

# Spring 2024 Member Meetings – Day 1 March 6, 2024, 1:00 p.m. - 6:00 p.m.

# Welcome & Meeting Overview

Josh Dean, CEA Executive Director



### **CEA Antitrust Statement**

The purpose of the CEA is to explore avenues of mutual interest and cooperation in building energy policy. It is important to recognize that these activities are subject to certain legal limits imposed by state and federal antitrust laws. One central concern of these laws is with combinations or agreements in restraint of trade whereby competition is reduced by design. In the course of all CEA activities, discussions among members involving pricing, sale terms, territories, production or other aspects of competition, must be avoided. In the event any member ever feels that the course of Alliance activities or statements or actions in Alliance meetings is headed into such an area, members should raise the issue immediately so that further discussion of such matters can be suspended pending receipt of advice satisfactory to the members that the topics addressed do not give rise to antitrust problems.

## Agenda

1:00 p.m.	<ul> <li>Welcome &amp; Meeting Overview</li> <li>Josh Dean, CEA, Executive Director</li> </ul>
1:15 p.m.	<ul> <li>CEA General Business</li> <li>Dion Abril, CEA President &amp; Board Chair</li> <li>Josh Dean</li> </ul>
1:45 p.m.	Level-Set: Outcome-Based Policies (OBP) <ul> <li>Overview, Terminology, In/Out of Scope</li> </ul>
3:00 p.m.	Break (10 minutes)
3:10 p.m.	<ul><li>Working Group Breakouts</li><li><i>Finalize 2024 Tasks</i></li></ul>

### Agenda cont.

4:45 p.m. Working Group Report Back

- Incorporate into OBP Strategy and Timeline
- 5:45 p.m. Day 1 Wrap-up
  - Josh Dean

6:00 p.m. Adjourn

6:00-8:00 p.m. Evening Reception

- Location: SMW Local Union 104
- Drinks & Hors d'Oeuvres

# **CEA General Business**

Dion Abril, CEA President & Board Chair Josh Dean, CEA Executive Director

## Thank you to our meeting host!







## Spring 2024 In-Person Meeting Goals

Be clear about why we're gathering...

- To learn
  - OBC/BPS Terms, Decarb

- To do
  - Finalize WG Tasks/Research

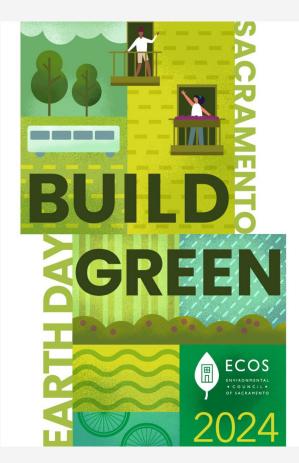
- To decide
  - OBP Goals/Scope

- **To bond** 
  - Network, Team building



### **CEA General Updates**

- 2024 Sacramento Earth Day
  - April 21st Sacramento (Southside Park)
  - Fellows Melissa Fraire-Rodriguez & Anam Shafique
- Green Building Initiative (GBI)
  - Volunteer for the development of the 2025/2026 versions of GBI's New Construction or Existing Buildings standards. The Consensus Body and subcommittees are primed to kick off their work in late summer 2024 with 1-3 virtual meetings expected each year of the 2-year cycle. <u>Apply here</u> by March 8th.



### **CEA General Updates**

### **Member Engagement**

- Survey & Interview
  - Impact Statement
  - Areas CEA can support you
  - Working Group support
  - <u>COMPLETE THE SURVEY</u>



## **Funding Opportunity**

- DOE RECI Round 2
  - Resilient and Efficient Codes Implementation from Bipartisan Infrastructure Law's
    - Second installment of \$90 Million for Implementing Updated Energy Codes
      - Must include relevant state or tribal government agency
      - <u>Concept Papers Due April 5</u>
    - Topic Areas:
      - <u>Implementation and Compliance</u> Activities like energy code compliance studies help States validate the impacts of their codes, and quantify the associated impacts (e.g., energy, cost or GHG savings).
      - <u>Utility Data & Partnerships</u> DOE is interested in applications which can help increase engagement by utilities in code processes and enhance validation of energy code impacts as a function of measured energy use in residential and commercial buildings.

## **Upcoming Meetings/Workshops**

- California Energy Commission (CEC) <u>2024 Building Energy Efficiency Action Plan</u>
  - March 12th 9:00am 12:15pm
  - Workshop to provide an overview of the proposed Action Plan update, including statutory authority, the timeline for report development and future workshops, the proposed technical scope of the Action Plan, and specific areas of interest.
    - The 2024 Action Plan will provide a statewide, multi-agency perspective on how to achieve greater decarbonization of existing buildings through improved energy efficiency, reduced overall energy consumption, and supporting strategies such as load flexibility
- Building Standards Commission
  - CALGreen Committee Meetings
    - March 18th 19th

# **Upcoming Conferences**

- LEDucation (New York City)
  - March 19th 20th
- LightSPEC West (Anaheim)
  - April 17th 18th
  - Lawrence Lamontagne & Michael Scalzo
  - Promo code: **CEA24** to register for FREE
- CxEnergy Conference (San Diego)
  - April 29th May 2nd
    - "Guaranteeing Optimal Lighting Control System Performance"
    - Michael Scalzo, John Busch, Charles Knuffke
  - Promo code: SUPPORTING10
- DOE National Energy Codes Conference (Sacramento)
  - May 6th 8th



- Getting to Zero Forum (Charlotte, NC)
  - May 21st 23rd
- ASHRAE Summer Conference (Indianapolis)
  - June 22nd 26th
- IES Annual Conference (New York City)
  - August 15th 17th
- Net Zero Conference (Anaheim)
  - September 17th 18th
- Greenbuild (Philadelphia)
  - November 12th 15th

### **CEA Hive Access for Working Groups**

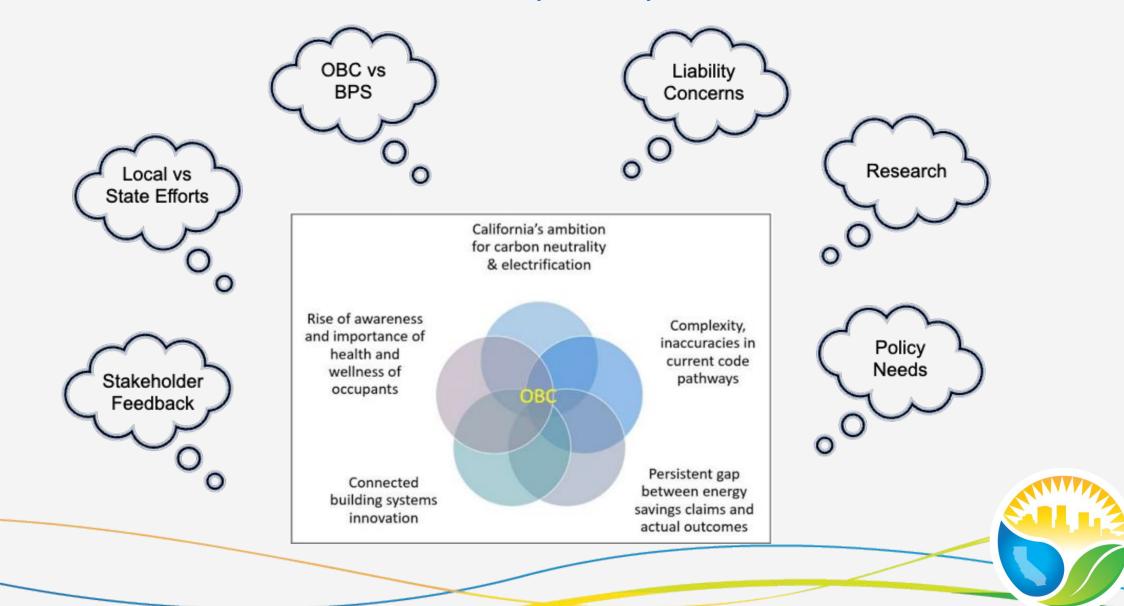
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2023 Work Plan	Z	2.2_Working Group Admin				
	Z	2.3 _S&I_OBP Tracking				
My team	Z	<ul> <li>Phase 1</li> </ul>				
1.1_CEA_Operations	Z	$\bigcirc$ Develop a comprehensive strategy document outlining	the overarching vision & goals for C			
1.2_CEA _Board of Di	Z	Setablish regular communication channels among work	ing groups to ensure alignment with			
1.3_CEA_Marketing &	Z	Conduct a stakeholder analysis to identify key influence	ers and potential challenges in OBP			
1.4_CEA_SVCC Fello	Z		hurdles during the subsequent pha			
1.5_CEA_Financials	Z	Create a timeline & milestones for effective coordination	n & progress tracking.			
2.1_Outcome-Based	Z	<ul> <li>Phase 2</li> </ul>				
3.1_Government Affai	Z	⊘ Collaborate with stakeholders to assess California's cur	rent building codes & standards land			
4.1_Codes & Standards	ď		& updates.			
5.1_Compliance & Enf	Z	Identify finding sources to support OBP work, research,	pilots.			
CEC - PLETICS	Ø	▼ 🕑 Phase 3				
~ <u>祭</u> Groups	Ø	<ul> <li>Engage with political stakeholders to build awareness of</li> </ul>	of the benefits of OBP.			5 2

# Level-Set: Outcome-Based Policies

Josh Dean, CEA Executive Director



### **Outcome-Based Policies (OBP)**



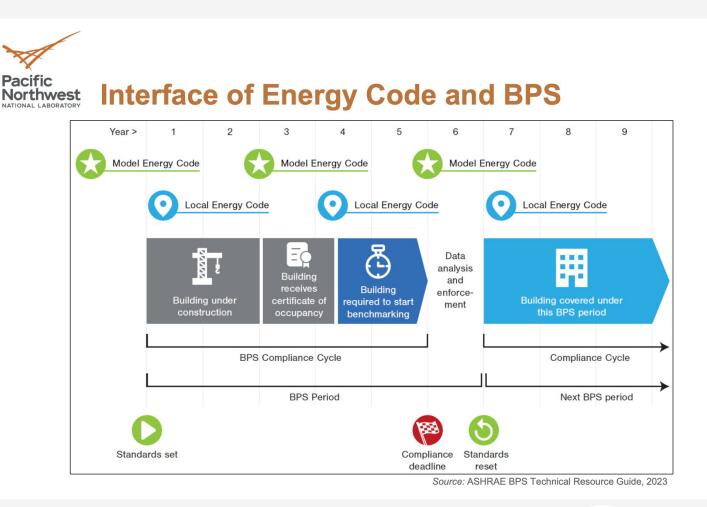
### What's the difference?

### Outcome-Based Codes (OBC)

 OBC relies on measured energy use instead of estimates based on expected connected load or modeling. OBC also captures whole building energy use including process loads and other Miscellaneous Electric Loads (MELs), which often go unaddressed by performance or prescriptive energy code compliance approaches. With an OBC approach, buildings are often monitored, post-occupancy, for a predetermined time period or periodically over many years.

### Building Performance Standards (BPS)

 DOE "BPS are outcome-based policies and laws aimed at reducing the carbon impact of the built environment by requiring existing buildings to meet energy and/or greenhouse gas emissions-based performance targets."



From DOE: Addressing Existing Buildings - Building Performance Standards Building Energy Codes Program Webinar Series

### **OBC - Seattle, WA**

### Seattle Department of Construction and Inspections **423** Seattle Permits – part of a multi-departmental City of Seattlie series on getting a permit

#### Energy Compliance Though the Target Performance or Total Building Performance Paths

#### Updated September 28, 2021

This Tip answers frequently asked questions on how you can meet the Seattle Energy Code requirements though the Total Building Performance (TBP) and Target Performance Path (TPP) compliance pathways. This Tip is not a comprehensive compliance guide.

#### Background

New commercial construction projects in Seattle can comply with the 2018 Seattle Energy Code (SEC) through one of three pathways listed in C401.2:

- Prescriptive Path (includes C402.1.5 Component Performance Alternative)
- Total Building Performance Path (C407)
- Target Performance Path (C401.3)

The Total Building Performance and the Target Performance paths each require whole building energy modeling. The Total Building Performance Path uses only modeled performance to show code compliance. The Target Performance Path also uses energy modeling to demonstrate that the proposed design is capable of hitting the operational performance target, but in addition, this path requires that the actual measured building energy consumption meets the target.

#### General FAQs What is Total Building Performance?

Total Building Performance, SEC Section C407, describes the procedure used to compare a proposed design to the standard reference design, using the 2019 ASHRAE 90.1 Appendix G Performance Rating Method. The code includes some notable Washington and Seattle specific modifications, including a carbon emissions metric.

#### What is a BPF?

The Seattle version of the Appendix G method is a ratio that compares the annual carbon emissions associated with your proposed design to the carbon emissions that would have occurred had the building been constructed to the requirements of the 2004 ASHRAE 90.1. That ratio is the BPF – Building Performance Factor.

A maximum allowable BPF for each occupancy type is shown in Table C407.3(2). The proposed design regulated carbon emissions divided by the baseline design regulated carbon emissions must be less than the BPF in the table. As an example, the BPF for an office building is 0.51, so the proposed design regulated uses can generate no more than 51 percent as much carbon emissions as would have been generated by the regulated uses of a 2004 ASHRAE baseline building.

"Regulated uses" include items such as lighting, heating, cooling, fans, and commercial refrigeration. Unregulated uses include items such as computers, printers, servers, and break room appliances. You can find complete definitions and explanations of these terms in ASHRAE 90.1 Appendix G.

Carbon emissions factors for each fuel source (electricity, gas, etc.) are shown in Table C407.3(1).

Section C407.3 lists a number of additional modifications to Appendix G that adapt the method to Seattle standards. These include item such as changing "energy cost" to carbon emissions as the metric, clarifications to the requirements for documentation, and the treatment of tenant spaces that are not yet designed.

There are certain constraints on construction of the Proposed Design model.

Renewable energy, beyond that required by Section C412, is only permitted to reduce carbon emissions in the proposed design model by 3 percent. Additional renewable energy can be provided, but cannot be counted in the model. See item 2 in C407.3.

www.seattle.gov/sdci

P.O. Box 34019 Seattle, WA 98124-4019 (206) 684-8600 The Proposed Total UA, as defined in C402.1.5, can be no more than 10 percent higher than that allowed for prescriptive compliance. For all Total Building Performance projects, you will need to complete a component performance (Target UA) calculation as described in Section C402.1.5. See C407.3.1.

#### How do I apply Section C406 – Additional Efficiency Package Options?

You are not required to obtain C406 options when using the TPP or TBP in the 2018 Seattle Energy Code.

#### What is the Target Performance Path (C401.3)?

The Seattle Energy Code includes a novel outcomebased path for compliance called the Target Performance Path (TPP), that is described in SEC Section C401.3. Under the TPP, you have to provide utility bills to prove that your building's actual energy use meets a specific Energy Use Intensity target. The TPP gives you increased design freedom, in exchange for your commitment to demonstrate actual energy efficiency. You have to post some form of financial security, and the owner will have to pay a financial penalty if the building does not meet its target. You must submit your building's energy use via Portfolio Manager as required by the Seattle Energy Benchmarking Law, and if the building's energy use is below its target for a period of twelve consecutive months, you can contact SDCI to release the financial security.

The TPP also uses the ASHRAE Appendix G method, but permits the Building Performance Factor to be as much as 12 percent higher than the BPF shown in Table C407.3(2).

#### Why choose the Total Building Performance Path or Target Performance Path?

You would typically use one of these pathways when the design of a project makes prescriptive compliance impractical. Common examples include:

- Buildings with a glazing area greater than otherwise allowed by code
- Buildings without air economizer
- Where a Dedicated Outdoor Air System (DOAS) is required, but not provided in the building

#### **Don't Forget about Mandatory Requirements!**

Projects using the Total Building Performance Path or Target Performance Path must also comply with a number of mandatory requirements, listed in Table C407.2 (but not the mandatory requirements in Appendix G). Mandatory in this case means that they must be included in the building design. Examples of these measures include air barrier testing, HVAC controls, solar readiness, and many more.

#### **Required Documentation**

For the Total Building Performance Path or Target Performance Path modeling, you must submit an energy model report as required per ASHRAE 90.1 G1.3.2 in addition to a completed compliance form, available here ASHRAE Standard 90.1 Performance Based Compliance Form. For Seattle projects, select "Seattle" from the pulldown menu on the "Code/Beyond Code Program" line at the top of the "General Information" tab. Note that the form can import much of the data from popular energy modeling software into the Compliance Form to avoid retyping. Submit a printout of the input and output files. Include your completed form with the permit drawing sets (architectural, electrical, mechanical, etc.) that document key savings items. You cannot claim savings in the energy model for strategies that aren't included in the permit drawings, so if you take credit for lighting in the energy model, the electrical permit must be approved before the permit can be issued.

#### **Tenant Versus Core & Shell Spaces**

SDCI often issues "core & shell" building permits before the tenant space designs are complete. In such cases, the core & shell project must meet the Total Building Performance or Target Performance Path requirements without depending on energy efficiency savings from undefined tenant systems. You need to indicate the proposed terminal systems for the mechanical systems in both common areas and future tenant spaces, and include these terminal systems modeled as minimally compliant with prescriptive 2018 SEC requirements in the proposed design in the energy model. You must substantiate any other savings for tenant space measures (e.g. lighting) on your permit drawings that accompany the energy model report. You can't use tenant lease agreements to substantiate tenant energy savings.

### **OBC - Boulder, CO**

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get based on a weighted-average EUI calculated by floor area of each occupancy type.

TABLE C407.3.2 FIXED EUI TARGETS

BUILDING TYPE	PERFORMANCE TARGETS (kBtu/ft <sup>2</sup> )		
Medium office (5,000–50,000 sf)	23		
Mid-rise apartment (Type R2)	32		
Primary school	34		
Large Office (>50,000 sf)	40		
Small office (< 5000 sf)	19		
Secondary school	31		
Warehouse	11		
Retail Store	40		
Small Hotel	35		
Hospital	76		
Restaurant	200		
Strip Mall	40		

**C407.3.3 Measured performance outcome.** With approval of the *building official*, projects may demonstrate compliance with this code by documenting that the building has achieved the EUI performance calculated per C407.3.1 or C407.3.2 within 20 percent based on metered energy use after occupancy.

**C407.3.3.1 Excluded energy use.** Energy used for data centers and EV charging equipment may be excluded from the total EUI of the building, provided that this energy use is separately metered per the requirements of Section C407.6.

**C407.3.3.2 Demonstration of operating energy use.** Metered energy data shall be reported to the *building official* using Energy Star Portfolio Manager, and adjusted for the percentage of floor area occupied. While at least 75 percent occupied, the building shall operate at or below its assigned energy use target established in Section C407.3.2 for any recording period of 12 consecutive months that is completed within three years of the date of the Certificate of Occupancy. The owner shall notify the *building official* when this 12- month period has been successfully completed.

C407.3.3.3 Adjustments to energy targets. The building official may approve adjustments to building EUI targets based on unanticipated changes to building operation and conditions. Adjustments to targets must be approved by the *building official* based on specific documentation of the need for adjustment. The following conditions can be considered as the basis for adjustments to EUI targets:

- 1. Adjustment for change in occupancy. When the occupancy of the building or a portion of the building changes from that assumed in the permit submittal, the assigned energy performance tar- get shall be adjusted to reflect the new occupancy. If the new occupancy is not listed in Section C407.3.2, either the *building official* shall assign it an energy use target based on the best-performing local examples of that occupancy type, or a metering system shall be pro- vided that excludes the energy loads for the additional occupancy.
- 2. Adjustment for unusually cold years. If the heating degree days (HDD) recorded by the National Weather Service for the Denver International Airport exceeds the average HDD value identified in local TMY3 data for the 12-month demonstration period, the assigned energy performance target is permitted to be increased by 1 percent for each 4-percent increase of HDD from average HDD for that period.
- 3. Adjustment for other factors. Adjustments for conditions other than those identified in this sec-

C-74

tion that represent reasonable and unanticipated changes to building use characteristics may be considered as a basis for target adjustment on a case-by-case basis by the *building official*.

**C407.3.3.4 Financial security.** The applicant shall provide a financial security to be used if the building fails to achieve an operating energy use lower than the building's energy use target according to Section C407.3.2. The financial security shall be submitted to and approved by the *code official* prior to issuance of the building permit. The financial security requirement shall be fulfilled by an escrow of funds with the city for an amount equal to \$2.00 per square foot of gross floor area. If the owner provides evidence that the building has operated at or below its target energy performance level, as provided in Section C407.3.2., the financial security provided by the applicant shall be returned to the applicant and the applicant will have no further obligations under this section.

**C407.3.3.5 Procedure for noncompliance.** If the owner fails to provide evidence that the building has operated as required under Section C407.3.3.2, the *building official* shall require the applicant to draw down on the financial security of Section C407.3.3.4 to lower the operating energy use of the building, including recommissioning, repairs and improvements to the existing energy-consuming systems, or provision of additional energy use. Such expenditures shall be approved in advance by the *building official*, and the

2024 CITY OF BOULDER ENERGY CONSERVATION CODE

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### **Building Performance Standards 101**

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Mandated energy and/or emissions reduction through set performance target(s)

Mainly commercial & large multifamily >10,000-25,000 sqft

Common Metric(s) – EUI, GHGI

Alternative compliance pathways to provide flexibility & equitable implementation

Audit requirements, prescriptive measure pathways, timeline extensions, etc.

Policies adopted at state and/or local level

14 adopted, 40+ under consideration

### The State of Building Performance Standards (BPS) in the U.S. Members of the National BPS Coalition as of December 2023

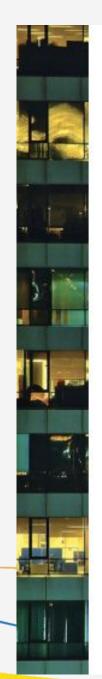




#### From DOE: Addressing Existing Buildings - Building Performance Standards Building Energy Codes Program Webinar Series

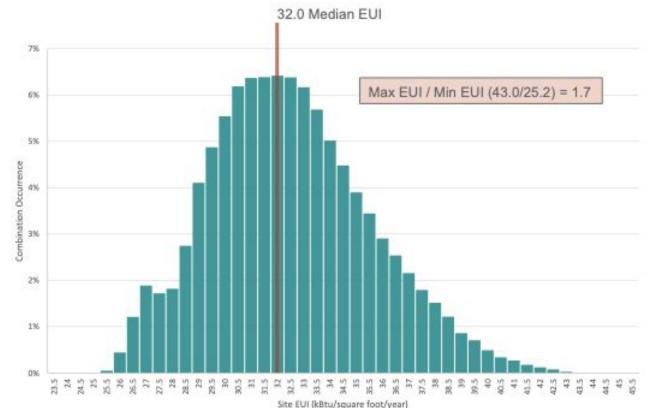
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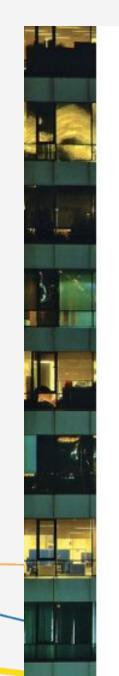
### **Consider Both Policies**

- Energy codes allow a wide range of performance outcomes
- Code compliance protocols are not intended to predict outcomes
- Differences between "ideal" and actual operation of building systems
- Impact of occupant behavior, demographics, weather and occupant-installed equipment
- Plan ahead for BPS



Prescriptive Energy Code Outcomes, Modeled EUI Performance: Medium Office, 2018 IECC, Climate Zone 5B From DOE: Addressing Existing Buildings - Building Performance Standards Building Energy Codes Program Webinar Series

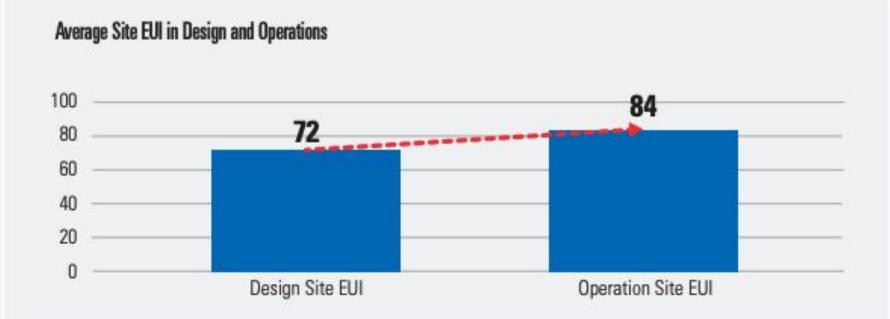
Pacific



### Conclusions Northwest

- BPS are continuing to be adopted across the country and are expected to increase in number.
- Focus of BPS policy development remains energy and carbon impact of older existing buildings, but they will impact new construction.
- To support energy code and BPS alignment, consider:
  - At a minimum, align metric used in both policies ۰
  - Narrowing the band of expected performance outcomes in the energy code can help "equip" buildings ٠ for success under BPS
  - Strengthen metering, commissioning, and operations and maintenance requirements in code to align . with BPS outcome and reporting needs
  - Require a prediction of BPS compliance at permitting, based on a building energy model ٠

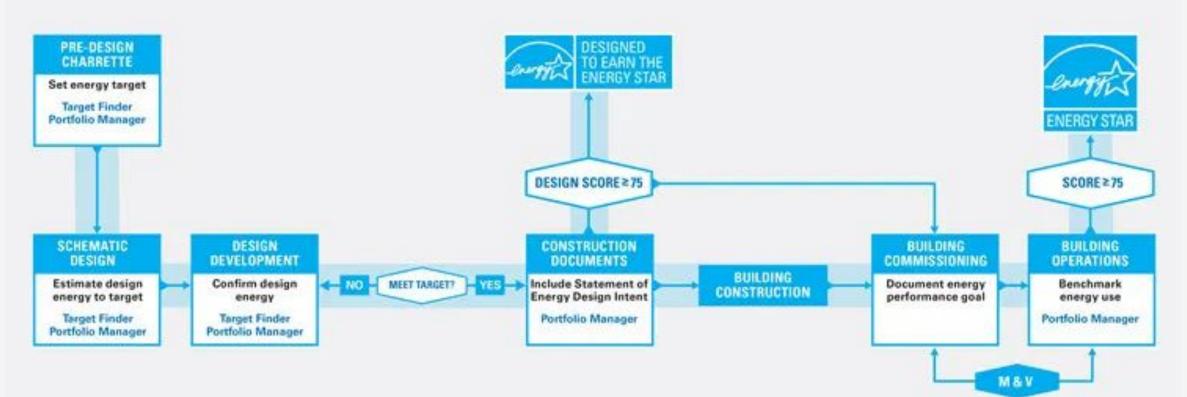
### Why set a target EUI?



EPA analysis found comparing design projects achieving ENERGY STAR to the building's operational performance suggest there is room for improvement in predicting overall energy use intensity (EUI). The anaylsis shows that the change in the average site EUI between design estimate and operations was, on average, 16% more energy than predicted. This is where architect and owner collaboration is key to understanding operational intent and creating energy estimates that make allowances for this difference.

> ENERGY STAR® Design Guidance Bridging the gap between energy design intent and building performance

### Example program



The ENERGY STAR process – using the same metrics for energy design estimates and operational energy performance – is outlined in the <u>ENERGY STAR Design Guidance</u>. This process can help building owners and other stakeholders to align design targets with intended performance outcomes. See how the DC Buildings Innovations Hub, <u>BEPS Targets for New Construction</u>, suggests design teams use this process for new building projects in Washington, DC.

From: Design to Earn Energy Star

### **Common Theme: Enabling Technologies/Strategies**

From CA Executive Order B-18-12:

"IT IS FURTHER ORDERED that State agencies implement the measures described in the accompanying <u>Green Building Action Plan</u> for facilities owned, funded, or leased by the state."

Building Commissioning 8. New and existing buildings **shall incorporate building commissioning** to facilitate improved and efficient building operation. Actions shall include:

8.1. The Department of General Services with the concurrence of the California Energy Commission and other State agencies **shall establish energy use intensity (EUI) threshold targets to trigger a requirement for commissioning of existing buildings**, based on building type and use, and submit these target EUI thresholds to the Governor's office by January 1, 2013.

8.2. State agencies with jurisdiction over state-owned buildings shall **pursue monitoring-based commissioning** for facilities over 5,000 square feet with energy use intensities exceeding thresholds determined by the Department of General Services, to the extent possible.

8.3. New construction or major renovations greater than 5,000 square fee

2021 International Energy Conservation 🛛 🛇 .	Codes / I-Codes / 2021 International Energy Conservation Code (IECC) > Chapter 4 [CE] Commercial Energy Efficiency	BASIC READ ONLY SUBSCRIBE TO PREMIUM			
Version: Dec 2020 (Historical) 🔻	Premium Code Insights : 🕢 Code Change Details 🛛 🖪 Hearing Videos				
CONTENTS 🔂 NOTES 🔂 INSIGHTS					
Heating. C406.11 Fault detection and diagnostics system.					
C406.8 Enhanced Envelope Performance.	A fault detection and diagnostics system shall be installed to monitor the HVAC system's performance and automatically identify faults. The system shall do all of the following:				
C406.9 Reduced Air Infiltration.	1. Include permanently installed sensors and devices to monitor the HVAC system's performance.				
> C406.10 Energy Monitoring.	<ol> <li>Sample the HVAC system's performance at least once every 15 minutes.</li> <li>Automatically identify and report HVAC system faults.</li> </ol>				
C406.11 Fault Detection and Diagnostics System.	<ol> <li>Automatically notify authorized personnel of identified HVAC system faults.</li> </ol>				
C406.12 Efficient Kitchen Equipment.	C406.12 Efficient Kitchen Equipment. 5. Automatically provide prioritized recommendations for repair of identified faults based on analysis of data collected from the sampling of the HVAC system performance.				
> Section C407 Total Building Performance	Section C407 Total Building Performance 6. Be capable of transmitting the prioritized fault repair recommendations to remotely located authorized personnel.				
Oration 0400 Meintennes Information and Oratom					

### Metered Energy Data Display

#### A GUIDE FOR BUILDING DESIGNERS

#### Energy Display Systems

Energy data display systems are software platforms that compile metered data into actionable visual information. Seattle Energy Code requires the installation and commissioning of energy display systems in new commercial construction and additions, greater than 20,000 square feet, to enable better energy management. These code requirements, as well as the intended use of the system, should be considered in both the electrical design and the selection, installation and commissioning of the metered energy display system.

#### Reference the 2015 Seattle Energy Code for complete description of requirements:

http://www.seattle.gov/dpd/codesrules/codes/energy/overview/

#### **Electrical Design Considerations**

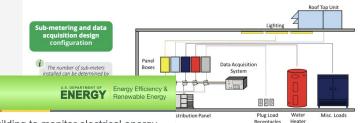
#### **Code Requirements**

(Section C409.2) Energy source metering. Buildings shall have a meter at each source, including electrical energy, gas and liquid fuel supply energy (natural gas, fuel oil, propane, other), district energy (district steam, district chilled water, district hot water, other), and site-generated renewable energy.

(Section C409.3) End-use metering. Meters shall be provided to collect energy use data for each end-use, defined as lighting, heating, ventilation and air conditioning (HVAC), plug load (e.g. water heating and process loads (e.g. refigeration, laundry, industrial equipment).

Not more than 10 percent of total connected load of any end-use is permitted to be excluded from that end-use data collection. Not more than 10 percent of total of total connected load of any end-use is permitted to consist of loads not part of that category.

Multiple meters may be used for any end-use category, provided the data acquisition system totals all of the energy used by that category.



Measurement devices in new building to monitor electrical energy use for each of these separately:

Total electrical energy

**Electrical Energy Monitoring** 

- HVAC systems
- Interior lighting
- Exterior lighting
- Receptacle circuits

For buildings with multiple tenants, the above must be separately monitored for total building and for each tenant (excluding shared systems)

#### Exception:

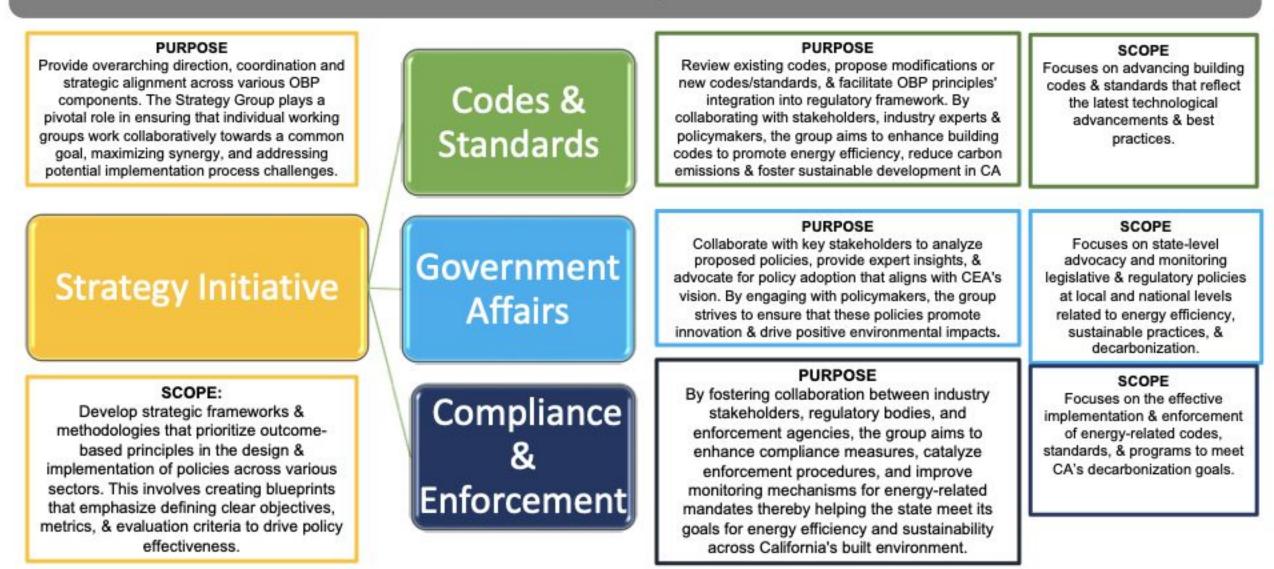
 up to 10% of each separate load (other than total) can be from other electrical loads



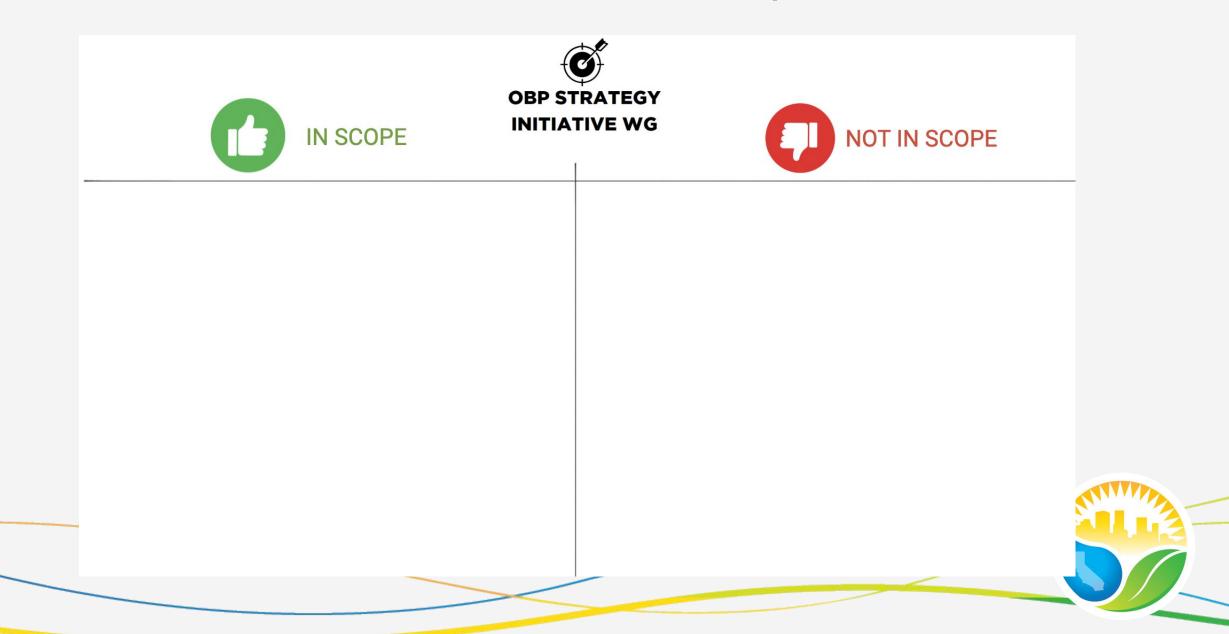
### **Outcome-Based Policies**

The CEA will advocate for and implement outcome-based policies in CA that prioritize measurable energy performance, promote human health, deliver environmental results, drive sustainable innovation, and achieve a decarbonized economy.

We intend to remove barriers and roadblocks to maximize efficiency and lower carbon emissions from buildings over their lifecycle while maintaining health and life safety.



### CEA OBP Initiative - In / Out of Scope



# **Break**

- 10 minutes (be back at 3:10 pm PT)



# Working Group Breakouts

All



## **Working Group Breakouts**

### Goals for Breakouts:

- Finalize Tasks for each Phase
- Research/pilot project ideas
- Complete WG Makeup Spreadsheet

Outcome-Based Policies - Strategy

- Jon Zelinsky, Prasino Energy
- Dema Tzamaras, Center for Sustainable Energy

Codes & Standards

- Dan Salinas, Salinas Lighting Consult
- Michael Jouaneh, Lutron

Compliance & Enforcement

- Dan Suyeyasu, CodeCycle
- Michael Scalzo, National Lighting Contractors Association of America

Government Affairs & Advocacy

Josh Dean, CEA

# Working Group Report Back incorporate in OBP Strategy

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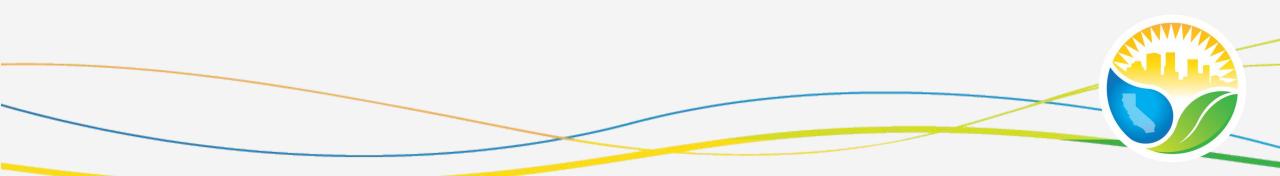
### Working Group Report Back

- 2024 Tasks
- Project & Funding needs
- Tangible objectives / research projects



# Day 1 Wrap-Up

Josh Dean





# Thank You For Attending Spring 2024 Member Meetings – Day 1

Meeting Materials are available to CEA Members via the member portal at <u>caenergyalliance.org</u>