



## **CONFERENCE PROGRAM**

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#### **IDEA2024** Mobile App

The IDEA2024 Mobile App includes everything you need to get you through 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 Wednesday (must be present to win).

- Download the Cvent Events app in the App Store or Google Play Store. Search for IDEA2024: District Energy for Sustainable Cities
- Enter your name and email to receive a verification code to log in.
  - Enter your first name, last name, and the email you registered for the conference with, 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 IDEA Registration Desk.



MONDAY, .	JUNE 17			
6:15 am – 2:00 pm	IDEA Annual Golf Tournament – Disney's Palm Golf Course, An Arnold Palmer Course			
7:00 am – 7:00 pm	Registration Open – Crystal Registration Desk			
8:00 am- 4:00 pm	Exhibit Setup – Oceans 5-12			
7:00 am – 8:00 am	Workshop Breakfast – Oceans 3-4 (Breakfast for all registered workshop attendees.)			
7:00 am – 7:45 am	Workshop Speaker Orientation Meeting – <i>Palani</i>			
8:00 am – 3:50 pm	Workshop – District Energy for Sustainable Cities – Oceans 1-2			
4:00 pm – 5:10 pm	Forums – Open meetings for attendees to discuss current industry issues by specialty area.  • District Cooling Forum – <i>Tarpon</i> • Industry Leaders Forum – (General Manager, President and C-Level DE Operating System members) – <i>Unicorn</i> • District Energy Women's Initiative (DEWI) Forum – <i>Palani</i> • Future Energy Forum – <i>Nomeus</i> • Business Development Forum – <i>Walu</i> • Young Professionals Group (YPG) Forum – <i>Zander</i>			
5:15 pm – 6:30 pm	Ribbon Cutting to Open Exhibit Hall for Business Partners Welcome Reception – Oceans 5-12  Sponsored by CenTrio, Enwave & Johnson Controls			
7:00 pm – 9:30 pm	Annual Awards and Welcome Dinner – Crystal Ballroom Sponsored by Cordia, Corix & Empower			

TUESDAY, J	TUESDAY, JUNE 18				
7:00 am – 6:45 pm	Registration Open – Crystal Registration Desk				
7:00 am – 7:50 am	Breakfast with	Breakfast with IDEA Business Partners – Oceans 5-12 – Sponsored by Ramboll			
7:00 am – 7:45 am	Speaker Orientation Meeting/Breakfast – Speakers and moderators for this day must attend – Palani				
8:00 am – 8:20 am	Introductions Welcome to ID	Conference Opening – Crystal Ballroom Introductions – Robert Thornton, IDEA President & CEO Welcome to IDEA – Carlyle Coutinho, IDEA Chair, Enwave CEO Welcome to Orlando – Attila Miszti, Chief Operating Officer, Orlando Utilities Commission			
8:20 am – 9:20 am	Opening Plenary Panel # 1 – District Energy for Sustainable Cities – Crystal Ballroom Panelists:			n	
	Moderated by	Rob Thornton, President & CEO, IDE	EA		
9:20 am – 10:15 am	Opening Plenary Panel # 2 – Global Leaders Panel – Crystal Ballroom Panelists:  • Khalid Al Marzooqi, CEO, Tabreed (Abu Dhabi, UAE)  • Ahmad Bin Shafar, CEO, Empower (Dubai, UAE)  • Joan Kowal, Client Manager, Energy & Power – Americas, Jacobs (USA)  • Werner Lutsch, CEO, AGFW (Germany, EU)  • Hilda Cristina Mariaca Orozco, Coordinator District Energy Projects, Ministry of Environment, Colombia (Latin America)  • Gabriele Pesce, Innovation & Sustainable Finance Director, Euroheat & Power (Belgium, EU)  Moderated by Rob Thornton, President & CEO, IDEA				
9:30 am – 3:00 pm	Spouse/Signif	Spouse/Significant Other Program – A day at Disney Springs for registered spouse/guests.			
10:15 am – 10:55 am	Refreshment E	Break with IDEA Business Partners -	- Oceans 5-12 – Sponsored by A	ffiliated Engineers	
Session A: Ocean	ns 1	Session B: Oceans 2	Session C: Oceans 3	Session D: Oceans 4	
1A Large Heat Pumps and Energy Recovery Technologies Moderator: Larry Salguero, Baker Hughes		1B Smarter Cities and Resilient Energy Infrastructure Moderator: Kimberly Greene, 2G Energy	1C Controls, Monitoring and Meterings Moderator: Jeffry Childress, Thermo Systems	<b>1D</b> Geothermal Symposium Moderator: Bryan Kleist, Cordia	
		11:00 am –	11:25 am		
Steam Heat Pumps & District Applications – Cameron Leitch, Enwave Energy Corporation; Jonathan Leape, Arup		Driving The Future of Plant Optimization With Transformational Technology – Mark Thompson & Kate Anderson, Johnson Controls	Data: The First Step In Your Decarbonization Journey – Lalit Agarwal, EnergyCAP, LLC	U.S. DOE Community Geothermal Heating and Cooling Design and Deployment Status – Arlene Anderson, US Department of Energy	
11:30 am – 11:55 am					
System with Large-Scale Heat		Transforming the Bellingham's Waterfront District with District Energy – Jeff Giffin, Corix	Autonomous AI for Mission Critical Cooling Optimization – Melanie Malone, Merck; Christine Phillips, Phaidra	Hybrid Geothermal Systems for Campuses – David Traxler, Burns & McDonnell	
	12:00 pm – 12:25 pm				
Energy Storage – Harry Lam, to Improve Resiliency an		Leveraging a Modular Approach to Improve Resiliency and Modernize Aging Infrastructure – York Brogden, Jacobs	The Cyber-Security Expedition: Mapping Out Critical Control Safety – J. Brandon Cook, Thermo Systems	From Campus to Community: Framingham Utility Geothermal Network Project – Joshua Soble, Celsius Energy; Zeyneb Magavi, HEET	

# TUESDAY, JUNE 18 - Cont'd

12:30 pm – 2:00 pm  Keynote Luncheon – Crystal Ballroom  MOU Signing – AGFW & IDEA  Keynote Address by Brian Deese, MIT Institute Innovation Fellow, former Director, National Economic Council  Sponsored by Burns & McDonnell, Siemens Energy & Thermo Systems						
2:00 pm – 2:40 pm	2:00 pm – 2:40 pm  Dessert and Coffee Networking Break with IDEA Business Partners – Oceans 5-12  DEWI Meetup  Sponsored by Jacobs					
Session A: Ocean	ns 1	Session B: Oceans 2	Session C: Oceans 3	Session D: Oceans 4		
2A Large Heat Pu Energy Recov Technologies, Moderator: Jim Rii	ery Cont'd	2B Smarter Cities and Resilient Energy Infrastructure, Cont'd Moderator: Michele Bryant, Austin Energy	2C P3 to Accelerate Energy Infrastructure Moderator: Colin Moyer, Affiliated Engineers	2D Geothermal Symposium, Cont'd Moderator: Dalia El Tawy, Siemens Energy		
		2:45 pm –	· 3:10 pm			
Large Seawater Heat Pump with CO <sub>2</sub> as Refrigerant – Alexandre de Rougemont, MAN Energy Solutions		Proactive Assessment of Climate Change Impacts: MIT Heat Impacts Case Study – Jesse Cabrera, Stanley Consultants; Pierce Holloway, Resilient Analytics, a Stanley Consultants company	Public Private Partnerships to Accelerate Energy Infrastructure – Rick Humphries, Salas O'Brien	Distributed Geothermal Supply, Demand and Adoption Modeling For Evaluating Potential of Ambient Loop District Heating And Cooling Systems – Koenraad Beckers, National Renewable Energy Laboratory		
		3:15 pm –	3:40 pm			
Natural Refrigerant Heat Pump for District Energy Systems – Benoit Rodier, CIMCO		Accelerating Cities Decarbonization Plans from Concept to Action – Nicole Stika, World Kinect; Aaron Marcovy, NOPEC	Public / Private Partnerships to Expedite District Scale WET Projects – Mel Clark, CleanTech Alliance	Large Heat Pump Integration with Multilateral Closed-Loop Geothermal Systems – Ryan Martin, Eavor Technologies		
3:45 pm – 4:25 pm	Refreshment B	Break with IDEA Business Partners –	Oceans 5-12 – Sponsored by Ba	ker Hughes		
Session A: Ocean	ns 1	Session B: Oceans 2	Session C: Oceans 3	Session D: Oceans 4		
3A Large Heat Pumps and Energy Recovery Technologies, Cont'd Moderator: Morgan Hartman, Trane		3B Distribution Systems and Customer Buildings Moderator: Ayman Fahmy, KWL	3C District Energy and CHP Case Studies in Cities, Communities and Campuses Moderator: Lalit Agarwal, EnergyCap	3D Geothermal Symposium, Cont'd Moderator: Jenae Batt, Ever-Green Energy		
		4:30 pm –	4:55 pm			
District Connected Heat Pumps at The Royal York Hotel – Carson Gemmill, Enwave Energy; Dan Stranges, Continual Energy Inc.		Line Planning in an Urban Generation Geotle Energy; Environment: Considerations Heating Cooling		G2COOL: Geothermal Cooling – Antonio Di Cecca, National Central Cooling Company PJSC (Tabreed)		
		5:00 pm –	5:25 pm	•		
First Year Insight from a Large Heat Pump Producing 170F Heating Water at UVA — Paul Zmick, University Of Virginia; Samuel Chatterton, Johnson Controls; Colin Moyer, AEl		Year Insight from a Large Pump Producing 170F ng Water at UVA – Paul k, University Of Virginia; uel Chatterton, Johnson  Looking Through a Long-Term Lens: Modeling District Energy Service Demand Through 2050 – Courtney Sourmehi, US Energy Information		Decarbonizing Downtown Denver with an Ambient Loop Geothermal System — Brian Urlaub, Salas O'Brien		

## TUESDAY, JUNE 18 - Cont'd

 Reception with Business Partners in the Exhibit Hall – Oceans 5-12 YPG Meetup Sponsored by CenTrio, Enwave & Johnson Controls
Open Evening – Enjoy an open evening.

7:00 am – 4:00 pm	Registra	Registration Open – Crystal Registration Desk			
7:00 am – 7:50 am	Breakfa	Breakfast with IDEA Business Partners – Oceans 5-12			
7:15 am – 7:45 am	Speaker	Speaker Orientation Meeting/Breakfast – Speakers and moderators for this day must attend – Palani			
Session A: Ocea	ıns 1	Session B: Oceans 2	Session C: Oceans 3	Session D: Oceans 4	Session E : Coral Ballroom
4A Large Heat Pumps and Energy Recovery Technologies, Cont'd Moderator: Paul Holt, Corix		4B Policy and Funding Opportunities Moderator: Mark Spurr, FVB Energy	4C District Cooling Thermal Energy Storage Moderator: Mark Schneider, Cordia	4D Maximizing Resiliency with Microgrids Moderator: Lindsey Kuhnen, Jacobs	4E Decarbonizing with District Energy Moderator: Rob Neimeier, Ramboll
			8:00 am - 8:25 am		
Enabling Ambition Climate Action Go the University of I Columbia (UBC) v District Energy – S Prakash, Corix	oals at British vith	The Push for Electrification: Status, Challenges and Strategies – Mark Spurr, FVB Energy Inc.	A Brief World Tour of Unique Thermal Energy Storage Installations – John Andrepont, The Cool Solutions Company	Microgrids and Decarbonization: Myths and Realities – Justin Gruetzner, Burns & McDonnell	The New Carbon Frontier Integrating Embodied Carbon in Energy Planning – Annie Kell & Chris Vaughan, Burns & McDonnell
			8:30 am – 8:55 am		
Bitcoin & Brews: NOT Your Father's Server Heat Recovery Solution – Jennifer Zee & Colin Sullivan, MintGreen		Maximizing the Tax Benefits in the Inflation Reduction Act – Gelane Diamond, Duncan, Weinberg, Genzer & Pembroke, P.C.	Decarbonizing District Energy Using "Thermal Batteries" – Jim Koontz, Rock Energy Storage; Gadi Sharir, Brenmiller Energy	Hybrid Energy Solutions for Sustainable Cities – Alex Marshall, Clarke Energy	Revolutionizing District Energy with a Strategic GHG Integration Program – Meghan Riesterer, CenTrio; Maria-Louise McMaster, Quinn & Partners
			9:00 am – 9:25 am		
Decarbonizing Toronto General Hospital: Converting DE Steam to Low-carbon – Ankur Mehrotra, Enwave Energy Corporation; Frankie Tarascio, Purpose Building		Funding Opportunities for Energy Investments – Stephen Borman, Rick Clifford, Hannah Hawkins, KPMG	Maxwell Nanoparticles Field Test at Plant AD-017 in Abu Dhabi – Antonio Di Cecca, National Central Cooling Company PJSC (Tabreed)	Microgrids And On-Site Power Generation For Data Centers – Dalia El Tawy, Siemens Energy	The Evolution and Decarbonization of Dockside Green's District Energy System – Jason Owen, Corix
		1	9:30 am – 9:55 am	<u> </u>	
Hamilton's Electric Shift: Transforming District Energy with E-Boilers & Heat Pumps – Mike Hassaballa, HH Angus; Joshua Fitzpatrick, Hamilton Community Enterprises		Mandatory Heating Planning Policy in Germany – Werner Lutsch, AGFW	Roundtable Discussion on Thermal Energy Storage – Moderated by John Andrepont	Building and Owning a Campus Microgrid that Maximizes Renewable Energy – Pavan Mandava & Nina Selak, Jacobs	Decarbonizing District Steam Energy at UPMC – Adriana Roath & Joe Witchger, HGA
8:15 am – 4:00 pm	1.	  Significant Other Program		l	I

### WEDNESDAY, JUNE 19 - Cont'd

Session A: Oceans 1	Session B: Oceans 2	Session C: Oceans 3	Session D: Oceans 4	Session E: Coral Ballroom
5A Large Heat Pump and Energy Recov Technologies, Co Moderator: Rajesh Dis Johnson Controls	very and Optimization nt'd Strategies	5C Utilizing Wastewater Moderator: Leslie Fangman, Fangman Associates	5D District Energy 102 with the IDEA Young Professionals Group Moderator: Paige Davis, Austin Energy	5E Decarbonizing with District Energy, Cont'd Moderator: Johnathan Coleman, Solar Turbines
	10:45 am – 11:10 am		10:45 am – 12:10 pm	10:45 am – 11:10 am
Thermal Energy Netwo in Rochester, MN – Scot Ramsey, City of Rochester, MN	orks Utilizing Recycled Water In District Cooling Plants: A Case Study of Success In Water-Scarce Regions – Eng Hamad Mohammed Bawazir, Qatar General Electricity & Water Corporation	Harnessing Hidden Energy: Wastewater Energy Recovery Overview and Case Study: Ieləm Develop- ment – Michael Albertson, SHARC Energy Systems Inc	Are you new to District Energy and looking for a solid introduction to the terms and topics that will benefit you as you grow in this industry? Then	Developing Enwave's ESG Report: Building a Strong Foundation for Future Disclosures – Sarah Bertollo, Enwave Energy Corporation
	11:15 am – 11:40 am		we invite you to attend	11:15 am – 11:40 am
Heat Pump for Industri Steam Production Usir Natural Refrigerants – Thomas Staude, MAN Energy Solutions SE	, ,	Wastewater Heat Recovery District Systems: An Opportunity to Drive Energy Resiliency, Savings and Decarbonization — Ed Rubinstein, Noventa Energy Partners	District Energy 102 presented by the IDEA Young Professionals Group. Presentations to include:  1. Software & Analytics – Sarah Kline, HanAra Software	Decarbonization with District Energy – Niall Pidgeon & Madeleine King, FVB Energy Inc.
	11:45 am – 12:10 pm		2. Thermal Distribution – Derek Tompkins, & Zach Ecker, Primoris Energy Services Corporation 3. Heat Pumps – Bashar Naser, CIMCO Refrigeration	11:45 am – 12:10 pm
Decarbonizing Life Science with Sewer Heat – Devon Powell & Michael Hedrick, McKinstry	Water Conversation Via pH Control –	Using Wastewater as a Thermal Source for District Heating/ Cooling – Nate Madding, HUBER Technology		Major Scale Collaborative CO <sub>2</sub> Mitigation: Innovating Steam Technologies to Support Imminent Climate Goals in Seattle – Darrel Tremaine, Ian Goepferd, CenTrio
12:15 pm – 1:45 pm IDEA Annual Business Meeting and Recognition Luncheon – Crystal Ballroom Sponsored by Chem-Aqua, Solar Turbines & Trane				
Sp Ra	Dessert and Coffee Networking Break with IDEA Business Partners – Oceans 5-12 Sponsored by Stanley Consultants Raffle prizes to be awarded, must be present to win.			
2:25 pm – 6:00 pm Exhibit Hall Tear Down – Oceans 5-12				





### WEDNESDAY, JUNE 19 - Cont'd

Session A: Oceans 1	Session B: Oceans 2	Session C: Oceans 3	Session D: Oceans 4	Session E: Coral Ballroom
6A Sustainable District Energy Moderator: Jesse Cabrera, Stanley Consultants	6B Meet the Experts Moderator: Scott Szycher, IDEA	6C System Expansion, Modernization and Renewal Moderator: Nathan Ninemire, Burns & McDonnell	6D Future Fuels Moderator: Meghan Riesterer, CenTrio	6E Decarbonizing with District Energy, Cont'd Moderator: Neil Breen, Ramboll
2:30 pm – 2:55 pm	2:30 pm – 3:25 pm		2:30 pm – 2:55 pm	
District Energy Decarbonization Study – Aaron Frahm & Robert Spreitzer, Cordia	Meet the Experts Panel Panelists include representatives from:	Utilizing Existing Utilities to Transform Campus Utilities – Blake Ellis, Burns & McDonnell; Brett Gorden, Mayo Clinic	Financial Cases for Hydrogen Boilers – Aaron Nackos, Hydrogen Technologies LLC	City of Oneonta, NY – Decarbonizing from Natural Gas: Comparative Analysis of Thermal Energy Network Alternatives – Rob Neimeier, Ramboll
3:00 pm – 3:25 pm	• Jim Riley, CenTrio		3:00 pm – 3:25 pm	I .
Advancing Energy Transition: Design Considerations for Electrode and Resistive Boilers for Sustainable District Energy – Mike Hassaballa & Greg Snow, HH Angus	<ul> <li>Jason Brimble, Enwave</li> <li>Mark Thompson, Johnson Controls</li> </ul>	T.I.G.E.R. Geo-exchange Campus Energy – Ralph Merritt & Brooke Lautt, The Whiting-Turner Contracting Co.	HYFLEXPOWER: Successful Demonstration of a Power-To-X-To-Power Project With a 100% H2 Turbine – Alexander Lawford, Siemens Energy	Maximize Decarbonization of Electric Grid by Turbine Inlet Cooling of District Energy Systems – John Andrepont, The Cool Solutions Company

THURSDAY, JUNE 20		
7:30 am – 9:00 am	Breakfast Briefing with Pre–Tour Overview Presentation – Crystal Ballroom A/B	
9:15 am – 1:30 pm	Technical Tours – Pre-registration is required to attend the Technical Tours.  Technical Tours will visit two of OUC's cooling plants – Downtown North Plant and the Universal Plant.  The bus will drop participants at Orlando International Airport around 1:00 pm before returning to the Renaissance Hotel.	

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1800 West Park Drive, Suite 350 Westborough, MA 01581 phone: +1 (508) 366-9339 www.districtenergy.org