



Industrial Heating Decarbonization **SUMMIT**

FORGING A SUSTAINABLE
PATH FOR THE INDUSTRIAL
HEATING INDUSTRY

September 29 - October 1 ♦ Conrad Indianapolis ♦ Indianapolis, IN



**PROGRAM &
REGISTRATION INFORMATION**



The industrial heating industry continues to search and share pathways to become more energy efficient, lower carbon emissions and become more sustainable. The IHEA Industrial Heating Decarbonization SUMMIT is designed to lead the industry down this path. The SUMMIT is designed to be your gateway to the future of manufacturing heating processes, leveraging the energy and carbon connection, and sustainable environmental stewardship. Join us as we convene business leaders, innovators, and policymakers to chart a path towards a carbon-neutral industrial sector.

GENERAL INFORMATION

DATES

September 29 - October 1, 2025

LOCATION

Conrad Indianapolis ♦ 50 W. Washington St. ♦ Indianapolis, IN 46204

HOTEL

All SUMMIT events will take place at the Conrad Indianapolis. We have secured a discounted group rate of \$239/night + tax for SUMMIT attendees and exhibitors.

CLICK HERE to book your hotel reservation at the Conrad Indianapolis.

The hotel cutoff date for reservations at our discounted rate is **Monday, September 8, 2025**, or until our hotel block is full. Please make your hotel reservations early as we expect our room block to sell out!

PARKING

Only valet parking is available at the Conrad Indianapolis. The hotel is providing a discounted rate of \$65/night for valet parking.

TRAVEL

If you are flying to the SUMMIT, you will want to fly into the Indianapolis International Airport (IND).

WHY ATTEND?

- 1. Network with Leaders:** Connect with industry pioneers, government officials, and sustainability experts to forge partnerships and collaborations.
- 2. Stay Informed:** Gain insights into the latest technologies, trends, and best practices driving decarbonization efforts across industries.
- 3. Access Expertise:** Learn from keynote speakers, panel discussions, and workshops led by experts in decarbonization, renewable energy, and sustainable manufacturing.
- 4. Be Inspired:** Success stories and case studies showcasing real-world examples of decarbonization initiatives making a positive impact will provide inspiration for all.
- 5. Shape the Future:** Be at the forefront of shaping policies and strategies that will drive the transition to a low-carbon economy.

WHO SHOULD ATTEND?

- CEOs and executives from manufacturing companies
- Sustainability officers, analysts and project managers
- Environmental managers
- Researchers and academics in clean technology
- Plant managers
- Government officials and policymakers
- Utility management

AGENDA HIGHLIGHTS

- Real world case studies
- Panel discussions on decarbonization strategies
- Networking with industry leaders & colleagues
- Exhibitions showcasing cutting-edge technologies

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SCHEDULE OF EVENTS

MONDAY, September 29

6:00 PM WELCOME RECEPTION

TUESDAY, September 30

7:30 - 8:00 AM CONTINENTAL BREAKFAST

8:00 - 11:30 AM MORNING SESSION

Introduction/Welcome

Gary Berwick, Dry Coolers, IHEA President

The Energy-Carbon Connection

Energy Consumption and the Resulting Carbon Emissions

Jeff Rafter, Selas Heat Technology Company

Carbon Footprint - Purdue Carbon Emission Estimation Tool

Lakshmi Srinivasan, Purdue Heat Treat Center

Pathways to Decarbonization

Induction Heating - Contributing to CO₂ Neutrality

Till Schrieter, ABP Induction

Optimizing Energy Management

Scott Bishop, EPRI

CASE STUDY: A Business Case & Planning to Reduce Carbon Footprint

Scott Meredith, NUCOR Corporation

11:30 AM - 1:00 PM VISIT TABLETOPS WITH LUNCH

1:00 - 5:00 PM AFTERNOON SESSION

Improving Efficiency for Reduced CO₂

Reducing Fuel Consumption & the Impact of Automation & Controls

Brian Kelly, Honeywell Thermal Solutions

Keenan Cokain, Bloom Engineering Co., Inc.

Oxyfuel Combustion Efficiency and H₂ Combustion Present and Future

Jason McHood, Airgas

Case Study: Sustainability in the Forging Industry

Dekland Barnum, Forging Industry Association

Alternatives to Fossil Fuel Combustion

CASE STUDY: Application Review of Hydrogen Fired Installations

Brian Kelly, Honeywell Thermal Solutions

Alternate Low-Carbon Fuels

Christopher Wunning, WS Thermal Process Technologies Inc.

Electrification

CASE STUDY: Siemens Switches to First All-Electric Paint Line

Julian Capriles & John Hayden, Siemens

Electrification (continued)

Induction Heating, an Electrification Option for Heat Treating

Speaker TBD, Inductotherm

5:00 - 7:00 PM VISIT TABLETOPS WITH RECEPTION

WEDNESDAY, October 1

7:30 - 8:00 AM CONTINENTAL BREAKFAST

8:00 - 11:45 AM MORNING SESSION

Day 2 Welcome

Gary Berwick, Dry Coolers, IHEA President

Resources & Programs

Overcoming Material Sustainability Challenges

Mariagrazia Vottari, Total Materia

Case Study: Sustainability Processes in Heat Treating

Thomas Christensen, WPI

Reaching Net-Zero

Reducing, Converting and Trading to Get to Zero Carbon

Sandeep Alavandi, GTI Energy

State of Adoption

Don't Forget State, Local & Global Policies!

Helen Chen, ACEEE

Powering Decarbonization: Preparing the Grid for Widespread Electrification

Ibrahim Ahmed, Southern Company

11:45 AM - 1:00 PM VISIT TABLETOPS WITH LUNCH

1:00 - 4:00 PM AFTERNOON SESSION

State of Adoption (continued)

Case Study: Product Carbon Footprint Estimation: Industrial Bearings

Scott Hyde, Timken

Environmental Risk Communication for the Thermal Process Industry

Anthony Sadar, Environmental Science Communication, LLC and Geneva College

Sponsored by Heat Treat Today

Finding Grants and Funding Sources

Micki Vandelo, Lakeview Consulting

Decarbonization Implementation Panel

Practical Examples and Discussion of Companies Leading Decarbonization

4:00 PM

SUMMIT CONCLUDES

SUMMIT PROGRAM

The Energy-Carbon Connection

Energy Consumption and the Resulting Carbon Emissions

Jeff Rafter

VP of Sales and Marketing, Selas Heat Technology Company

If you consume energy at your site, then you have carbon related greenhouse gas (GHG) emissions. This session will show the connection of energy consumption and its related GHG emissions. This important information will be the foundation for the rest of the SUMMIT programming.



Carbon Footprint - Purdue Carbon Emission Estimation Tool

Lakshmi Srinivasan

Graduate Research Assistant, Purdue Heat Treat Consortium

Gas carburizing is a critical heat treatment process used to enhance surface hardness and wear resistance in steel components. However, carburizing is highly energy-intensive, with substantial greenhouse gas (GHG) emissions arising from high-temperature heating, prolonged cycle times, and dependence on natural gas for both process heat and furnace atmosphere control. Stricter international policies and the limited resolution of existing life cycle tools and databases make emissions benchmarking and technology comparison challenging. To address this gap, the PHTC has introduced a carbon emission estimation framework developed at Purdue University to evaluate energy consumption and the environmental impact of industrial gas carburizing using Life Cycle Assessment (LCA). This session will share the framework with the audience.



Pathways to Decarbonization

Induction Heating – Contributing to CO₂ Neutrality

Till Schrieter

CEO/Geschäftsführer, ABP Induction

The steel industry is the second largest industrial emitter of CO₂ worldwide. One alternative solution for CO₂ reduction is induction for heating processes while using green energy. The process is dynamic, easily controllable and if green energy is used, almost CO₂-neutral. Due to the direct energy input into the material, induction heating is a good complementary extension of existing gas furnaces for reheating. The induction furnace can be positioned complementarily upstream or downstream in the process. Both variants enable a reduction of the gas consumption and will lead to a measurable CO₂ reduction in the reheating process.



Optimizing Energy Management

Scott Bishop

Sr. Technical Executive, EPRI

This presentation will explore innovative strategies for enhancing energy efficiency and effective energy management in industrial heating processes. By leveraging advanced heating technologies and comprehensive energy management strategies, industries can significantly reduce their carbon footprint while optimizing operational costs. Real-world examples will highlight successful implementations and the resulting economic and environmental benefits. Attendees will gain actionable insights into adopting these practices to drive sustainable industrial growth.



CASE STUDY: A Business Case & Planning to Reduce Carbon Footprint

Scott Meredith

Commercial Manager - Sustainability, NUCOR Corporation

NUCOR has a variety of ways to help customers achieve their sustainability goals. This presentation will walk you through the process of working with customers, how to keep sustainability efforts moving along, create a realistic timeline for goals, and some examples of customers who have been improving their sustainability and reducing carbon emissions. We'll also touch on information on NUCOR's recycling and how that fits in with sustainability, too.



Improving Efficiency for Reduced CO₂

Reducing Fuel Consumption & the Impact of Automation & Controls

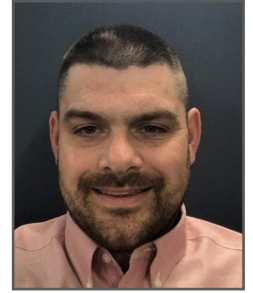
Brian Kelly

Applications Engineering Manager, Honeywell Thermal Solutions

Keenan Cokain

Manager – Corporate Sales and Applications, Bloom Engineering Co., Inc.

We'll take a deep dive into combustion process efficiency by looking at the latest technologies and applications for combustion burners, combustion control systems, and other associated equipment. This session will provide you with information about how to wring every drop of waste out of your combustion processes which will optimize your efficiency and reduce your related carbon emissions.



Oxyfuel Combustion Efficiency and H₂ Combustion Present and Future

Jason McHood

Principal Application Engineer, Airgas

This presentation will cover the current reasons and applications for hydrogen combustion, what the mode and supply changes and challenges from natural gas look like, and what type of time frame until hydrogen as an industrial combustion fuel feasible. We will discuss supply mode challenges, supply demand challenges, and some installation code requirements.



Sustainability in the Forging Industry

Dekland Barnum

Technical Director, Forging Industry Association

This presentation provides an overview of decarbonization and sustainability activity in the forging industry including new technologies, best practices, and challenges to overcome.



The whole event was impressively well executed.

- 2024 SUMMIT Attendee

SUMMIT PROGRAM

Alternatives to Fossil Fuel Combustion

CASE STUDY: Application Review of Hydrogen Fired Installations

Brian Kelly

Applications Engineering Manager, Honeywell Thermal Solutions

This presentation will review various applications of burner systems and equipment installations designed to be fired on 100% hydrogen, mixtures of hydrogen and natural gas, or alternately back to 100% natural gas in some cases. Applications from Europe and Canada will be discussed.



Alternate Low-Carbon Fuels

Christopher Wünnig

M. Sc., WS Thermal Process Technologies Inc.

In this presentation you will learn about FLOXonia, a publicly funded cooperation project between WS Wärmeprozessstechnik GmbH and the Department for Industrial Furnaces and Heat Engineering at the RWTH Aachen University (IOB). This project aims to develop an innovative heating system for industrial furnaces based on the low-emission combustion of partially cracked ammonia (NH_3). The focus is on the prediction of the exhaust gas composition, especially the NO_x and N_2O emissions. The results help to identify an optimum working range for the combined treatment and heating system.



Electrification

CASE STUDY: Siemens Switches to First All-Electric Paint Line

Julian Capriles

Manufacturing Project Manager, Siemens

Aaron Hughes

Executive Vice President, GAT Finishing Systems

With the goal of reducing natural gas and associated CO_2 emissions, Siemens has introduced its first all-electric paint line at its Grand Prairie, TX, Electrical Products facility. This presentation will walk you through the process of making the decision to move to all-electric, the steps it took to design and install the system and most importantly, discuss how they've reduced the facility's gas consumption by more than 90%. Much thought and planning went into the development of this system. While ensuring that the new paint line maximized energy efficiency, other aspects of the process, including powder chemistry, heat reuse, and material characteristics were trialed for improved efficiency, too. Bring your questions and get answers on the innovations that can impact many industries.



Induction Heating, an Electrification Option for Heat Treating

Speaker TBD

Inductotherm

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Resources & Programs

Overcoming Material Sustainability Challenges

Mariagrazia Vottari

CTO, Total Materia

Assessing environmental impacts within the materials selection process has never been more important. It's often a struggle to find accurate, comprehensive data on materials. This presentation will discuss the various stages of a product's life as it contributes to overall carbon footprint and provides a module designed to give turnkey access to organizations who need to work with materials that have sustainability as the focal point.



CASE STUDY: Sustainability Processes in Heat Treating

Thomas Christensen

Director, Center for Heat Treating Excellence (CHTE), WPI

This presentation explores sustainable innovations in heat treating, focusing on nitrogen steels as a decarbonization strategy, ultra-fast quenching for energy efficiency, and advanced nitriding for green energy applications. These approaches demonstrate practical pathways to reduce environmental impact while enhancing materials performance.



Reaching Net-Zero

Reducing, Converting and Trading to Get to Zero Carbon

Sandeep Alavandi

Program Manager, GTI Energy

Zero carbon refers to a state in which the total amount of GHGs emitted into the atmosphere is balanced by the amount removed from the atmosphere or offset through various measures. Achieving zero emissions is a critical component of decarbonization. This presentation will explore options to capture, convert, trade and reduce the carbon footprint in process heating.



Loved the format of the SUMMIT.

- 2024 SUMMIT Attendee

SUMMIT PROGRAM

State of Adoption

Don't Forget State, Local & Global Policies!

Helen Chen

Research Analyst, Industrial Program, ACEEE

When we think of decarbonization, we often think of Federal policies and mandates. But it's also important to consider state policies and potential mandates. States can use different approaches to promote solutions that will help reach climate goals while supporting an innovative industry. This presentation will provide an overview of strategies across different time horizons, from immediate support (grants & incentives), to intermediate action (policy support), to long-term drivers (emissions regulations).

This presentation will also include a deeper dive on a few states – California, Colorado, and New York – to see how these ideas play out. Collaboration between state agencies, utilities, solutions providers, industrial end users and other organizations is critical to implement solutions that improve efficiency, reduce emissions and energy use, and provide benefits to surrounding communities. Finally, we'll look at the overall national landscape for firms with a portfolio of plants across the country and additional support needed to build a robust industrial sector.



Powering Decarbonization: Preparing the Grid for Widespread Electrification

Ibrahim Ahmed, Ph.D.

Senior R&D Engineer, Southern Company

As industrial sectors pursue deep decarbonization through electrification, utilities face a surge in demand from EV fleets, data centers and heat pump systems. Meeting this demand is complicated by aging infrastructure, load growth that often outpaces upgrade cycles and the need for faster, more flexible interconnections. This talk will highlight how Southern Company, one of the nation's largest energy providers, is proactively planning across its generation fleet, transmission and distribution systems, and demand-side programs to support a reliable, resilient and low-carbon energy future."



CASE STUDY: Product Carbon Footprint Estimation: Industrial Bearings

Scott Hyde

Sr. Scientist Materials R&D, Timken

You will learn about product carbon footprint calculation for global bearing manufacturing, specifically focused on process steps which involve heating of the product, including steel making, heating for forging, in-process heat treatment, and final heat treatment. These will be compared with other major process steps.



"Last year's inaugural Decarbonization Summit was a very helpful event. From the industrial perspective, I am not familiar with any other event that covers the content covered by IHEA's Summit. I highly recommend it for any industrial companies looking to better understand the technologies and challenges facing today's manufacturing companies."

- Doug Glenn, Publisher, Heat Treat Today



State of Adoption

Environmental Risk Communication for the Thermal Process Industry

Anthony Sadar

Certified Consulting Meteorologist, Environmental Science Communication, LLC and Geneva College

Presentation sponsored by Heat Treat Today

If you manage environmental issues for your company, it's not a matter of if, but when you will be faced with risk communication challenges. Planning to meet these challenges means more than preparing for emergencies and dealing with contentious issues. With public trust on the decline and ever-changing news dynamics, successful strategy increasingly relies on solid foundational principles. Key principles will be explored along with practical advice and hard-hitting, real-world examples and solutions in this overview of environmental risk communication focused on the thermal processing industries.



Finding Grants and Funding Sources

Micki Vandeloo

President, Lakeview Consulting

Many of the ways to reduce your carbon emissions require financial commitments to start and maintain the process. This presentation will provide an update on federal and state funding for decarbonization projects as well as providing information on grants and incentives to fund the activities associated with decarbonization investments such as training and assessments. A case study will be offered showing how a company undertaking a decarbonization project can "stack" grants and incentives to support a greater percentage of project costs.



Decarbonization Implementation Panel Discussion

Chad Spore

Enterprise Materials Engineering Supervisor, John Deere

Scott Hyde

Sr. Scientist Materials R&D, Timken

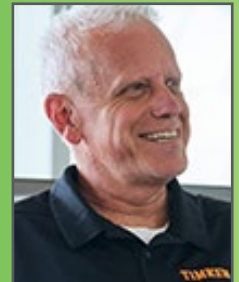
Julian Capriles

Manufacturing Project Manager, Siemens

Aaron Hughes

Executive Vice President, GAT Finishing Systems

Industry leaders share practical strategies, real-world challenges, and success stories in implementing decarbonization across manufacturing and industrial operations. This panel offers valuable insights into achieving sustainability goals while maintaining operational excellence.



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TABLETOP EXHIBITION

TABLETOP EXHIBITION HOURS

Tuesday, September 30: 11:30 AM - 1:00 PM

5:00 - 7:00 PM

Wednesday, October 1: 11:45 AM - 1:00 PM

Tabletop Exhibitors (as of July 10, 2025)

- Bloom Engineering Company, Inc.
- Chiz Bros.
- Fostoria Infrared
- Gasbarre Thermal Processing Systems
- *Heat Treat Today*
- Honeywell Thermal Solutions
- Industrial Heating Equipment Association (IHEA)
- Karl Dungs, Inc.
- Surface Combustion, Inc.

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REGISTRATION FEES

Advance Registration Discount if registering by August 28

IHEA Member	\$875
Non-member	\$999

Regular Registration Fee if registering after August 28

IHEA Member	\$975
Non-member	\$1,100

On-Site Registration Fee *(if space is available)*

IHEA Member	\$1,100
Non-member	\$1,250

Fees Include:

- Welcome Reception on Monday
- Breakfast on Tuesday & Wednesday
- Tuesday Reception
- Link to Presentations Following the SUMMIT *(for those speakers who give permission)*
- Admission to All SUMMIT Presentations
- Lunch on Tuesday & Wednesday
- Tabletop Exhibits throughout the SUMMIT

GROUP DISCOUNT

Group discount available! Register two or more people at the same time and receive a discount. The first registration pays the full price and each additional registration receives a 10% discount off the full price. Registrations must be entered together to receive the discount. Just click "Save & Add Another Attendee" before proceeding to check-out after completing the first attendee's registration details.

To register for the 2025 Industrial Heating Decarbonization SUMMIT, visit summit.ihea.org and click on the green REGISTER NOW button on the homepage.