



# CampusEnergy2024

BRIDGE TO THE FUTURE

February 20 – 23, 2024

Hilton San Francisco Union Square | San Francisco, CA

Preliminary Program as of 1.26.24  
TIMES AND CONTENT SUBJECT TO CHANGE

## Monday, February 19

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| 10:30 am – 1:00 pm | <b>CLOSED MEETING – IDEA Executive Committee Meeting &amp; Luncheon – Marina Room</b> |
| 12:00 pm – 5:00 pm | <b>CLOSED MEETING – IDEA Board of Directors Luncheon &amp; Meeting – Plaza A</b>      |
| 3:00 pm – 6:00 pm  | <b>Registration Open – Yosemite Foyer</b>   |
| 6:00 pm – 8:00 pm  | <b>Board Dinner</b>   |

## Tuesday, February 20

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| 7:00 am – 7:00 pm  | <b>Registration Open – Yosemite Foyer</b>   |   |  |  |
| 7:00 am – 8:00 am  | <b>Workshop Breakfast</b> – For registered Workshop participants – <i>Franciscan A-D</i>  |   |  |  |
| 7:00 am – 7:30 am  | <b>Workshop Speaker and Moderator Orientation Meeting – Yosemite A-B</b><br><i>Breakfast will be served for speakers and moderators. Must attend if you are speaking or moderating on this day.</i> |   |  |  |
| 8:00 am – 4:00 pm  | <b>Thermal Distribution Workshop</b> – Separate registration fee required, see separate program for detailed content – <i>Imperial A</i>  |   |  |  |
| 8:00 am – 4:00 pm  | <b>Emerging Tech in District Energy Workshop</b> – Separate registration fee required, see separate program for detailed content – <i>Imperial B</i>  |   |  |  |
| 12:00 pm – 4:00 pm | <b>Exhibitor Table Set Up – Grand Ballroom B</b><br><b>Poster Presentation Set Up– Yosemite Foyer</b>   |   |  |  |
| 12:00 pm – 1:00 pm | <b>Workshop Luncheon</b> – For Distribution and Emerging Tech Workshop attendees only – <i>Franciscan A-D</i>   |   |  |  |
| 1:00 pm – 3:30 pm  | <b>District Energy 101 Symposium with YPG – Plaza B</b>   |   |  |  |
| 4:00 pm – 5:00 pm  | <b>Campus Forum Meeting – Plaza A</b><br>A forum for open dialogue among college/university campus energy personnel only. (Limited to campus system owners only.)                                   | <b>District Energy Women's Initiative (DEWI) Forum Meeting – Yosemite A-B</b> | <b>Young Professionals Group (YPG) Forum Meeting – Plaza B</b> | <b>Poster Presentations – Yosemite Foyer</b> |
| 5:00 pm – 6:30 pm  | <b>Opening Reception with Business Partner Exhibitors – Grand Ballroom B</b><br><i>Sponsored by CenTrio, Eaton &amp; Johnson Controls</i>   |   |  |  |

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| 6:30 pm – 9:00 pm | <b>Welcome Event</b> –Join IDEA for a special welcome event on Tuesday evening at SPIN San Francisco to meet up and mingle with conference attendees in a fun setting.<br><i>Sponsored by Cordia &amp; Empower</i> |
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| <b>Wednesday, February 21</b> |  |
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| 7:00 am – 7:00 pm   | <b>Registration Open</b> – <i>Yosemite Foyer</i>   |
| 7:00 am – 7:50 am   | <b>Continental Breakfast with Business Partner Exhibitors</b> – <i>Grand Ballroom B</i><br><i>Sponsored by Eavor Technologies &amp; Ecosystems Energy Services</i>   |
| 7:00 am – 7:45 am   | <b>Speaker and Moderator Orientation Meeting</b> – <i>Yosemite A-B</i><br><i>Breakfast will be served for speakers and moderators. Must attend if you are speaking or moderating on this day.</i>  |
| 8:00 am – 8:30 am   | <b>Conference Opening</b> – <i>Grand Ballroom A</i><br>Introductions – <i>Rob Thornton, IDEA President &amp; CEO</i><br>Welcome to IDEA – <i>Carlyle Coutinho, CEO, Enwave and Chair, IDEA</i><br>Welcome to San Francisco – <i>Conference Co-Hosts - Earl Collins, CEO, Cordia and Gerry Hamilton, Director Facilities &amp; Energy Management, Stanford University</i>   |
| 8:30 am – 10:00 am  | <b>Opening Plenary Panel Discussion:</b> <i>Grand Ballroom A</i><br><i>Panelists:</i> <ul style="list-style-type: none"> <li>• <i>Gerry Hamilton, Director, Facilities &amp; Energy Management, Stanford University</i></li> <li>• <i>Sally McGarrahan, Associate Vice Chancellor of Facilities Services, University of California, Berkeley</i></li> <li>• <i>Tom Nyquist, Executive Director of Facilities Engineering and Campus Energy, Princeton University</i></li> <li>• <i>Mary Quintana, Director, Asset Management &amp; Utilities, Brock University</i></li> <li>• <i>Lindsey Rowell, Chief, Office of Energy, Sustainability &amp; Transportation, Office of the Chancellor, California State University</i></li> <li>• <i>Ron Saporta, Chief Operating Officer, University of Toronto</i></li> <li>• <i>Megan Sterl, Director of Engineering &amp; Utilities, Facilities Management, Montana State University</i></li> <li>• <i>Paul Zmick, Director, Engineering &amp; Utilities, University of Virginia</i></li> </ul> <i>Moderated by Rob Thornton, IDEA</i> |
| 7:45 am – 4:00 pm   | <b>Spouse/Guest Tour – Muir Woods/Wine Country Tour.</b> <i>Must be 21+ to experience Wine Tastings (government-issued Photo ID required).</i>   |
| 10:00 am – 10:40 am | <b>Refreshment Break with Business Partner Exhibitors</b> – <i>Grand Ballroom B</i><br><i>Sponsored by Affiliated Engineers &amp; Truburn by Lifecycle Renewables</i><br><b>Poster Presentations</b> – <i>Yosemite Foyer</i>   |

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| 10:45 am – 12:10 pm | <b>1A: Decarbonizing with District Energy</b><br><i>Imperial A</i><br><i>Moderator: Bob Mancini, Ecosystem Energy</i>  | <b>1B: Master Planning &amp; Climate Action Plans</b><br><i>Imperial B</i><br><i>Moderator: Roger Copeland, Burns Engineering</i>                           | <b>1C: District Energy &amp; CHP Case Studies</b><br><i>Plaza A</i><br><i>Moderator: Bob Salvatelli, NextEra Distributed Water</i>  | <b>1D: Microgrids for Resiliency</b><br><i>Plaza B</i><br><i>Moderator: Todd Begeman, Eaton</i>   | <b>1E: Planning for the Future on the West Coast</b><br><i>Golden Gate 6-8</i><br><i>Moderator: Kevin Fuller, CHA</i>  |
| 10:45 am – 11:10 am | <b>Heat Recovery from District Cooling Networks</b> – <i>Michael Conte, FVB Energy Inc.</i>  | <b>Strategic Planning for Early Wins and Future Gains: Energy Master Planning at Denison University</b> – <i>Sean McFarling, Ever-Green Energy</i>          | <b>Repowering the 1997 IDEA System of the Year UCLA</b> – <i>Curtis Lovelace, R.G. Vanderweil Engineers</i>   | <b>Gallaudet University Microgrid: A Focus On Campus Resilience</b> – <i>Justin Nieves, Scale Microgrid Solutions; David Good, Gallaudet University</i> | <b>UC Davis' Journey Toward Optimizing Electrical Grid Responsiveness</b> – <i>David Trombly &amp; Joseph Yonkoski, UC Davis</i>   |
| 11:15 am – 11:40 am | <b>From Checkpoints To Compliance A New Playbook For Collaboration</b> – <i>Ron Saporta, University of Toronto</i>   | <b>Decarbonizing SUNY Cortland From Centralized System to Decentralized System and Beyond</b> – <i>Tim Erwin, Ramboll</i>                                   | <b>UVA Chiller Optimization with Automatic Tube Cleaning: A 10 Year Review</b> – <i>Michael Crocker, Innovas Technologies; Justin Callihan, University of Virginia</i>                        | <b>Unleashing the Power of Microgrids at Healthcare Facilities</b> – <i>Ryan De La Cruz, Endurant Energy</i>  | <b>University of California System Decarbonization Planning</b> – <i>Maric Munn, San Timoteo Energy Associates; Sarah Lisker, University of California Office of the President</i>                             |
| 11:45 am – 12:10 pm | <b>Green Heat Scalable Energy Centre</b> – <i>Niall Pidgeon &amp; Andrew Henderson, FVB Energy Inc.</i>  | <b>University 10 Year MV Electrical Master Planning &amp; Implementation of Design</b> – <i>Hailey Slamka, CHA; Nikolai Terpak, University of Rochester</i> | <b>Transforming Campus Energy Systems with Unique Waste Heat Recovery Models on Combined Heat and Power Systems</b> – <i>Nate Turner, NLine Energy, Inc.; Kevin Kanoff, Penn State Health</i> | <b>Behind or In Front of the Fence: Comparing Recent CHPs Developed with Utilities</b> – <i>Mike Larson &amp; Greg Martin, DTE Vantage</i>              | <b>Lessons Learned During the First Phase of Decarbonizing UC Davis</b> – <i>Joanna Pyun, Affiliated Engineers Incorporated; Dan Golde, University of California, Davis Design and Construction Management</i> |
| 12:15 pm – 1:45 pm  | <b>Campus Energy Recognition and Networking Luncheon</b> – <i>Grand Ballroom A</i><br><i>Sponsored by BOND, Chem-Aqua, NextEra Energy Resources, Solar Turbines &amp; Trane</i>                            |   |   |   |  |
| 1:45 pm – 2:25 pm   | <b>Dessert &amp; Coffee with Business Partner Exhibitors &amp; DEWI Meetup</b> – <i>Grand Ballroom B</i><br><i>Sponsored by Stanley Consultants</i><br><b>Poster Presentations</b> – <i>Yosemite Foyer</i> |   |   |   |  |

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| 2:30 pm – 3:25 pm | <b>2A: Decarbonizing with District Energy</b><br><i>Imperial A</i><br>Moderator: Fraser Ringel, Jacobs  | <b>2B: Optimization &amp; Efficiency</b><br><i>Imperial B</i><br>Moderator: Jesse Cabrera, Stanley Consultants   | <b>2C: California District Energy</b><br><i>Plaza A</i><br>Moderator: Meghan Riesterer, CenTrio   | <b>2D: Nuclear in District Energy</b><br><i>Plaza B</i><br>Moderator: Aaron Bolhous, CHA   | <b>2E: Danish District Heating</b><br><i>Golden Gate 6-8</i><br>Moderator: Lars Hummellose, DBDH   |
| 2:30 pm – 2:55 pm | <b>Geo Solar: Net Zero District Energy in Cold Climates</b> – James Bererton, Stantec   | <b>Optimizing Return Temperatures from Buildings: Lessons learned from Stanford University’s Steam to Hot Water Conversion</b> – Gerry Hamilton, Stanford University | <b>Transforming Downtown Los Angeles’ Energy Infrastructure and Community</b> – Johnny Schwarz, Burns & McDonnell; Adam Weyer & Carlos Del-Cid, CenTrio                       | <b>District Energy Survey for Utilizing Nuclear Energy</b> – Caleb Tomlin, EPRI  | <b>Experiences from Denmark : District Energy Best Practices, Innovations &amp; Solutions</b> – Gustav Winding, Ministry of Foreign Affairs of Denmark; Janus Hartmeyer Christiansen, Niras; Christian Ingerslev Sørensen, EMD International A/S; Thomas Bejerholm Hansen, COWI; Andreas Zourellis, Aalborg CSP A/S; Carl Vreugde, Logstor/GF Urecon; Neil Breen, Ramboll; Torben Kirkegaard, Energy and Climate Academy |
| 3:00 pm – 3:25 pm | <b>Creating The Five Smartest Blocks in the World: Achieving Zero Energy Improved Occupant Experiences and Forward Looking Development Through Innovative Collaboration</b> – Matt Allen, McKinstry; John Gibson, Avista Utilities; Emilie Bolduc, EDO Energy | <b>Creative Pursuits With High Temperature Heat Pumps</b> – Adrian Marticorena & Curtis Rager, Johnson Controls International PLC                                    | <b>Optimizing Clean Firm Capacity for the CA Grid through Controlled Environment Agriculture (CEA) with CHP and Carbon Capture and Usage</b> – Carol Denning, Energy Pathways | <b>Bridging the Divide, Part 2: MORE Guidance for Nuclear Manufacturers to Focus on District Energy Solutions</b> – Nathan Ninemire & Jacob Welsh, Burns & McDonnell; Caleb Tomlin, EPRI |  |
| 3:30 pm – 4:10 pm | <b>Refreshment Break with Business Partner Exhibitors</b> – Grand Ballroom B<br>Sponsored by Brightcore Energy & KFI Engineers<br><b>Poster Presentations</b> – Yosemite Foyer  |  |   |  |  |

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| 4:15 pm – 5:10 pm | <b>3A: Decarbonizing with District Energy</b><br><i>Imperial A</i><br><i>Moderator: Tim Erwin, Ramboll</i>  | <b>3B: UC Berkeley: Embracing Change</b><br><i>Imperial B</i><br><i>Moderator: Jared Markle, RMF</i>  | <b>3C: Decarbonizing with Heat Recovery Chillers</b><br><i>Plaza A</i><br><i>Moderator: Rajesh Dixit, Johnson Controls</i>   | <b>3D: Nuclear in District Energy, Cont'd</b><br><i>Plaza B</i><br><i>Moderator: Paul Zmick, University of Virginia</i>            | <b>3E: Attracting &amp; Retaining Talent in the DE Industry</b><br><i>Golden Gate 6-8</i><br><i>Moderator: Sylvia McIvor, University of Illinois</i>   |
| 4:15 pm – 4:40 pm | <b>Central Plant and Green Steam is Safe, Reliable &amp; Secure</b> – <i>Anthony Ranallo, Boilersource; Suzan Sun-Yuan, Environmental System Design; Patrick Lach, Maxi-Therm</i>   | <b>UC Berkeley's Path to a Clean Energy Microgrid</b> – <i>Krista Murphy, Affiliated Engineers Inc.; Kira Stoll, &amp; Sally McGarrahan, University of California, Berkeley</i> | <b>Electrifying Heating Hot Water with Heat Pump Chillers at UT Austin to Enable Decarbonization; Building Bridges to the Future</b> – <i>Jason Willeford, Jacobs; Adam Keeling, The University of Texas at Austin</i> | <b>Decarbonization with Small Modular Reactors in District Energy Systems</b> – <i>Louie Shoukas, Markham District Energy Inc.</i> | <b>Promoting Retaining and Attracting Women in Facilities and District Energy</b> – <i>Coleen Barsley, California State University Northridge</i>  |
| 4:45 pm – 5:10 pm | <b>Swarthmore College Standby Power Generation</b> – <i>Benjamin Ross, Bond Brothers, Inc.; Domenic Porrini, Swarthmore College; Jason Hutchins, CHA Consulting</i>   | <b>Clean and Resilient Campus Energy Systems</b> – <i>Bri Colon, U.S. Department of Energy; Bruce Chamberlain, University of California, Berkeley</i>                           | <b>Improving Effectiveness of HRCH Applications</b> – <i>Joe Witchger &amp; Brendan Huss, HGA; Mike Hanson, University of Wisconsin-Madison</i>  | <b>Navigating the Facts of Nuclear in District Energy</b> – <i>Bryce Johnson, University of Nebraska System; Kati Austgen, NEI</i> | <b>Broadening Roles of Women in District Energy</b><br>Moderated by Laura Duncan, Gilsulate<br><i>Panelists include: Jenae Batt, Ever-Green Energy; Jacky Kinson, CDM Smith; Joan Kowal, Jacobs; Jennifer Meisenhelder, Univ. of Florida</i> |
| 5:15 pm – 6:45 pm | <b>Cocktail Reception with Business Partner Exhibitors &amp; YPG Meetup</b> – <i>Grand Ballroom B</i><br><i>Sponsored by CenTrio, Eaton &amp; Johnson Controls</i><br><b>Poster Presentations</b> – <i>Yosemite Foyer</i> |   |  |  |  |

| Thursday, February 22 |   |
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| 7:00 am – 5:30 pm     | <b>Registration Open</b> – <i>Yosemite Foyer</i>  |
| 7:00 am – 7:50 am     | <b>Continental Breakfast with Business Partner Exhibitors</b> – <i>Grand Ballroom B</i><br><i>Sponsored by IC Thomasson &amp; Whiting Turner Contracting Company</i>                |
| 7:00 am – 7:45 am     | <b>Speaker Orientation Meeting</b> – <i>Yosemite A-B</i><br><i>Breakfast will be served for speakers and moderators. Must attend if you are speaking or moderating on this day.</i> |
| 9:00 am – 3:00 pm     | <b>Spouse/Guest Tour – Hop On Hop Off San Francisco Tour</b>  |

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| 8:00 am – 9:55 am | <b>4A: Decarbonizing with District Energy</b><br><i>Imperial A</i><br><i>Moderator: Mitch DeWein, CHA</i>  | <b>4B: The Stanford Story</b><br><i>Imperial B</i><br><i>Moderator: Lalit Agarwal, EnergyCAP</i>  | <b>4C: Controls, Monitoring, Metering, &amp; Data Management</b><br><i>Plaza A</i><br><i>Moderator: Grant Kircher, Thermo Systems</i>  | <b>4D: System Expansion, Modernization &amp; Renewal</b><br><i>Plaza B</i><br><i>Moderator: Rob Neimeier, Ramboll</i>   | <b>4E: Geothermal</b><br><i>Golden Gate 6-8</i><br><i>Moderator: Neil Ethier, Eavor</i>  |
| 8:00 am – 8:25 am | <b>Decarbonization Strategies to Meeting Sustainability Targets–</b><br><i>Jason Denué, Wendel; Francois Gressier, ENGIE North America Inc.</i>  | <b>Stanford SESI Over a Decade of Innovation –</b><br><i>Nathan Cesarz, &amp; Colin Moyer, Affiliated Engineers, Inc.; Bradley Apigo, Energy Operation Stanford University</i>                | <b>UT Austin Energy Hub - How Data Unlocks Operational Performance and Builds Research Partnerships –</b><br><i>Amanda Berens &amp; Kingsley Nweye, University of Texas at Austin</i>  | <b>Digital Transformation at Virginia Tech: Data Aggregation Enabling Improved Operations –</b><br><i>Eoin O'Driscoll, DSA Inc.; Mary-Ann Ibeziako, Virginia Tech</i> | <b>Design and Optimization of Central Heat Pump Plant: Case Study - World Financial Center - Lower Manhattan –</b><br><i>Travis Smith, Smith Engineering</i> |
| 8:30 am – 8:55 am | <b>Decarbonization &amp; Electrification of ASU's Polytechnic Campus –</b><br><i>Jeffrey Duncan, Vanderweil Engineers; Alex Kohnen, Arizona State University</i>   | <b>The Latest Phase of District Energy Control &amp; Optimization at Stanford University –</b><br><i>Mark Thompson, Johnson Controls; Bradley Apigo, Energy Operation Stanford University</i> | <b>The Success Of Analyzing BAS Trend Data In Hospitals Through Existing Building Commissioning To Increase Energy Efficiency, Improve Operations, And Maintain Comfort –</b><br><i>Amin Isazadeh, Texas A&amp;M University; Sebastian Eluvathingal, Texas A&amp;M Engineering Experiment Station (TEES)</i> | <b>Distribution System Life Extension - An Alternative to Tunnels –</b><br><i>Elizabeth Nolder, RMF Engineering, Inc.; Dan Rines, University of New Hampshire</i>     | <b>Complexities and Challenges of Networked Geothermal –</b><br><i>Jacky Kinson, Tim Ashmore, &amp; Jon Welch, CDM Smith</i>                                 |
| 9:00 am – 9:25 am | <b>Understanding and Quantifying the Decarbonization Benefits of CHP in Campus District Energy Systems: University of Missouri Case Study –</b><br><i>James Wilbur, University of Missouri; Graeme Miller, US DOE Midwest CHP Technical Assistance Partnership</i> | <b>Thermal Hydraulic Modeling –</b><br><i>Giovanni Alvarez &amp; Christopher Dolan, Stanford University</i>   | <b>Development Of Campus Energy And Meter Health Dashboards –</b><br><i>Aaron Mason, Hawkeye Energy Solutions; Robbie Bauer, University of Illinois</i>  | <b>Re - envisioning the SFU Central Heating System –</b><br><i>Gary Saskiw, FVB Energy</i>  | <b>Preparing to Commission Your Geothermal, Chilled, or Heating Water Piping Through Proper Flushing and Purging –</b><br><i>Russell Buras, PurgeRite</i>    |



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| 9:30 am – 9:55 am   | <b>Western University's Heating District Future–</b><br><i>Genevieve Lussier, Equinox; Heather Hyde &amp; Joan Ang, Western University</i>                                     | <b>SESI Cost and GHG Savings after Nine Years of Operation –</b> Andrew Lau-Seim & Magdalena Brum, Stanford University                  | <b>A Plant Reliability Program that Drives Energy Optimization –</b> Brandyn Carlson, Altura; Ryan Trickett & Raymond Shell, University of Washington | <b>Campus Modernization The Untold Stories –</b> Meghan Riesterer, CenTrio; Martha Larson, RMF Engineering; David Woodson, University of Washington   | <b>Google's Moffett Park District Energy System Setting the Platform for a Net Zero Campus –</b> Michael Burns, Ever-Green Energy; Drew Wenzel, Google |
| 10:00 am – 10:40 am | <b>Refreshment Break with Business Partner Exhibitors – Grand Ballroom B</b><br><i>Sponsored by CHA Consulting &amp; Corix</i><br><b>Poster Presentations – Yosemite Foyer</b> |   |   |   |  |
| 10:45 am – 12:10 pm | <b>5A: Decarbonizing With District Energy</b><br><i>Imperial A</i><br><i>Moderator: David Jansa, KFI Engineers</i>   | <b>5B: Business Models &amp; Financing Strategies</b><br><i>Imperial B</i><br><i>Moderator: Joanna Pyun, Affiliated Engineers, Inc.</i> | <b>5C: Data Monitoring and Accounting on Campus</b><br><i>Plaza A</i><br><i>Moderator: Barry Beck, IC Thomasson</i>                                   | <b>5D: Energy Water Nexus</b><br><i>Plaza B</i><br><i>Moderator: Paul Lioce, Chem-Aqua</i>  | <b>5E: Geothermal, Cont'd</b><br><i>Golden Gate 6-8</i><br><i>Moderator: Jacky Kinson, CDM Smith</i>   |
| 10:45 am – 11:10 am | <b>Decarbonizing the Swedish First Hill Hospital: Campus Solution, Community Potential –</b><br><i>Diego Mandelbaum, Creative Energy</i>                                       | <b>Implementing a Sustainable Utility System at Mission Rock in San Francisco –</b><br><i>Michael Ahern, Ever-Green Energy</i>          | <b>Carbon Accounting 101 –</b><br><i>Lalit Agarwal, EnergyCAP, LLC; Sarah Crawford-Theurkauf, IDEA</i>  | <b>Rethinking Chemical Treatment Program Design for District Energy Systems: A Biochemical Approach –</b> Henry Becker, Earthwise Environmental, Inc.; Mark Geronime, Milwaukee Regional Medical Center | <b>Geothermal Retrofit Solution at Bard College –</b><br><i>Dave Hermantin, Brightcore Energy</i>  |
| 11:15 am – 11:40 am | <b>Leveraging Customizable Resource Consumption Informatics for Sustainability Education: EMU &amp; CenTrio P3 Collaboration –</b> Darrel Tremaine & Meghan Riesterer, CenTrio | <b>Energy and Utilities as an Enterprise: An Example of a Self-Funded Business –</b> Paul Zmick, University of Virginia                 | <b>Princeton University - Modeling Carbon Neutrality in a Changing World –</b> Lindsey Olsen, Salas O'Brien; Edward "Ted" Borer, Princeton University | <b>Managing Water Costs in an Urban Campus –</b> Charlie Barnett, Coho; Josh Lasky, George Washington University  | <b>A Good Idea Gets Better: Even Greater Geothermal Efficiency –</b> Jeff Urlaub & Brian Urlaub, Salas O'Brien   |

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| 11:45 am – 12:10 pm | <b>Pittsburgh. Ready for Tomorrow, Today</b> –<br><i>Mark Schneider, Cordia</i>   | <b>Driving Campus Energy Efficiency: Unleashing Substantial Savings with Small Energy Performance Contracts</b> –<br><i>Sylvia McIvor, University of Illinois at Urbana-Champaign; Ben Erpelding, Optimum Energy</i> | <b>Data Center Heat Re-Use as a Campus Decarbonization Strategy</b> –<br><i>Gerard MacDonald, Reshape Strategies</i>  | <b>Heat Recovery Combined with Water Reuse</b> – <i>Bob Salvatelli, NextEra Distributed Water;</i>                           | <b>District Geothermal System for an Affordable Housing Community</b> –<br><i>Celine Damide &amp; Cameron Best, Brightcore Energy</i>  |
| 12:15 pm – 1:45 pm  | <b>Campus Energy Recognition and Networking Luncheon</b> – <i>Grand Ballroom A</i><br><i>Sponsored by Burns &amp; McDonnell, Jacobs, Ramboll &amp; Thermo Systems</i>   |  |   |  |  |
| 1:45 pm – 2:25 pm   | <b>Dessert &amp; Coffee with Business Partner Exhibitors</b> – <i>Grand Ballroom B</i><br><i>Sponsored by Wiley Wilson</i><br><b>Poster Presentations</b> – <i>Yosemite Foyer</i>   |  |   |  |  |
| 2:30 pm – 6:00 pm   | <b>Exhibit Hall Tear Down</b> – <i>Grand Ballroom B</i>   |  |   |  |  |
| 2:30 pm – 3:55 pm   | <b>6A: Decarbonizing in the Northeast</b><br><i>Imperial A</i><br><i>Moderator: Sam Olmstead, Yale</i>  | <b>6B: Heating with Low Temperature Hot Water</b><br><i>Imperial B</i><br><i>Moderator: Nathan Cesarz, Affiliated Engineers, Inc.</i>  | <b>6C: Net Zero Energy Communities</b><br><i>Plaza A</i><br><i>Moderator: Travis Hickford-Kulak, Corix</i>  | <b>6D: Energy Water Nexus Cont'd</b><br><i>Plaza B</i><br><i>Moderator: Suresh Jambunathan, Energy and Water Development</i> | <b>6E: Thermal Energy Storage</b><br><i>Golden Gate 6-8</i><br><i>Moderator: Brian Wodka, RMF</i>  |
| 2:30 pm – 2:55 pm   | <b>Decarbonizing SUNY Comparative Analysis and Investment Indicators of Over 50 Low Carbon Scenarios Across 11 Campuses</b> –<br><i>Robert Neimeier, Ramboll; Lachlan Squair, State University of New York at Oneonta</i> | <b>Using a Heat-Recovery Chiller to Heat and Decarbonize a Special Collections Library at Dartmouth College</b> –<br><i>Alexandre Briere, Eequinox; Scott Hening, Dartmouth College</i>                              | <b>Vicinity Energy Kendall Station Heat Pump Project - Boston/Cambridge MA</b> –<br><i>Christopher Hastings, R.G. Vanderweil Engineers, LLP; Brian Mueller, Vicinity Energy</i> | <b>Advanced Water Conservation Strategies at CSUN</b> – <i>Austin Eriksson, California State University, Northridge</i>      | <b>Unlocking District Energy Efficiency: Exploring Brenmiller Energy's Thermal Energy Storage System at SUNY Purchase College</b> – <i>Doron Brenmiller, Brenmiller Energy</i> |



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| 3:00 pm – 3:25 pm | <b>Vicinity Kendall Station Electrification Phase 1</b> – Anthony Lepo, Affiliated Engineers; Patrick Gillooly, Vicinity Energy  | <b>Heating With Low Temperature Hot Water</b> – Dan Gentry & Morgan Hartman, Trane  | <b>Natural Refrigerants Revisited</b> – Rajesh Dixit, Johnson Controls International PLC  | <b>Are You Protecting Your Assets? Optimizing Water Chemistry Treatment &amp; Control to Ensure Reliable Steam &amp; Cogeneration Systems</b> – Daniel Dixon, EPRI | <b>Penn State University TES Study Findings</b> – Chris Vaughan, Burns & McDonnell; Glenn Leiko, Penn State University                                 |
| 3:30 pm – 3:55 pm | <b>Decarbonizing Amherst College by 2030: We Have a Pipe Dream</b> – Lindsey Olsen, Salas O'Brien; Aaron Hayden, Amherst College | <b>UVA's M R-4 Research Building HW Retrofit Compliments LTHW Conversion</b> – Jeff Creighton, Flow Control Industries, Inc.; Jason Simmons, University of Virginia | <b>Hubba Hubba Transforming District Energy Systems With Energy Hubs</b> – Adam Shelly, Ecosystem Energy Services; Kevin Turner, Georgetown University; Andy Ludwig, ENGIE North America Inc. | <b>Conserve and Save with Reliable Building Data</b> – Amber Artrip, EnergyCAP, LLC; Sean Finegan, University of Texas Medical Branch in Galveston (UTMB)          | <b>Energy Storage Comparing Battery Storage with Thermal Energy Storage TES</b> – Larry Henkel, CB&I   |
| 4:00 pm – 4:15 pm | <b>Refreshment Break &amp; Poster Presentations</b> – Yosemite Foyer   |   |   |  |  |
| 4:15 pm – 6:00 pm | <b>Poster Tear Down</b> – Yosemite Foyer   |   |   |  |  |
| 4:15 pm – 5:10 pm | <b>7A: Decarbonizing in the Northeast, Cont'd</b><br><i>Imperial A</i><br>Moderator: Dave Smith, Burns Engineering               | <b>7B: Optimizing District Energy Systems</b><br><i>Imperial B</i><br>Moderator: Mark Atkinson, Wiley Wilson  | <b>7C: Future Energy</b><br><i>Plaza A</i><br>Moderator: Jesse Conklin, BOND  | <b>7D: Connecting Campuses &amp; Communities</b><br><i>Plaza B</i><br>Moderator: Lisa Vitale, Brightcore Energy  | <b>7E: Improving Controls at Stanford University</b><br><i>Golden Gate 6-8</i><br>Moderator: Garrett Roberts, Trane                                    |
| 4:15 pm – 4:40 pm | <b>Seawater Heat Pumps for Campus Decarbonization</b> – Andrew Kozak, BR+A Consulting Engineers                                  | <b>Process Safety and Operational Risk Management Resulting in High-Reliability Operations</b> – Malcolm Bambling, University of Michigan                           | <b>CU Boulder's Hydrogen Steam Boiler Zero NOx zero CO</b> – Dean Moretton, Hydrogen Technologies LLC; Alex Warring, University of Colorado - Boulder   | <b>Demonstrating The Benefits of A Campus-Ready Microgrid</b> – Robert Kirsliis, Eaton Corporation   | <b>Cooler: Improved Management of Chilled Water and Energy Through Advanced Data Analytics and Control</b> – Jacques de Chalendar, Stanford University |

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| 4:45 pm – 5:10 pm | <b>Low to No Carbon P3 Project Updates</b> – <i>Chris DePodesta, Harrison Street</i>   | <b>From Steam to Sustainability: Princeton and the University of Oregon's Energy Evolution</b> – <i>Justin Grissom, Burns &amp; McDonnell; Jeff Madsen, University of Oregon; Edward "Ted" Borer, Princeton University</i> | <b>Beyond Ambition: Roadmap to Achieving Decarbonization Goals Through Renewable Energy Feasibility Studies</b> – <i>Ed Korevaar &amp; Mohammed Morad, Phoenix Solar Thermal Inc.</i> | <b>Thermal Energy Networks: Connecting Campuses to Communities</b> – <i>Laura Christie, CHA Consulting</i>   | <b>Stanford Central Energy Facility (CEF) Controls Migration</b> – <i>Ali Tamer, Thermo Systems; Andrew Lau-Seim, Stanford University</i> |
| 5:15 pm – 6:15 pm | <b>Campus Forum Meeting – Imperial B</b><br>A forum for open dialogue among college/university campus energy personnel only. (Limited to campus system owners only.) |  |   | <b>Business Partner Forum Meeting – Franciscan A - B</b><br>A forum for manufacturers/suppliers, service providers, operators, developers and those not directly employed with a campus energy system. |   |

| Friday, February 23 |   |
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| 7:30 am – 8:50 am   | <b>Breakfast and Technical Tour Presentations</b> – <i>Plaza Room</i><br><i>Sponsored by Affiliated Engineers</i>   |
|                     | <b>Technical Tours</b> – <i>Advanced registration required.</i>   |
| 9:00 am – 5:00 pm   | Technical Tour A – Stanford University and Google's Sunnyvale Campus<br>The bus will drop participants at SFO Airport at about 3:45 pm and then will return to the hotel around 5:00 pm |
| 9:10 am – 11:30 am  | Technical Tour B – Cordia San Francisco & Hilton Hotel( <i>no airport drop off</i> )  |
| 10:00 am – 12:00 pm | Technical Tour C – Hilton Hotel & Cordia San Francisco ( <i>no airport drop off</i> )   |

| Posters         |  |
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| <b>Poster 1</b> | <b>Weill Cornell Medicine Campus Optimization</b> – <i>Kelby Hohler, Smith Engineering; Akhil Soman, Weill Cornell Medicine</i>          |
| <b>Poster 2</b> | <b>Advancing Chilled Water Plant Optimization with Production-Side Strategies</b> – <i>Tim Stewart, Exergenics</i>                       |
| <b>Poster 3</b> | <b>Combined Engine Exhaust Solutions in CHP</b> – <i>Daniel Howland, Array Industries Inc.</i>   |
| <b>Poster 4</b> | <b>Using Dispatch Optimization Software to Decarbonize without Infrastructure Changes</b> – <i>Harry Shapiro, Dispatchr Technologies</i> |
| <b>Poster 5</b> | <b>Enhancing Cooling Tower Efficiency</b> – <i>Karim Khalil, Infinite Cooling</i>  |
| <b>Poster 6</b> | <b>Utilizing Transport Membrane Condenser (TMC) for District Heating Applications</b> – <i>Sunil Deoras, Green Swans LLC</i>             |

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| <b>Poster 7</b>  | <b>Geothermal and Rainwater Harvesting Systems to Eliminate Cooling Tower Water Use</b> – <i>Andrew Kozak, BR+A Consulting Engineers</i>   |
| <b>Poster 8</b>  | <b>Innovation, Expansion, and Modernization of a Casino CUP</b> – <i>Brendan Huss &amp; Joe Witchger, HGA</i>  |
| <b>Poster 9</b>  | <b>UC Santa Cruz: A Community Approach to Fossil-Free Utilities</b> – <i>Charlie McGowan, Affiliated Engineers, Inc</i>  |
| <b>Poster 10</b> | <b>Microsoft Thermal Energy Center - Leading the Charge on Electrification</b> – <i>Robby Oylear, Affiliated Engineers, Inc.</i>   |
| <b>Poster 11</b> | <b>Balancing Decarbonization and Regulatory Compliance: University of Denver and AEI Perspectives</b> – <i>David Conant Gilles, Affiliated Engineers, Inc.; Lynn Bailey &amp; Joseph Denfeld, University of Denver</i> |
| <b>Poster 12</b> | <b>Don't Push Against Closed Valves!</b> – <i>Rory Peters &amp; James Lescher, Ever-Green Energy</i>   |
| <b>Poster 13</b> | <b>Geothermal Solutions for Campuses: Inclined vs. Vertical Borehole Theory &amp; Delivery</b> – <i>Yaning Zhang &amp; Joshua Soble, Celsius Energy</i>  |
| <b>Poster 14</b> | <b>Bridge to the Future of Decarbonization</b> – <i>Mark McCarville, Clarke Energy</i>   |
| <b>Poster 15</b> | <b>Increasing safety and efficiency in district energy networks with hydraulic valve operation</b> – <i>Petri Tuominen, Vexve Oy</i>   |
| <b>Poster 16</b> | <b>Campus Steam to Hot Water Conversion Benefits</b> – <i>Niall Pidgeon, FVB Energy</i>  |
| <b>Poster 17</b> | <b>Utility Optimization Minimization Decarbonization</b> – <i>Rajkumar Gnanaraj, Armstrong International</i>   |
| <b>Poster 18</b> | <b>How to Reduce Your Carbon Footprint by Converting to Biofuels</b> – <i>David Eoff, Preferred Utilities Manufacturing Corp.</i>  |
| <b>Poster 19</b> | <b>Fuel Flexible District Energy Case Studies Utilizing H2 Fuel</b> – <i>Christian Mueller &amp; Uday Purani, INNIO Jenbacher</i>  |