

CONFERENCE SCHEDULE *as of October 3, 2022*

Tuesday, November 1

The State of Efficiency in Greenhouse & Indoor Farming

9:00am – 9:40am

Beacon Ballroom

Welcome Remarks

Derek Smith, Executive Director, Resource Innovation Institute

Rooted in Data: Indoor and Greenhouse Energy and Water Use Data and Trends

Ground into an actual data-driven conversation. Hear the latest, up-to-the-minute information about indoor and greenhouse uses of energy and water across several crops and climate zones. This session will present infographics from actual farm utility bills, controls systems and delivered fuels, including those gathered within the USDA project titled, Data-Driven Market Transformation for Efficient Controlled Environment Agriculture. Find out how technologies and grower practices are driving energy and water efficiency. Understand how resource usage in indoor and greenhouse farming compares to other farming and industrial sectors.

Moderated by Rob Eddy, Technical Director, Resource Innovation Institute

- Carmen Azzaretti, Project Engineer, Resource Innovation Institute
- Mike Zartarian, Owner, Electrical / Horticultural Design Engineer, Zartarian Engineering

9:45am – 10:30am

Beacon Ballroom

Keynote: Achieving a Resilient Agricultural Future through Translating CEA to Regional Needs

Introduced by Jan Westra, Strategic Business Developer, Priva

- Dr. Chieri Kubota, Professor - CEA, The Ohio State University

10:30am - 11:00am

Coffee Break in Exhibits Area

11:00am – 11:45am

Beacon Ballroom

Executive Roundtable: The 5-year Vision for Innovation and Sustainability in Indoor and Greenhouse Farming

How will prominent actors in the value chain support the vision of CEA as a key contributor to agricultural resilience? How will modern farms continue to evolve to achieve higher levels of market access? What will public investments in energy, climate, water and food security mean for CEA? Join global category leaders as they share what's in their minds related to innovation on the horizon that will lead to lasting market transformation.

Moderated by Derek Smith, Executive Director, Resource Innovation Institute, and Thomas Zoellner, Secretary-General, FarmTech Society

- Brian Herrington, VP-Govt. Relations, ScottsMiracle-Gro
- Michele Hix, VP-Strategic Customers, Schneider Electric
- Bram Lansink, Global Marketing & Strategy Director, Signify Netherlands B.V.

- Nate Storey, Co-Founder & Chief Science Officer, Plenty

11:50am – 12:35pm

Beacon Ballroom

Redirecting Supply Chain Shortfalls: Repurposing Construction Lead Times to Enable Integrated Design for Energy Management

Supply chain challenges have beleaguered a range of construction sectors. In CEA, the longer lead times have, in some cases, translated to value trade-offs. Whereas CEA projects are usually under intense pressure to get into production, recent construction delays have opened up time for conversations among construction partners about how to improve the functionality of the structure as it is built. Parallel silos have converged into collaborative design teams focused on the customer's operational efficiency.

Moderated by Shanita Penny, Founder & CEO, Budding Solutions

- Travis Graham, International Account Manager, Schneider Electric
- Brian Anderson, Partner, Anderson Porter Design
- Patrick Hidder, Principal, ARCO/Murray
- Chris Uhlig, CEO, Ceres Greenhouses

12:35pm - 1:35pm

Lunch in Exhibits Area

1:35pm – 2:20pm

Beacon Ballroom

Research Roundtable: Energy Management Perspectives for CEA

Energy management and power optimization within CEA structures has taken on a larger role as these commercial operations continued to expand in the marketplace. Managing the energy needs for the lighting, irrigation and HVAC and linking these three systems to understand the energy flow, mass flow and data collection required to manage these systems. As a highlighted challenge is developing HVAC that can provide humidity control while reducing the power required is a future challenge that needs to be address by all CEA production systems.

Moderated by Dr. Mark Lefsrud, Associate Professor, McGill University

- Dr. Murat Kacira, Professor and Director, University of Arizona Controlled Environment Agriculture Center
- Keith Coursin, President, Desert Aire
- Dr. Nadia Sabeh, President, Dr. Greenhouse

2:25pm – 3:10pm

Beacon Ballroom

Strategic Energy Management: An Innovative Approach to Continuous Energy Improvement

Established over a decade ago, strategic energy management (SEM) is an energy-efficiency program model that yields persistent, whole-facility energy savings. This panel brings together representatives from the federal government, the utility sector, and manufacturing to share their perspectives on SEM and how it can be applied to the growing CEA industry.

Moderated by Rory Schmick, Senior Technical Advisor, U.S. Dept. of Energy, Lawrence Berkeley National Laboratory

- Derek Okada, Senior Manager, Business, Public & Finance EE Programs, Southern California Edison
- Richard Hart, Strategic Energy Management Program Manager, Cascade Energy

2:25pm – 3:10pm
Regency Ballroom F

So You Want to Claim Carbon Reduction from Renewables? Opportunities and Challenges to GHG Reductions through Energy Management

- Kip Pheil, National Energy Specialist, USDA-Natural Resources Conservation Service
- Tim Baye, Professor, Business Development/Energy Finance, State Energy Specialist, University of Wisconsin-Madison Extension

3:10pm - 3:40pm
Coffee Break in Exhibits Area

3:40pm – 4:25pm
Beacon Ballroom

Regional Policy & Program Spotlights

Hear from public and private sector leaders how they are shaping unique regional approaches to advancing efficiency among their regional producer and value chain networks as a means to strengthen their local economies.

Moderated by Djavid Abraham, Agritecture

- Cannabis Resource Optimization Program (CROP): Michael Turner, Colorado Energy Office
- AppLit: Bruno D'Amico, GE Current, and Chris Higgins, Hort Americas
- Agriculture Energy Efficiency Rebate Program: Michael Roth, Pennsylvania Dept. of Agriculture
- Glens Falls Urban Agriculture Pilot: Tinia Pina, ReNuble

4:30pm – 5:15pm
Beacon Ballroom

Keynote Announcement Coming Soon

5:15pm - 7:00pm
Evening Reception - Poolside

**Wednesday, November 2
Public & Private Solutions Toward Resilience**

7:30am - 8:30am
Breakfast in Exhibits Area

8:30am – 9:15am
Beacon Ballroom

Keynote: The Role of Energy Codes in Combating Climate Change; Title 24 as a Blueprint for Resilient Agriculture

Introduced by Jennifer Amann, Senior Fellow, ACEEE

- Andrew McAllister, Commissioner, CA Energy Commission

The Indoor Farm of the Future

9:20am – 10:05am

Beacon Ballroom

To achieve its promising place in the ecosystem of the global agricultural network, indoor farming will need to show improvements in energy strategies, economics, and scale. In addition, indoor agriculture has the opportunity to contribute to community resilience in unprecedented ways. How will indoor farms evolve, how will these production facilities be valued, and what can be learned from other sectors like data centers and big tech?

Moderated by Elyse Greenberg, Director of Marketing & Membership, Resource Innovation Institute

- Rick Drescher, Leader of Critical Facilities Group & Corporate Managing Director, Savills
- Robert Chase IV, Community Engagement Manager, Plenty
- Ed Dow, CEO, Solar Cannabis

10:05am - 10:30am

Coffee Break in Exhibits Area

10:30am – 11:15am

Beacon Ballroom

The Greenhouse of the Future

Ancient Romans devised the first greenhouse prototype using sheets of mica with dung heating systems to grow a year-round supply of cucumbers. As European powers expanded their trading routes, glasshouses - often called orangeries because they were designed to grow citrus fruits from tropical climates - began to pop up across Western Europe. How will greenhouses evolve to grow a range of crops in extreme climate conditions, adapt to energy generation and efficiency challenges, conserve water, and reduce food waste?

Moderated by Chris Higgins, President and General Manager, Urban Ag News

- Andrew Horowitz, Director of Strategic Development, KUBO Greenhouses
- Andy Lee, Global Technical Knowledge Manager, Grodan
- Greenhouse producer

11:20am – 12:05pm

Beacon Ballroom

Keynote: Achieving Equitable Outcomes Via an Efficiency Workforce Strategy

Introduced by Brian Herrington, VP-Government Relations, ScottsMiracle-Gro

- Shanita Penny, Founder & CEO, Budding Solutions

12:05pm - 1:00pm

Lunch in Exhibits Area

1:00pm – 1:45pm

Beacon Ballroom

Toward Net Zero Carbon: Strategically integrating Combined Heat & Power and Renewables to Enhance Flexibility, Carbon Recapture and Power Management

Controlled Environment Agriculture is relatively energy intensive. As our society rapidly transforms to carbon neutrality, CEA must immediately become more energy efficient,

maximizing resource recapture through 'closed-loop' systems design, with what added power is needed soon being provided from climate-neutral sources. Presently, much CEA uses fossil natural gas for primary energy; however, when properly integrated through combined heat and power, can do so in an environmentally superior manner. Examples include using biogenic energy sources where practical and capturing carbon from onsite or adjacent generation and using this as a resource to accelerate plant growth. Such integration substantially reduces GHG impacts from energy use and provides both development and operating flexibility, as compared to central plant power. Planning forward, carbon neutral fuels such as biogas, biomass and optimized solar power will replace fossil fuels and these distributed resources are a natural part of integrated CEA energy systems. This panel will explore the current state of the art in CEA energy systems that minimize environmental impact and discuss direct pathways to net-zero carbon for the industry.

Moderated by David Van Holde, P.E., CEM, Director, US Dept. of Energy CHP Technical Advisory Partnerships, Washington State University, Extension Energy Program

- Guido van het Hof, President, Great Northern Hydroponics
- Dick Kramp, CEO, AB Greenhouse Power Netherlands
- Kurt Parbst, Director of Business Development, Grow Energy
- Traeger Cotton, Senior Project Manager - Distributed Energy Resources, Southern California Edison

2:00pm – 3:00pm

Beacon Ballroom

Evolving the CEA Energy Code Blueprint: 2025 Title 24, Part 6, Stakeholder Input Session

The California Energy Commission and Energy Solutions, lead authors for the Codes and Standards Enhancement (CASE) Team Report on proposed 2022 Title 24, Part 6, Controlled Environment Horticulture, will present the current 2025 California code change proposal for controlled environment horticulture and solicit feedback on measures that are in consideration for the 2025 code cycle. The presentation will cover the scope and timeline of the code cycle and provide resources to help understand and follow the various milestones of the code cycle. Don't miss this opportunity to weigh in on a template that will inform CEA energy regulations globally.

Led by:

- Thao Chau, Electrical Engineer and Indoor Agriculture Lead, California Energy Commission
- Kyle Booth, Senior Staff Engineer, Energy Solutions

TechTalk Community Breakouts: Transferring Best Practices Knowledge in Real-Time

Join members of RII's Technical Advisory Council working groups and other subject matter experts in state-of-the-market dialogues with provocative mini presentations and plenty of time for Q&A. Bring your real-time questions from the cultivation floor, the construction site, or the office!

2:00pm – 3:00pm

Regency Ballroom D

Best Practices in Water Circularity & Quality

Water is the new gold? We have all read this headline and wonder how it may apply to the CEA space. Water is an essential component of any farm and with the changing conditions, it has become even more important to consider the reuse and recycling of water. Join our panelists as they discuss best practices and new techniques in the world of water circularity. Learn about the

latest findings from the newly formed RII working group as they work to publish a Best Practices guide in 2023.

Led by Kyle Lisabeth, VP of Horticulture, Silver Bullet Water Treatment

Featuring:

- Maarten Hartong, Regional Director Americas, Priva
- Rob Sheldon, Vice President, AQUASGROUP
- Rob Eddy, Technical Director, Resource Innovation Institute

3:00pm - 3:30pm

Coffee Break in Exhibits Area

3:30pm – 4:15pm

Regency Ballroom D

Best Practices in Lighting

HPS, LED, hybrid? The type of lighting to choose is one of the major decisions a CEA grower faces in their cultivation journey. This decision sets off a chain reaction impacting choices related to facility design, HVAC and energy requirements. Join the panelists as they discuss key considerations when incorporating lighting into a CEA facility.

Led by Elyse Greenberg, Director of Marketing & Membership, Resource Innovation Institute

Featuring:

- Kasey Holland, Technical Manager (Hort & SSL), DLC
- Corinne Wilder, VP of Global Business Operations, Fluence
- Anders Peterson, Cannabis Operations Specialist, InSpire Transpiration Solutions
- James Cunningham, CEO/Co-Founder, Fog City Farms

Best Practices in Facility Design & Construction

Regency Ballroom F

Are you in the planning phase or consider a retrofit? No matter the design stage your facility is undergoing, considerations for efficient facility design is a key component of your planning. Join panelists as they discuss shortfalls and successes they have observed in the CEA space.

Led by: Bethany Reinholz, Project Manager, GDS Associates, Inc.

Featuring

- Dr. Ihor Lys, CTO, Agnetix
- Brandy Keen, Co-Founder and Senior Technical Advisor, Surna
- Troy Wicks, Director of Coatings North America/Canada, Laticrete

4:20pm – 5:05pm

Regency Ballroom D

Best Practices in Policy, Codes & Industry Standards

Policymakers and regulators face resource constraints amidst a rapidly evolving farm economy. What should they contemplate related to energy and water related disclosure requirements, codes, efficiency standards, and workforce opportunities? How can they advance resilience? Stakeholders weigh in on a range of issues sure to inform the Farm Bill, Inflation Reduction Act, state laws, and local ordinances.

Led by Mike Waite, Senior Manager, Buildings Program, ACEEE

Featuring:

- Bob Gunn, CEO, Seinergy

- Colin O'Neil, Director of Public Policy & Social Impact, Bowery Farming
- Mike Roth, Pennsylvania Dept. of Agriculture

Regency Ballroom F

Best Practices in Automation & Controls

Do you know what is happening on your farm, right now? The growing field of controls and automation has allowed farmers to access information at a moment's notice. But what can they do with this data? Join the panelists as they explore this growing field and how growers can leverage information to drive efficiencies in their farms.

Featuring:

- Joe Caro, Project Manager, ARCO/Murray
- Mikhail Sagal, President, TSRgrow LLC
- Robert Fisher, Engineering Leader & Senior Technical Advisor, Ceres Greenhouses

5:10pm – 5:55pm

Regency Ballroom D

Best Practices in Utility & Efficiency Program

Are you aware of your local utilities' efficiency programs? Do they exist in your jurisdiction? Do they consider equitable outcomes? The utility sector is realizing the benefits of efficient best practices in CEA, and the programs continue to develop across North America. Join our panelists as they discuss effective programs and tips for facilitators to implement in their jurisdictions.

Led by Lauren Morlino, Technical Manager, Evergreen Consulting Group

Featuring:

- Blake Lange, Business Development Manager for City Farming, Signify
- Evan Gutierrez, Consultant, TRC Companies, Inc.
- Josh Talbert, Senior Energy Consultant, Vermont Energy Investment Corporation (VEIC)
- Cultivator from Solar Cannabis

Regency Ballroom F

Best Practices in HVAC

Is your HVAC system maintaining the proper environment? HVAC is a key component of every CEA facility, yet it is widely misunderstood. From temperature and humidity to air quality and VPD, your system engages with all technologies in your facility. Hear from panelists as they discuss effective tips for measuring a proper system.

Led by Dr. Nadia Sabeh, President/Founder, Dr. Greenhouse

Featuring:

- Brian Kammers, Regional Sales Manager, Desert Aire LLC
- Chad Salute, Managing Director of Cultivation, Kush Alley
- Rebecca Knight, Director, Professional Technical Services, The Hawthorne Gardening Company

7:00pm

Informal Network Gathering (on your own)

Take the walking path directly from the Hyatt to Shoreline Village to meet up with your colleagues. Enjoy upscale or casual waterfront dining and a variety of pubs and bars!

Thursday, November 3

Optional Facility Tours (*pre-registration required*)

8:00am - 5:30pm

Tour A

Local Bounti & Glass House - bus departs from 1st Floor Lobby

8:15am - 2:00pm

Tour B

Plenty - bus departs from 1st Floor Lobby