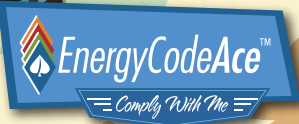


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California Association of Building Energy Consultants



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Single Family/Duplex



Multifamily Low-Rise



Accessory Dwelling Units (ADUs)

Administered by:

Table of Contents



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Important Reminders



CABEC will give over 30 hours of CEA CEU Credit for all three days of the conference.



CABEC 2023 "**Decarbonizing Buildings**" conference certificate of attendance and CEU credits will be emailed to all conference attendees for your convenience and proof of participation.



Recycle your name badge by leaving it at the registration table when you leave.



Welcome

and create your personalized schedule. Utilize the WHOVA App to interact with fellow attendees, speakers, and vendors. Rest assured that all live sessions will be recorded so that you won't miss out on any educational content offered in this 30+ CEA CEU Conference. After participating or watching a recorded session, don't forget to utilize the Q&A Section to ask the speakers any questions you may have.

Make sure not to miss the Entertainment and Networking Events throughout the conference. On Monday night, we have the Welcome Reception sponsored by Small Planet Supply. On Tuesday night, join us for Trivia Happy Hour with our 3C-REN Partners. Wednesday holds a Networking Happy Hour sponsored by RESNET, and the grand finale is the Annual Banquet sponsored by California Clean Homes (TRC Companies).

We would like to express our gratitude to the CEC, our Utility Partners, the Codes & Standards Team, and all the Sponsors and Exhibitors in the industry.

I want to personally extend my thanks to the incredible individuals who make up our CABEC Board of Directors. They dedicate themselves to serving you, our CABEC Members, as well as the Energy Industry. Through their efforts, we bring you the CEA Certification Program, Weekly CABEC Connect Live Discussions, Monthly CABEC Brown Bag CEU Education, the Residential Mentorship Program, and much more.

Our dedicated volunteers, forming the committees that oversee the CABEC State Association, deserve special recognition. Without them, this conference would not be possible.

Given the industry's busyness over the past few years, with no signs of slowing down, our CABEC Advocacy Committee tirelessly monitors the Energy Code's current affairs and anticipates future code cycles. Additionally, due to the high demand for training the next generation of Energy Consultants, our CABEC Mentorship Program guides aspiring consultants towards their Certified Energy Analyst (CEA) Certification. Through our Training & Education Committee, we offer educational resources to keep CABEC Members informed about the evolving CA Energy Code and related technologies. All these programs are designed to keep CABEC Members at the forefront of our industry.

I must express a special thank you to all the CABEC Conference Planning Committee members, who invested countless volunteer hours to schedule and organize this conference. An even bigger thank you goes to Jordan Garbayo, our Conference Lead, as well as Ruby Rose and Rafael Yepez, who have kept us all on track and ensured that this conference will be the best yet!

During this weekend, I encourage you to engage, reach out, and meet new people. Connect with old friends, maintain a positive outlook, keep us proactive, and help shape the future of CABEC. I wish you all a blessed and wonderful conference! Lastly, I want to thank you for attending our conference and bringing your expertise to our energy community. Please take a moment to show your appreciation to the speakers for their hard work and knowledge.

Sincerely,

Linda Pierce

CABEC Executive Director

Welcome to the CABEC 2023 Conference, "Something to Crow About: Decarbonizing Buildings"! We are thrilled to have you join us in the beautiful town of Cambria, nestled in California's Central Coast. Cambria Pines Lodge, our venue, is a stunning resort located in the mountains above the village, adorned with Scarecrows and Fall Festivities. Your presence here truly makes a difference, and we are grateful to have you!

To all our energy friends and colleagues returning to CABEC's Annual Conference, it's a joy to see each and every one of you in person. For those attending for the first time, we extend a heartfelt thank you for joining us. We encourage you to network with subject matter experts, Certified Energy Analysts (CEAs), energy consultants, and the incredible members of our community.

Take a couple of minutes to peruse the online program

Welcome



CABEC team for their unwavering dedication in making this event possible. Your support enables us to continue driving progress in the field of building energy efficiency and sustainability.

Together, let's make this conference something to truly crow about!

Sincerely,
Brian Selby
President, CABEC Board

Welcome to the 2023 Something to Crow About: Decarbonizing Buildings Conference! This year's event is full of opportunities to learn from the amazing lineup of presenters, explore the latest products and services from our exhibitors, as well as connect with fellow professionals, industry peers and energy nerds. As building energy consultants and Energy Code experts, we play a pivotal role in shaping the sustainable future of our industry.

I am extremely proud of the progress we've made in advancing energy efficiency and building decarbonization in our state. Our annual conference is a testament to the dedication and expertise of our members, as well as the collaborative spirit that fuels our industry. The theme for this year's conference, "Something to Crow About," underscores our collective achievements in the pursuit of more sustainable buildings. We have a lot to celebrate, but there is still much work to be done!

On behalf of the CABEC Board and our dedicated conference planning committee, I would like to express my sincere gratitude to our sponsors, exhibitors, volunteers, and the entire



On behalf of the Conference Planning Committee, I would like to express our gratitude and excitement for joining us this year. We have an action-packed agenda over the next few days. You can anticipate a lot of discussion and pathways to making our state (and the important work we all do) the leaders in the country!

As we all know, the state is setting more and more lofty goals around

decarbonization, energy efficiency, and climate. In addition, California is really setting a model for technologies and pathways for decarbonization at a federal level with more funding opportunities coming through various forms of legislation. I feel strongly that this is the conference to make connections and find the through-line to meeting goals, whether it is at the national, state, or local level. I also think this is the best conference held in the state, but I am extremely biased!!!

Buildings – new or existing – and building professionals are going to need our expertise to navigate this evolving landscape. Energy is (finally) becoming more of a focus for practitioners, installers, designers, and building departments. We encourage you to be open to hearing new concepts and participate in as many conversations as you can to further the great work you all are doing.

It has been such an honor to serve with my fellow Board Members and volunteers on the Conference Planning Committee. These folks really made this conference happen! If you see them, please thank them. It has been a joy to work with them on developing and delivering this conference to you all.

Thank you for attending the 2023 CABEC Conference and ENJOY!!!

Jordan Garbayo
CABEC Board of Directors
Conference Planning Lead



Keynote Speakers



Will is dedicated to reimagining our built environment into one that is more inspired, more ecologically intelligent, and more equitably distributed. Throughout his career he has worked collaboratively with nationally recognized design firms, builders, developers, utilities, research entities and policy makers to bring buildings into better harmony with nature. Currently, he leads an all-star team at the California Energy Commission who are responsible for updating and maintaining California's nation-leading Energy Code – this includes ensuring statewide compliance with the Energy Code, developing supporting tools and documents, and offering a diverse portfolio of outreach & education. Will has accepted invitations to speak at the nation's largest clean energy events, universities, and the White House. In 2019, he received the Net Zero Trailblazer award for his leadership in decarbonizing our built environment.

Sincerely,

Will Vicent

Will Vicent, Deputy Director, Building Standards & Operations
California Energy Commission

will.vicent@energy.ca.gov

(916) 628-1556

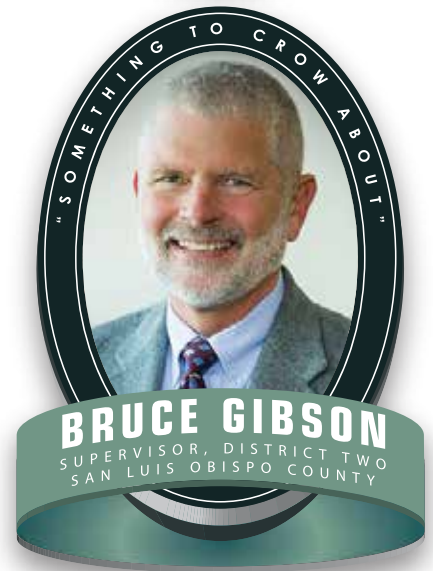
Keynote Speakers



Bruce Gibson has served as San Luis Obispo County District 2 Supervisor since being elected in 2006. He previously served as District 2 Planning Commissioner and was active in a number of community organizations including: the Cayucos Citizens Advisory Council, the Land Conservancy of SLO County, the Cayucos Land Conservancy; and Hearst Ranch Conservation NOW.

Supervisor Gibson is proud to be the County's representative to the California State Association of Counties (CSAC) for many years, and is currently CSAC's First Vice President. He also serves as the Board's representative to the Paso Basin Cooperative Committee, and as a member of the Morro Bay National Estuary Program Executive Committee.

He is a fifth-generation Californian, raised in the San Fernando Valley and Santa Barbara. He received his bachelor's degree from Pomona College, master's degree in geophysics at the University of Hawaii and a doctorate in geophysics at Rice University. Bruce relocated to San Luis Obispo County in 1989 and lives in Cayucos with his wife, Cherie. He is a licensed pilot and enjoys all sorts of activities in, under, and on the water.



Sincerely,

Bruce Gibson

Supervisor, District Two
San Luis Obispo County

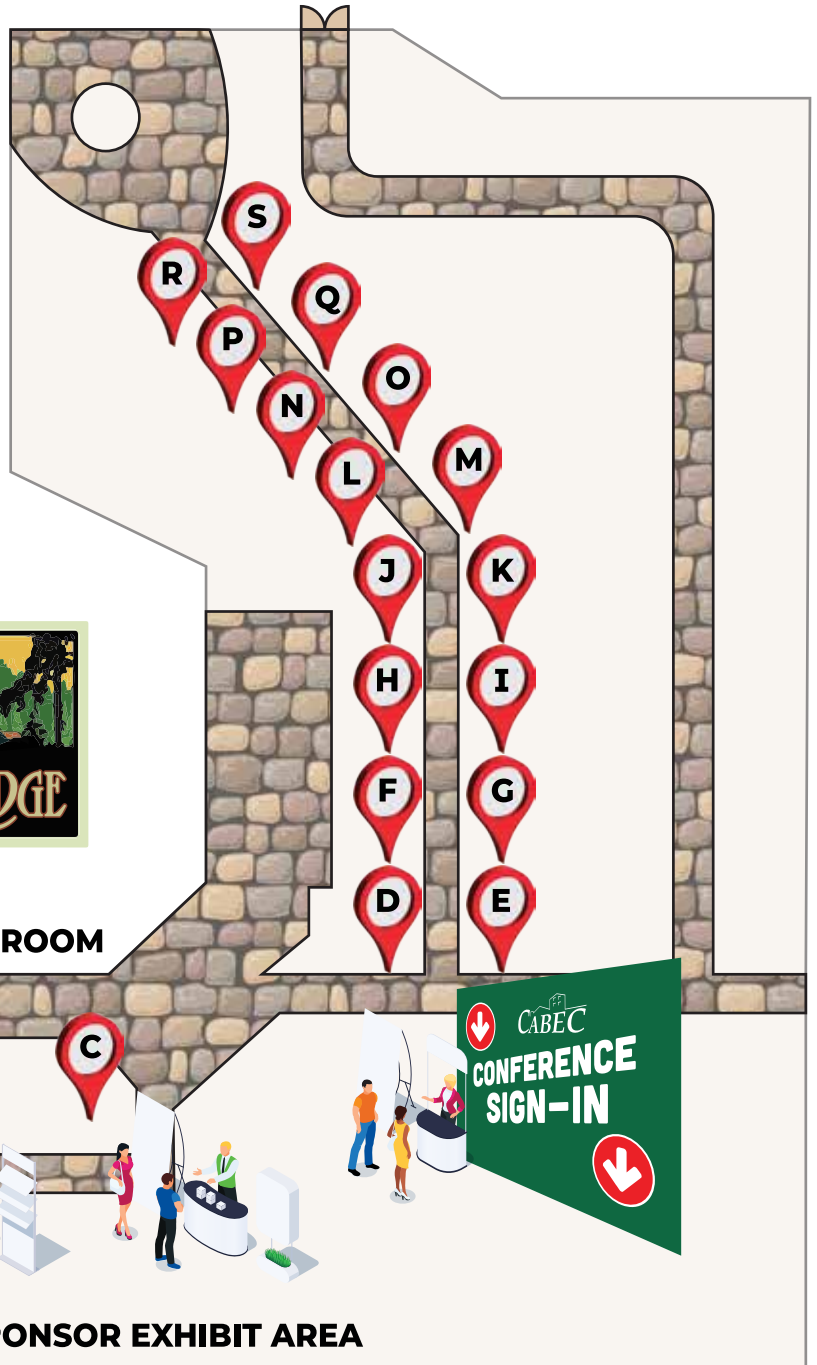


Exhibitor Map

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This program is funded by California utility customers and administered by Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E®), and Southern California Edison Company (SCE) under the auspices of the California Public Utilities Commission.



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Tuesday



March 17, 2022	<i>Energy Code Ace Hall (Peacock Room)</i>	<i>Sycamore Room</i>	<i>Freetop Room</i>
7:00 AM – 9:00 AM	<i>Breakfast</i>		
9:00 AM – 9:55 AM	Opening Remarks and Keynote <i>Will Vicent</i>		
10:15 AM – 11:15 AM	Utilizing Energy Code Ace <i>Fiona Terreri</i>	Compliant Design: The key to Decarbonization! <i>Lorraine White</i>	CBECC Hot Topics and What's New? <i>Rj Wichert</i>
11:30 AM – 12:30 PM	2022 Energy Code: What's New for Single Family <i>Brian Selby</i>	Reach Codes and Existing Buildings <i>Alea German + Misti Bruceri</i>	Why Energy Consultants Should be Doing HVAC Load Calculations <i>Russ King</i>
12:30 PM – 2:00 PM	<i>Lunch</i>		
2:00 PM – 3:00 PM	2022 Energy Code What's New: Nonresidential Complexities <i>Gina Rodda</i>	Central Heat Pump Water Heating: Design & Modeling for Multifamily Domestic Hot Water <i>Al Rooks + Ari Usher</i>	EnergyStar and Zero Energy Ready Homes... what Energy Consultants need to know (CHEERS) <i>Bob Johnson</i>
3:15 PM – 4:15 PM	2022 Energy Code What's New: Multifamily Complexities <i>Gina Rodda</i>	Decarbonizing with Whole House Fans, a Paradigm Shift in Space Cooling. <i>Andy LLora</i>	2022 Energy Code Update & LRMF (CALCERTS Registry) <i>Jeremiah Ellis + Mauricio Morales</i>
5:30 PM	<i>Trivia Reception</i>		

Tracks Color Guide	Decarbonization	Technology	Business Development
	HERS	Programs & Certifications	Energy Code / Modeling



Wednesday

Energy Code Ace Hall (Peacock Room)

Sycamore Room

Treetop Room

March 18, 2022

7:00 AM – 9:00 AM

Breakfast

9:00 AM – 9:55 AM

Opening Remarks and Keynote
Bruce Gibson

10:15 AM – 11:15 AM

Communicating the Value of All-Electric Homes
Brian Selby

New Opportunities RESNET HERS20 & the RESNET Carbon Index
Laurel Elam + Steve Baden

What's in a Name- How to help your energy reports successfully move through the building department.
Marina Chavez Blanco

11:30 AM – 12:30 PM

2022 Energy Code Hot Topics and Cool Resources
Amie Brousseau

Not All Superheroes Wear Capes, Some Just Know How To Navigate Incentive Programs
Melinda Dinin

Empowering Frontline Communities Through Cutting-Edge Technology
Ladan Ghobad + Sheetal Chitnis

12:30 PM – 2:00 PM

Lunch

2:00 PM – 3:00 PM

Fuel Switching and Decarbonizing Multi-Family Housing - Lessons Learned (So Far)
Tim Kohut

Live Code & Coffee: Modeling a New ADU using CBECC-Res and EnergyPro
Brian Selby + Chandra Apperson

Introduction to Residential HVAC Design
Russ King

3:15 PM – 4:15 PM

The Multifamily Shift - Code and modeling regime changes for multifamily projects under the 2022 code
Marina Chavez Blanco

Changing the Way We Look at Energy Design
Robert Fortunato

How to use Aurora Solar for Residential SARA
Jose Perez

4:30 PM – 5:30 PM

California Opportunities for ESG Reporting and Green Bond Mortgage Backed Securities
Laurel Elam + Steve Baden

NRCC-MCH-E (Prescriptive Mechanical) using the Virtual Compliance Assistant
Gina Rodda

Boost efficiency, resiliency, AND affordability with Spray Foamx
Chris Rosemond

6:30 PM – 9:00 PM

Happy Hour & Banquet

Tracks
Color
Guide

Decarbonization

Technology

Business Development

HERS

Programs & Certifications

Energy Code / Modeling

Thursday



March 19, 2022	<i>Energy Code Ace Hall (Peacock Room)</i>	<i>Sycamore Room</i>	<i>Freetop Room</i>
7:00 AM – 9:00 AM	<i>Breakfast</i>		
9:00 AM – 9:55 AM	Energy Code Tools / Resources aa(Sponsor Spotlight)		
10:15 AM – 11:15 AM	Size Matters: Small Homes in the Energy Code <i>Alea German + Nick Brown</i>	Home decarbonization through smart controls and thermal battery storage <i>Pierre Delforge</i>	Under The Hood <i>Luke Morton</i>
11:30 AM – 12:30 PM	The ABC's of ADU's <i>Gina Rodda</i>	Everything you need to know about Self-Utilization Credit <i>Muhammad Saeed,</i>	The ducted heat pump revolution is here. And you can finally get credit for it <i>Nick Brown + Chris Bradt</i>
12:00 PM – 2:00 PM	<i>Boxed Lunch</i>		



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The California Electric Homes program is administered by the California Energy Commission. It is authorized by Assembly Bill (AB) 137 (Ting, Chapter 77, Statutes of 2021) and the funds were appropriated in the Budget Act of 2021. Incentives are available on a first-come, first-served basis.

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Member of the Year



2021 Member of the Year:



all. She pushes the industry as a whole to do our best work. Her work taking over the mentor program creates a clear path for others to improve skills and be great analyst.

Gina Rodda Gina is a great advocate for CABEC, energy modeling integrity, and our industry. She exemplifies leadership by representing our profession at conferences, CalBEM, and EnergyCodeAce. She teaches with knowledge and conviction. She has dedicated hours and hours of her time to devise an entire curriculum for future CEAs. She spends countless more hours mentoring participants in the CABEC Mentoring program.

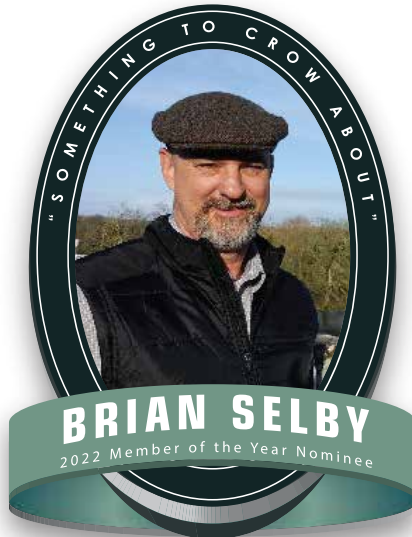
I'd like to nominate Gina Rodda for CABEC Member of the Year for her excellent work leading and working to transform the CABEC Mentorship Program in 2022.



2022 Member of the Year Nominees:



All through 2022 (and always) Gina has worked hard in the development of training and materials for the new 2022 code. She is an expert not only in the code but how it works in the real world. She is not afraid to fight-through speaking out and education-on issues she finds that will effect us



Brian Selby Brian has always been willing to help everyone. As CABEC's Board Chair, as a Volunteer, as a trainer and as a CEA. He has been one of the most informative trainers in our industry and is an expert in the industry.

She has built the Energy Code Ace team up to a high-performing group that plays a significant role in our industry educating stakeholders on the energy code and improving compliance with it. She has been a vocal champion of CABEC, the CEA certification, as well as our conference, CABEC Connect, and the mentorship program. She recognizes the expertise of energy consultants and has got them involved in energy code development, training, and compliance improvement work. We owe her a lot.

We need to acknowledge the tremendous support that Jill Marver has given CABEC over the last 20+ years! She has been our greatest cheerleader and has rallied support from the Utility Partners / Codes and Standards team for years. It is time to thank her.



Tuesday Sessions

Opening Keynote

Tue Oct 10, 2023
9:00 AM - 10:00 AM

Peacock Room

Will Vicent

Deputy Director, Efficiency Division
California Energy Commission

Utilizing Energy Code Ace

Tue Oct 10, 2023
10:15 AM - 11:15 AM

Peacock Room

Fiona Terreri

Energy Analyst • Gabel Energy

Are you using Energy Code Ace to its fullest potential? Come explore how to use the website to its fullest capacity and discover some hidden treasures you may not have known about.

Compliant Design:

The key to Decarbonization!

Tue Oct 10, 2023
10:15 AM - 11:15 AM

Sycamore Room

Lorraine White

Branch Manager, Standards Compliance
California Energy Commission

Achieving the State's decarbonization and climate goals depends on compliance with California's Building Energy Efficiency Standards starting at the beginning of a project! Two new projects ensure efficiency by design!

CBECC Hot Topics and What's New?

Tue Oct 10, 2023
10:15 AM - 11:15 AM

Treetop Room

Rj Wichert

Mech Engineer • California Energy
Commission

What's new in CBECC and CBECC-Res 2022 and coverage of other compliance software hot topics.

2022 Energy Code: What's New for Single Family

Tue Oct 10, 2023
11:30 AM - 12:30 PM

Peacock Room

Brian Selby

Principal • Selby Energy, Inc.

Join us as we look at what WAS new January 1st and was not understood completely by the industry for single-family envelope, mechanical, lighting, electric readiness, PV and Battery storage and more. We will also review available resources and training that provide more in-depth information on the Energy Code.

Reach Codes and Existing Buildings

Tue Oct 10, 2023
11:30 AM - 12:30 PM

Sycamore Room

Alea German

Frontier Energy

Misti Bruceri

Principal • Misti Bruceri & Assoc., LLC

This session will discuss recent reach code analysis of existing residential buildings and the various strategies that are being employed by local jurisdictions to drive decarbonization of the existing building stock.

Why Energy Consultants Should be Doing HVAC Load Calculations

Tue Oct 10, 2023
11:30 AM - 12:30 PM

Treetop Room

Russ King

CEO • Coded Energy, Inc.

This class covers the basics of ACCA Manual J - Heating and Cooling Load Calculations, which is required by Code on all newly installed systems, and explains why energy consultants are in the perfect position to be providing this as an extra service.

Lunch

Tue Oct 10, 2023
12:30 PM - 2:00 PM

2022 Energy Code What's New: Nonresidential Complexities

Tue Oct 10, 2023
2:00 PM - 3:00 PM

Peacock Room

Gina Rodda

Principal Owner • GABEL ENERGY

Join us as we look at what WAS new January 1st of this year and is not understood completely by the industry for nonresidential envelope, lighting, mechanical, PV and Battery Storage features. We will review resources available to help support understanding of these new Energy Code requirements of the 2022 code cycle.

Central Heat Pump Water Heating: Design & Modeling for Multifamily Domestic Hot Water

Tue Oct 10, 2023
2:00 PM - 3:00 PM

Sycamore Room

Al Rooks

Small Planet

Ari Usher

Senior Associate • Association for
Energy Affordability

Tuesday Sessions



Focusing on multifamily residential projects, this session will provide tips on CHPWH for energy consultants including design, equipment, and modeling.

EnergyStar and Zero Energy Ready Homes...what Energy Consultants need to know (CHEERS)

Tue Oct 10, 2023
2:00 PM - 3:00 PM

Treetop Room

Bob Johnson

Bus. Development • CHEERS

2022 Energy Code What's New: Multifamily Complexities

Tue Oct 10, 2023
3:15 PM - 4:15 PM

Peacock Room

Gina Rodda

Principal Owner • GABEL ENERGY

Join us as we look at what WAS new January 1st of this year and is not understood completely by the industry for multifamily performance software, envelope, lighting, mechanical, electric readiness, PV and Battery Storage features. We will review resources available to help support understanding of these new Energy Code requirements of the 2022 code cycle.

Decarbonizing with Whole House Fans, a Paradigm Shift in Space Cooling.

Tue Oct 10, 2023
3:15 PM - 4:15 PM

Sycamore Room

Andy LLora

National Sales Manager • Quiet Cool

about the efficacy of common sense cooling approach, and whole house fans in T24 and the HERS rating system changes that are coming. Discuss impacts of common sense cooling, HVAC cooling load offsets, basic usage, modelling information, and how whole house fans have significant relationships with HVAC systems, solar, decarbonization, and grid reduction.

Overview of Topics:

- Whole House Fans Primer
- Passive Cooling and Mass Cooling
- Grid and Decarbonization Benefits
- WHF Modelling Information
- Builder Considerations
- HERS verification Protocols
- Installation

2022 Energy Code Update & LRMF (CalCERTS Registry)

Tue Oct 10, 2023
3:15 PM - 4:15 PM

Treetop Room

Jeremiah Ellis

Director • CalCERTS

Mauricio Morales

CalCERTS

Join Jeremiah Ellis and Mauricio Morales of CalCERTS as they discuss California energy codes and Low Rise Multifamily. This session will provide an update to Low Rise Multifamily Projects and overview for registering LRMF projects.

Trivia Reception

Tue Oct 10, 2023
5:30 PM - 7:00 PM

Learn about innovations in recent decades of whole house fans, which are facilitating a new common sense approach to space cooling, home ventilation, and passive cooling. Learn



Wednesday Sessions

Wednesday Keynote

Wed Oct 11, 2023
9:00 AM - 10:00 AM

Peacock Room

Bruce Gibson

Supervisor, 2nd District
San Luis Obispo County

Communicating the Value of All-Electric Homes

Wed Oct 11, 2023
10:15 AM - 11:15 AM

Peacock Room

Brian Selby

Principal • Selby Energy, Inc.

Have you ever struggled with explaining the benefits and burdens of fuel selection for space heating and water heating to your clients? Join us as we explore how to demystify building decarbonization and compliance strategies for new single-family homes for the 2022 Energy Code. In this session we will discuss common concerns with all-electric homes, explore what sets the standard design, identify compliance options and associated costs for mixed-fuel homes, and provide defensible recommendations for building electrification.

New Opportunities RESNET HERS20 & the RESNET Carbon Index

Wed Oct 11, 2023
10:15 AM - 11:15 AM

Sycamore Room

Laurel Elam

QA Director
RESNET

=Steve Baden

Executive Director
ResNet

programs and how Building Energy Consultants can take advantage of the RESNET HERS H20 & the RESNET Carbon Index programs in California.

What's in a Name- How to help your energy reports successfully move through the building department.

Wed Oct 11, 2023
10:15 AM - 11:15 AM

Treetop Room

Marina Chavez Blanco

Sr. Energy Analyst & NR Manager
Gabel Energy

Would you like to help ensure your Title 24 report is easy for the building department to follow? This class will show you how to use tools, provide modeling tips and share direct feedback from plans examiners for all building types.

2022 Energy Code Hot Topics and Cool Resources

Wed Oct 11, 2023
11:30 AM - 12:30 PM

Peacock Room

Amie Brousseau

Outreach • California Energy Commission

Join in for an interactive discussion on the Energy Standards hotline hot topics featuring some of the most frequently asked questions, how these topics often become Blueprint Q&As, and to see the newest CEC fact sheets highlighted.

Not All Superheroes Wear Capes, Some Just Know How To Navigate Incentive Programs to Benefit the Bottom Line

Wed Oct 11, 2023
11:30 AM - 12:30 PM

Sycamore Room

Melinda Dinin

Marketing Manager
California Electric Homes (CalEHP)

California has several statewide incen-

tive programs available for all-electric residential new construction projects. Learn more about modeling success for your clients by impacting their bottom line with incentives. No mask, cape or costume required.

Empowering Frontline Communities Through Cutting-Edge Technology: Case Studies of Affordable Net Zero Carbon Housing Projects in the Bay Area and San Diego - 2023 BAMBE Incentive Redesign

Wed Oct 11, 2023
11:30 AM - 12:30 PM

Treetop Room

Ladan Ghobad

CEO, Energy Efficiency Specialist
ENERlite Consulting, Inc

Sheetal Chitnis

Senior Manager, Programs
Association for Energy Affordability

Underprivileged communities face challenges in building decarbonization, but grant projects utilize cutting-edge technologies in this affordable Net Zero Carbon mixed-use developments in the Bay Area and San Diego.

Fuel Switching and Decarbonizing Multi-Family Housing - Lessons Learned (So Far)

Wed Oct 11, 2023
2:00 PM - 3:00 PM

Peacock Room

Tim Kohut

National Core

A review of National Community Renaissance's first fuel switch projects (we have five completed, more in progress). What worked, what didn't, what adjustments do we need to make? We'll lay it all on the line in this session.

Wednesday Sessions



Live Code & Coffee: Modeling a New ADU using CBECC-Res & EnergyPro

Wed Oct 11, 2023
2:00 PM - 3:00 PM
Sycamore Room

Brian Selby
Principal

Selby Energy, Inc.
Chandra Apperson
Selby Energy Inc.

for documenting code compliance and modeling regimes with a code presentation and modeling round table.

Changing the Way We Look at Energy Design

Wed Oct 11, 2023
3:15 PM - 4:15 PM
Sycamore Room

Robert Fortunato
President

ForStrategy Consulting, Inc

This interactive presentation will forever change the way you look at building energy design. Building the first affordable, NZE, zero carbon case study house and seven years of auditing portfolios of buildings informs this presentation.

NRCC-MCH-E (Prescriptive Mechanical) using the Virtual Compliance Assistant

Wed Oct 11, 2023
4:30 PM - 5:30 PM
Sycamore Room

Gina Rodda

Principal Owner • GABEL ENERGY

We will be using the Virtual Compliance Assistant, a no-cost tool supported by Energy Code Ace, to complete the NRCC-MCH-E prescriptive compliance form for a new construction and alteration project LIVE during this session. The audience will help guide the building features utilized to show compliance for a mechanical system(s). During this session, we will also show how the NRCC-MCH-E form is used to create the NRCC-MCH-E form (required by the installing contractors) which can be a service supported by energy consultants like we do at Gabel Energy.

Join Brian Selby and Chandra Apperson as they model a new construction ADU project live! This session includes a live project assessment, plan take-off, modeling inputs using CBECC-Res and EnergyPro, and document review. This will be a fun, interactive demonstration where participants will get a chance to make recommendation to get the project into compliance!

Introduction to Residential HVAC Design

Wed Oct 11, 2023
2:00 PM - 3:00 PM
Treetop Room

Russ King
CEO

Coded Energy, Inc.

How to use Aurora Solar for Residential SARA

Wed Oct 11, 2023
3:15 PM - 4:15 PM
Treetop Room

Jose Perez

Energy Analyst • Gabel Energy

In this session I will be providing information for energy consultants on how we use Aurora solar to determine the SARA of a new construction and existing low rise residential buildings.

This class will provide an introduction to ACCA Manual J (Load Calculations), Manual S (Equipment Selection), and Manual D (Duct Design). Whether they offer this service or not, it is helpful for Energy Consultants to understand the design process.

Boost efficiency, resiliency, AND affordability with Spray Foam

Wed Oct 11, 2023
4:30 PM - 5:30 PM
Treetop Room

Chris Rosemond

Business Development • BASF

Learn how to use Spray Foam insulation for unvented attics and structural wall assemblies that save construction costs while creating more efficient, resilient, and comfortable homes.

FULL DESCRIPTION ON WHOVA APP

The Multifamily Shift - Code and modeling regime changes for multifamily projects under the 2022 code

Wed Oct 11, 2023
3:15 PM - 4:15 PM
Peacock Room

Marina Chavez Blanco

Sr Energy Analyst & NR Manager
Gabel Energy

California Opportunities for ESG Reporting and Green Bond Mortgage Backed Securities

Wed Oct 11, 2023
4:30 PM - 5:30 PM
Peacock Room

Laurel Elam

QA Director • RESNET

Steve Baden

Executive Director • RESNET

Attend this session to learn about Opportunities for ESG Reporting and Green Bond Mortgage Backed Securities in California.

The multifamily code requirements changed substantially under the 2022 energy code. Let's look briefly at the changes and how they alter protocols

Conference Happy Hour & Banquet

Wed Oct 11, 2023
6:30 PM - 9:00 PM



Thursday Sessions

**Energy Code Tools / Resources
(Sponsor Spotlight)**
Thu Oct 12, 2023
9:00 AM - 10:00 AM
Sponsor / Exhibit Area

**Size Matters: Small Homes in the
Energy Code**
Thu Oct 12, 2023
10:15 AM - 11:15 AM
Peacock Room
Alea German
Frontier Energy
Nick Brown
President • Build Smart Group
Peacock Room

This session will discuss small single family homes and ADUs and how they are treated in the energy code. Results from analysis for the 2025 code cycle and monitoring data will be presented and compared. Tips for compliance will also be presented.

**Home decarbonization through
smart controls and thermal battery
storage**
Thu Oct 12, 2023
10:15 AM - 11:15 AM
Sycamore Room
Pierre Delforge
Product and Operations
Harvest Thermal

Decarbonizing homes and the grid while reducing energy costs through smart heat pump controls and a thermal battery: Harvest Thermal and Peninsula Clean Energy will discuss the results of a one-year pilot in 4 SF Peninsula homes.

Under the Hood
Thu Oct 12, 2023
10:15 AM - 11:15 AM
Treetop Room
Luke Morton
Morton Green Building

The ABC's of ADUs
Thu Oct 12, 2023
11:30 AM - 12:30 PM
Peacock Room
Gina Rodda
Principal Owner • GABEL ENERGY

Learn about the different energy code classifications of ADUs. We will discuss the unique challenges and special exceptions ADUs pose in modeling and compliance. Let's share our best tips and tricks in getting this type of project to comply.

**Everything you need to know about
Self-Utilization Credit**
Thu Oct 12, 2023
11:30 AM - 12:30 PM
Sycamore Room
Muhammad Saeed • CEC

Even though the 2022 energy code doesn't require energy storage system for single family and low-rise multi-family buildings. However, there is a credit associated if the installer chooses to install the JA12 compliant battery. This credit varies from 6% to 12% of the compliance efficiency score and can help installers with the building compliance if the builders choose to go with less stringent envelope or HVAC equipment. This workshop will talk about what the SUC is? How is it calculated? And how it can help installers lower the cost of the construction? Also. What changes will be coming in the upcoming code cycle?

The ducted heat pump revolution is here. And you can finally get credit for it.

Thu Oct 12, 2023
11:30 AM - 12:30 PM
Treetop Room
Nick Brown
President • Build Smart Group
Chris Bradt
Manager • Mitsubishi Electric HVAC

A dynamic session with Build Smart Group and Mitsubishi Electric on how to use the coming-soon Detailed VCHP Compliance Option to optimize your variable capacity heat pump designs with mid- and high-static ducted and mixed ducted/ductless systems.

Lunch
Thu Oct 12, 2023
12:30 PM - 2:00 PM



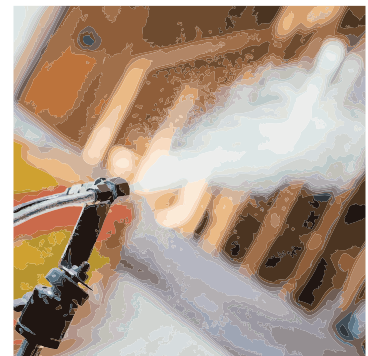
DON'T BE AFRAID OF THE BIG BAD BLOWER DOOR!

We've got it covered with AeroBarrier, so go ahead and take the **air sealing credit!**

Currently the modeling does not provide the credit that should be due for tightening building enclosures (though that credit gets a bump when the HRV/ERV credit is also taken.) Still, we all know that having a tight enclosure significantly improves energy efficiency, and it is truly a requirement to get to NZE.

Additional Air Sealing benefits with AeroBarrier also include:

- Healthier Indoor Air Quality
- Better Thermal Comfort
- Quieter Interior Environment
- Fewer Insects and Pests
- Lower Utility Costs
- Moisture reduction in Assemblies
- Multifamily Compartmentalization



We are all here at CABEC 2023. Come find us, we would love to talk to you.

CALBARRIER 
CONTROL THE AIR AROUND YOU


Absolute Efficiency Group


INSULATION SOLUTIONS

WESTERN
AEROBARRIER™
Breakthrough Envelope Sealing Technology


EFFICIENCY FIRST
SOLUTIONS



Glossary

ACCA - Air Conditioning Contractors of America (usually refers to duct design here)

ACH & ACH50 – Air changes per hour (at a pressure difference of 50 Pa)

ACM - Alternative Calculation Method

AFUE - Annual Fuel Utilization Efficiency (FAU rating)

AHU - Air Handling Unit

ASHRAE - American Society of Heating, Refrigeration, and Air Conditioning Engineers

C&S - Codes and Standards

CAHP - California Advanced Homes Program

CALBO - California Association of Building Officials

CalCERTS - HERS provider

CBECC - California Building Energy Code Compliance (state provided compliance software)

CEA - Certified Energy Analyst

CEPE - Certified Energy Plans Examiner

CFM - Cubic Feet per Minute

CHEERS - HERS Provider

CLTC - California Lighting Technology Center

CMU - Concrete Masonry Unit

COP - Coefficient of Performance

CPUC - California Public Utilities Commission

CRRC - Cool Roof Rating Council

CSG - Conservation Services Group

DHW - Domestic Hot Water

E+A - Existing plus Addition

EER - Energy Efficiency Rating

Envelope - The outside of the building: walls, floor, and ceiling including doors and windows.

ESMH - Energy Star for Manufactured Housing program

FAU - Forced Air Unit (heater)

FTC - Federal Tax Credit

HERS - Home Energy Rating System

HVAC&R - Heating, Ventilation, Air Conditioning, and Refrigeration

IAQ - Indoor Air Quality

IECC - International Energy Conservation Code

IEER - Integrated Energy Efficiency Rating

IES - Integrated Environmental Solutions

JA - Joint Appendix

LEED - Leadership in Energy and Environmental Design

LPD - Lighting Power Density

NFRC - National Fenestration Rating Council

NSHP - New Solar Homes Program

NSG / NTG - No Solar Gains / No Thermal Gains

O.C. - On Center

Plant - Machinery used within a building, usually the hot water system

PV - Photo Voltaic (solar)

QA - Quality Assurance

R Value - Insulation resistance to heat transfer

RESNET - Federal home ratings and audits

SDG&E - San Diego Gas & Electric

SEER - Seasonal Energy Efficiency Rating

SEMPRA - Utilities holding company, based in San Diego

SHGC - Solar Heat Gain Coefficient (for windows)

SIPS - Structural Insulated Panel (wall type)

TCAC - Tax Credit Allocation Committee

TDV - Time Dependent Valuation of Energy

TRC - an engineering consulting company

U Factor - rate of heat transfer through a window

Acknowledgements



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Luke Morton
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*Thank you for all your
continued support*

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2022 Energy Code

Encourages electric heat pumps, establishes electric-ready for new homes, expands solar photovoltaic and battery storage standards, strengthens ventilation standards, and more. Buildings whose permit applications are applied for on or after January 1, 2023, must comply with the 2022 Energy Code.

Online Resource Center

Provides educational assistance about the Energy Code to building and enforcement communities. The CEC and utilities develop the resources, which include fact sheets, energy videos, and presentations. www.energy.ca.gov/ORC



Blueprint Newsletter

Quarterly newsletter provides Energy Code updates, answers to frequently asked questions, clarifications, announcements, educational resources, and training. Scan the QR code to see the latest Blueprint newsletter or to search the compiled Blueprints. www.energy.ca.gov/newsroom/blueprint-newsletter

Energy Code Modeling

CBECC software

Single-family

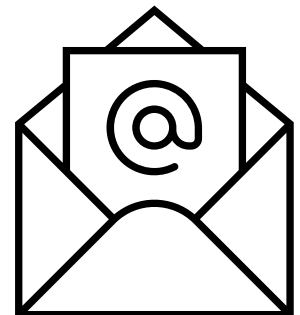
Nonresidential & multifamily

EnergyPro software

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Building Standards Branch

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Sacramento, CA 95814

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800-772-3300