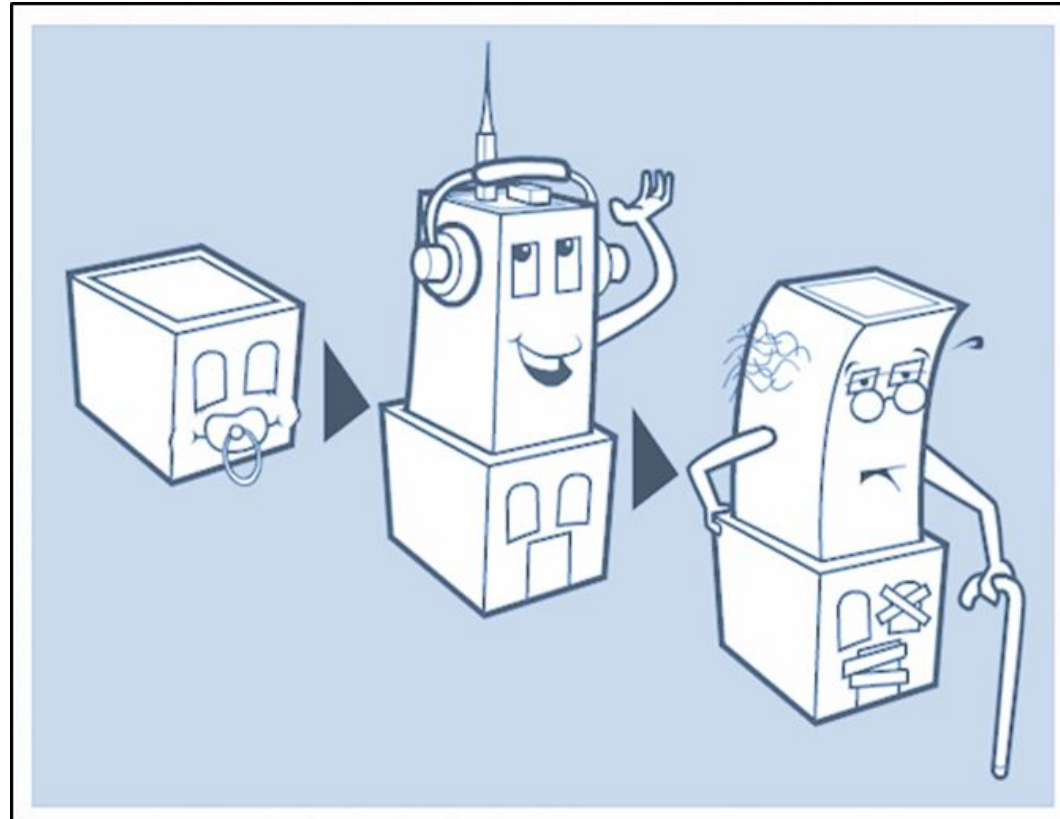


Scenarios

***These help identify opportunities to save
and document those savings***

Benchmarking: Getting to Know Buildings

- Like people:
 - Buildings age
 - Not all the same
 - Need care
- Therefore:
 - Parts breakdown
 - Unique needs
 - Need upgrades



California Energy Benchmarking Program

- **Date Enacted:** September 2015
- **Utility data access provisions:** Requires utilities to provide whole-building energy use data upon request
- **Reporting:** Annual reporting requirement
- **Public disclosure of results:** Public disclosure of building energy performance beginning during second year of reporting
- **Buildings required to benchmark and report:** Non-residential and residential buildings over 50,000 sqft

Compliance dates to remember

2018

- March 1 – Regulations went into effect
- June 1 – Reporting due for commercial buildings

2019

- June 1 – Reporting due for commercial and residential buildings

How to Benchmark and Comply



Do I Need to Comply?

- 1
- ↓
- 2
- ↓
- 3
- ↓
- 4
- ↓
- 5

Required

Disclosable Building Type 1

Buildings over 50,000 sf with no residential utility accounts

Disclosable Building Type 2

Buildings over 50,000 sf with 17 or more residential utility accounts

Exemptions

Buildings with 1-16 residential utility accounts

Condominiums

More than half of building's area is used for (1) scientific experiments, (2) manufacturing or industrial purposes

Buildings without a temporary or permanent certificate of occupancy for more than half of the calendar year

Buildings scheduled to be demolished one year or less from the reporting date

Existing Local Requirements

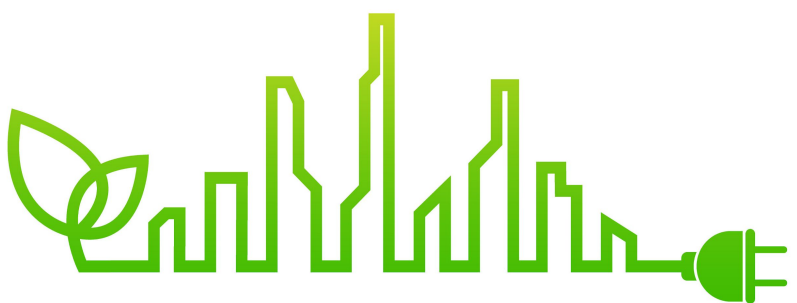
Approved local jurisdictions:
Berkeley, Los Angeles, San Francisco

If already reporting to these jurisdictions, no further action needed

Exemption from local ordinance does not necessarily mean exemption from state requirements.

ENERGY STAR Portfolio Manager

- Provided by the U.S. Environmental Protection Agency (EPA)
- Secure, free, and interactive online energy management tool
- Helps track and assess energy, water, and waste consumption



What you will need for Benchmarking

1



2



3



4



5

TIME

2.1 Collect property attributes



2.2 Create Portfolio Manager account



2.3 Enter all buildings for which compliance is required



2.4 Create meters for utility and consumption data

- 1
- ↓
- 2
- ↓
- 3
- ↓
- 4
- ↓
- 5

Bulk Upload: Facilities and Meters

You can do one by one...or?

Property Name (Required)	Street Address (Required)	City/Municipality (Required)	Postal Code (Required)	Country (Required)	Year Built/Year Planned for Construction Completion (Required)	Primary Function (Required)	Construction Status (Required)	Gross Floor Area (Required)	GFA Units (Required)	Occupancy (%) (Required)	Property Structure (Required)	Irrigated Area (Optional)	Irrigated Area Units (Optional)

Portfolio Manager ID (Pre-filled)	Property Name (Pre-filled)	Meter Type (Pre-filled)	Meter Name (Required)	Units (Required)	Date Meter Became Active (Required)	In Use? (Required)	Date Meter Became Inactive (Required, if Meter NOT In Use)	Bulk or Metered? (Required)	Include in Property Metrics? (Required)
1000000	Sample Facility 1	Electric - Grid							
1000000	Sample Facility 1	Natural Gas							
2000000	Sample Facility 2	Electric - Grid							
2000000	Sample Facility 2	Natural Gas							

Request Utility Data

- 1
- ↓
- 2
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- 3
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- 4
- ↓
- 5

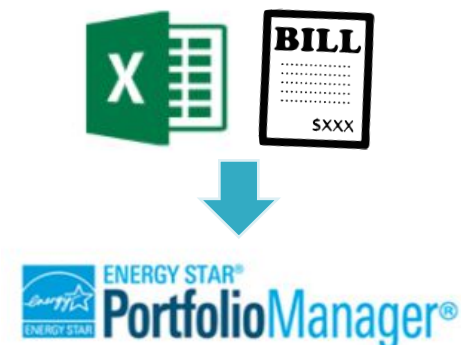
Utilities with Web Services

- Utilities provide data: direct upload of data into Portfolio Manager via web services
 1. Request whole building data from utility
 2. Follow utility specific instructions for request
 3. Utility will sync your account to Portfolio Manager



Utilities without Web Services

- Utility provides spreadsheet of aggregated data for manual uploads
- Building owner manually enters data from bills
- Utility Automation Service Providers



Culver City Ince Parking Structure



9099 WASHINGTON BLVD, Culver City, CA 90232 |

[Map It](#)

Portfolio Manager Property ID: 6588042

Year Built: 2004

[Edit](#)



Not eligible to apply for ENERGY STAR Certification

Weather-Normalized Source EUI (kBtu/ft²) Why not score?

Current EUI: 45.5

Baseline EUI: 82.5

Summary

Details

Energy

Water

Waste & Materials

Goals

Design

Meter Summary

2 Energy Meters Total

- 1 - Used to Compute Metrics
- 1 - Not Used in Metrics

[Add A Meter](#)

Current Energy Date
Nov 30, 2018

[Enter Your Bills](#)



Four Ways to Enter Bill Data

1. Manually
2. Use our [simple spreadsheet](#) (one

Energy Use by Calendar Month (Not Weather Normalized)



[Export Data by Calendar Month](#)

- 1
- 2
- 3
- 4
- 5

Final Review of Data



Portfolio Manager's Data Quality Checker tool

- Within "Summary" Tab under "Metrics Summary"
- Select Timeframe to check

Check for Possible Data Errors

Run a check for any 12-month time period to see if there are any possible errors found with your data.

[Check for Possible Errors](#)

The Data Quality Checker will help you find potential errors and unusual data within a given year. Select your year of interest, review your alerts, and follow the links to view or correct your data as needed.

Select Timeframe & Run Checker

We check data for a full year (12 months) of meter consumption and Property Use Details (called a [Metric Year](#)). Select a [Year Ending Date](#) and click "run checker" to see possible data issues.

Year Ending: * [Run Checker](#)

[Cancel](#)

About Timeframes

The Data Quality Checker needs one full calendar year of [Property Use Details](#) and [meter](#) information for most checks. Otherwise, we will show you basic alerts to let you know what's missing.



Steps to Submit Report to CEC to Comply

1



2



3



4



5

5.1 Click the appropriate reporting link at www.energy.ca.gov/benchmarking



5.2 Log into ENERGY STAR Portfolio Manager



5.3 Generate Template Report
Fill out required response fields



5.4 Review Report for any errors



5.5 Submit directly through Portfolio Manager



5.6 Receive confirmation email

The screenshot shows the California Energy Commission website. At the top left is the CA.GOV logo and the California Energy Commission seal. The main header reads "CALIFORNIA ENERGY COMMISSION". To the right are links for "CA.gov | Contact | Newsroom | Quick Links" and a "Google Custom S" search bar. A navigation menu below the header includes "Home", "About Us", "Analysis & Stats", "Efficiency", "Funding", "Power Plants", "Renewables", "Research", and "Transportation". The main content area features a large image of a modern office building at night. Below the image is a breadcrumb trail: "Home ->> benchmarking". The main heading is "Building Energy Benchmarking Program". The text states that the deadline for 2017 data submission is June 1, 2018, and provides instructions on how to submit data. A "Resources" sidebar lists various documents and links, including a fact sheet, frequently asked questions, regulations, and training materials. The footer of the page contains the Southern California Regional Energy Network logo.

Building Energy Benchmarking Program

June 1, 2018 is the deadline to submit 2017 building energy use benchmarking data to the California Energy Commission for buildings with more than 50,000 square feet of gross floor area and no residential utility accounts. Once you have entered your disclosable buildings into Portfolio Manager and entered your 2017 energy use data, please complete your submission using one of the following links:

- » Use this link for buildings for which energy use data is available.
- » Use this link for buildings for which energy use data is not available, either because you did not receive customer permission (this is only applicable to buildings with fewer than three utility accounts) or because you received a trade secret exemption.

For further assistance, email the Benchmarking Hotline at benchmarking@energy.ca.gov.

Resources

- Fact Sheet
- Frequently Asked Questions
- Regulations
- Assembly Bill 802 (Williams, 2015)
- Workshops, Notices, and Documents
- [AB 802 Training Video | Transcript](#)
- Docket Log for this Proceeding (15-OIR-05)

Steps to Submit Report to CEC to Comply

1



2



3



4



5

5.1 Click the appropriate reporting link at www.energy.ca.gov/benchmarking



5.2 Log into ENERGY STAR Portfolio Manager



5.3 Generate Template Report
Fill out required response fields



5.4 Review Report for any errors



5.5 Submit directly through Portfolio Manager



5.6 Receive confirmation email

Submit Report to the Energy Commission

Select Contacts to send confirmation to and E-Sign to submit data

- 1
- ↓
- 2
- ↓
- 3
- ↓
- 4
- ↓
- 5

1 Who (besides you) should we send a confirmation email to?

Select contacts from your contacts book:

To select multiple contacts, hold down your Control (CTRL) key and click on each selection.

Optional- Additional Email Addresses:

Separate multiple emails by a comma or semicolon.

2 What format would you like your data in for the email attachment?

- Excel
- XML

3 E-Sign your Data Response

I hereby certify that I am releasing data about my properties, or on behalf of someone else, to Erik Jensen with California Energy Commission.

Your username: *

Your password: *

E-Sign Response

Send Data

Cancel

Create a New Template

Status	Action
Response Preview Generated: 4/03/2018 12:56 PM	I want to... I want to... Edit Properties and Timeframe Preview Response Download Preview in Excel Generate an Updated Response Send Response Delete Response
No Response Preview Generated	
No Response Preview Generated	
No Response Preview Generated	
Response Preview Generated: 3/23/2018 11:46 AM	



Local Experience

The City of Pomona has been one of the most pro-active members of the SGV Energy Wise Partnership.

- Currently at the Gold Level in the Energy Leader Partnership.
- Participated in the SGVEWP's Energy Benchmarking Policy Project in 2017.
- Currently participating in the Energy Action Plan (EAP) Update project.



Local Experience

As a result of the Benchmarking and the EAP projects, the SGVCOG has assisted the City of Pomona in benchmarking on Portfolio Manager

- 13 facilities have been fully benchmarked.
- 10 facilities have been performing above the national median.
- COG and the City working together to determine what issues might be at the 3 underperforming facilities.



Local Experience

Best Practices & Lessons Learned:

- Important for any City to keep and maintain a database of all municipal facilities.
- Database should include accurate facility information and specifications.
- Coordination with utilities regarding their web services.



Benchmarking Resources

California Benchmarking Assistance

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

Benchmarking@energy.ca.gov

energy.ca.gov/benchmarking

(855) 279-6460

Subscribe

Benchmarking List Serve

Automated Email Notifications

First name:

Last name:

Email address:

You will receive an email requesting that you confirm your subscription.

Send

Reset

Portfolio Energy Analysis Services

Comparative Energy Analysis (CEA)

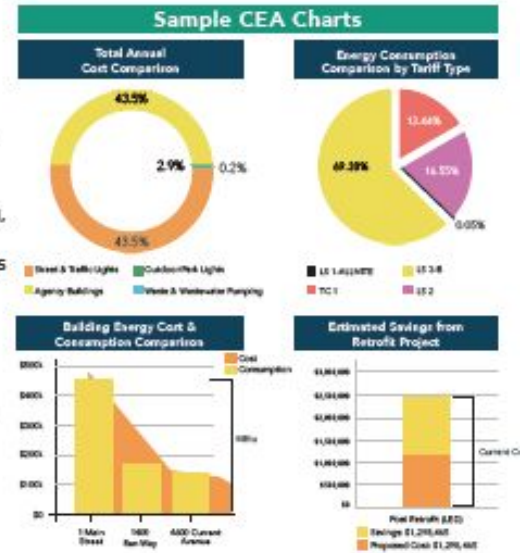


The County of Los Angeles/Southern California Regional Energy Network (SoCalREN) offers a suite of energy analysis services and tools designed to educate and empower agencies to make informed decisions about energy management. These tools compare agency-owned assets such as buildings and streetlights to identify energy-intensive infrastructure with opportunities for cost-saving energy efficiency projects. Our services and tools for portfolio wide energy analysis include a Comparative Energy Analysis Report and ENERGY STAR Portfolio Manager® assistance.

Getting Started with SoCalREN's Comparative Energy Analysis (CEA)

This report provides a framework for SoCalREN to identify high energy consumers and prioritize further investigation and energy efficiency retrofit work.

- Delivers an agency-wide summary of building, pumping, streetlight, and other exterior lighting annual energy consumption and costs
- Helps determine opportunities for energy efficiency projects and energy audits by highlighting high energy consumers
- Appraises the potential financial and energy impact of retrofit projects



Agency Success Story: City of Huntington Beach

"The City completed an energy analysis in 2015, this helped us to look at energy usage and target efficiency projects. We looked at the CEA along with our own facility needs assessment and prioritized projects. This helped us identify the Central Library as a priority project, especially since the City Council voted to restore Sunday operating hours. I always appreciate the technical expertise of SoCalREN and their skilled project management team."

- Antonia Graham, Assistant to the City Manager, Energy and Sustainability Manager, City of Huntington Beach



Photo: Huntington Beach - Central Library

Next Steps for Energy Use Analysis

If your agency is already enrolled

- Facility data “true-up” option
- Input facilities into ENERGY STAR Portfolio Manager per city’s specifications

If your agency is interested in enrolling

- Fill out and return enrollment form
- Complete Facility Data Template
- Upload entire facility dataset into ENERGY STAR Portfolio Manager

Thank you!

Contact Information:

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