

GETTING TO **zero**

NATIONAL FORUM **2016**

Catalyzing the Future of Zero Net Energy Buildings

The only event dedicated to zero net energy buildings where attendees will share perspectives on the growth of ZNE, learn about best practices for successful projects and collaborate on opportunities to transform the built environment.



October 12-14, 2016 | Grand Hyatt Denver
#GTZ2016FORUM | www.gettingtozeroforum.org

Hood River Middle School Addition

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Welcome Letter

Dear Getting to Zero National Forum Delegates:

On behalf of the New Buildings Institute and Rocky Mountain Institute, I would like to thank you for your participation in the 2016 Getting to Zero National Forum. We have an outstanding program in store for you, with a broad range of topics that will delve deeply into the policies, strategies, practices and opportunities that will advance our collective efforts to create zero-energy buildings and communities. We are grateful for your engagement and look forward to your contributions that will help define the future of our built environment.

Thank you to our enthusiastic program committee for helping assemble the foremost practitioners, policymakers, owners, developers and real estate investors. Our plenary speakers, presenters and panelists are eager to share their experience and insights with you and engage in dynamic discussions throughout the event. Please be sure to join us for the kickoff event on the evening of October 12, the opening reception on the evening of October 13, as well as building tours and planned dinner outings.

We hope that your experience is engaging, enriching and inspiring and helps you gather the knowledge, resources and connections that will help you and your organization accelerate your efforts to get to zero. We are thrilled to be here with you.



Sincerely,

A handwritten signature in black ink, appearing to read 'Ralph DiNola'. The signature is fluid and cursive, with a large, stylized 'R' and 'D'.

Ralph DiNola
CEO, New Buildings Institute

Thank you to our 2016 Program Advisors

Ryan Colker | National Institute of Building Sciences

Alison Donovan | VEIC

Ann Edminster | Net Zero Energy Coalition Board Member

Charles Eley | Eley and Associates

Solome Girma | U.S. Department of Energy

John Jennings | NEEA

Sonrisa Lucero | City and County of Denver

Brendan Owens | U.S. Green Building Council

Shanti Pless | National Renewable Energy Laboratory

Sam Rashkin | U.S. Department of Energy

Phillip Saieg | McKinstry

Shilpa Sankaran | Net Zero Energy Coalition

Carolyn Sarno | Northeast Energy Efficiency Partnerships

Todd Sims | National Association of State Energy Officials

RK Stewart | University of Utah

Peter Turnbull | Pacific Gas & Electric

Puja Vohra | National Grid

John Whitcomb | Towards Zero

Honoring Our Next Gen Leaders



For this year's National Forum, we gave special attention to inviting students and young professionals to join us and learn about the future of the built environment. Through our scholarship program, we were able to waive registration for 11 students and young professionals with less than three years of work experience. Please be sure to encourage these emerging leaders who will make a difference in driving zero net energy buildings to a tipping point and transform the built environment in the next two decades.

Thanks to all who supported by Paying It Forward with a donation to the fund. Special thank you to the Energy Trust of Oregon for funding all Oregon students to attend the event.

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Agenda-at-a-Glance

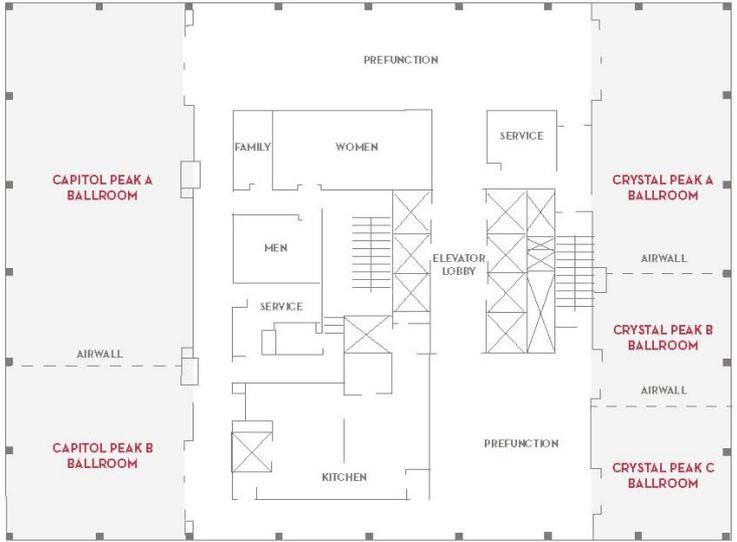
Wednesday, October 12	
8:30 AM	Registration Open
10 AM - 5 PM	Workshops + Tours
5 - 7 PM	Welcoming Reception + Exhibitor Showcase
Thursday, October 13	
7 - 8:30 AM	Registration Opens + Exhibitor Showcase + Breakfast Buffet
8:30 - 10 AM	Welcoming Remarks + Opening Plenary
10 - 10:30 AM	Exhibitor Showcase + Networking Break
10:30 AM - Noon	Breakout Sessions
Noon - 1:30 PM	Lunch Program
1:30 - 3:00 PM	Breakout Sessions
3:00 - 3:30 PM	Exhibitor Showcase + Networking Break
3:30 - 5:30 PM	ZEDx + Case Study Jam Session
5 - 7 PM	Welcoming Reception + Exhibitor Showcase
Friday, October 14	
7:30 - 8:15 AM	Exhibitor Showcase + Breakfast Buffet
8:30 - 10 AM	Breakout Sessions
10 - 10:20 AM	Last Chance Exhibitor Showcase + Networking Break
10:20 AM - 12:30 PM	Closing Plenaries + Event Wrap Up

Track Overview

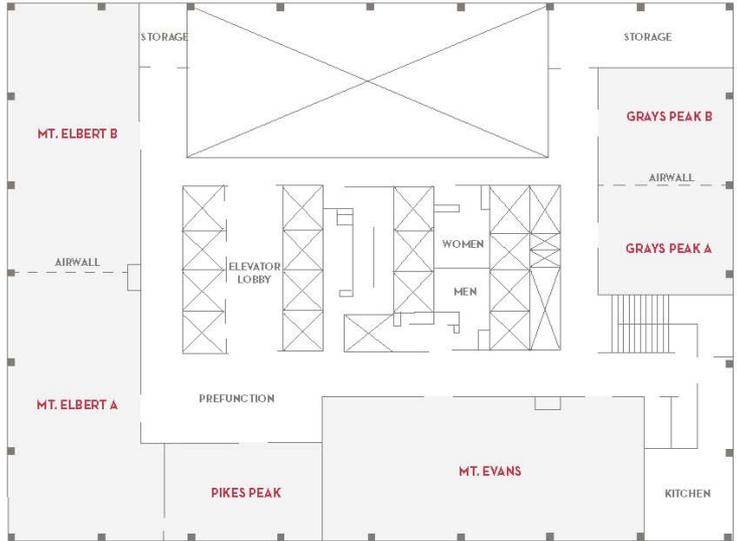
Designing and Delivering on ZNE Projects	This track will spotlight factors for success and potential pitfalls with a focus on early stage design integration, collective problem solving, and what the industry has learned about moving from challenge to success.	Sponsored by:  Pacific Gas and Electric Company
Driving ZNE Scale Through Policy and Programs	This track will showcase strategies that are most effectively translating to projects on the ground. Early advocates share plans about the future of ZNE policy and innovative code approaches to lock in practice.	Sponsored by: 
Operating at Zero and Maintaining Performance	This track will highlight what we're learning about how to sustain ZNE, the value ZNE buildings offer, and the business case that all audiences can buy into.	
Advancing Residential and Multifamily ZNE Markets	ZNE homes and multifamily buildings are poised for rapid growth. This track will examine the current state of the ZNE residential market including topics such as design feasibility, affordability, value, scale and project financing.	
Integrating ZNE Buildings and the Electric Grid	This track will investigate how policymakers, utilities and private enterprises are doing to break down the barriers to this market and unlock the full value of ZNE's distributed energy resources for grid services.	

Venue Floor Plan

Atrium Tower Pinnacle Club 38th Floor



Grand Hyatt Conference Center 2nd Floor



Wifi

Network: PSAV_Event_Solutions | Password: GTZ2016

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Program Details

For a complete set of speaker biographies, please visit gettingtozeroforum.org/speakers. Presentation slides will be posted and linked by session at gettingtozeroforum.org/program. AIA CEUs are available for most sessions. Be sure to sign the AIA credit sheet in the meeting rooms and check gettingtozeroforum.org/program for details.

Wednesday, October 12, 2016

- 8:30 AM** Conference Registration Opens
- 10 AM – 5 PM** Workshops + Tours | See pages 15-17 for details.
- 5 – 7 PM** Welcoming Reception + Exhibitor Showcase

Thursday, October 13, 2016

7 – 8:30 AM Registration Open + Exhibitor Showcase + Breakfast

8:30 – 10 AM Welcoming Remarks + Opening Plenary

The Impact of Zero Energy Buildings - Three leading changemakers will examine what COP 21 means for global as well as local action and how buildings are a primary solution for meeting worldwide energy and climate change mitigation goals. Our three luminaries will offer their own perspectives and vision for ZNE as a catalyst that could transform the future of the built environment

Moderator: Ralph DiNola | CEO, New Buildings Institute

- ♦ **Ed Mazria** | Founder and CEO, Architecture 2030
- ♦ **Robert Friedman** | Vice President for Policy and University Relations, Policy Center, J. Craig Venter Institute
- ♦ **Jorge Chapa** | Head of Market Transformation, Green Building Council Australia

10 – 10:30 AM Exhibitor Showcase + Networking Break

10:30 AM – Noon Getting to Zero: Deeper Dive Breakout Sessions

Breakout Track 1 | Capitol Peak A | Designing and Delivering on ZNE Projects

Market Sector Strategies to ZNE - As ZNE feasibility expands to a greater number of building types, design teams begin to better understand the approaches and technology solutions that will deliver successful ZNE performance in the most challenging or most pervasive building projects. This session digs in on three market sectors— food service, grocery and school buildings—with real-world experiences from leading experts taking the tough challenges head on.

Moderator: Rafael Reyes | VP, Community Initiatives, Prospect Silicon Valley

- ♦ **Richard Young** | Director of Education, PG&E Food Service Technology Center, Fishnick
- ♦ **Pauline Souza** | Partner, Director of Sustainability & Green Schools, WRNS Studio,
- ♦ **Shanti Pless** | Senior Research Engineer, NREL

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Breakout Track 2 | Crystal Peak B | Driving ZNE to Scale Through Policy and Programs: Focus on Cities - Cities and states have emerged as ground zero for creative thinking on policies that translate to ZNE projects at scale. Innovative and diverse incentives, policies, demonstration projects and partnerships are what will make market adoption of ZNE feasible in cities across the country. This session shares what leading cities are doing to identify the stakeholders, strategies, and systems implicated in creating tomorrow's ZNE cities.

Moderator: Puja Vohra | Principal Analyst, National Grid

- ♦ **Lisa Westerhoff** | Planner, Integral Group
- ♦ **Chen Shalita** | CEO, Alfa Sustainable Projects Limited
- ♦ **Katrina Managan** | Senior Advisor on Energy Efficiency, City and County of Denver

Breakout Track 3 | Capitol Peak B | Operating at Zero and Delivering Value Buildings Operating at Zero - Maintaining ZNE performance is a process that requires owners, occupants and operations managers to work together to ensure outcomes meet expectations. This session will look at two extensively monitored projects—the Bullitt Center in Seattle and TD Bank in Fort Lauderdale—and share what these owners and operators have learned from the data about how to sustain ZNE performance over months and years.

Moderator: Phillip Saieg | Energy & Facilities Solutions, McKinstry

- ♦ **Christopher Meek** | Associate Professor and Director, University of Washington Integrated Design Lab
- ♦ **Jim Hanford** | Principal, The Miller Hull Partnership
- ♦ **Justin Stenkamp** | Associate, PAE Engineers
- ♦ **David DelRossi** | Corporate Architect, TD Bank
- ♦ **Marianne Larrisey** | LEED Green Associate Advisory Consultant, CBRE

Breakout Track 4 | Crystal Peak C | Advancing Residential and Multifamily ZNE Markets - Affordable ZNE Residences - Utilities and policymakers are beginning to focus attention on how to integrate the increasing population of ZNE buildings and the potential benefit to the energy system beyond the boundaries of the building site. ZNE building owners and developers are also becoming increasingly aware of the shifting boundaries and interconnection of their buildings to the utility grid. This session will examine these two perspectives in depth, and the evolving relationship between them. It will also explore the challenges utilities face in preparing for high penetration of ZNE buildings, which imply an increasing mix of DER (distributed energy resources, including solar, energy efficiency, demand response, storage and even electric vehicles) in the future and the building owners' adoption of them.

Moderator: Sean Armstrong | Partner and Project Manager, Redwood Energy

- ♦ **Martha Campbell** | Senior Associate, Rocky Mountain Institute
- ♦ **Alison Donovan** | Senior Consultant, Vermont Energy Investment Corporation
- ♦ **Karla Butterfield** | Senior Sustainability Consultant, Steven Winter & Associates

Breakout Track 5 | Crystal Peak A | Integrating ZNE Buildings and the Electric Grid - Exploring the Edge of Utility Grid and ZNE - Utilities and

U.S. utilities and policymakers are beginning to focus attention on how to integrate the increasing population of ZNE buildings and the potential benefit to the energy system beyond the boundaries of the building site. ZNE building owners and developers are also becoming increasingly aware of the shifting boundaries and interconnection of their buildings to the utility grid. This session will examine these two perspectives in depth, and the evolving relationship between them. It will also explore the challenges utilities face in preparing for high penetration of ZNE buildings, which imply an increasing mix of DER (distributed energy resources, including solar, energy efficiency, demand response, storage and even electric vehicles) in the future and the building owners' adoption of them.



Moderator: Smita Gupta | Principal Energy Consultant, Itron

- ♦ **Frank Greb** | President and CEO, Seventhwave
- ♦ **Jean Ascoli** | Sr. Energy Efficiency Program Manager, ComEd
- ♦ **Derek Jones** | Associate Director, Navigant Consulting
- ♦ **Danielle Vitoff** | Managing Consultant, Navigant Consulting

Bonus Breakout: The Owner and Developer Perspective

Risks and Rewards in the ZNE Marketplace - What value is derived to owners and developers from a zero net energy building? This session will explore and understand the developer and owner perspectives on investor value of zero and take a close look at income, cost, and risk. Panelists will present and discuss specific projects from a financial and business perspective, including design/construction targets and actual outcomes.



Moderator: Peter Rumsey | Founder and CEO, Point Energy Innovations

- ♦ **Brad Jacobson** | Associate Principal, EHDD
- ♦ **Andy Bush** | Principal, Morgan Creek Ventures
- ♦ **Jim Gaither** | Castle Wells Company
- ♦ **Scott Jacobs** | CEO, Landbank

Noon – 1:30 PM

Lunch with Ali Zaidi | White House Office of Management and Budget Associate Director for Natural Resources, Energy and Science

1:30 – 3 PM

Getting to Zero: Deeper Dive Breakout Sessions

Breakout Track 1 | Capitol Peak A | Designing and Delivering on ZNE Projects - Understanding the Costs and Procurement Challenges and Opportunities of ZNE

“What does it cost?” is one of the first question asked when discussing ZNE buildings. But hard numbers about incremental costs are surprisingly hard to find. This session will tap experts who have looked in-depth at the financial case for ZNE offering insights to developers, builders, designers, engineers, building owners, and investors wanting to understand the financial prudence of ZNE projects.

Moderator: Dan Burgoyne | Sustainability Manager, State of California DGS

- ♦ **Bill Maclay** | Author, *The New Net Zero*; Principa, Maclay Architects
- ♦ **Thomas Kaufman** | Corporate Real Estate Manager, United Therapeutics Corporation
- ♦ **Edward Dean, FAIA** | Principal, Berheim + Dean

Breakout Track 2 | Crystal Peak B | Driving ZNE to Scale Through Policy, Codes and Programs - Energy Code Pathways to ZNE

Energy codes have long been the legal check for industry laggards, but today code pathways to ZNE represent the leading edge of policymaking. Today, local jurisdictions are employing stretch codes, roadmaps to zero, outcome-based compliance and other innovative code approaches to great effect. This session will examine how some cities and states are using energy codes to move the bar ever higher for building energy performance.

Moderator: Ryan Colker | Director of the Consultative Council/Presidential Advisor, National Institute for Building Services

- ♦ **Kendra Tupper** | Energy Services Manager, City of Boulder
- ♦ **Mike Fowler** | Architect, Mithun
- ♦ **Roger Hedrick** | Principal Engineer, NORESKO
- ♦ **Heather Larson** | Alameda County Waste Management Authority (StopWaste)

Breakout Track 3 | Capitol Peak B | Operating at Zero and Delivering Value ZNE Value and Financing

Many claim that the next-generation of ZNE buildings will do far more than merely save on operating and energy costs and offer non-energy benefits such as improved occupant comfort, increased productivity and better leasing value. This session will look at the ways buildings and their resulting benefits are assessed as well as options for financing including ESPCs and PACE to overcome capital cost hurdles.

Moderator: Cara Carmichael | Manager, Buildings Practice, Rocky Mountain Institute

- ♦ **Jeremy Attema** | Real Estate Strategy Consultant, stok
- ♦ **Steve Melink** | Founder & CEO, Melink Corporation
- ♦ **Joshua Kagan** | Senior Director, Business Development, CleanFund Commercial PACE Capital Inc.

Breakout Track 4 | Crystal Peak C | Advancing Residential and Multifamily ZNE Markets - ZNE Residential Driving to the Tipping Point - Are ZNE residences at an inflection point on the growth curve that will bring this market to the tipping point? This track will examine the current state of the ZNE residential market including the business and finance perspectives of leading market actors and a look at how on-site solar changes the cost-effectiveness equation.

Moderator: Sam Rashkin | Chief Architect, Building Technologies Office, U.S. Department of Energy

- ♦ **Gene Myers** | CEO, Thrive Home Builders
- ♦ **Brandon De Young** | Vice President of Operations, DeYoung Properties
- ♦ **Alea German** | Senior Engineer, Davis Energy Group

Breakout Track 5 | Crystal Peak A | Integrating ZNE Buildings and the Electric Grid - Energy Storage as a Grid Asset - The economics of distributed solar are at risk as the industry continues its unprecedented growth. The value deflation effect, which reduces the value of solar to the grid as more solar assets go online, could limit the growth of distributed solar and add to the disparity in electricity pricing between peak and off-peak hours. This session will explore the role that storage can play in minimizing the impact of distributed solar and even providing higher value grid services.

Moderator: James Newcomb | Managing Director, Rocky Mountain Institute

- ♦ **Mark MacCracken** | CEO, CALMAC
- ♦ **Ankush Halbe** | Director of Technology, M + W Group
- ♦ **Valery Miftakhov** | CEO, eMotorWerks

Bonus Breakout | Grays Peak B | The City Perspective
Zero Net Carbon Strategies for Cities - A number of cities are taking bold steps to transform the way urban buildings use energy through the Urban Zero Net Carbon Buildings Project. This learning lab-style session will share how this program works to align model energy codes and programs to a zero net energy target and establish market financing to achieve a common carbon reduction goal. Presenters at this session will demonstrate how cities can leverage project tools and information to drive more rapid adoption.

Moderator: Mark Frankel | Technical Director, New Buildings Institute

- ♦ **Andrew Lee** | Zero Cities Project Manager, Architecture 2030
- ♦ **Amy Frykman** | Vice President, Resource Media
- ♦ **Peter Pirnejad** | Development Services Director, City of Palo Alto

Bonus Breakout | Grays Peak A | The Utility Perspective

ZNE and the Utility' Role - From early design to construction and through post-construction phases, utility and public benefits programs are providing the foundational technical and financial support that is enabling ZNE projects. This not-to-be-missed session will feature what we're learning from leading programs in Oregon, California, Vermont and New York State in both residential and commercial markets.

Moderator: Peter Turnbull | Principal, Commercial Buildings and Zero Net Energy Program Manager, PG&E

- ♦ **Becky Walker** | Director, CLEAResult
- ♦ **Sonia Punjabi** | Principal Consultant, DNV GL-Energy
- ♦ **Nick Thiltgen** | Energy Consultant, Vermont Energy Investment Corporation
- ♦ **Nick Collins** | Senior Engineer, ERS

3 – 3:30 PM Exhibitor Showcase + Networking Break

3:30 – 5:30 PM ZEDx + Case Study Jam Session | Capitol Peak A

Be prepared! This lively session will cover a lot of information in a limited amount of time. Presenters of ZEDx (Zero Energy Developments) talks and quintessential case studies will share the latest in ZNE news and projects. The rapid surfacing of ideas will feed the conversation where you can add your own perspectives through a group dialog and polling on key solutions, policy and market subjects.

nationalgrid
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Facilitator: Cathy Higgins | Research Director, New Buildings Institute

ZEDx Presenters:

- ♦ **Megan Gunther** | Mechanical Engineer, Affiliated Engineers,
- ♦ **Neil Bulger** | Principal, Building Performance Team, Integral Group
- ♦ **Kenner Kingston** | President, Architectural Nexus
- ♦ **Brian Fiegen** | Systems and Applications Leader, Trane

Case Study Jam Presenters:

- ♦ **Brett Moss** | Training Director, Net Zero Plus Electrical Training Institute
- ♦ **Vedran Skopac** | Architect, HKA, Manasc Isaac
- ♦ **Todd Berry** | Operations Manager, Denver Beck Group

5:30 – 7 PM Welcoming Night Reception + Exhibitor Showcase

Friday, October 14, 2016

7:30 – 8:15 AM Exhibitor Showcase + Breakfast Buffet

8:30 – 10 AM Getting to Zero: Deeper Dive Breakout Sessions (Part 3)

Breakout Track 1 | Capitol Peak A | Designing and Delivering on ZNE

Projects - Planning for Districts and Urban Environments - Campuses and districts are a growing trend in the ZNE marketplace. This session will examine the opportunities offered by large-scale developments including real-world examples from projects in Pittsburgh and Denver. Challenges presented by dense, urban environments will be spotlighted with analysis and recommendations for siting renewables or, in cases of limited rooftop space, prioritizing off-site renewable energy options for achieving ZNE.

Moderator: Ken Sandler | Sustainability & Green Building Advisor, Office of Federal High Performance Green Buildings, US General Services Administration

- ♦ **Sandra Mendler** | Principal, Mithun
- ♦ **Eric Shafran** | Portfolio Integration Manager, Office of the National Western Center, City and County of Denver
- ♦ **Charles Eley** | Consulting Architect and Engineer, Eley and Associates

Breakout Track 2 | Crystal Peak B | Driving ZNE to Scale through Policy, Codes and Programs - Focusing on States and Regions

- States and regions across North America are eyeing effective policy drivers to create ZNE projects in both public and private sectors. Building energy codes, financing mechanisms, utility regulation, resiliency planning and other aspects are all options for action planning. This session will focus on progress in New England and British Columbia as panelists and attendees consider a viable policy pathway for zero energy buildings and homes.

- ♦ **Moderator: Jim Edelson** | Director of Codes and Policy, New Buildings Institute
- ♦ **John Balfe** | High Performance Buildings Associate, Northeast Energy Efficiency Partnerships (NEEP)
- ♦ **Fran Boucher** | Senior Engineer, New Products and Services, National Grid
- ♦ **Tom-Pierre Frappé-Sénéclauze** | Senior Advisor, Pembina Institute

Breakout Track 3 | Capitol Peak B | Operating at Zero and Delivering Value

Making the Business Case and Changing Culture - Beyond the design, construction and operational considerations of ZNE, there is an aspect of culture and attitudes that is inherent in successful projects. The story of this session is one of changing organization-wide mindset that takes ZNE from a cutting edge demonstration project to a company directive and catalyst for collaboration that engages a range of stakeholders.

Moderator: Jim Crockett | Construction Business Media, Publisher of Architectural Products, Net Zero Buildings and Architectural SSL Magazines

- ♦ **Bill McTague** | Executive Director of Resource Planning and Information Technology, UCSB Student Affairs
- ♦ **Nelson Scott Smith** | Principal, Creative Director, Artichoke Design Company
- ♦ **Andrew Riley** | University of California Santa Barbara, Office of the Vice-Chancellor for Student Affairs

- ♦ **Anica Landreneau** | Global Director of Sustainable Design, HOK
- ♦ **Julia Raish** | Division Leader, Paladino and Company

Breakout Track 4 | Crystal Peak C | Advancing Residential and Multifamily ZNE Markets - ZNE for Multifamily Residences - In a hot multifamily market, how do you build small, efficient dwelling units that target energy and climate goals with today's means, methods and market prices? Hear about multifamily developments targeting ZNE performance and what strategies including integrative design, active/passive systems, on-site energy generation, occupant controls, and feedback mechanisms are getting results.

Moderator: Ann Edminster | Founder and Managing Principal, Design Avenues

- ♦ **Joe Giampietro** | Principal, NK Architects
- ♦ **Cody Lodi** | Associate Designer, Weber Thompson
- ♦ **Sue McFaddin** | Commissioner, Fort Collins Housing Authority

Breakout Track 5 | Crystal Peak A | Integrating ZNE Buildings and the Electric Grid - Thinking Bigger to Achieve Zero Net Energy - Considering energy at the district scale enables a system that operates more efficiently than the sum of its parts. A district can uniquely harness building energy efficiency, thermal energy systems, energy storage, and renewable energy generation more efficiently and cost-effectively than individual buildings can. This session will spotlight three innovative projects that leverage the value of a larger development to drive more effective and holistic solutions. Speakers and audience members will engage in discussions that define the technical and business advantages inherent in working toward net-zero energy districts.

Moderator: Brendan Owens | Chief of Engineering, USGBC

- ♦ **Tom Marseille** | Senior Vice President/Director of Sustainability Building Systems, WSP Brinkerhoff
- ♦ **Jeff Sloan** | Design Manager, McKinstry Construction
- ♦ **Michael Hess** | Vice President for Smart & Sustainable Buildings, Panasonic
- ♦ **Matt Jungclaus** | Senior Associate, Rocky Mountain Institute

Bonus Breakout | Grays Peak A | The Operator's Perspective Gaining Control of Building Operations - Optimizing sophisticated control systems requires new roles for designers, owners, operators and occupants, but operators in particular are now critical to ZNE success. During this session, industry leaders will share details of user experiences to uncover how monitoring and control technologies are helping to achieve and maintain performance. We will look at an iconic example of controls in action and hear about global trends in building controls.

Moderator: Mark Menzer | Director of Public Affairs, Dafoss

- ♦ **Ron Zimmer** | President and CEO, CABA
- ♦ **Robert Welch** | Strategic Energy Solutions and Development, Schneider Electric

Bonus Breakout | Grays Peak B | The California Perspective

Breakthrough ZNE to Scale: The California Challenge Now - California's new ZNE policies, including 100% New Construction and 50% Existing Buildings to ZNE by 2030 are bold, for sure. But how will we transform 50% of our existing non-residential buildings, particularly privately-owned commercial buildings, to zero net energy in less than 15 years? Who's job is it and what might your role be in this challenge? In this innovative "pop-up think tank" session, participants will be given the opportunity to break out of silos, and come together to co-create real world solutions to SCALE, to meet the ZNE challenge for all California building stock by 2030.

Moderator: Alice Sung | Principal, Greenbank Associates

- ♦ **Andrew McAllister** | Commissioner, California Energy Commission
- ♦ **Daniel Burgoyne** | Sustainability Manager, California Department of General Services

10 – 10:20 AM Last Chance Exhibitor Showcase + Networking Break

10:20 AM - Noon Closing Plenary: The Last Word from Policy and Business Leaders | Capitol Peak A | *Effective Policies to Drive ZNE to the Tipping Point* - Statewide policies that favor ZNE are driving projects, growing the corps of design teams capable of creating these exemplary buildings as well as owners who are demanding the high value ZNE can provide. Our panel of leading policymakers who are creating a new vision for the future of the built environment will explain the critical role ZNE policy plays in providing long-term perspective to regulators and markets and examine whether ZNE policy has the political support necessary to reach the essential tipping point.

Moderator: David Terry | Executive Director, National Association of State Energy Officials

- ♦ **Andrew McAllister** | Commissioner, California Energy Commission
- ♦ **Patrick O'Shei** | Director of Market Development, NYSEERDA

Cost + Value: Making the ZNE Investment - Investment decisions are driven by cost and value determinations involving many variables and are still being understood for ZNE buildings. With a close look at revenue, cost, and risk, our panel will offer financial and business perspectives on how ZNE projects can maximize energy savings and worker productivity, use data and analytics to control smarter buildings optimizing outcomes, and how the ultra-efficiency proposition translates into higher property values.

Moderator: Dr. Chris Pyke | Chief Operating Officer, Global Real Estate Sustainability Benchmark (GRESB)

- ♦ **Kevin Kampschroer** | Chief Sustainability Officer & Director, Office of Federal High-Performance Green Buildings, US General Services Administration
- ♦ **Darlene Pope** | Sr. Vice President, Energy and Sustainability Services, Jones Lang LaSalle (JLL)

Noon - 12:30 PM Event Wrap Up: Take & Shake up the World

Workshops | Wednesday, October 12

Check the Registration Desk for availability.

10:30 AM – 3 PM Zeroing in on Schools: Transforming new and existing K-12 buildings to zero energy - Capitol Peak A

Schools are leading in the count of zero energy buildings (ZEB) with over 100 verified and emerging educational buildings across the country. These buildings save money on energy expenses that can be put back into the classroom and offer students and teachers healthy and productive learning spaces. Led by the Department of Energy, this four-hour workshop will delve into those costs considerations as well as the technical approaches and policy drivers that are transforming K-12 schools market. Lunch is provided, separate registration is required.

Workshop Sponsor:  U.S. DEPARTMENT OF ENERGY

1 – 5 PM More than Zero: Building the value of zero net energy to the grid Capitol Peak B

In this four-hour workshop, attendees will learn about the services that net-zero energy buildings can provide to electric grid and the values that these services can provide to owners, electric utilities, ISOs, RTOs and other key electric grid players. The session will begin with presentations and a panel session featuring key experts, who will dive into the current state of the ZEB-grid interface and present several case studies illustrating key issues. Workshop participants will work in facilitated breakout groups to identify the barriers to zero energy buildings realizing their true value on the grid. Each breakout group will develop a path forward on at least one key issue and report to the full group.

Workshop Sponsor:  ROCKY MOUNTAIN INSTITUTE

Zero and Exemplary Building Tours Wednesday, October 12

Colorado boasts a number of model ZNE and ultra-efficient building projects that we are thrilled to tour as part of the 2016 Forum. Times of the tours vary and pre-registration is required as space is limited. **Check at the registration desk for availability.**

Descriptions can be found at www.gettingtozeroforum.org/tours.

Noon – 5 PM Revive Residential Properties and Powerhouse Energy Campus, Fort Collins

Getting there: Meet in the Grand Hyatt Hotel lobby at 12 noon to catch the bus to Fort Collins. We will return by 5 p.m.

1 – 5 PM

Panasonic Enterprise Solutions Division Headquarters

Getting there: We'll meet at the lobby of the Grand Hyatt at 1 p.m. and make our way to Union Station. From there, we will travel by train to Pena Station for the tour and will return by 5 p.m.

1:30 – 4 PM

Byron Rogers Federal Building & U.S. Courthouse, Denver, CO

Getting there: Meet in Crystal Peak A (38th floor) at 1:30 p.m. for a brief discussion on the Byron Rogers Federal Office Building development and walk to the Courthouse (approximately five blocks). We will return by 4 p.m.

1:30 – 4:30 PM

National Renewable Energy Lab (NREL), Golden, CO - SOLD OUT

Getting there: Meet in the Grand Hyatt Hotel lobby at 1:30 p.m. and shuttle to NREL. We will return by 5 p.m.

3:15 – 5:30 PM

Broomfield Heights Middle School, Broomfield, CO

Getting there: Meet in the Grand Hyatt Hotel lobby at 3:15 p.m. and bus to the school. We will return by 5:30 p.m.

“At PG&E, we're proud to be working with partners in the government, non-profit and business sectors to spread ZNE development across California.”

Vincent Davis

Senior Director, Energy Efficiency



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CAEnergyEfficiencyModel.com

Eat

Nearby recommended restaurants are listed below. If you wish to dine with us, please see the Registration Desk.

The Corner Office | 1401 Curtis Street, Denver | 303.825.6500

Comfort classics, global cocktails. 12 min walk from conference venue.

Katie Mullen's Irish Restaurant & Pub | 1550 Court Place, Denver | 303.300.9883

Irish Classics. 8 min walk from conference venue.

Wynkoop Brewing Company | 1634 18th St., Denver | 303.297.2700

Colorado's first brewpub offers craft beers and New American pub grub in a pool hall/bar setting. 16 min walk from conference venue.

Vesta Dipping Grille | 1822 Blake St., Denver | 303.296.1970

Creative American dishes coupled with dipping sauces in a hip space illuminated by spiral lights. 14 min walk from conference venue.

Travel

Getting around Denver

Near to the Grand Hyatt Denver, which is located at 1750 Welton St in downtown Denver, National Forum attendees can use several modes of transportation for getting around the area.

- **16th Street Shuttle** – Runs throughout the central business and entertainment district of downtown Denver
- **Light Rail Service/RTD** – Stops at most corners in the city, including Invesco Field, Pepsi Center/Six Flags/Elitch Gardens, Union Station – Lower downtown (LODO)/Coors Field/16th Street Mall.
- **Amtrak** – Union Station is approximately 11 blocks from the hotel.
- **Union Station** is accessible via 16th Street Shuttle – Shuttle stops 1 block from Grand Hyatt Denver.
- **Denver Airport Rail** – Travelers can now use A Line, the new rail service from Denver International Airport to LoDo's (lower downtown) Union Station and back, courtesy of Regional Transportation District (RTD). The cost each way is \$9 per person. The Denver airport rail takes approximately 37 minutes. A Line service runs from 3:30AM to 1:30AM daily. Frequency is every 15 minutes from 5:00 a.m. - 7:00 p.m. and every 30 minutes all other times.

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