

Energy Bootcamp Details

Workshop: Monday, Feb 24 – Thursday, Feb 27, 2025

Optional ORNL Science Tours: Friday, Feb 28, 2025

Oak Ridge National Laboratory at 2350 Cherahala Blvd,
Knoxville, TN 37932



| Monday, Feb 24, 2025 (held at Embassy Suites hotel) | | |
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| 2:30pm – 3:00pm | Registration at Hotel (Embassy Suites West Knoxville - 9621 Parkside Drive Knoxville, Tennessee 37922 USA) | |
| 3:00pm – 3:30pm | Opening Remarks & Round-Room Introductions | |
| 3:30pm – 4:30pm | Where to Start on Energy Management | This session discusses a systematic approach to industrial energy efficiency. Attendees will learn how to develop an energy management system from scratch, the key components of ISO 50001, and DOE's 50001 Ready program. |
| 4:30pm – 5:30pm | Software Tools | This session will introduce some popular software tools: MEASUR, VERIFI, Plant Water Profiler, Waste to Energy, Scoping Tools. |
| 5:30pm – 6:30pm | Energy Management Gallery Walk | Award-winning energy management practices and energy efficiency projects will be showcased in the conference room. Attendees will learn more about them and participate in an engaging activity. |
| Tuesday, Feb 25, 2025 | | |
| 7:45am | Buses Depart from Embassy Suites hotel to ORNL's Hardin Valley Campus | |
| 8:00am – 8:15am | Arriving at MDF and Badging | ORNL's Manufacturing Demonstration Facility Address: 2350 Cherahala Blvd., Knoxville, TN 37932; Coffee and snacks will be provided. |
| 8:15am – 8:30am | ORNL Welcoming | |
| 8:30am – 10:00am | Energy Basics and Understanding Your Utility Bills | This session covers all the basics about energy. Attendees will learn about energy unit conversions, utility bill analysis, energy benchmarking, and energy assessments. |
| 10:00am – 10:30am | Break & People Bingo Game | |
| 10:30am – 12:00pm | Motors, Pumps and Fans | This session will discuss both motor and motor-driven systems (pumps and fans) efficiency. Techniques to quantify energy-saving opportunities will be also discussed (including the use of the DOE MEASUR software tool). |
| 12:00pm – 1:00pm | Lunch and Learn | |

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| 1:00pm – 3:00pm | Pump and Fan System Demo and Tour for NTRC (2 Groups Rotations) | |
| 3:00pm – 3:15pm | Break | |
| 3:15pm – 4:45pm | Steam Systems | This session provides an overview of DOE software tools on steam systems (MEASUR, steam system modeler tool, steam system scoping tool, etc.), training, and other resources to optimize steam system performance and save energy. |
| 5:00pm | Adjourn for the Day | |
| Wednesday, Feb 26, 2025 | | |
| 7:45am | Buses Depart from Embassy Suites hotel to ORNL's Hardin Valley Campus | |
| 8:00am – 8:15am | Arriving at MDF and Sign-in | ORNL's Manufacturing Demonstration Facility Address: 2350 Cherahala Blvd., Knoxville, TN 37932 |
| 8:15am – 8:30am | Morning Spark and Coffee Power-up | |
| 8:30am – 10:00am | Compressed Air Systems | This session will discuss the pros and cons of different compressor configurations and control systems (with examples from the field) and common energy conservation measures. |
| 10:00am – 10:30am | Break & People Bingo Game & Group Picture | |
| 10:30am – 12:00pm | Process Heating Systems | During this session, the audience will learn practical tips on process heating systems maintenance, how to improve the energy efficiency of furnaces, and how to use DOE's MEASUR tool. |
| 12:00pm – 1:00pm | Lunch and Learn | |
| 1:00pm – 3:00pm | Compressed Air and Thermal System Demo and Tour for MDF (2 Groups Rotations) | |
| 3:00pm – 3:15pm | Break | |
| 3:15pm – 4:45pm | Building Envelope, HVAC, and Lighting | Building envelope, space heating, cooling and lighting systems are essential for manufacturing plants. This presentation includes how to measure their energy performance, identify energy conservation opportunities, and quantify energy savings. |
| 5:00pm | Adjourn for the Day | |

Thursday, Feb 27, 2025

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| 7:45am | Buses Depart from Embassy Suites hotel to ORNL's Hardin Valley Campus | |
| 8:00am – 8:15am | Arriving at MDF and Sign-in | ORNL's Manufacturing Demonstration Facility Address: 2350 Cherahala Blvd., Knoxville, TN 37932 |
| 8:15am – 8:30am | Morning Spark and Coffee Power-up | |
| 8:30am – 10:00am | Process Cooling Systems | This session discusses the key equipment of process cooling systems, the latest technologies for energy efficiency, best practices, and some important technical resources. |
| 10:00am – 10:30am | Break & People Bingo Game & Logistics for Friday Tours | |
| 10:30am – 12:00pm | Water Savings | This session will discuss how to determine the true cost of water and identify water savings opportunities. |
| 12:00pm – 1:00pm | Lunch and Learn | |
| 1:00pm – 2:00pm | Renewable Energy | Adopting renewable energy resources is a very effective way to reduce GHG emissions. Attendees will learn how to evaluate various renewable energy options. |
| 2:00pm – 2:05pm | Short Break (5 mins) | |
| 2:05pm – 2:55pm | Employee Engagement and Making the Business Case | This session will discuss the strategies for engaging employees in energy management initiatives and obtaining the support and commitment of executives for energy efficiency projects. |
| 2:55pm – 3:00pm | Short Break (5 mins) | |
| 3:00pm – 4:00pm | Roadmapping GHG Emissions Reductions | This session shares tips on how to expand your current energy management program to address GHG emissions and begin developing a roadmap to success. |
| 4:00pm – 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 & Adjourn | |

Friday, Feb 28, 2025 (Optional)

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| 7:45am | Buses Depart from Hotel to ORNL |
| 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 |
| 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 |
| 11:30am | Workshop Adjourns; Buses Depart to Hotel and Airport |

Event Contacts:

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