

# The 2025 Summer Study on Energy Efficiency in Industry

"Industrial Competitiveness and the Evolving Energy Landscape"

# **PROGRAM**

*Updated 7.7.25* 

UNC Charlotte Marriott Hotel and Conference Center Charlotte, NC July 16-18, 2025 Welcome to ACEEE's 16<sup>th</sup> biennial Summer Study on Energy Efficiency in Industry, "Industrial Competitiveness and the Evolving Energy Landscape." The theme could not be timelier given this year's macroeconomic changes. Experts from around the globe will gather to discuss the policies, funding, operations, and technologies essential to sustaining industrial competitiveness, for individual firms and the sector at large. We will explore how partnerships are key to success, and we will compare national and state policy to identify immediate and long-term opportunities.

Immerse yourself over three days in workshops, track and informal sessions, Plenaries, and networking time. The conference will kick off with side events such as the SEM Summit and Industrial Heat Pumps Buyers Bootcamp on Wednesday, July 16. Continue Thursday and Friday with Plenaries featuring key leaders in the industrial space and four Track session options: Track 1: Grids, Pipes, and Funding; Track 2: Technology and Operations; Track 3: Bringing New Energy to Leadership; and Track 4: Collaborating through Complexity: Navigating Industrial Value Chains. You will leave the Summer Study with an expanded network and an action plan to meet your goals.

## PLANNING COMMITTEE

**CO-CHAIRS:** 

Ammi Amarnath, Electric Power Research Institute (EPRI) Evelyn Lundhild, Independent Electricity System Operator (IESO)

TRACK LEADERS:

Track 1: Grids, Pipes, and Funding

Steven Coley, TVA Baskar Vairamohan, EPRI

**Track 2: Technology and Operations** 

William Peter, Oak Ridge National Laboratory John Seryak, Go Sustainable Energy

**Track 3: Bringing New Energy to Leadership** 

Wendy Gibson, Stillwater Energy Andrew Knox, Goldfin Consulting

Track 4: Collaborating through Complexity: Navigating Industrial Value

Chains

Fiona Glasford, IESO

Andrea Marr, Cadmus Group

**ACEEE STAFF:** 

Conferences: Amelia Armstrong, Rebecca Lunetta

Program: Richard Hart, Steve Nadel, Maggie Kelley Riggins

Communications: Camron Assadi, Mary Robert Carter, Kate Doughty, Rob Kerns, Nick

Roper, Ben Somberg

Development: Alan Raymond

# **PROGRAM**

## Wednesday, July 16

11:00 am - 5:00 pm

#### Add on: SEM Summit (\$150)

The 49er

Kick off your 2025 Summer Study with the North American Strategic Energy Management (SEM) Collaborative at the ninth annual SEM Summit and second annual in-person SEM Awards! At this year's Summit, attendees will get to spend time catching up with one another, digging deeper than ever before as we move to introducing different tracks based on level of experience, and collaborating on making each other better. We will also reflect on what we have accomplished, with highlights from our working groups and announce the SEM Award winners. So, whether you are new to the work or a seasoned professional, there is something for you at the Summit.

9:00 am - 5:00 pm

### Add on: Industrial Heat Pump (IHP) Alliance Buyers Bootcamp (\$50)

Mallard Creek

by invitation only

The IHP Buyers Bootcamp is designed for industrial end-users (i.e., facility managers and sustainability engineers) looking to deepen their understanding of industrial heat pumps. This full-day interactive program will equip participants with the technical knowledge, financial tools, and strategic insights necessary to evaluate, plan, and execute successful IHP projects. From technical integration to securing financing and navigating utility considerations, attendees will leave the Bootcamp with actionable strategies to advance their IHP projects. Please reach out to hchen@aceee.org if you have any questions.

3:00 - 7:00 pm

#### **Registration opens**

Sorensen Lobby

5:00 - 7:00 pm

#### **Welcome Reception**

Dubois Plaza

Welcome: Duke Energy

Join us to officially kick-off the Industry Summer Study. Enjoy networking time and re-connecting with friends.

7:00 am - 5:00 pm

Registration

Sorensen Lobby

7:30 - 8:30 am

**Breakfast** 

Crown IV and V

8:30 – 10:00 am

**Plenary Session** 

The 49er

Welcome: Steve Nadel, Executive Director, ACEEE Introduction: Dan Brown, CEO, Cascade Energy

Moderator: Maggie Kelley Riggins, Director of Community

Solutions, ACEEE

Forging Ahead: Industrial Growth in a Changing Energy and Market Landscape

Session Topic: North Carolina is witnessing a transformative wave of industrial and manufacturing investments, reshaping the state's economic landscape while emphasizing the need for robust infrastructure and strategic foresight. This high-level panel brings together leading voices from across the industrial sector to explore the forces driving growth and the challenges that come with it. These leaders will provide insights into what it takes to build a globally competitive industrial base in a rapidly evolving environment.

The discussion will include:

- Electricity adequacy in the face of rising demand and the energy transition,
- The complexities of market transformation,
- Strategies for resilient supply chains,
- The pursuit of internal efficiency, and
- Their companies' needs for supportive policies

Panelists: Carley Goff, Southern Company

Jess Alcorn, Guidehouse Kevin Martin, CUCA TBD, Trane Technologies

10:00 - 10:30 am

**Networking Break** 

Sorensen Lobby

Crown I. II. III

sponsored by EASTMAN
Eastman Chemical Company

10:30 am - 12:00 pm

#### CONCURRENT TRACK SESSIONS 1

#### Track 1, Session 1

#### **Virtual Power Plants**

Moderator: Steven Coley, TVA

Enhancing Grid Reliability, Resilience, and Affordability: Industry Collaboration with Utilities and Governments

through Virtual Power Plants

Sun Joo Hwang, University of North Carolina at Chapel Hill

Predictive Modeling of Power Demand at Industrial Sites

for Enhanced Energy Management

Justin Ramsay, Energy 350

(presenting on behalf of Scott Jasinski, Energy 350)

Incentivizing Permanent Load Shifting

Peter Sharp, Cascade Energy

10:30 am - 12:00 pm

#### **CONCURRENT TRACK SESSIONS 1** (continued)

#### Track 2, Session 1

49er Green

## **Emerging Strategies for Global Energy Competitiveness**

Moderator: Bill Peter, Oak Ridge National Laboratory

Impacting Energy and Operational Performance through Smart Manufacturing Haresh Malkani, CESMII

Decarbonizing Industrial Operations through Load Flexibility Felipe Godinez, Olivine Inc.

Industrial Waste Reduction: Unlocking Hidden Energy Efficiency Potential in Product Supply Chains
Subodh Chaudhari, Oak Ridge National Laboratory

#### Track 3. Session 1

49er Gold

### **Training the Workforce that Leaders Need**

Moderators: Wendy Gibson, Stillwater Energy and Andrew Knox, Goldfin Consulting

Creating Energy Efficient Cultures at Colleges and Universities Using a Strategic Energy Management Program Dana Mowry, Eversource Energy

Empowering the Energy Transition: Strategies for Developing a Skilled and Resilient Workforce Barbara Stapleton, The JPI Group

Integrated Energy Management Training for Creating the Next Generation of Strategic Energy Managers Vi Rapp, Lawrence Berkeley National Laboratory

#### Track 4, Session 1

Mallard Creek

#### **Measuring and Quantifying Change**

Moderator: Ammi Amarnath, EPRI

An Allocation-based Tool for Quantifying
Facility-level Product Intensities
Nick Karki, Lawrence Berkeley National Laboratory

ISO 50100: Ensuring Fairness and a Level Playing Field for Manufacturers in Global Emissions Reporting and International Trade Peter Therkelsen, Lawrence Berkeley National Laboratory

What We Learned from Evaluating Low Carbon Electrification Projects
Peter Therkelsen, Lawrence Berkeley National Laboratory

(presenting on behalf of Markus Zeller, BC Hydro)

12:00 - 1:30 pm

# **Lunch: Scholar & Awards Recognition** with Guest Speaker

Scholar Program Introduction and Appeal: ACEEE Board Members Mark Johnson, Clemson University and Sharyn Barata, Opinion Dynamics

Champion Awards Introduction: Steve Nadel, ACEEE

Award recipients recognized.

Scholar recipients recognized.

Moderator: Ammi Amarnath, EPRI Clean Power for Industrial Customers Guest Speaker: Neva Espinoza, EPRI

1:30 - 3:00 pm

#### **CONCURRENT TRACK SESSIONS 2**

### Track 1, Session 2

#### **Industrial Heat Pumps**

Moderator: Baskar Vairamohan, EPRI

A Market in Transition: Industrial Heat Pumps in the

**United States** 

Ruth Checknoff, Renewable Thermal Collaborative

The Thermal Balancing Act: Evaluating Heat Pump Opportunities for Industries in Minnesota John Flanagan, Center for Energy and Environment

RD&D Priorities for Industrial Heat Pumps
Kashif Nawaz, Oak Ridge National Laboratory

#### Track 2, Session 2

# **Collaborative Industrial Energy Programs** and Thought Leadership

Moderator: Bill Peter, Oak Ridge National Laboratory

Accelerating Industrial Competitiveness through the DOE's Industrial Technology Validation (ITV) Program Amy Pevzner, Lawrence Berkeley National Laboratory

Successful Organizational Strategies from Better Climate Challenge Partners Blake Billings, Oak Ridge National Laboratory (presenting on behalf of John O'Neill, US DOE) Crown IV and V

Crown I, II, III

49er Green

1:30 - 3:00 pm

#### **CONCURRENT TRACK SESSIONS 2** (continued)

#### Track 3, Session 2

49er Gold

#### **Giving Leadership a Boost**

Moderators: Wendy Gibson, Stillwater Energy and Andrew Knox, Goldfin Consulting

The Role of Leadership in Implementing 50001 Ready Heidi Fuchs, Lawrence Berkeley National Laboratory

Identifying Effective Energy Audit Candidate Facilities via Novel Metrics Miles Nevills, Oak Ridge National Laboratory

#### Track 4, Session 2

Mallard Creek

### **Cross Country Collaborations and Learnings**

Moderator: Andrea Marr, Cadmus Group

Navigating Decarbonization in the Consumer Product Industry Evan Talan, Adidas

Transformative Technologies and Strategies That Can Get Us to Net Zero Josh Brugeman, Fresh Coast Climate Solutions

Bridging Silos: A Dialogue on Industrial Symbiosis for Enhanced Industrial Efficiency

Rhys Roth, Center for Sustainable Infrastructure

3:00 - 3:30 pm

### **Networking Break**

Sorensen Lobby

3:30 - 5:00 pm

#### **ACTION SESSIONS**

# Learning from Leaders in Industrial GHG Emissions Reduction

Crown I. II. III

Through the Better Climate Challenge, the U.S. Department of Energy continues to work with domestic manufacturers to set and achieve their ambitious greenhouse gas emission reduction targets. To date, twelve industrial companies have achieved their first portfolio-level emission reduction goal with the program. All have made impressive progress, though each has taken a different pathway to reach this accomplishment. In this session, partner companies will join program staff to discuss their pathways, exploring the barriers they faced along the way, the solutions employed to overcome those barriers, and where they go from here.

Moderator: Alexandra Botts, Oak Ridge National Laboratory

Panelists: Kevin Durocher, ABB, Inc.

Scott Tew, Trane Technologies Rishabh Bahel, Nestlé Purina Scott Anliker, HNI Corporation

3:30 - 5:00 pm

#### **ACTION SESSIONS** (continued)

# Bridging Silos: Industrial Symbiosis for Enhanced Industrial Efficiency

Crown IV

Industrial symbiosis is the idea of cross-industry collaboration to use waste streams and resources more efficiently. This panel brings together experts and practitioners with valuable experience with industrial symbiosis in diverse contexts. The session will explore experiences and lessons learned from industrial parks established in Denmark, and highlight relevance in the US context, including value creation, technical implementation, regulatory frameworks, and cross-sector collaboration. The discussion will dive into strategies for overcoming traditional silos and building trust among stakeholders. The panel is moderated by the Center for Sustainable Infrastructure (CSI).

Moderator: Sarah Diemar, Danish Ministry of Foreign Affairs

Panelists: Rhys Roth, Center for Sustainable Infrastructure

Christopher Sorensen, GreenLab

7:00 am – 3:30 pm Registration Sorensen Lobby

7:30 – 8:30 am Breakfast Crown Room IV

- and -

Women in Energy Efficiency Breakfast

sponsored by CLEAResult®

(Breakfasts set up as shared buffet in Crown Foyer)

Moderator: Maggie Kelley Riggins, ACEEE

Powering Progress: Women Leading the Charge in Energy Efficiency & Demand-Side Management Sarah Spencer Workman, Vice President of

Energy Efficiency, CLEAResult

8:30 – 10:00 am CONCURRENT TRACK SESSIONS 3

**Large Loads** 

Track 1, Session 3

Moderator: Baskar Vairamohan, EPRI

Data Center Energy Efficiency

Kennedy Bennett, SC Coastal Conservation League

Electricity Rate Designs for Large Loads: Evolving Practices

and Opportunities

Natalie Mims Frick, Lawrence Berkeley National Laboratory

Track 2, Session 3

49er Green

Crown Room V

Crown Ballroom I. II. III

**Industrial Process Heating** 

Moderator: John Seryak, Go Sustainable Energy

Energy Efficient and Fuel Flexible Technologies for

the Metals Industry

Sandeep Alavandi, GTI Energy

Decarbonizing California's Industry with Hydrogen:

Industrial Testing Results
Paul Glanville, GTI Energy

Decarbonizing Low Temperature Industrial Heat:

Measuring Economic Potential and Policy Mechanisms

Rawley Loken, E3

8:30 - 10:00 am

#### **CONCURRENT TRACK SESSIONS** 3 (continued)

Track 3, Session 3

49er Gold

#### Leadership to Meet Today's Challenges

Moderators: Wendy Gibson, Stillwater Energy and

Andrew Knox, Goldfin Consulting

Redefining Leadership: Driving Industrial Energy Efficiency

Kenny Porter, Michaels Energy

Energizing Change: The Synergy of Efficiency and Decarbonization for a Sustainable Tomorrow

Sharon Nolen

Leveraging Resilience Planning as an Industrial Strategic

Advantage

Julia Rotondo, Pacific Northwest National Laboratory

#### Track 4, Session 3

Mallard Creek

### **Communicating Supply Chain Value**

Moderator: Richard Hart, ACEEE

Thriving in the Carbon-aware Market: How to Account for Emissions in the Era of Carbon-centered

**Trade Policies** 

Liz Wachs, National Renewable Energy Laboratory

Counting the Carbon: Assessing the Societal Costs and Benefits of Embodied Carbon as a Net Zero Policy Derek Okada, Energy Solutions

Bridging the Gap: Collaborative Finance for Energy

Transition in Value Chains
Hemang Nerlekar, Guidehouse

10:00 - 10:30 am

### **Networking Break**

Sorensen Lobby

10:30 am - 12:00 pm

#### **CONCURRENT TRACK SESSIONS 4**

#### Track 1, Session 4

Crown Ballroom I, II, III

Industrial Energy Efficiency

Moderator: Steven Coley, TVA

Fan Efficiency Programs and the Industrial Sector; a Coordinated Effort to Effectively Transform the Market Kristen Aramthanapon, Northwest Energy Efficiency Alliance

Scaling Efficiency Projects at Industrial Sites via a Study-Based Utility Offering Mark Hamann, ComEd

Overcoming Barriers to Energy Efficiency for More
Competitive and Resilient Energy-Intensive Industries
Senthil Kumar Sundaramoorthy, Oak Ridge National Laboratory

10:30 am - 12:00 pm

#### **CONCURRENT TRACK SESSIONS** 4 (continued)

#### Track 2, Session 4

49er Green

## **Energy Potential and Trends in US Industry**

Moderator: John Seryak, Go Sustainable Energy

US Industrial Sector Combined Heat and Power:

Decarbonization Help or Hindrance?

Eric Masanet, UCSB

Shrinking Giants: How Utility Programs Can Help Data Centers Lead the Way in Energy Efficiency

Steely Cortes, Energy Trust of Oregon

Technical Potential for Electricity Generating Onsite Energy Technologies at U.S. Manufacturing Facilities Blake Billings, Oak Ridge National Laboratory

#### Track 3, Session 4

49er Gold

### Tools for Leadership in a Time of Uncertainty

Moderators: Wendy Gibson, Stillwater Energy and Andrew Knox, Goldfin Consulting

Level Up Your Delivery: Free Resources to Support SEM

Programs

Dave Hall, Energy 350

JUSTIFI: Software for Improving Performance Objectives via Energy Efficiency
Sarah Cooney, National Renewable Energy Laboratory

#### Track 4, Session 4

Mallard Creek

# One Size Does Not Fit All: Examples from Across Industry

Moderator: Andrea Marr, Cadmus Group

Advancing Energy Efficiency Adoption in U.S.

Energy-Intensive Industries: Insights from the ITAC Database

Asma Khasawneh, University of Wisconsin

Unlocking Industrial Decarbonization: One Size Does

Not Fit All

Koushik Mandlem, DNV

The US DOE's Industrial Demonstrations Program:

What's the Latest?

Archie Fraser, ACEEE

12:00 – 1:30 pm Lunch Plenary Crown IV and V

Moderator: Richard Hart, ACEEE

Energy Efficiency as the Foundation for America's Global

**Competitiveness and National Security** 

Speaker: Gene Rodrigues, Assistant Secretary of Energy,

US DOE (retired)

1:30 – 3:00 pm Shared Interest Topic Tables 49er Green, 49er Gold, Mallard

Creek, & Crown I, II, III

As you finalize your takeaways from Summer Study, you'll want to compare notes with your colleagues. These afternoon sessions provide optional "birds-of-a-feather" tables to discuss takeaways from sessions, the opportunities for collaboration, and plans for the next 12 months. These 90-minute sessions will be led by a volunteer, noted by ACEEE, and focused on action. Topics include: AI for DSM, technology deployment, financing, industrial workforce, industrial load flexibility, state policy and regulations, and future of DSM programs. New topic suggestions

are welcome!

3:00 – 3:30 pm Networking Break Sorensen Lobby

3:30 pm Conference Ends

Thanks for joining us!