

## Panel 2: Residential Buildings: Program Design, Implementation, and Evaluation

**PANEL LEADERS: Amit Kulkarni, Eversource and Lauren Ross, US Department of Energy**

DATE	SESSION	TITLE	LEAD AUTHOR, ORGANIZATION
Mon 8/5	<b>Session 1</b> <b>8:30 - 10:00 am</b>  Deploying High Performance, Cold-climate Heat Pumps	<i>Promoting heat pumps in cold climates: comparing strategies.</i>	Elizabeth Font, Cadeo Group
		<i>Air Source Heat Pump (ASHP) Case Study – Presentation of In Situ Operational Performance</i>	Peter Klint, Eversource
		<i>Heat Pump Upgrades and their Impact on Household Peak Demand</i>	Brennan Less, Lawrence Berkeley National Laboratory
	<b>Session 2</b> <b>10:30 am - 12:00 pm</b>  Effective Program Delivery for Low-income Households	<i>The New Retro – Leveraging IRA incentives in designing home retrofit programs for low-income and beyond</i>	Joe Schambach, ICF
		<i>Massachusetts’ “Solar Access Program”: Design, Implementation and Savings Results for Residential Retrofits Serving Lower Income Homeowners</i>	Gabrielle Stebbins, Center for Sustainable Energy
		<i>Heat Pump Buyers Be Wary: Weighing the Effects of Refrigerants</i>	Rachel Murray, DNV
Tues 8/6	<b>Session 1</b> <b>8:30 - 10:00 am</b>  Delivering Whole Building Retrofits in Affordable Multifamily	<i>La Mora Senior Apartments; The Ups and Downs of Building Passive House, Modular, Affordable Senior Housing</i>	Kara Magoolaghan, The Mulford Corporation
		<i>Housing Sustainability Collaborative: Co-Creating Green Financing Solutions for Affordable Housing</i>	Patrick Kelley, Housing Partnership Network
		<i>Getting Past the Doorman: Key Challenges, Solutions, and Findings of a Determined Multifamily Baseline Study Team</i>	Mitt Jones, NYSERDA
	<b>Session 2</b> <b>10:30 am - 12:00 pm</b>  Heat Pumps: Optimize for Performance, Cost, and the Environment	<i>Integrated approaches to reduce the cost and risk of low income rental decarbonization</i>	Richard Andrulis, Performance Systems Development
		<i>Increasing Uptake of Residential HVAC Commissioning – The Time is Now</i>	Christian Valoria, Pacific Northwest National Laboratory
		<i>Cold hard facts: Contextualizing refrigerant leakage emissions under high residential building electrification</i>	Jared Langevin, Lawrence Berkeley National Laboratory

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<b>Wed 8/7</b>	<b>Session 1 8:30 - 10:00 am</b>  Duel Fuel Systems and Integrated Controls for Heat Pumps in Colder Climates	<i>Fossil Fuel Displacement Strategies: How Partial Electrification Can Make Electric Run Buildings Feasible</i>	Rosibel Tavares, Kinetic Communities Consulting
		<i>Getting Heat Pumps Under Control: The Success of the Heat Pump Revolution Requires Getting Heat Pump Sizing and Controls Right</i>	Christian Douglass, Ptarmigan Consulting
		<i>Not Your Parent's Heat Pump: Training and Tools to Size Heat Pumps for Heating</i>	Christian Kaltreider, Pacific Northwest National Laboratory
	<b>Session 2 10:30 am - 12:00 pm</b>  New Opportunities and Challenges in EM&V for Decarbonization	<i>Ready, set, go! Lessons Learned and Innovative Approaches to Capture the Benefits of the Transformational IRA programs.</i>	Danielle Walker, US Department of Energy
		<i>Meeting Customers Where They're At... Literally: Virtual Verification as a Carbon-Friendly EM&amp;V Tool for Residential Programs</i>	Matt Rankins, Guidehouse
		<i>Challenges and Performance from Seven Ducted Mini-Split Heat Pump Retrofits</i>	Simon Pallin, Frontier Energy
<b>Thurs 8/8</b>	<b>Session 1 8:30 - 10:00 am</b>  Building Design and Technology to Decarbonize	<i>The Price is Right: Aligning Utility Incentives with Decarbonization Goals</i>	Ashley Muspratt, Center for EcoTechnology
		<i>The design, advancement, prototyping and field testing of scalable technologies and strategies for manufactured homes to decarbonize</i>	Agatha Kazdan, EPRI
		<i>Defining the Electrical Panel Barrier to Residential Electrification</i>	Douglas Lindsey, EPRI
	<b>Session 2 10:30 am - 12:00 pm</b>  Making Heat Pumps Work for People: Recommendations for Program Design and Targeting	<i>Delivering Low Income Whole Home Retrofits: Consumption Based Targeting for Deep Energy Savings</i>	Bryce Dias, Pacific Gas & Electric Co.
		<i>The Customer Bill Impacts of Efficient Building Electrification</i>	Andrew Satchwell, Lawrence Berkeley National Laboratory
		<i>Combining Energy Star's Brand Recognition with ResStock Modeling to Create a Go-To Heat Pump Savings Estimator</i>	Dan Lawlor, EPA

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<b>Fri 8/9</b>	<b>Session 1</b> <b>8:30 - 10:00 am</b>	<i>Avoiding Locking in Emission through Electrification Readiness</i>	Amy Dryden, Association for Energy Affordability	
		<i>Electrification Prognostication: A Data-Driven Approach to Predict the Carbon Offset of Ductless Mini-Split Heat Pumps</i>	Patrick Hewlett, DNV	
	Program Strategy Targeting for Electrification Readiness	<i>The value of proactive customer targeting for meeting utility goals</i>	Pranav Gupta, ICF	
	<b>Session 2</b> <b>10:30 am - 12:00 pm</b>	<i>Electrification of Centralized Water Heating in an Affordable Housing Community: Lessons Learned from a Pilot Demonstration</i>	Mazen Daher, EPRI	
		Scaling Up Heat Pump Water Heaters	<i>Heat Pump Water Heaters - Taking the Emergency out of Emergency Water Heater Replacements</i>	Chris Badger, VEIC
		<i>Factors Influencing Grid-connected Heat Pump Water Heater Performance in the Southeast U.S.</i>	Karen Fenaughty, Florida Solar Energy Center	