LEADING THE WAY Campus Energy 2022



Feb. 15-18 | Westin Boston Seaport District Hotel | Boston, Mass.

CONFERENCE PROGRAM

Download the Cvent Events app to view conference materials, presentations and the most updated program.

*Please see below for details or ask for assistance at the registration desk.



IDEA is providing WiFi for attendees.

Conference WiFi: westin_conference
Password: campus2022

CampusEnergy2022 Mobile App

The conference mobile app includes all of the important items for you to reference during the conference including program, exhibit information, attendees and the Game Center where you can get points to be entered into a raffle to win prizes during the dessert break on Thursday (must be present to win).



- Download the Cvent Events app in the App Store or Google Play Store. Search for CampusEnergy2022.
- Enter your name and email to receive a verification code to log in.
 - Enter your first name, last name, and email, click "next"
 The app will send a verification code to your email.
 Enter that code, then tap "verify."
 - If you did not receive the verification code email, please visit the registration desk.

MONDAY, February 14

10:00 am - 6:00 pm	Registration Open – Grand Ballroom Foyer
12:15 pm – 12:45 pn	Workshop Speaker and Moderator Orientation Meeting – <i>Marina IV</i>
1:00 pm – 5:00 pm	Thermal Distribution Workshop – Separate advanced registration required – Harbor I-III
5:00 pm – 6:00 pm	Welcome Reception – For Workshop participants and IDEA Board of Directors – Marina Ballroom I-IV

TUESDAY, February 15

7:00 am - 6:30 pm	Registration Open - Grand Ballroom Foyer
7:00 am – 8:00 am	Workshop Breakfast – <i>Marina I-III</i>
7:20 am – 7:50 am	Workshop Speaker and Moderator Orientation Meeting – <i>Marina IV</i> Breakfast will be served for speakers and moderators. Must attend if you are speaking or moderating on this day.
8:00 am – 4:00 pm	Thermal Distribution Workshop – Separate advanced registration required – Harbor I-III
8:00 am – 4:00 pm	Microgrid Workshop – Separate advanced registration required – Commonwealth ABC
12:00 pm – 4:00 pm	Exhibitor Table Set Up – <i>Galleria Hall</i>
12:00 pm – 1:00 pm	Workshop Luncheon – For Distribution and Microgrid Workshop attendees only – <i>Marina I-III</i>
4:00 pm – 5:00 pm	Campus Forum Meeting – <i>Grand Ballroom C</i> – A forum for open dialogue among college/university campus energy personnel only. (Limited to campus system owners only.)
4:00 pm – 5:00 pm	Young Professionals Meeting - <i>Hale</i>
5:00 pm – 6:30 pm	Opening Reception with Business Partner Exhibitors - <i>Galleria Hall</i> - Sponsored by Siemens Energy & Solar Turbines

WEDNESDAY, February 16

7:00 am – 7:00 pm	Registration Open – <i>Grand Ballroom Foyer</i>
7:00 am – 7:50 am	Continental Breakfast with Business Partner Exhibitors - Galleria Hall - Sponsored by I.C. Thomasson
7:00 am – 7:50 am	District Energy Women's Initiative (DEWI) Breakfast – Hale

7:15 am - 7:45 am
Speaker and Moderator Orientation Meeting - Burroughs - Breakfast will be served for speakers and moderators.

Must attend if you are speaking or moderating on this day.

8:00 am - 8:20 am Conference Opening - Grand Ballroom A-B Introductions - Rob Thornton, IDEA President & CEO

Welcome to IDEA – Chris Potter, IDEA Chair

Welcome to Boston – Janine Helwig, MIT and Bob Manning, Harvard University, Conference Hosts

8:20 am - 9:30 am Opening Plenary Panel Discussion: District Energy: Leading the Way - Grand Ballroom AB

This discussion will focus on the ongoing evolution of campus energy utility systems in providing reliable, efficient and resilient thermal and power services to mission-critical customers and communities. As we move toward 2030, how will technologies adapt to reach carbon goals? How to best balance the concurrent missions of reliability, economy and environment? Hear how these world-class institutions are forging the future.

- Janine Helwig, Director of Utilities, Massachusetts Institute of Technology
- Bob Manning, Senior Director, Engineering and Utilities, Harvard University
- Jennifer Meisenhelder, Director of Utilities Thermal Systems, University of Florida
- Tom Nyquist, Executive Director of Engineering & Campus Energy, Princeton University
- Christopher Potter, Director of Utilities and Power Plant Operations, Architect of the Capitol
- Paul Zmick, Director of Energy & Utilities, University of Virginia

Moderated by Rob Thornton, President & CEO, IDEA

9:30 am - 10:15 am Refreshment Break with Business Partner Exhibitors - Galleria Hall - Sponsored by Affiliated Engineers & Archaea Energy

1A: The Road to Net ZeroModerator:

Lalit Agarwal,

EnergyCAP LLC

Grand Ballroom C-E

1B: Geothermal
Moderator:
Michael Boswell,
Concord Engineering

Commonwealth ABC

1C: Business Models & Financing Strategies

Moderator:

Moderator: Robert Bouwens, Siemens Energy

Harbor Ballroom I 10:15 am - 10:45 am 1D: Master Planning Moderator: John Joyce, CHA Consulting

Harbor Ballroom II & III

1E: Future Fuels Moderator: Carol Denning, Center for Sustainable Energy

Marina Ballroom I-IV

The Brutalist Truth: How UMass Dartmouth Developed Their Plan for Decarbonization – Timothy Erwin, Ramboll; Jamie Jacquart, UMass

Dartmouth

Geothermal District Heating & Cooling Technical Assistance for Communities* -Arlene Anderson, US Department of Energy Central Utility Plant Replacement Project P3 at Fresno State University – Jeff Schaller, NORESCO; Stephen Hill, Key Banc Capital Markets; Emre Erkovan, Meridiam; R. Douglas Stingelin, GLHN Architects Oakland University – District Energy Infrastructure Master Planning – Sumit Ray, Veregy; Thomas Lund-Hansen, Reliability Efficiency & Optimization LLC.

Decarbonizing Campuses with RNG – Becky Atkinson and Marc Fetten, GreenGas USA LLC

Pathway to Carbon Mitigation: UMass Amherst Campus Roadmap - Ted Mendoza

Amherst Campus Roadmap – Ted Mendoza and Ezra Small, University of Massachusetts Amherst; Zac Bloom, Competitive Energy Services Use of a Centralized Geothermal Field to Support a Live/Work/Play Campus - Anthony Thompson, and Andrew Kozak, BR+A Alternative Business Model Bringing Renewable District Energy to Burlington, VT -Michael Ahern, Ever-Green Energy

10:45 am - 11:15 am

Clean District Thermal Energy System Master Planning – A Case Study on System Considerations – Saarthak Narsipur and Mitch DeWein, CHA Consulting, Inc; Dylan Turek, City of Troy Decarbonizing District Energy: What Role Does H2 Play and When? – Steve Jenks, Jacobs

11:15 am - 11:45 am

Deconstructing
Decarbonization –
Jean-Philippe Drouin,
Ecosystem Energy Services;
Ruth Bennett, Tufts University

Developing an Aquifer Thermal Energy Storage Project in the Twin Cities – Mark Worthington, Underground Energy, LLC; Sean McFarling, Ever-Green Energy Long-Term Concession: A New Model for Comprehensive Energy Management - Francois Gressier, ENGIE Agile Planning to Meet Efficiency and Resiliency Goals – Ben Dombrowski and Max Littlefield, Jacobs Hydrogen, AI, And Other Sustainable Solutions to De-Carbonize District Energy – Joseph Matteo, NextEra Energy Resources

11:45 am - 12:15 pm

Swarthmore College: Roadmap to Decarbonization - Philip Gonski, Burns Engineering; James Adams, Swarthmore College District Energy Corporation Lincoln Electric System Operations Center Thermal Energy Plant - Dan Dixon, District Energy Corporation; Jon Nunes, Olsson

Allowing CIO₂ to Live Up to its Promise – Douwe Mason, S.O.T; Pat Guccione, Chem Aqua Wesleyan University's Logical Progression TowardCarbonNeutrality-David Madigan, Van Zelm Heywood & Shadford; Andrew Plotkin, Wesleyan University H2-Orange: Clemson Hydrogen Combined Heat and Power Storage System - Thomas Koeppe, Siemens Energy, Inc

^{*} Denotes virtual presentation

WEDNESDAY, February				
2:15 pm – 1:45 pm Campus	Energy Networking & Recogn	ition Luncheon – <i>Grand Ballro</i>	om AB & C-E – Sponsored by Jac	obs, Thermo Systems & Trane
:45 pm – 2:30 pm Dessert	& Coffee with Business Partr	er Exhibitors - <i>Galleria Hall</i>	– Sponsored by CHA Consulting	g, Inc. & Siemens Industry, In
2A: District Energy on Massachusetts Campuses: Harvard University Moderator: John Williamson, RMF	2B: Planning for the Future <i>Moderator: Nate Cesarz, Affiliated Engineers, Inc.</i>	2C: Controls, Monitoring, Metering, and Data Management Moderator: Serge Zinger, Thermo Systems	2D: Campus System Electrification Moderator: Bob Smith, RMF Engineering	2E: Future Fuels Moderator: Jesse Cabrera Stanley Consultants
Engineering Grand Ballroom C-E	Commonwealth ABC	Harbor Ballroom I	Harbor Ballroom II & III	Marina Ballroom I-IV
		2:30 pm – 3:00 pm		
Harvard DEF State of the Art Microgrid: How Harvard University is Utilizing State-of-the-Art Energy Plant to Support Growing Campus – Jared Markle, RMF Engineering, Inc.; Robert Manning, Harvard University	Redundant and Resilient Control System Design for District Energy	Phasing Controls for Critical Hospital Infrastructure – Brian Wodka and Peter Georgiev, RMF Engineering, Inc.; Jason Wittkamp, Thermo Systems LLC	The Calculus of Campus Electrification – Janine Helwig and Carlo Fanone, Massachusetts Institute of Technology	Hydrogen Firing Burner & Boiler Impact – Bob Lang stine and Bill Gurski, Zeeco, Inc.
	Facilities – Grant Selking,	3:00 pm – 3:30 pm		÷
Blackstone Combustion Furbine Inlet Cooling Retrofit - Douglas Schmidt, Harvard University	Haig Monokian and Grant Kircher, Thermo Systems	District Cooling Utility Cost Optimization at Children's of Alabama – Derek Supple, Johnson Controls Inc.	Steaming Toward Electrification – David Smith, Burns Engineering, Inc.	Progress in Using Liquid Biofuels In Solar® Turbines Incorporated DLE Industrial Gas Turbines - Priyank Saxena, Solar Turbines Incorporated
3:30 pm – 4:15 pm Refresh ı	ment Break with Business Pa	rtner Exhibitors - <i>Galleria H</i>	all – Sponsored by Boldt & Gree	enland Enterprises, Inc.
3A: District Energy on Massachusetts Campuses: MIT Moderator: Patti Wilson, Affiliated Engineers, Inc.	3B: Steam to Hot Water Conversion Moderator: Shannon McAuliffe, utiliVisor	3C: District Energy for Reliability and Resiliency Moderator: Ben Dombrowski, Jacobs	3D: Campus System Electrification Moderator: Caroline Fitzgerald, RMF Engineering Harbor Ballroom II & III	3E: Combined Heat and Power Moderator: Joe Witchger, HGA
Grafiu Battroom C-E	Commonwealth ABC		naibor battroom il & ili	Marina Dauroum I-IV
Central Utility Plant Upgrades - Bridge to the Future - Jesse Conklin, Bond Building Construction Inc.; Frances Boyle, Massachusetts Institute of Technology; Michael Thornton, Vanderweil Power Group	Implementation of A Campus-Wide Conversion from Steam to LTHW – Tim Peer, Bond Brothers; Dano Weisbord, Smith College; Mike Walters, Salas O'Brien	4:15 pm – 4:45 pm District Energy from the Start – Brandon Curry and Josh Greenfield, HDR	Impacts of the Electrification of	Case Study: Converting the UNH CHP System to Renewable Fuel – Ivaylo Nedyalkov, New England CHP TAP / University of New Hampshire

Central Uti Upgrades -	ility Plant Bridge to the
	sse Conklin, Bond
Building Con	struction Inc.;
Frances Boyl	le, Massachusetts
Institute of T	echnology;
	rnton, Vanderweil
Power Group)

Justin Carron, Eaton

Impacts of the
Electrification of
Transportation on
Campus Environments -
John Vernacchia and
Justin Carron Eaton

MIT Smart P&ID Upgrades: **How MIT Revamped** Their P&IDs with Plan for the Future - Brian Wodka and Peter Georgiev, RMF Engineering, Inc.

The Steam Stops Here -John Williamson and Eric Chrencik, RMF Engineering, *Inc.*; Frank Perry, Cornell University

Energy Management System for District Energy Systems: CHP, Storage and Renewables - Benedict Vergara, Rachel Gray, The George Washington University

4:45 pm - 5:15 pm

Italian Cogeneration Plant and its Role in Energy Transition in Europe -Rob Bouwens, Siemens Energy

CHP Operation: Where Resiliency, Carbon, and Cost Intersect – Siobhan Carr and Jon Sepich, Massachusetts Institute of Technology; Michael Webster, Icetec Energy Services

CalTech Decarbonization through Steam to Hot Water Conversion - Alex Warring, Affiliated Engineers; Maximilian Christman, California Institute of Technology

Case Studies in Creating "A New Normal" Level of Improved Hydronic System Performance Via Effective Air and Dirt Elimination* - Stephen Clinton, Spirotherm, Inc.

5:15 pm - 5:45 pm

Challenges of Electrification on Historic Campuses -Mitch DeWein, CHA Consulting, Inc

CAnDELA: District Heating and Austral Electricity* -José Mardones, Universidad Austral de Chile; Juan Pablo Berríos Peña, Agencia de Sostenibilidad Energética

Cocktail Reception with Business Partner Exhibitors - Galleria Hall 5:45 pm - 7:00 pm Sponsored by Clearway Community Energy & Ramboll Young Professionals Group (YPG) Meet Up - Galleria Hall

Networking Event – Laugh Boston 7:00 pm - 9:00 pm

Sponsored by CenTrio, Eaton, ENGIE N.A. & Johnson Controls

THURSDAY, February 17

7:00 am - 5:30 pm Registration Open - Grand Ballroom Foyer

7:00 am - 7:50 am Continental Breakfast with Business Partner Exhibitors - Galleria Hall - Sponsored by Wiley Wilson

7:15 am - 7:45 am Speaker Orientation Meeting - Burroughs

Breakfast will be served for speakers and moderators. Must attend if you are speaking or moderating on this day.

4A: The Roadmap to Decarbonization **Moderator:** Jeffrey Easton, **Burns & McDonnell**

Grand Ballroom C-E

4B: Maximizing Energy Efficiency Moderator: Mitch DeWein, **CHA Consulting**

Commonwealth ABC

4C: System Design Considerations Moderator: Jesse Conklin, Bond Brothers, Inc.

> **Harbor Ballroom I** 8:00 am - 8:30 am

4D: Modernizing Systems in Campuses, Cities & Communities Moderator: Siobhan Carr,

Massachusetts Institute of Technology

Harbor Ballroom II & III

4E: Water Conservation, **Reuse & Optimization** Moderator: Pat Guccione, Chem-Agua, Inc.

Marina Ballroom I-IV

Campus Energy System Decarbonization Panel Discussion -Moderated by Nate Cesarz. Affiliated Engineers Inc.

Panelists: Paul Zmick, University of Virainia: Jennifer Meisenhelder, University of Florida; Maximilian Christman, California Institute of Technology; Alex Kohnen, Arizona State University; Dave Larson. Brown University

Improving Delta T by Using KPI: Auburn **University** – Thomas Parker, Burns & McDonnell; Rob Engle, Auburn University

Data Center Cooling as A Primary Heat Source in Campus Hydronic District **Heating Systems** – *Drew* Turner, Danfoss

8:30 am - 9:00 am

Carnegie Mellon University - Modernizing Thermal Systems -Christopher Richardson, Wiley Wilson; Steven Guenther, Carnegie Mellon University

Evaluating Viability for Reclamation and Reuse – Bob Salvatelli. Sustainable Water

Maximizing Energy Efficiency Through Condensing

Economizers* - Joseph Richter, Combustion & Energy Systems

Computation-aided District Energy System Plant Site Selection and Network Planning* -Zheng Yang, ENGIE

Blending Old and New at The College of William & Mary - Bob Smith, RMF Engineering; Stephen Pollard, RMF Engineering, Inc.

A Novel Non-Phosphorus **Cooling Water Treatment** Technology to Address Operational and Environmental Challenges -Ashok Shetty, Suez Water **Technologies & Solutions**

Decarbonization Roadmaps for Campus and District Energy Systems -Gary Leatherman, Baker Tilly Energy Efficiency, Renewable Thermal and CHP - How the Changing Landscape of **Environmental Attributes Provides Revenue to** College Campuses -Thomas Jacobsen, Blue Delta Energy, LLC

Get the Most Boiler for Your Buck: How to Buy Central Plant Equipment - Jeff Elsner, The RMH Group, Inc.

9:00 am - 9:30 am

Resiliency Measures to Consider When Upgrading a Campus **Electrical Distribution** System – Alec Parhar, CHA Abbott Power Plant New Clarifier - Jacob Price PRVN Consultants, Inc.; Rob Roman, University of Illinois at Urbana-Champaign

Developing the Roadmap to a Decarbonized and Resilient CU Boulder -Calum Thompson, AECOM; Brian Lindoerfer, University

of Colorado Boulder

Carbon Reduction Through Efficient Use of Resources For A Gas Turbine Driven **Generator Set** – *Jean-Luc* Di Liberti, Solar Turbines

Engineering Economics for District Energy Systems: Using Valuation Techniques to Design Successful Projects -Nicholas Lewandowski and Lucas Janes, The Fulcrum Group

9:30 am - 10:00 am

Capturing Existing Asset Value: Reuse and Repurpose – Frederick Marchand, Ecosystem Energy Services; Dave Larson, Brown University

Application of District **Energy Principles for Enabling Energy and** Exergy Efficiency* -Robert Bean, Indoor Climate Consultants Inc.; Aaron Stotko, Uponor

10:00 am - 10:45 am Refreshment Break with Business Partner Exhibitors - Galleria Hall Sponsored by NextEra Energy Resources & Vanderweil

SAVE THE DATES



36th Annual Campus Energy Conference, Workshops & Trade Show

February 27 - March 2, 2023

Gaylord Texan Resort & Convention Center, Grapevine, Texas

THURSDAY, February 17 – cont'd

5A: Master Planning for Decarbonization Moderator: Nathan Ninemire, **Burns & McDonnell**

Grand Ballroom C-E

5B: Innovative Chiller **Solutions Moderator:** Guy Frankenfield, **DN Tanks**

Commonwealth ABC

5C: District Energy System Optimization Moderator: Bryan Kleist, Clearway Community Energy

Harbor Ballroom I 10:45 am - 11:15 am

5D: Tools for System Modernization **Moderator:** Laura Duncan, Gilsulate International, Inc.

Harbor Ballroom II & III

5E: District Cooling System Overhaul for Efficiency and Flexibility Moderator: Justin LaJeunesse, BOND Civil and Utility Construction, Inc.

Marina Ballroom I-IV

Arizona State University -How ASU's Utility Masterplan Yielded a Roadmap to Decarbonization – Jeff Duncan, R.G. Vanderweil Engineers, LLP; Alex Kohnen, Arizona State University

University of Nebraska-Lincoln Case Study: **Tube Fouling Prevention** Optimizes Chiller Performance - Michael Crocker, Innovas Technologies; Aaron Evans, University of Nebraska-Lincoln

New Ways of Approaching Optimization at Vicinity Energy's Baltimore **District Cooling Campus -**Pat Gillooly, Vicinity Energy; Ben Erpelding, Optimum Energy

11:15 am - 11:45 am

Data and Validated Results Lead to **Optimized Utility Operations** – Christopher Angerame, utiliVisor

Dry Layup of Cooling **Towers During Winter -**James Gleason and Matthew Clardy, Suez Water Technologies & Solutions

Amherst College Decarbonization Master Plan - Aaron Hayden, Amherst College; Lindsey Olsen, Salas O'Brien

Absorption Chiller in **District Cooling Plants -**Amit Vatsa, BROAD USA INC How Delta College Supported Their Sustainability Initiative with a **Holistic Chiller Plant** Strategy - John Schmidt,

Leveraging Performance of District Energy Networks with Modern Motors, Drives and Digital Service Solutions* -Maria Fedorovicheva, ABB

Coordinating Operations of a 4-Plant District Energy System - Joe Witchger and Brendan Huss, HGA; Mike Hanson, University of Wisconsin-Madison

Net-Zero CHP - The Key **Building Block to District Energy Decarbonization -**Kurt West, 2G Energy Inc.

Seizing the Opportunity - Leveraging Chiller Replacements to Drive **Towards Carbon** Neutrality - Jeffrey Easton, Burns & McDonnell; Thomas Bakane, Amgen

Making UND's Vision for Clean, High-Efficiency Energy a Reality - Mike Pieper, University of North Dakota; Jaime Paris Boisvert, Johnson Controls Inc

11:45 am - 12:15 pm

System Monitoring Modernization Strategies - Keith Anderson, RoviSys

Cornell's Lake Source Cooling: 21 Years of Cost, **Energy and Greenhouse** Gas Reductions – Robert Bland, Cornell University; Deirdre Lord, The Megawatt

12:15 pm - 1:45 pm Campus Energy Keynote Luncheon - Mr. Robert Mumgaard, Chief Executive Officer, Commonwealth Fusion Systems Grand Ballroom AB & C-E - Lunch Sponsored by BOND, Burns & McDonnell & Chem-Aqua Keynote Sponsored by CenTrio, Eaton, ENGIE N.A. & Johnson Controls

1:45 pm - 2:30 pm

Dessert & Coffee with Business Partner Exhibitors - Galleria Hall - Sponsored by RMF Engineering, Inc.

2:30 pm - 5:30 pm Exhibit Hall Tear Down - Galleria Hall

6A: Decarbonization Implementation **Moderator:** Bob Salvatelli, Sustainable Water

Grand Ballroom C-E

6B: System Expansion Moderator: Jennifer Meisenhelder, University of Florida

Commonwealth ABC

6C: District Energy System Optimization Moderator: Joan Kowal, NextEra **Energy Resources**

Harbor Ballroom I 2:30 pm - 3:00 pm

6D: Sustainable **Solutions Moderator:** Kimberly Garcia, Cleaver-Brooks

Harbor Ballroom II & III

6E: Thermal Energy Storage **Moderator:** Elizabeth Nolder, RMF Engineering, Ínc.

Marina Ballroom I-IV

Considerations for HRSGs in H2-Fueled Power Plants - Richard Saab, Siemens Energy

Recovered Heat as a Primary Resource at UBC Okanagan – Eric Moe, dJoule, LLC; Colin Richardson and Glen McIntyre, University of British Columbia Okanagan

Major Utility Upgrades at the University of Connecticut – John Turner, Bond Building District Energy; Craig Parker, BVH Integrated

POWER-TO-X: Hype or The Next Evolvement in Sustainable Energy Systems - Rob Neimeier and Neil Breen, Ramboll

Optimizing the University of Virginia Health System Loop – Brock Frisbie, Optimum Energy; Paul Stevens, University of Virginia

Development of an All-Electric Central Utility Plant - George Howe, Vincent Di Marco and Robby Oylear, Affiliated Engineers, Inc.

University of Iowa CapEx Program Phase TG7 and TG 8 – P. Russell Price and Matt Mercer, PRVN Consultants, Inc.

Case Study - SCR Performance Anomaly at **UMMS CHP** – Robert Fraser and Joseph Collins, UMASS Medical School

3:00 pm - 3:30 pm

3 Keys to Optimize Hydronic System -Soham Neupane, IMI Hydronic Engineering Inc.

Thermal Energy Storage (TES) for Resiliency and Capital Offset at the University of Oregon -Justin Grissom, Burns & McDonnell

3:30 pm - 4:00 pm sessions - continued on back panel

^{*} Denotes virtual presentation

THURSDAY, February 17 - cont'd

6A: Decarbonization Implementation

Moderator: Bob Salvatelli. Sustainable Water

Grand Ballroom C-E

6B: System Expansion Moderator: Jennifer Meisenhelder, University of Florida

Commonwealth ABC

6C: District Energy System Optimization Moderator: Jeffrey Easton, Burns &

McDonnell

Harbor Ballroom I 3:30 pm - 4:00 pm

6D: Sustainable Solutions

Moderator: Kimberly Garcia, Cleaver-Brooks

Harbor Ballroom II & III

6E: Thermal Energy Storage

Moderator: Elizabeth Nolder, RMF Engineering, Inc.

Marina Ballroom I-IV

Decarbonizing Oberlin College: Discoveries from Phase 1 of Program Implementation – Michael Ahern Ever-Green Energy; Meghan Riesterer and Kevin Brown, Oberlin College and

One Shutdown Allowed -Kailash Viswanathan, Arch Energy/ Consigli Construction Co., Inc.; Dan Diorio, Boston College

Efficient High Temperature Heat Pumps for District Heating - Kenneth Hoffmann, **GEA Refrigeration Technologies**

Laval University: An **Example of District Wide** Energy Recovery For 15 **Years** – Genvieve Lussier, Eequinox; Marise Vallieres, Université Laval

An Owner's Long-Term Experience with Multiple TES Installations - Dennis Bass, CB&I Storage Solutions; Roberto Del Real, University of Texas at Austin

4:00 pm - 4:15 pm

Conservatory

Refreshment Break - Grand Ballroom Foyer

4:15 pm - 5:00 pm

Closing Panel Discussion: Where Do We Go From Here? - Grand Ballroom AB

Panelists:

- Maribel Adydan, Director of Business Development, Engie North America
- Nate Cesarz, Principal, Affiliated Engineers, Inc.
- Malcolm Harkness, Director of Development, Clearway Community Energy
- Joan Kowal, Director of Development, NextEra Energy Resources
- · Steve Swinson, CEO, CenTrio

Moderated by Scott Szycher, Membership Manager, IDEA

5:00 pm - 6:00 pm

Campus Forum Meeting - Commonwealth ABC A forum for open dialogue among college/university campus energy personnel only. (Limited to campus system owners only.)

Business Partner Forum Meeting - Stone

A forum for manufacturers/suppliers, service providers, operators, developers and those not directly employed with a campus energy system.

FRIDAY, February 18

Breakfast and Technical Tour Presentations - Commonwealth ABC 7:30 am - 9:00 am

9:00 am - 1:00 pm **Technical Tours** – Advanced registration required.

Tour A - Harvard: 9:00 am - 11:00 am. Airport drop-off approximately at 11:15 am

Tour B - Harvard, MIT & MATEP (Longwood Medical Area Total Energy Plant): 9:00 am - 1:00 pm. Airport drop-off approximately at 1:30



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