

cycloneENERGYgroup

**6TH ANNUAL
INNOVATION RODEO**



Week 2: COVID 19 & Decarbonization Update

Wednesday, September 29

10am - High Noon



Dr. William Bahnfleth

Professor of Architectural Engineering, Penn State University

William Bahnfleth is a professor of architectural engineering at the Pennsylvania State University. He held previous positions as Senior Consultant for ZBA, Inc. in Cincinnati, OH and Principal Investigator at the U.S. Army Construction Engineering Research Laboratory in Champaign, IL. He holds BS, MS, and PhD degrees in Mechanical Engineering from the University of Illinois and is a registered professional engineer. At Penn State, Dr. Bahnfleth teaches undergraduate courses in HVAC fundamentals and system design, and graduate courses in district cooling systems and indoor air quality. His research interests cover a wide variety of indoor environmental control topics including chilled water pumping systems, stratified thermal energy storage, protection of building occupants from indoor bioaerosol releases, and ultraviolet germicidal irradiation systems. He is the author or co-author of more than 170 technical papers and articles and 14 books and book chapters. Dr. Bahnfleth is a fellow of ASHRAE, the American Society of Mechanical Engineers (ASME) and the International Society for Indoor Air Quality and Climate (ISIAQ). He served as President of ASHRAE in 2013-2014 and currently chairs its Epidemic Task Force. His ASHRAE honors include the Louise and Bill Holladay Distinguished Fellow Award, E.K. Campbell Award, and F. Paul Anderson Award. He is also a recipient of the Penn State Engineering Alumni Society's World-Class Engineering Faculty Award and a Penn State Exemplary Designation for Faculty Outreach.

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Dr. Dru Crawley

Director, Building Performance Research, Bentley Systems, Inc.

Dru Crawley is Bentley Fellow and Director, Building Performance Research focusing on building performance, zero-energy Buildings, decarbonization, digital twins, smart cities, sustainability, and resilience. Prior to being elevated to Bentley Fellow in 2014, he led development of Bentley's building performance software suite for four years. Before joining Bentley in 2010, Dr. Crawley developed and managed EnergyPlus and the USDOE's Commercial Buildings Initiative (now Better Buildings Initiative and Alliances) promoting creation of net-zero-energy buildings. With more than 40 years of experience in buildings energy efficiency, renewable energy, and sustainability, he has worked in engineering software development, government research and standards development organizations, as well as building design and consulting companies. He received his PhD in Mechanical Engineering from University of Strathclyde in Glasgow, Scotland on the topic of building simulation as a policy tool, and a Bachelor of Architecture from University of Tennessee, and is a registered architect. Dr. Crawley is active in ASHRAE (Director-At-Large on ASHRAE Board, member of Task Force on Building Decarbonization, Chair of Standard 169 (Climatic Data for Building Design Standards), member of SSPC 189.1 (Standard for the Design of High-Performance, Green Buildings Except Low-Rise Residential Buildings), as well as a member of Standards PC 105R, 140, 205R, 209R, 228P, and 229P. His is a former member and Chair of Standards Committee as well a past member of the Technical Activities, Research Administration, Advocacy, and Grassroots Government Activities Committees, and past chair of Technical Committees 2.8, 4.2, 4.7, and 7.1). He was elevated to ASHRAE Fellow in 2009 and achieved ASHRAE BEMP (Building Energy Modeling Professional) certification in October 2012, and received the ASHRAE Exceptional Service Award (2013), Service to ASHRAE Research Award (2012), Distinguished Service Award (2003), and Symposium Best Paper Award (1999) for "Which Weather Data Should You Use for Energy Simulations of Commercial Buildings?"