

**DRAFT - schedule changes weekly**

**PANEL: 10 - Net Zero, Net Positive**

Day	SESSIONS	LEAD AUTHOR/ORGANIZATION	TITLE
Mon 8/22	Session 1 8:30 am - 10:00 am What are They?	Kent Peterson, P2S Engineering, Inc.	A Common Definition for Zero Energy Buildings
		Paul Torcellini, National Renewable Energy Laboratory	Analysis of Different Methods of Computing Source Energy
		Abhijeet Pande, TRC Companies, Inc.	So You Say You have Built a ZNE Building, Prove It!
	Session 2 10:30 am - 12:00 pm Feds & State ZEB Programs	Nick Jones, Eversource Energy	Zero Net Energy: Available and Scalable
		Richard Faesy, Energy Futures Group	Moving Vermont Existing Homes to Net Zero Energy through a Comprehensive Approach
		Solome Girma, U.S. Department of Energy	Driving Market Adoption of Zero Energy Buildings
Tues 8/23	Session 1 8:30 am - 10:00 am Residential Case Studies	Bethany Sparn, National Renewable Energy Laboratory	Case Study on Long-Term Performance of Net-Zero Energy Home
		Nicholas Collins, ERS	Measured Performance of Net Zero Energy Homes in NY State
		Dave Chasar, Florida Solar Energy Center	From Energy Guzzler to Near Zero Energy Home: Lessons from the Phased Deep Retrofit Project
	Session 2 10:30 am - 12:00 pm Non-Residential Case Studies	Jim Maskrey, University of Hawaii	Positively Net Zero: Case Study of Performance Simulation and Hitting the Targets/To Z or Not to Z: Case Study Comparing Energy and Comfort in 4 ZEB and 2
		Robert Hutchinson, Rocky Mountain Institute	How to Buy a Netzero Office
		Signo Uddenberg, MKThink	ZEB vs. Comfort (Utilization)? A Holistic Look at High-Performance

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Wed 8/24	Session 1 8:30 am - 10:00 am Campus Multi-Buildings	Ming Hu, The American Institute of Architects	Net Positive Design and Alternative Energy
		Tory Clark, Energy + Environmental Economics	ZNE in the Real World: Performance Measurements in Southern California
		Bievenido Clarin, Electric Power Research Institute	Establishing Feasibility of ZNE Residential at Scale: Learnings from California's First ZNE Neighborhood
	Session 2 10:30 am - 12:00 pm City Districts	Marjorie Schott, National Renewable Energy Laboratory	From Zero Energy Buildings to Zero Energy Districts
		Rebecca Zarin Pass, Lawrence Berkeley National Laboratory	A Tale of Three District Energy Systems
		Betty Seto, DNV GL	Zero Net Energy Communities: Three Cities Leading the Way
Thurs 8/25	Session 1 8:30 am - 10:00 am Technology and Metrics	Nelson Brito, Universidade de Coimbra	From the XIVth to the XXIst Century: Upgrading Traditional Knowledge to Reach Net Zero Goals, and Timeless Comfort
		Alexi Miller, New Buildings Institute	Zero Net Energy Building Controls: Characteristics, Energy Impacts, and Lessons
		Marshall Hunt, PG&E	Zero Net–Balancing Energy Efficiency and Renewable Generation
	Session 2 10:30 am - 12:00 pm Gas and Electric	Jeff Horn, Sempra Energy	A Commercial Near ZNE Facility with Natural Gas CHP
		Yenshiun Shiau, Sempra Energy	ZNE Simulation Study: Homes with Mixed Fuel vs. Electric Only
		Meg Waltner, Natural Resources Defense Council	Does Zero Net Energy Mean Zero Net Carbon? Reevaluating California's Time-Dependent Valuation Metric as the State Moves toward a Net Zero Code
Fri 8/26	Session 1 8:30 am - 10:00 am Design Process	Lizzie Adams, PAE Engineers	Occupant-Centered Design: Changing How We Design Health and Comfort Systems in Low-Load Buildings
		Carrie Brown, Resource Refocus LLC	Measured Zero Net Energy Performance: Results, Lessons, and Surprises
		Shanti Pless, National Renewable Energy Laboratory	Technical Feasibility for Zero Energy K-12 Schools
	Session 2 10:30 am - 12:00 pm Marketplace and Barriers	Stephanie Berkland, TRC Companies, Inc.	What More Can California Do to Achieve the 2020 Residential ZNE Goals? We Asked the Market...
		Margaret Pigman, Resource Refocus LLC	Lessons Learned for a Zero Net Energy Production Builder Pilot
		Ram Narayanamurthy, Electric Power Research Institute	Grid Integration of Zero Net Energy Communities

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<b>ALTERNATES</b>		Imran Sheikh, Energy and Resources Group	Implications of Decarbonized Residential Space and Water Heating in California
		Christopher Meek, University of Washington	Metered Energy Efficiency Transaction Structure in Net-Zero New Construction: Pay-For-Performance at the Bullitt Center in Seattle, WA
		Karl Johnson, CA Institute for Energy and Environment	Direct Current as an Integrating Platform for ZNE Buildings with EVs and Storage: DC Direct Systems - A Bridge to Low Carbon Future???
		Sophia Hartkopf, TRC Energy Services	A Codes and Standards Path to Achieving Zero Net Energy for Low-Rise Multifamily Buildings
		Tania Ullah, U.S. Department of Commerce	Energy and Indoor Air Quality Benchmarking of the NIST Net-Zero Energy Residential Test Facility (NZERTF)
		Celia King-Scott, DNV GL	Measuring up to Net Zero: The Status of New Construction Programs and How They Can Further Net Zero Energy in the Commercial Sector
		Ann Edminster, Design Avenues	Zero Energy Homes: Seeing is Believing
		Wei Feng, Lawrence Berkeley National Laboratory	Impact Analysis of Developing Net Zero energy Buildings in China