

# ENERGY CODES | 2024

2024 NATIONAL ENERGY CODES CONFERENCE  
HOSTED BY THE U.S. DEPARTMENT OF ENERGY

May 6-8, 2024 | Sacramento, CA

U.S. DEPARTMENT OF  
**ENERGY** | Office of ENERGY EFFICIENCY  
& RENEWABLE ENERGY



## NECC BOOTCAMP & TOUR Monday, May 6

12:15 – 3:00p	Tour: SMUD East Campus Operations Center
12:30 – 5:00p	Energy Codes 101 BPS 101 REScheck Basics COMcheck Basics (Fresno/Granada/Hermosa)
5:00 – 6:00p	Welcome Reception (Sierra Ballroom)

## Day 01 Tuesday, May 7

8:00 – 9:00a	Registration & Breakfast (North Lobby)		
9:00 – 9:30a	Welcome & Opening Remarks (California/Balboa/Calaveras)		
9:30 – 10:00a	Keynote: Andrew McAllister, California Energy Commission (California/Balboa/Calaveras)		
10:00 – 10:30a	Break		
10:30 – 11:30a	Federal Funding and Assistance Opportunities for Building Energy Codes (California/Balboa/Calaveras)		
11:30 – 1:00p	Networking Lunch & Awards (California/Balboa/Calaveras)		
1:00 – 2:30p	Grid Edge Modernization and the Energy Code: How Codes Can Support a Transition to a Clean and Resilient Grid (Hermosa/Granada/Fresno)	Inclusive Energy Codes: Bridging the Gap to Achieve Equity and Environmental Justice (Diablo/El Dorado)	Efficiency Policy for Existing Buildings: Driving Market Transformation (Discussion) (Sierra Ballroom)
2:30 – 3:00p	Break		
3:00 – 3:30p	Lightning Round (California/Balboa/Calaveras)		
3:30 – 5:00p	Building a Green Workforce: Training for Tomorrow's Energy Code Compliance (Hermosa/Granada/Fresno)	Using Tools and Data Analysis to Inform Building Policy Adoption and Implementation (Diablo/El Dorado)	Reaching for the Sun: Lessons Learned from California (Discussion) (Sierra Ballroom)

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## Day 02 Wednesday, May 8

7:30 – 8:30a	Registration & Breakfast ( <i>North Lobby</i> )		
8:30 – 9:30a	Federal Roundtable: Decarbonization, Affordability, and Everything in Between ( <i>California/Balboa/Calaveras</i> )		
9:30 – 10:00a	Break		
10:00 – 11:30	Acceleration Station: Boosting Building Performance Standards through Federally Funded Projects ( <i>Hermosa/Granada/Fresno</i> )	Diversifying Your (EE) Portfolio: Utility Code Support Programs ( <i>Diablo/El Dorado</i> )	Are We There Yet: Defining a Model Energy Code Endpoint (Discussion) ( <i>Sierra Ballroom</i> )
11:30 – 12:30p	Networking Lunch ( <i>California/Balboa/Calaveras</i> )		
12:30 – 2:00p	Driving Change: Electric Vehicle Charging Infrastructure in the Energy Codes ( <i>Hermosa/Granada/Fresno</i> )	Third Parties and Residential Energy Code Compliance ( <i>Diablo/El Dorado</i> )	One Size Doesn't Fit All: Shaping Technical Assistance to Support Energy Codes (Discussion) ( <i>California/Balboa/Calaveras</i> )
2:00 – 2:30p	Break		
2:30 – 4:00p	Approaching Zero: Integrating Renewable Energy in Building Codes ( <i>Hermosa/Granada/Fresno</i> )	Working Collaboratively: Building Relationships and Sharing Resources to Achieve Common Goals ( <i>Diablo/El Dorado</i> )	

## Session Descriptions

### Federal Funding and Assistance Opportunities for Building Energy Codes

With the U.S. Department of Energy's (DOE) over \$1.2 billion in funding between the Bipartisan Infrastructure Law (BIL) and Inflation Reduction Act (IRA) to support energy codes, there is an unprecedented opportunity to invest in our nation's buildings. Join us for the one-year update since the 2023 National Energy Codes Conference to learn about the projects that have already been awarded and the funding that will soon be awarded, and how the funding fits within DOE's broader vision to help states, jurisdictions, and Tribal nations update to modern energy codes and advance workforce training, compliance, environmental justice, and other critical supporting energy code activities.

### Grid Edge Modernization and the Energy Code: How Codes Can Support a Transition to a Clean and Resilient Grid

As we transition to an electricity grid powered mostly by renewables and all-electric buildings become more prevalent, it will be increasingly important for buildings to be capable of shifting when electricity is being drawn from the grid. During this session, speakers will provide context on what is needed to achieve grid modernization (the grid perspective) and how codes can help with the transition. We will discuss attributes of a grid-integrated buildings (e.g., solar, storage, load management, EV infrastructure) and the logistics of establishing effective codes to ensure buildings have these attributes. Topics of discussion will include differences in grid needs and the related need for grid integrated buildings in different parts of the country, how building performance standards or energy codes can impact the utility grid, different calculation methodologies to demonstrate energy value and cost effectiveness, where code requirements should reside (energy code v. another code) and the interplay between appliance standards and building codes.

### Inclusive Energy Codes: Bridging the Gap to Achieve Equity and Environmental Justice

Dive into the intersection of energy codes, equity, and environmental justice in this engaging session. Experts from across the country will share insights on crafting energy codes that not only meet technical standards, but also address the needs of underserved communities, empower the workforce, and ensure Justice40 goals are being met. Learn about strategies that provide accessible and inclusive benefits throughout the entire lifecycle of energy codes—from development to enforcement and evaluation. This is a crucial conversation for those interested in how building energy policy can be a tool for positive change.

### Efficiency Policy for Existing Buildings: Driving Market Transformation

Approximately 80% of the 2024 U.S. building stock will remain in 2050, making improving the energy efficiency of existing buildings a crucial part of achieving 2050 energy efficiency and climate goals. If the energy efficiency, affordability, and climate goals of federal, state, and local governments are to be met, existing buildings must achieve additional energy efficiency. Come prepared to discuss and explore innovative policies and programs for existing commercial and residential buildings.

## **Building a Green Workforce: Training for Tomorrow's Energy Code Compliance**

Energy savings, carbon reduction, improved resilience - the full measure of energy code compliance benefits don't happen if the workforce is not properly trained to construct energy efficient buildings. This session will highlight different approaches to workforce training, including workforce development drivers and training, industry recognized certificate training, and direct stakeholder outreach and training.

## **Using Tools and Data Analysis to Inform Building Policy Adoption and Implementation**

As building codes and building performance standards become more advanced, new tools and insights are critical to help inform their adoption and implementation across the United States. In this session, we will explore various data-based solutions at the national, state, and local level helping jurisdictions realize savings and achieve their goals.

## **Reaching for the Sun: Lessons Learned from California**

For nearly fifty years, The Golden State has benefited from robust statewide energy efficiency authority. During this time, the state has successfully standardized highly insulated walls, windows, attics, and roofs for the majority of new homes and businesses. Recent initiatives have further standardized highly efficient heat pumps and required solar photovoltaic systems and battery storage for most building types. This session invites you to engage with representative state regulators, pioneering local governments, forward-thinking utilities, and innovative regional energy networks, all collaborating to distribute the benefits of energy codes throughout the nation's most populous state.

## **Federal Roundtable: Decarbonization, Affordability, and Everything in Between**

Federal agencies are working hard to support the Biden-Harris Administration's goals to decarbonize buildings and catalyze America's clean energy economy, while ensuring that their work helps advance equity and environmental justice. This roundtable discussion will feature speakers from the White House, Department of Energy, Environmental Protection Agency, and Housing and Urban Development who will cover some of the key federal programs and initiatives to help drive decarbonization, while addressing the key equity considerations that are being made to help ensure Americans can live in affordable and secure homes.

## **Acceleration Station: Boosting Building Performance Standards through Federally Funded Projects**

Building Performance Standards (BPS) are rapidly transforming the landscape of existing building decarbonization across America. States and local governments are leading the way in establishing innovative and equitable BPS to meet emissions reduction goals by midcentury. Organizations are teaming up alongside these governments to support realistic and achievable policy outcomes through thought leadership, technical analysis, tool development, and creative complementary activities. The US Department of Energy recently awarded 27 of these teams under the Bipartisan Infrastructure Law's Resilient and Efficient Codes Implementation funding opportunity. Hear from

DOE and four awardees on how they're working with states and local governments on BPS to transform our built environment for communities everywhere.

## **Diversifying Your (EE) Portfolio: Utility Code Support Programs**

As energy codes continue to evolve, utility incentive programs are faced with the need to adapt while meeting cost-effectiveness requirements. Learn from presenters about opportunities and challenges in planning and implementing above-code and energy code support programs. Speakers will include utilities and utility program implementers from across the country who offer varying types of energy code-related programs.

## **Are We There Yet: Defining a Model Energy Code Endpoint**

Where are we ultimately going with our energy code development work? Zero energy? Zero emissions? Some other standard? How much of that progress should be efficiency, vs. renewables, and is cost-effectiveness the only factor? These questions and more will help pin down our ultimate code target.

## **Driving Change: Electric Vehicle Charging Infrastructure in the Energy Codes**

This session will address electric vehicle charging service equipment (EVSE) elements of the 2024 International Energy Conservation Code appendices, efforts by states to incorporate EVSE into state building codes, and industry perspectives on how EV owners charge at home and on the go.

## **Third Parties and Residential Energy Code Compliance**

This session will explore the effective use of residential third-party professionals in the design, construction, and enforcement processes to achieve compliance with modern energy codes (e.g., 2021 International Energy Conservation Code). Attendees will explore the role of third parties and the benefits of using these professionals in the code compliance process, discuss the concerns, challenges, and successes of third parties from the Code Official's perspective, and explore how HERS Raters are used to verify code compliance while meeting the needs of the jurisdictions they serve. This discussion session will offer insights on best practices and lessons learned with the goal of enhancing the relationship and communication between third parties and Code Officials.

## **One Size Doesn't Fit All: Shaping Technical Assistance to Support Energy Codes**

The U.S. Department of Energy Technical Assistance (TA) Program - complete with a National TA Network and a robust collection of tools, training, resources and 1:1 support- is freely available to help all states, territories, localities, and tribes save energy and improve buildings in their jurisdictions. In this discussion session, participants will learn about these resources, and provide feedback on ways to expand this program to better meet their unique needs. Whether it's a compliance tool, training program, or analysis to support energy code adoption, we want to hear what's on your wish list to better support energy codes in your community. Come ready to share your insights around five breakout topic areas (Adoption, Compliance & Enforcement, Workforce Development, Messaging & Stakeholder Engagement, Stretch Codes & Advanced Measures).

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**Building Energy Codes**

## **Approaching Zero: Integrating Renewable Energy in Building Codes**

This session explores innovative strategies and best practices that are driving progress towards renewable energy in building codes, toward zero-energy buildings in some regions. Learn how these initiatives can be universally applied to promote energy efficiency and sustainability in the built environment. This session offers valuable takeaways for those interested in shaping the future of building codes and achieving ambitious energy goals, regardless of whether you're located on the East Coast, West Coast, or anywhere in between.

## **Working Collaboratively: Building Relationships and Sharing Resources to Achieve Common Goals**

To achieve ambitious climate goals and drive sustained improvements, strategic partnerships are key. State and local jurisdictions have sought out such partnerships with each other, as well as with other organizations, including builders, architects, engineers, academia, advocates, and other stakeholders who play an important role supporting the successful implementation of building codes. Join this session to hear about best practices and challenges in working collaboratively, as well as reflect on opportunities to expand partnerships to include those who have been historically left out of the climate and codes space.