

Decarbonization Bootcamp Details

Workshop: Tuesday, Feb 27 – Thursday, Feb 29, 2024

Optional ORNL Science Tours: Friday, Mar 1, 2024

Location: Oak Ridge National Laboratory, 2350 Cherahala Blvd, Knoxville, TN 37932

Tuesday, February 27, 2024		
7:45am	Bus Departs from Embassy Suites Knoxville West hotel to ORNL's Hardin Valley Campus	
8:15am – 8:30am	Arriving at MDF and Badging	ORNL's Manufacturing Demonstration Facility Address: 2350 Cherahala Blvd., Knoxville, TN 37932
8:30am – 9:00am	Introductions and Opening Remarks	
9:00am – 10:15am	Where to Start on GHG Management	This session discusses a systematic approach to industrial decarbonization and carbon management. Attendees will learn about how to develop a greenhouse gas (GHG) emissions reduction plan, the key decarbonization technology pillars, and DOE's Better Climate Challenge program.
10:15am – 10:45am	Break	
10:45am – 12:00pm	GHG Accounting Basics	This session will describe the process by which manufacturing partners can quantify their GHG emissions inventory (Scope 1 and 2) and identify significant GHG emitters.
12:00pm – 1:00pm	Lunch and Learn (GHG Accounting and Energy Efficiency)	
1:00pm – 2:00pm	Tours (MDF, NTRC and Grid-C; Rotate Between 3 Groups)	
2:15pm – 3:30pm	Energy Efficiency: The Foundation of Decarbonization	Energy efficiency is the foundational cornerstone of decarbonization. Attendees will learn key fundamentals of industrial energy efficiency and how to establish energy management programs to continually drive decarbonization.
3:30pm – 3:45pm	Break	
3:45pm – 5:00pm	The Basics of Renewable Energy	Adopting renewable energy is an effective way to reduce GHG emissions. The attendees will learn the basics about renewable energy technologies and how to evaluate various renewable energy options.
5:00pm	Adjourn	

Wednesday, February 28, 2024

7:45am	Bus Departs from Embassy Suites Knoxville West hotel to ORNL's Hardin Valley Campus	
8:15am – 8:30am	Arriving at MDF and Sign-in	ORNL's Manufacturing Demonstration Facility Address: 2350 Cherahala Blvd., Knoxville, TN 37932
8:30am – 10:00am	Renewable Energy Contracting Options and RECs	This session discusses how to approach renewable energy procurement and how to develop contracting strategies.
10:00am – 10:30am	Break	
10:30am – 12:00pm	Industrial Electrification – Unlocking Deep Decarbonization	Pairing the electrification of industrial processes and the use of low-carbon electricity can be a step- change approach to reducing industrial GHG emissions. This session will cover the basics of electrifying fossil fuel-based equipment and processes.
12:00pm – 1:00pm	Lunch and Learn (GHG Accounting and Energy Efficiency)	
1:00pm – 2:00pm	Tours (MDF, NTRC and Grid-C; Rotate Between 3 Groups)	
2:15pm – 3:30pm	Low/No-Carbon Fuels	This session discusses the key opportunities and considerations for implementing low- and no-carbon alternatives to fossil fuels.
3:30pm – 3:45pm	Break	
3:45pm – 4:30pm	Fugitive and Process Emissions	This session discusses the primary sources of fugitive and process emissions and how to quantify and reduce these emissions.
4:30pm – 5:00pm	Mobile Emissions	This session discusses the emissions from vehicle fleets (both onsite and offsite) and technologies and strategies to mitigate and eliminate the GHG emissions from fleets.
5:00pm	Adjourn	

Thursday, February 29, 2024

7:45am	Bus Departs from Embassy Suites Knoxville West hotel to ORNL's Hardin Valley Campus	
8:15am – 8:30am	Arriving at MDF and Sign-in	ORNL's Manufacturing Demonstration Facility Address: 2350 Cherahala Blvd., Knoxville, TN 37932
8:30am – 10:00am	Carbon Capture Utilization and Storage (CCUS)	This session will provide an overview of carbon capture utilization and storage technology and the future potential for the technology.
10:00am – 10:30am	Break	
10:30am – 12:00am	Developing a Roadmap to Decarbonizing Success!	This interactive session will work with participants and use some real examples to demonstrate how to expand your current energy management program to address decarbonization and begin developing a solid roadmap to success.
12:00pm – 1:00pm	Lunch and Networking	
1:00pm – 2:00pm	Tours (MDF, NTRC and Grid-C; Rotate Between 3 Groups)	
2:15pm – 3:00pm	DOE Decarbonization Software Tools	This session will cover the DOE's Decarbonization Software tools available to industry.
3:00pm – 3:30pm	Emissions Reduction Assessments: Options and Outcomes	This session will review options for energy and emissions reduction assessments, including DOE In Plant Trainings such as treasure hunts, and other options including DOE Industrial Assessment Centers. We will also review how to plan these events, what are expected outcomes, and other options for determining reduction measures.
3:30pm – 3:45pm	Break	
3:45pm – 4:45pm	Choose Your Own Solution Decarbonization Game	Put your skills and knowledge to the test by playing our Choose Your Own Solution game where you will try to help a company meet its decarbonization goals.
4:45pm – 5:00pm	Feedback Collection and Closing Remarks	
5:00pm	Adjourn	

Friday, March 1, 2024 (Optional)

7:45am	Buses Depart from Hotel to ORNL Main Campus
7:45am – 8:30am	Bus Transfer to ORNL's Main Campus
8:30am – 9:00am	Tour of Manhattan Project Graphite (Nuclear) Reactor Museum
9:00am – 9:15am	Bus Transfer to Supercomputers and EVEREST
9:15am – 10:15am	Tour of ORNL's Leadership Computing Facility – Supercomputers and EVEREST
10:15am – 10:30am	Bus Transfer to BTRIC
10:30am – 11:30am	Tour of BTRIC (MAXLab, 3144 – Hydrogen Combustion, and FRP1 – Heat Pumps)
11:30am	Event Adjourns; Buses Depart to Hotel and Airport

Event Contacts:

 Jennifer Travis, ORNL, travisjm@ornl.gov, (865) 574-4506

 Wei Guo, ORNL, guow@ornl.gov

 Thomas Wenning, ORNL, wenningtj@ornl.gov
