2023 HOT AIR & HOT WATER FORUMS
Hot Air Forum – March 7-8
Hot Water Forum – March 8-9

Program as of 3-9-23

Tuesday, March 7 – Hot Air Forum

7:00 am–7:00 pm  Registration  South Foyer
8:00–9:00 am  Breakfast  Great Room IV-VIII
9:00–10:30 am  Welcome and Plenary Session  Great Room IV-VIII

Welcome & Introduction: Amber Wood, American Council for an Energy Efficient Economy
Welcome: Karen Meyers, Vice President, Government Affairs, Rheem Manufacturing
Moderator: Christopher Dymond, Northwest Energy Efficiency Alliance

When Decarbonizing the Air Side...Five Years from Now, Where Will We Be and Where Should We Be?
Presenter: Kandice Cohen, Director, Electrification of Heat, Trane Technologies

10:30–11:00 am  Networking Break  West Deck
11:00 am–12:00 pm  Concurrent Sessions

1A. Decarbonizing Commercial and Industrial  Great Room I-III
Moderator: George Chapman, Energy Solutions

The Guidebook for Decarbonizing Healthcare Buildings
Presenter: Austin Barolin, Mazzetti

High Temperature Heat Pumps and Implications for Commercial and Industrial Applications
Presenter: Kashif Nawaz, Oak Ridge National Laboratory

Hot and Humid: Efficient Dehumidification for a Warming Environment
Presenter: Kevin Bostaph, Mazzetti

1B. Cold Climate Heat Pumps  Shutters East I-II
Moderator: Emma Hanson, Consortium for Energy Efficiency

Load Shifting with Cold-Climate Ductless Heat Pumps
Presenter: Samuel Rosenberg, Pacific Northwest National Laboratory

Presenter: Alejandro Guada, GTI Energy

The Northeast Energy Efficiency Partnership’s Cold Climate Air Source Heat Pump Resources are More Relevant than Ever!
Presenters: Dan Wildenhaus, Center for Energy and Environment
 David Lis, Northeast Energy Efficiency Partnerships
1C. Design Strategies for Energy Efficiency and Decarbonization
Moderator: Isaac Smith, Center for Energy and Environment

Duct Loss Implications of Variable Capacity Heat Pumps
Presenter: Curtis Harrington, University of California-Davis

Strategies for Increased Heat Pump Savings
Presenter: Christopher Dymond, Northwest Energy Efficiency Alliance

A System Approach to Healthy, Efficient, and Resilient Buildings for a Decarbonized World
Presenter: Jordan Pratt, Energy 350

12:00–1:00 pm Networking Lunch

1:00–2:00 pm Concurrent Sessions

2A. Commercial Boiler Solutions
Moderator: George Chapman, Energy Solutions

Dual-fuel (Gas-Electric) Commercial Steam Boiler with Demand Response, Decarbonization and Green House Gas Emission Reductions
Presenter: Ramanathan Dharmarajan, GTI Energy

Space Heating Electrification Strategies for Large Commercial Buildings
Presenters: Mark Butrico, Guidehouse
Ryan Murphy, Guidehouse

Heat Pumps are Not Boilers
Presenter: Shawn Oram, Ecotope

Moderator: Bing Liu, Pacific Northwest National Laboratory
Panelists: Tony Bouza, U.S. Department of Energy
Vrushali Mendon, Pacific Northwest National Laboratory
William Goetzler, Guidehouse

2C. Workforce Tools and Programs
Moderator: Dan Wildenhaus, Center for Energy and Environment

Farewell HVAC Manifold, Technicians of the Future Go Wireless
Presenter: Christian Valoria, Pacific Northwest National Laboratory

Training Material for Residential Heat Pump Conversions
Presenter: Jamie Kono, Pacific Northwest National Laboratory

Empowering HVAC Distributors and Contractors: Lessons Learned from an Air-Source Heat Pump Training and Education Pilot
Presenters: Justin Margolies, Slipstream
Pauravi Shah, ComEd
# Concurrent Sessions

## 3A. Solutions for Roof-Top Units (RTUs) (small/medium commercial)

**Moderator:** Curtis Harrington, University of California, Davis

- **Commercial Heat Pump Rooftop Units: Current Decarbonization Opportunities and Future Technology Needs**
  - **Presenters:** Ali Akber Kazmi, Guidehouse
    Carolyn Barrera, Guidehouse

- **Furnace Efficiency Beyond Annual Fuel Utilization Efficiency (AFUE): How the Whole Box Matters and How to Change the Market**
  - **Presenter:** Jason Jones, Northwest Energy Efficiency Alliance

- **Advanced Fuel-Fired Heat Pumps with Improved Occupant Comfort, Decarbonization, Green House Gas Reductions**
  - **Presenter:** Hardik Shah, GTI Energy

## 3B. Variable Speed Heat Pumps (VSHP) Equipment

**Moderator:** Christopher Dymond, Northwest Energy Efficiency Alliance

- **Rating Representativeness Project - Developing Lab and Field Data for a Better Heat Pump Rating**
  - **Presenter:** Jennifer McWilliams, DNV

- **Lab Testing a Mid-Tier Variable Speed Heat Pump**
  - **Presenter:** Micah Sweeney, EPRI

  Finding the “Goldilocks” Heat Pump and the Key Performance Metrics That Define It
  - **Presenter:** Isaac Smith, Center for Energy and Environment

- **Variable Speed Heat Pumps for Central Air Conditioning Replacement in Illinois**
  - **Presenter:** Ranal Tudawe, Center for Energy and Environment

## 3C. Market Transformation: Adoption and Customer Focus

**Moderator:** Debbie Driscoll, Northwest Energy Efficiency Alliance

- **Replacing Central ACs with Heat Pumps – the Fastest Route to Widespread Heat Pump Adoption**
  - **Presenter:** Matt Malinowski, CLASP

- **Who’s a Good Fit for Electrification? Data-Driven Customer Analysis**
  - **Presenter:** Meghan O’Connor, Eversource

- **Achieving High Impacts in Low-Income Multifamily Housing**
  - **Presenter:** Steve Wiese, Frontier Energy
    Austin Pooley, CenterPoint Energy

## Networking Break

**3:15-3:45 pm**

**West Deck**
3:45–4:45 pm  Concurrent Sessions

4A. Heat Pumps in Single Family Homes (Residential Case Studies)  Great Room I-III
Moderator: Courtney Moriarta, NYSERDA

*Evaluating the Use of Integrated Controls to Maximize the Effectiveness of Ductless Heat Pumps in Existing Homes*
Presenter: Karen Fenaughty, UCF/FSEC

*Data-driven Insights into Air Source Heat Pump Installation Costs*
Presenter: Dylan Sarkisian, Energy Solutions

*Efficiency Impact of Low Refrigerant Levels in Variable Capacity Heat Pumps*
Presenter: Abram Conant, Proctor Engineering Group, Ltd.

4B. Equipment Sizing  Shutters East I-II
Moderator: David Lis, Northeast Energy Efficiency Partnership

*Size Up or Size Down? National Analysis of Heat Pump Sizing Factors and Impacts*
Presenter: Prateek Munankarmi, National Renewable Energy Laboratory

*Goldilocks Method: A Heat Pump Decision Tool Helps Choose a System that’s Just Right*
Presenter: Alekzander Parsons, Pacific Northwest National Laboratory

*What Matters Most in Determining Heat Pump Application Types?*
Presenter: Dan Wildenhaus, Center for Energy and Environment

4C. Landscape of Current Collaborations & What’s Needed  Shutters West I-II
In this interactive session, attendees will join us in identifying where collaboration is happening and where it is needed to accelerate adoption of decarbonization for residential HVAC and light commercial roof-top units (RTUs)

Discussion Moderators: Abigail Daken, U.S. Environmental Protection Agency
Debbie Driscoll, Northwest Energy Efficiency Alliance

5:30–7:00 pm  Reception  The Gallery
### Wednesday, March 8 – Hot Air & Hot Water Forum Combo Day

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Welcome & Introduction: **Steve Nadel**, American Council for an Energy Efficient Economy

Welcome: **Karen Meyers**, Vice President, Government Affairs, Rheem Manufacturing

Moderator: **George Chapman**, Energy Solutions

**A Vision of the Policy Future – Policies, Funding, and Approaches for Energy and Emissions from a Federal and State Perspective**

Presenters: **Ashley Armstrong**, Senior Policy Advisor and IRA Management Expert  
U.S. Department of Energy  
**Andrew McAllister**, Commissioner, California Energy Commission

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#### 5A. Flexibility and Demand Response: State Water Heating Perspective

Moderator: **Geoff Wickes**, Northwest Energy Efficiency Alliance

**EcoPortTM is LIVE! A Standard for Grid Connected Hot Water Heaters**  
Presenter: **Don Dulchinos**, OpenADR Alliance  
**Ray Troy**, Rheem

**Findings and Updates from WatterSaver, PG&E’s Electric Water Heater Daily Load Shifting Program**  
Presenter: **Nick Dirr**, Association for Energy Affordability

**Hot Water in Hot Arizona**  
Presenter: **Grace Sauter**, Guidehouse

#### 5B. Utility Programs in the Midwest

Moderator: **Joe Ricchiuto**, Midwest Energy Efficiency Alliance

**Heat Pump Adoption - Regional Collaboration**  
Presenter: **Emily McPherson**, Center for Energy and Environment

**Residential Space Heating Electrification: Laying the Groundwork for a New Generation of Programs**  
Presenters: **Kevin Gries**, Slipstream  
**Pauravi Shah**, ComEd
5C. Energy Equity & Environmental Justice in Decarbonization  
**Moderator:** Amber Wood, ACEEE  
*U.S. Department of Energy’s Field Validation Partnership Network and Strategy*  
**Presenter:** Kieren McCord, Pacific Northwest Energy Laboratory

Weatherization and Electrification Together  
**Presenters:** Keith Dennis, The Beneficial Electrification League  
Long Lam, Brattle Group

5D. Program - Decarbonization Considerations  
**Moderator:** Peter Turnbull, Turnbull Energy  
**Presenter:** Ian Hammon-Hogan, BIRA Energy

Residential Electrical Panels: How Many Need to be Upgraded?  
**Presenter:** Doug Lindsey, EPRI

12:00–1:00 pm  
**Networking Lunch**  
**Great Room IV-VIII**

1:00–2:00 pm  
**Concurrent Sessions**

6A. Reducing Emissions through Policy  
**Moderator:** Jim Lutz, Hot Water Research  
*Emission Standards to Reduce Appliance Pollution*  
**Presenter:** Leah Louis-Prescott, RMI (formerly Rocky Mountain Institute)

*Delivering Results through Innovation: Results from a Heat Pump Water Heater Loaner Pilot*  
**Presenter:** Chris Badger, VEIC

*Making Lower-Emissions Water Heating Affordable and Accessible*  
**Presenters:** Damali Harding, Regulatory Assistance Project  
Emily Levin, NESCAUM

6B. State Utility Programs  
**Moderator:** Jerine Ahmed, Southern California Edison  
*How a Channel Strategy Can Meet Decarbonization Goals*  
**Presenter:** Erin Engelmeyer, Eversource

*Navigating the 3 Cs of Hybrid Heating: Cost, Carbon, and Comfort*  
**Presenter:** Morgan Hood, Vermont Gas Systems

*Don’t Cool the Heat Pump Momentum*  
**Presenter:** Courtney Dale, Cadeo
**6C. Legislation and Funding Implications**  
*Shutters West I-II*

Moderator: **Emma Hanson**, Consortium for Energy Efficiency

*Tax Rebates and Grants: What the IRA Means for Consumers’ Wallets*
Presenter: **Kim Katz**, Consortium for Energy Efficiency

*Heat Pump Water Heaters: Preparing for the Tsunami*
Presenters: **Paul Campbell**, ICF  
**Nate Jutras**, U.S. EPA ENERGY STAR

*Balancing Efficiency vs Market Adoption: The Risk of Setting the Bar Too Low*
Presenter: **Christopher Dymond**, Northwest Energy Efficiency Alliance

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**6D. Residential: Heat and Water Heating Multi-Use Heat Pumps**  
*Brickstones*

Moderator: **Harvey Sachs**, ACEEE

*Smart Integrated Near Zero GWP Space Heat and Hot Water*
Presenter: **Abram Conant**, Proctor Engineering Group, Ltd.

*Initial Winter Results from a 4-ton Combi Heat Pump and Heat Pump Water Heater in the PNNL Lab Homes*
Presenter: **Edward Louie**, Pacific Northwest National Laboratory

*Three Loads, One Heat Pump: Examining Three Function Air-to-Water Heat Pumps for Retrofits*
Presenter: **James Haile**, Frontier Energy

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**2:15–3:15 pm**  
**Concurrent Sessions**

**7A. High Efficiency Gas Water Heating**  
*Great Room I-III*

Moderator: **Aaron Winer**, Northwest Energy Efficiency Alliance

*Commercializing a Cost-Effective Residential Retrofit Gas Heat Pump Water Heater*
Presenter: **Magnus Ekblad**, HeatAmp

*Gas Absorption Heat Pump for Commercial Applications*
Presenter: **Alejandro Guada**, GTI Energy

*Direct and Indirect Fired Tankless Condensing Water Heater Demonstration*
Presenter: **Abinesh Ravi**, GTI Energy

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**7B. Air-to-Water Heat Pumps (AWHP) and Water-Source Heat Pumps (WSHP)**  
*Shutters East I-II*

Moderator: **Abigail Daken**, U.S. Environmental Protection Agency

*Advancing Air-to-Water Heat Pumps in California’s Energy Code*
Presenter: **John Arent**, NORESCO

*Air-to-Water Heat Pumps in Minnesota*
Presenter: **Ranal Tudawe**, Center for Energy and Environment

*Making Closed Loop Water Source Heat Pump Retrofits Attainable*
Presenter: **Jason Strano**, Eversource
7C. Policies: Codes, Standards, and Testing

Moderator: Harvey Sachs, ACEEE

Leader or Laggard: How Do U.S. Efficiency Standards for Domestic Water and Space Heating Equipment Stack Up?
Presenter: Matt Malinowski, CLASP

Just do it! What Happens When Everyone has to Change Technology Together
Presenter: Duane Jonlin, City of Seattle

JIS C-9220, Learning from the Japanese Household Use Heat Pump Water Heater Standard (家庭用ヒートポンプ給湯機)
Presenter: Jim Lutz, Hot Water Research

7D. Decarbonizing Residential Water Heating

Moderator: Kim Katz, Consortium for Energy Efficiency

ENERGY STAR® Home Upgrade: A DIY Roadmap to Electrifying/Decarbonizing
Presenter: Dan Lawlor, U.S. EPA ENERGY STAR

ENERGY STAR® Home Upgrade: Water Heating
Presenter: Paul Campbell, ICF

Electrical Upgrade Challenges for Building Electrification Goals
Presenter: William Goetzler, Guidehouse

3:15–3:45 pm Networking Break

3:45–4:45 pm Concurrent Sessions

8A. Low Global Warming Potential Refrigerants & Green House Gas Reductions

Moderator: Kyle Gluesenkamp, Oak Ridge National Laboratory

Propane as Refrigerant for Heat Pump Water Heaters
Presenter: Kashif Nawaz, Oak Ridge National Laboratory

Two-stage Hydronic Heat Pump Using Propane
Presenter: Zhenning Li, Oak Ridge National Laboratory

Refrigerant-free Thermoelectric Heat Pump Water Heaters
Presenter: Kyle Gluesenkamp, Oak Ridge National Laboratory

8B. Landscape of Current Collaborations and What’s Needed – Part II

In this interactive session, attendees will join us in creating an action plan to address gaps in collaboration and accelerate progress in residential HVAC and light commercial roof-top units (RTFs).

Discussion Moderators: Abigail Daken, U.S. Environmental Protection Agency

Debbie Driscoll, Northwest Energy Efficiency Alliance
**8C. Workforce**

Moderator: Amber Wood, ACEEE

*Key Lessons for Workforce Development in Urban Disadvantaged Communities*
Presenter: Ebony Mayhorn, Pacific Northwest National Laboratory

*Retooling Workforce Development and Career Pathways to Achieve Green House Gas Reductions*
Presenter: Katey Beaton, VEIC

*BIPOC Focused Workforce and Contractor Training Opportunities for Heat Pumps and Heat Pump Water Heaters*
Presenter: Joseph Wachunas, New Buildings Institute
Steven Brotton, Great Northwest Installations

*Heat Pump Water Heaters: You Need to Feel It to Believe It*
Presenter: Sandy Laube, Energy Solutions

**8D. Equipment – Thermal Heat Pumps**

Moderator: Aaron Winer, Northwest Energy Efficiency Alliance

*Pairing Managed Thermal Storage with a Heat Pump Combi*
Presenter: Evan Green, Harvest Thermal

*Laboratory Evaluation of a Packaged Thermal Heat Pump and Electrical Air Conditioning Unit for Space Conditioning and Hot Water*
Presenter: Navin Kumar, GTI Energy

*Control Scheme for Load Shifting with PCM Integrated Heat Pump Water Heaters*
Presenter: Joseph Rendall, Oak Ridge National Laboratory

5:00–6:00 pm **Shameless Commerce**
Great Room IV-VIII

6:15–7:30 pm **Reception**
The Gallery
## Thursday, March 9 – Hot Water Forum

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Welcome & Introduction: **Amber Wood**, American Council for an Energy Efficient Economy

Welcome: **Joshua Greene**, Corporate Vice President – Government, Regulatory, and Industry Affairs, A.O. Smith Corporation

Moderator: **Christoph Lohr**, The International Association of Plumbing & Mechanical Officials

Workforce & Equity – The Crossover of Workforce and Equity Within States and Utilities Within Programs and Policies

Panelists:
- **Jill Marver**, Program Manager, Principal, Pacific Gas & Electric Company
- **Jenna Tatum**, Executive Director, Building Electrification Institute
- **Nick Dirr**, Senior Director Programs, Association for Energy Affordability

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Moderator: **Emily Rosenbloom**, Northwest Energy Efficiency Alliance

- **Insightful Market Research to Guide Regional Heat Pump Water Heater Deployment**
  Presenter: **Josh Butzbaugh**, Pacific Northwest National Laboratory

- **Heat Pump Water Heaters Failure to Launch and How We Change That**
  Presenter: **Joseph Wachunas**, New Buildings Institute

- **Developing the Market for Heat Pump Water Heaters in the Bay Area through a Regional Incentive**
  Presenter: **Helen Mejia**, East Bay Community Energy

### 9B. Piping Design

Moderator: **Amin Delagah**, TRC Companies

- **Laboratory Testing of a Full-Scale Domestic Hot Water Distribution System for a Three-Story Multifamily Building**
  Presenter: **Mehdi Zeyghami**, Pacific Gas and Electric

- **Why Your Shower Feels Wimpy and What You Can Do About it**

- **Diving Deep into the Water Demand Calculator - Will You See the Benefits on Your Next Project?**
  Presenter: **Elise Wall**, 2050 Partners
### 9C. 120 Volt Heat Pump Water Heaters: A Game Changing Technology Gets to Market

**Moderator:** Jim Lutz, Hot Water Research

**2023: A Heat Pump Water Heater Odyssey**  
**Presenter:** Colleen Collins, Cadeo Group

**Plug-in Heat Pump Water Headers: An Early Look at 120-Volt Products in the Lab**  
**Presenter:** Ben Larson, Larson Energy Research

**Plug-in Heat Pump Water Heaters: National Field Validation Efforts and Market**  
**Presenter:** Amruta Khanolkar, New Buildings Institute

### 9D. Commercial and Public Building Innovations

**Moderator:** George Chapman, Energy Solutions

**Heat Pump Water Heaters MOOving into the Dairy Farm**  
**Presenters:** Keshmira McVey, Bonneville Power Administration  
Helen Townsend, D&R International

**Why Tankless?**  
**Presenter:** Perry Bobrow, Intellihot Inc.

### Schedule

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### 10A. Program Design – Heat Pump Water Heaters

**Moderator:** Kim Katz, Consortium for Energy Efficiency

**Enhancing Heat Pump Water Heating Programs in the Northeast**  
**Presenter:** Deepti Dutt, Northeast Energy Efficiency Partnerships

**Residential Heat Pump Water Heater Program Design: Meeting the Needs of Customer, Contractors, and Utilities**  
**Presenter:** Jordan Losiak, ComEd

**Southeast Heat Pump Water Heater Implementation Project**  
**Presenter:** Chris Granda, Energy Solutions

### 10B. Innovative Hot Water Research

**Moderator:** Tim Bartrand, ESPRI

**Presenters:** TBA
10C. Causes of (and Solutions to) Poor Heat Pump Water Heater Performance in Small Enclosures

Moderator: Michael Waite, ACEEE

*The Amazing Shrinking Room*
Presenter: Ben Larson, Larson Energy Research

*Unitary Heat Pump Water Heater Ventilation Testing to Support New Title 24 Requirements*
Presenter: Garth Torvestad, 2050 Partners

*Overcrowding Unitary Heat Pump Water Heaters: Lessons Learned in Installation from the Field*
Presenter: Meghan Duff, Association for Energy Affordability

10D. Commercial and Industrial Hot Water

Moderator: George Chapman, Energy Solutions

*Steam to Hot Water Conversions and Their Impact on Decarbonization*
Presenter: Jason Strano, Eversource

*Distributed Carbon Capture Technology for Fuel-fired Water and Space Heating in Residential and Commercial Buildings*
Presenter: Abbas Ahsan, GTI Energy

*Industrial Heat Pumps Potential and Market Transformation*
Presenter: Andrew Hoffmeister, ACEEE

2:15–3:15 pm Concurrent Sessions

11A. Flexibility and Demand Response: Heat Pump Water Heater Controls and Costs

Moderator: Geoff Wickes, Northwest Energy Efficiency Alliance

*Emission Reduction Potential of Controlled Water Heaters in the United States*
Presenter: Imran Sheikh, Western Washington University

*Price- and Load-Responsive CTA-2045 Controls for HPWHs*
Presenter: Peter Grant, Lawrence Berkeley National Laboratory

*Retrofitting Central Heat Pump Heater Systems to Achieve Load Flexibility*
Presenter: Yanda Zhang, ZYD Energy
Presenter: Emily Higbee, Redwood Energy
11B. Hot Water Design: Water Quality, Design, and Innovations

Moderator: Gary Klein, Gary Klein and Associates, Inc.

Priority Research and Innovation in Hot Water Systems: Innovations and Ideas
Presenter: Tim Bartrand, ESPRI

Priority Research and Innovation in Hot Water Systems: Hot Water System Areas of Intersecting Innovation in Codes and Standards
Presenter: Katherine Alfredo, ESPRI

11C. Solar Water Heating Strategies

Moderator: Amber Wood, ACEEE

Energy Security and Efficient Electrification
Presenter: Adam Chrisman, SunEarth

The Role of Heat Pump Water Heaters with Off-Grid Hybrid Solar
Presenter: Carlos Colon, Florida Solar Energy Center (FSEC)

Experimental Results for Combined Solar Thermal and Heat Pump Systems
Presenter: Joshua Plaisted, Flagstaff Research

11D. Multifamily – Equitable and Affordable Water Heating

Moderator: Navin Kumar, GTI

Equitable and Efficient Solutions to Electrify Domestic Water Heating
Presenter: Rebecca Rothman, VEIC

Cost Reduction of Heat Pump Water Heaters for Multifamily Units
Presenter: Joseph Rendall, Oak Ridge National Laboratory

3:15–3:30 pm Networking Break

3:30–4:30 pm Concurrent Sessions

12A. Multifamily – Hot Water Design Strategies

Moderator: Gary Klein, Gary Klein and Associates, Inc.

Upcoming Codes & Guidelines for Central Heat Pump Water Heater Systems
Presenter: Carmen Cejudo, Pacific Northwest National Laboratory

Sizing Challenges Based on Climate for Packaged Multifamily Systems
Presenter: Brent Kovash, Steffes, LLC

Commercial and Industry Heat Pump Water Heater System Design
Presenter: Walker Larsen, Consortium for Energy Efficiency
12B. Hot Water System Design
Moderator: Mike Waite, ACEEE

Overcoming Barriers: A Heat Pump Water Heater Decision Tool
Presenter: Alekzander Parsons, Pacific Northwest National Laboratory

System Design Strategies, Water Heating Technologies
Presenter: Perry Bobrow, Intellihot Inc.

Methods for Rightsizing of Replacement Heat Pump Domestic Hot Water Systems
Presenters: Charles Simek, New Ecology
John Beaumont, New Ecology

12C. Innovative Strategies
Moderator: Dave Vernon, University of California, Davis

Presenter: Caton Mande, UC Davis Western Cooling Efficiency Center

Three-function Heat Pumps: Jack of All Trades, but Master of None?
Presenter: Stephen Chally, Frontier Energy

12D. Multifamily – Design and Installation Heat Pump Water Heaters
Moderator: Amin Delagh, TRC Companies

Presenters: Mischa Egolf, New Buildings Institute
Nick Young, Association for Energy Affordability

Demonstrating Successful Heat Pump Water Heater Load Shift in Multifamily Buildings
Presenter: Scott Spielman, Ecotope Inc.

When DHW Electrification Goes Wrong
Presenter: Nicole Ceci, Steven Winter Associates

Multifamily Design Charrette for 1 to 1 Installs
Presenter: Ben Larson, Larson Energy Research