

**PANEL 6: UTILITIES AND THE FUTURE**  
**(Meeting Room: Chapel)**  
**Panel Leaders: Ben Clarin and Jim Jerozal**

<b>MONDAY, AUGUST 22</b>	<b>SESSION 1 (8:30 - 10:00 am)</b>	<b>TUESDAY, AUGUST 23</b>	<b>SESSION 1 (8:30 - 10:00 am)</b>
	<b>Working Together - Lessons Learned in Collaboration that Enables the Utility of the Future</b>		<b>To Flex or not to Flex - Planning, Demonstrating, and Deploying Building Technologies as Grid Resources</b>
	<i>Understanding Utility Awareness and Engagement among Low Income Customers</i>  <i>Hale Forster, See Change Institute</i>		<i>Benefit-Cost Analysis of Non-Wires Alternatives (NWAs): Reflecting Uncertainty in Electric Distribution System Planning</i>  <i>Sam Ross, Optimal Energy</i>
	<i>Heating Electrification without Peak? A Unique Collaboration Shows a Third Way is Possible</i>  <i>Presented by Jean-Philippe Hardy, Dunsky Energy + Climate Advisors (Lead: Philippe Dunsky, Dunsky Energy + Climate Advisors)</i>		<i>Field Performance of Variable Capacity Heat Pumps in Southeastern Homes, a DER Option?</i>  <i>Jonathan Coulter, Advanced Energy</i>
	<i>Leverage- How Utility-Funded Programs are Addressing Cost-Effectiveness and Rate Impact Issues through Co-Funding</i>  <i>Fred Gordon, Energy Trust of Oregon</i>		<i>Too Much – Too Little. Using Mixed Resource Demand Response to Address Over and Under Supply of Electricity</i>  <i>Ethan Barquest, Verdant Associates</i>
<b>SESSION 2 (10:30 am - 12:00 pm)</b>	<b>SESSION 2 (10:30 am - 12:00 pm)</b>		<b>SESSION 2 (10:30 am - 12:00 pm)</b>
<b>Learning by Doing - Lessons Learned from Deploying Utility Decarbonization Programs</b>	<b>A Decarbonized Future - What is the Gas Utility's Role</b>		<b>A Decarbonized Future - What is the Gas Utility's Role</b>
<i>One Leak at a Time: Embedding Refrigerant Management in Building Electrification and Decarbonization Strategies</i>  <i>Zoe Dawson, VEIC</i>	<i>Defining the Role of Gas Utilities in a Decarbonized Energy Future</i>  <i>Essie Snell, ICF</i>		<i>Defining the Role of Gas Utilities in a Decarbonized Energy Future</i>  <i>Essie Snell, ICF</i>
<i>The New Low-carb Diet: An Assessment of California's New Fuel Substitution Decarbonization Policy in Practice</i>  <i>Cameron Tuttle, DNV Energy Systems</i>	<i>What is the Role of Fuels in a Decarbonized Future? What is the Potential Role for Gas Utilities?</i>  <i>Steve Nadel, ACEEE</i>		<i>What is the Role of Fuels in a Decarbonized Future? What is the Potential Role for Gas Utilities?</i>  <i>Steve Nadel, ACEEE</i>
<i>Utility and Participant Value of a Pay As You Save Energy Efficiency Program</i>  <i>Stephen Bickel, Clean Energy Works</i>	<i>Hawaii's Path to Decarbonization: Keeping the Lights On as the Last Coal Plant Turns Off</i>  <i>Caroline Carl, Leidos</i>		<i>Hawaii's Path to Decarbonization: Keeping the Lights On as the Last Coal Plant Turns Off</i>  <i>Caroline Carl, Leidos</i>

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<b>WEDNESDAY, AUGUST 24</b>	<b>SESSION 1 (8:30 - 10:00 am)</b>	<b>THURSDAY, AUGUST 25</b>	<b>SESSION 1 (8:30 - 10:00 am)</b>
	<b>Including what Matters - Emerging Metrics and Tools for Planning the Utility of the Future</b>		<b>Learning from the Past and Data from the Present to Model and Predict the Utility of the Future</b>
	<i>Moving the Target – Evolving Portfolio Metrics from EE to GHG</i>  <i>JJ Vandette, VEIC</i>		<i>Reimagining Energy Efficiency: Building on a Legacy of Success for Higher Impacts and Value</i>  <i>Dan York, ACEEE</i>
	<i>A Utility's Clean Energy Equity Plan</i>  <i>Jennifer Finnigan, Seattle City Light</i>		<i>The Deproliferation of Refrigerant Greenhouse Gases</i>  <i>Brad Hoover, DNV</i>
	<i>Climate-Forward Performance Incentives: Rewarding What Matters</i>  <i>Rachel Gold, RMI</i>		<i>Electric Utility Rates are Critical to Broad Space-heating Electrification - Data from the Midwest</i>  <i>Carl Nelson, Center for Energy and Environment</i>
	<b>SESSION 2 (10:30 am - 12:00 pm)</b>		<b>SESSION 2 (10:30 am - 12:00 pm)</b>
	<b>Utility Planning and Programs - Lessons Learned from Including Equity in the Mix</b>		<b>Let the Data Tell the Story - Enabling Better Utility Programs through Data Analytics</b>
<i>One Utility's Journey to Systematically Gain Focus on Equity</i>  <i>Presented by: Sepideh Rezania, Innovation Insites &amp; Joseph Fernandi, Seattle City Light (Lead Author: Lori Moen, Seattle City Light)</i>	<i>Bills, Bills, Bills – Can Utility Meter Data Tell the Heat Pump Story?</i>  <i>Patrick Hewlett, DNV</i>		
<i>Lessons Learned from a Small Good-Will Project: Installing Heat Pump Water Heaters in Black-owned Homes in Portland</i>  <i>Lisa Green, Energy 350</i>	<i>Data Requirements for Decarbonization through Utility Energy Efficiency Programs</i>  <i>Mike Specian, ACEEE</i>		
<i>Tip of the Spear: How Efficiency Programs Supporting Cold Climate Heat Pumps in Low Income Multi-Family Buildings Could Help Lay the Foundation for Building Decarbonization In Michigan and Illinois</i>  <i>Laura Goldberg, Natural Resources Defense Council</i>	<i>Choosing the Carbon Factor for the Job: Exploring Available Carbon Emissions Factors and the Impact of Factor Selection</i>  <i>Presented by Eric Wilson, National Renewable Energy Laboratory (Lead: Elaina Present, National Renewable Energy Laboratory)</i>		

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<b>FRIDAY, AUGUST 26</b>	<b>SESSION 1 (8:30 - 10:00 am)</b>
	<b>Valuating the Future Systems that Enable Community Decarbonization</b>
	<i>Assessment of the Value of Novel Waste Heat Sources and a Path Towards Adoption</i>
	<i>Presented by Shanti Pless, National Renewable Energy Laboratory (Lead: Manuel Laemmle, National Renewable Energy Laboratory)</i>
	<i>GHG Emissions Reduction Analysis in Commercial Buildings</i>
	<i>Xiaoying (Annie) Hillaker, DNV</i>
	<i>Introducing the Distributed District Energy System</i>
	<i>Jonathan Bean, The University of Arizona</i>
	<b>SESSION 2 (10:30 am - 12:00 pm) - SESSION TO BE BROADCASTED</b>
<b>People and Things - The Infrastructure and Workforce to Support Building Decarbonization</b>	
<i>Residential Electric Service Upgrades for Electrification Retrofits</i>	
<i>Presented by Sean Armstrong, Redwood Energy (Lead: Shoshana Pena, NV5 Inc.)</i>	
<i>Aligning Energy Efficiency Programs with a Decarbonization Future</i>	
<i>Matthew Woundy, NMR Group, Inc.</i>	
<i>Dig Here: Insights from Direct Burial Cable Study and Implications for Electrification</i>	
<i>Gomathi Sadhasivan, DNV</i>	