



The 2023 Summer Study on Energy Efficiency in Industry

“Decarbonization – Turning Goals into Achievable Action Plans”

PROGRAM
(6.2.23 Draft)

MGM Grand Hotel • Detroit, MI
July 11 – 13, 2023

Welcome to ACEEE's 15th biennial Summer Study on Energy Efficiency in Industry, "Decarbonization – Turning Goals into Achievable Action Plans." During the conference, we will explore how to capitalize on recent progress of decarbonizing the industrial sector. What do U.S. climate goals and recent federal policy developments mean for individual companies? What strategies and technologies can companies implement to support decarbonization goals, and how can companies determine which strategies and technologies are best for them? What changes are happening at the state and regional levels? How can industry and policymakers help train and support the workforce of the future in this sector?

Immerse yourself over three days in workshops, sessions, Plenaries, and networking time. The conference will kick off with side events such as the SEM Summit and Industrial Heat Pumps (IHP) Workshop on Tuesday, July 11. Continue Wednesday and Thursday with four Panel session options (Panel 1: Energy Efficiency, Panel 2: Energy Resources, Panel 3: Material Efficiency, Panel 4: Workforce Development); Plenary sessions featuring key leaders in the industrial space; afternoon Action Sessions, and plenty of networking time during the Welcome reception sponsored by our host [DTE](#), Inclusivity in Industry mixer, as well as a Women in Energy Efficiency Breakfast. There is something for everyone at this event!

PLANNING COMMITTEE

CO-CHAIRS:

Alberta Carpenter, National Renewable Energy Laboratory
Steve Schultz, International Energy Consultants LLC

PANEL LEADERS:

Panel 1: Energy Efficiency

Peter Bassett, Energy Performance Services
Haresh Malkani, CESMII

Panel 2: Energy Resources

Ammi Amarnath, EPRI
John Seryak, Go Sustainable Energy

Panel 3: Material Efficiency

Nabil Nasr, REMADE Consortium/RTI
Yetunde Omolayo, Dow
Andre Yvon-Bessett, Dow

Panel 4: Workforce Development

Kristen Cetin, Michigan State University IAC
Sarah Crane, University of Michigan

ACEEE STAFF:

Conferences: Amelia Armstrong, Rebecca Lunetta, Lynn Pyle

Program: Neal Elliott, Jonah Eisen, Nora Efram, Andrew Hoffmeister, Anna Johnson, Steve Nadel, Pavitra Srinivasan

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

Development: Corinne Abbott, Alan Raymond

PROGRAM

Tuesday, July 11

10:00 am – 5:00 pm	Add on: Industrial Heat Pump (IHP) Workshop (\$75) The IHP Workshop's focus will include demonstrations, market transformation initiatives, and available funding to accelerate domestic manufacturing of IHP, market technical support, and plant implementation. The workshop will also include a presentation on the global IHP experience from international experts.	Salon 3
11:00 am – 5:00 pm	Add on: SEM Summit (\$175) The SEM Summit is designed to enhance SEM and decarb knowledge by addressing regional challenges while working alongside others in the SEM community. Attendees will leave with tangible and useful tools and concepts.	Salon 1
3:00 – 7:00 pm	Registration opens	Grand Ballroom Foyer
5:00 – 7:00 pm	Welcome Reception Join us to officially kick-off the Summer Study at the Welcome Reception, sponsored by the conference host DTE . Network, re-connect with friends, socialize, and even work on your golf swing in this immersive setting.	Top Golf Suites

Wednesday, July 12

7:00 am – 5:00 pm	Registration	Grand Ballroom Foyer
8:00 am – 9:00 am	Breakfast and Women in EE Breakfast <i>(starts at 7:30 am)</i> <i>(Breakfasts set up as buffet in Foyer)</i> Moderator(s): Alberta Carpenter and Elizabeth Doris, National Renewable Energy Laboratory Speaker: Penni McLean-Conner, Executive Vice President of Customer Experience and Energy Strategy, Eversource	Salons 3 & 4 Amber Room
9:00 – 10:00 am	Perspectives from Industry Plenary Panel Session Introduction: Steve Nadel, Executive Director, ACEEE Welcome: TBD, DTE Moderator: TBD Speaker(s): Patrick Bloom, VP Government Relations, Cleveland Cliffs Johnathan Holladay, VP Government Programs, Lanza Tech	Salons 1 & 2
10:00 – 10:30 am	Networking Break	Grand Ballroom Foyer
10:30 am – 12:00 pm	Concurrent Panel Sessions 1 Panel 1, Session 1 Federal, State, and Utility Policies and Tools for Industrial Decarbonization Moderator: Peter Bassett, Energy Performance Services <i>Energy Use and Carbon Emissions in U.S. Manufacturing: Analysis of Energy Supply, End Use, Loss, and Greenhouse Gas Emissions</i> Caroline Dollinger, Energetics <i>Subnational Policies for Industrial Decarbonization: How States and Utilities Can Play a Key Role</i> Andrew Hoffmeister, ACEEE <i>50001 Ready: A Proven Platform for Decarbonization</i> <i>(no paper)</i> William Miller, Lawrence Berkeley National Laboratory	Amber Room

Panel 2, Session 1
**Industrial Electrification/Decarbonization
Using Heat Pumps**

Garnet Room

Moderator: Ammi Amarnath, EPRI

*A Market Transformation Strategy for Industrial
Heat Pumps: An Opportunity to Reduce Industrial
Greenhouse Gas Emissions by ~20%*

Steve Nadel, ACEEE

*Do Heat Pumps Work for Process Heat? Yes
and Maybe!*

Melissa Stewart, VEIC

*Commercial and Industrial Decarbonization
through Waste Heat Recovery*

Baskar Vairamohan, EPRI

Panel 3, Session 1
**Materials Efficiency and Decarbonization
of the Industrial Sector**

Sapphire Room

Moderator: TBD

*This will be a panel discussion with industry
representatives.*

Narayan Ramesh, Dow

TBD, DOE

TBD, Caterpillar

TBD, Brunswick/Mercury Marine

Panel 4, Session 1
**Approaches to Energy Workforce Training
Programs**

Salon 1

Moderator: TBD

*Preparing the Next Generation of Strategic
Energy Managers (no paper)*

Rory Schmick, Lawrence Berkeley National Laboratory

*Reskilling and Upskilling for the Energy Industry:
The Role of Micro-credential Programs for
Workforce Development*

Aparajita Datta, University of Houston

*US DOE Better Plants Program's Approach to
Manufacturing Workforce Development*

Wei Guo, Oak Ridge National Laboratory

12:00 – 1:30 pm

Scholar & Awards Recognition Lunch

Salons 3 & 4

Wednesday, July 12

1:30 – 3:00 pm

Concurrent Panel Sessions 2

Panel 1, Session 2

Industrial Decarbonization Technologies

Moderator: Peter Bassett, Energy Performance Services

Industrial Technology Validation - Evaluation

Results from Electrochemical Based Water

Treatment Demonstration Projects (no paper)

Shankar Earni, Lawrence Berkeley National Laboratory

Assessment of Combined Heat and Power Systems in the Midwest's Top Manufacturing Industries

Joe Ricchiuto, MEEA

Decarbonization through Industrial Process

Efficiency (no paper)

Michael Stowe, Advanced Energy

Panel 2, Session 2

Low Carbon Resources 1

Moderator: Ammi Amarnath, EPRI

CO2 Emission Savings from Manufacturing Sector Load

Shaping (no paper)

Kelly Kissock, UC Davis Energy and Efficiency Institute

Right Onsite: Accelerating Deployment of Onsite

Clean Energy Technology in the Industrial Sector

Kyle Niemeyer, US Department of Energy

Title: TBD

Speaker: TBD

Panel 3, Session 2

Standards Impacting Decarbonization of the Industrial Sector

Moderator: TBD

Approaches to Net Zero Carbon in Industry:

ISO/PAS 50010

David Goldstein, Natural Resources Defense Council

Protocols, Rates, Factors, Attribution, Accounting

Oh My! A Survey of U.S. Emission Accounting Resources and What Stakeholders Should Know

Nathan Phillips, DNV

Analysis Methods for Better Green Energy Technologies (no paper)

Hope Wikoff, National Renewable Energy Laboratory

Amber Room

Garnet Room

Sapphire Room

Wednesday, July 12

Panel 4, Session 2

Salon 1

DEI Integration into Energy Workforce Development

Moderator: TBD

Best Practices for Developing a Diverse and Equitable Workforce

Deidra Miniard, Walker-Miller Energy Services

Workforce Development: What's Culture Change Got to Do with It?

Kora Dreffs, DNV

Building the Workforce for an Inclusive Energy Transition

Jennifer Kuklenski, Minnesota Power

3:00 – 3:30 pm

Networking Break

Grand Ballroom Foyer

3:30 – 5:00 pm

ACTION SESSION

Salon 1

Strategies for Decarbonizing Industry: An Interactive Discussion & Debate

The U.S. Department of Energy (DOE) released its *Industrial Decarbonization Roadmap* in September 2022, laying the foundation for a U.S. path to net-zero industrial emissions by 2050—while underscoring the challenge and complexity of the needed solutions. This Action Session will include lively discussion and debate about the specific technology strategies needed to translate industrial decarbonization goals into meaningful emissions reductions. Which approaches are likely to be the most impactful, which will require the most R&D investment, and which are the most actionable today? Join this interactive session to hear perspectives from an expert panel and fellow Summer Study participants!

Moderator: Joe Cresko, U.S. Department of Energy

Panelists: TBD

5:00 – 6:00 pm

INCLUSIVITY IN INDUSTRY MIXER

Amber Room

This informal gathering will bring together members of underrepresented communities in the industry sector for an evening of networking and great conversation.

All are welcome to join us in a supportive space to foster collaboration and professional relationships.

Wednesday, July 12

Thursday, July 13

7:00 am – 5:00 pm	Registration	Grand Ballroom Foyer
-------------------	---------------------	----------------------

8:00 am – 9:00 pm **Breakfast** Salons 3 & 4

9:00 – 10:00 am **Government and Utility Sector Policies Plenary Session** Salons 1 & 2

Introduction: TBD

Moderator: TBD

Panelists:

Kelly Visconti, Acting Deputy Director,
Facilities and Workforce Office of Manufacturing
and Energy Supply Chains, U.S. Department of Energy

Others: TBD

10:00 – 10:30 am	Networking Break	Grand Ballroom Foyer
------------------	-------------------------	----------------------

10:30 am – 12:00 pm **Concurrent Panel Sessions 1**

Panel 1, Session 1

Industrial Energy Management and Decarbonization – Making It Happen

Moderator: Peter Bassett, Energy Performance Services

Stellantis Optimizes Non-productive Energy through “Excellent Plant Shutdown” Initiative

Lisa Lawee, Energy Performance Services, Inc.
and Kim Baslock, Stellantis

*Decarbonization of the Detroit Diesel Corporation
with ISO 50001, SEP 50001 and Electrification*
Paul Scheihing, PHI Environmental Consulting

Title: TBD

Speaker: TBD

Panel 2, Session 1

System Impacts from Industrial Electrification

Moderator: John Seryak, Go Sustainable Energy

Subsector- and State-level Analysis of Industrial Electrification in the U.S.

Cecilia Springer, Global Efficiency Intelligence

Non-Wires Alternatives Meet Energy Efficiency

Brooke Smallwood, Oasis Energy Partners

Existing and Emerging Energy Storage Technologies at Scale: Market, Environment, and Economics (no paper)

Amber Room

Garnet Room

Hope Wikoff, National Renewable Energy Laboratory

Panel 3, Session 1

Sapphire Room

Science-based Methodologies to Accelerate Decarbonization

Moderator: TBD

Decarbonization the Industrial Sector through LCAs, Electrification, and Low-carbon Fuels (no paper)
Christopher Uraine, Energy Solutions

Hotspot Detection for Industrial Decarbonization Opportunities Using Environmentally Extended Input-Output (EEIO) Modeling (no paper)
Samuel Gause, Energetics

Realizing the Non-energy Benefits of Energy Efficiency in Industrial Firms; Successful Application
Catherine Cooremans, University of Lausanne

Panel 4, Session 1

Salon 1

The Future of Energy Workforce Development: Innovations and New Ideas

Moderator: TBD

Workforce Development Needs to Support a Successful Implementation of IRA
Anna Johnson, ACEEE

Innovations to Navigate Challenges in Energy Workforce Development
Jenny Oorbeck, Fresh Coast

Title: TBD

Speaker: TBD

12:00 – 1:30 pm

Lunch

Salons 3 & 4

1:30 – 3:00 pm

Concurrent Panel Sessions 2

Panel 1, Session 2

Amber Room

Manufacturing Roundtable

Moderator: Steve Schultz, International Energy Consultants

Energy Management System Peer-to-peer Roundtable for Manufacturers

This roundtable is for manufacturers to learn from their peers who are interested in building thriving energy management system business practices. Led by 50001 Ready experts from the manufacturing sector participants will discuss strategies to gain top management buy-in, best practices, and how energy management systems can help achieve decarbonization goals. Join us for valuable discussions and meaningful networking opportunities.

Panelists:

Thursday, July 13

Kim Baslock, CEM, Stellantis

Others: TBD

Panel 2, Session 2

Worldwide Experiences in Energy Resources for Industry

Moderator: John Seryak, Go Sustainable Energy

Electrification as a Decarbonization Option for Thermal Applications in the SME Sector in India

Shirish Bhardwaj, Alliance for and Energy Efficient Economy

Decarbonizing California's Industry with Hydrogen:

Preliminary Assessment (no paper)

Paul Glanville, GTI

Uncovering the True Value of Solar: A Story of Ratemaking, Transmission Peak Pricing, and Misaligned Price Signals

Ryan Schuessler, Go Sustainable Energy (no paper)

Garnet Room

Panel 3, Session 2

The Role of Construction Materials in a Low-Carbon Economy

Moderator: TBD

Low-carbon Fuel Pathway to Decarbonize Hard to Electrify Industries. Case Study: Cement and Glass Industries

Perry Stephens, EPRI

Novel Insulating Construction Blocks of Agricultural Waste for High Energy Performance and Carbon Capture Buildings

Alex Cicelsky, GTI Energy

Adoption of Thermal Clays in the US Cement Market in the Drive to Net Zero

Pavitra Srinivasan, ACEEE

Sapphire Room

Panel 4, Session 2

Energy Workforce Roadmaps and Case Studies

Moderator: TBD

ENERGY STAR's Comprehensive Heat Pump Water Heater Workforce Training Roadmap

Paul Campbell, ICF & Nate Jutras, EPA

Decarbonizing Manufacturing Plants with a Trained Workforce

Jason Strano, Eversource

Title: TBD

Speaker: TBD

Salon 1

3:00 – 3:30 pm

Networking Break

Grand Ballroom Foyer

Thursday, July 13

3:30 – 5:00 pm

ACTION SESSION

Opportunities for Federal Programs to Support Industrial Decarbonization

Salon 1

The past several years has seen congress provide DOE and other federal agencies unprecedented levels of funding for industrial energy efficiency and decarbonization. Only a small portion of these funds have been programmed with more emerging in the coming months and years. Staff leads from DOE and other agencies will discuss current and future industrial program opportunities and be available to answer questions in an interactive session.

Moderator: TBD

U.S. Department of Energy Panelists:

Dr. Avi Schultz, Industrial Efficiency and Decarbonization Office

Kelly Visconti, Office of Manufacturing and Energy Supply Chains

Christina Walrond, Office of Clean Energy Demonstrations

5:00 pm

Conference Ends

Thanks for joining us!