



## FEATURE Conference wrapup CampusEnergy2016: “The Changing Landscape”

Conference photos Jerry Hughes.

It’s been said that everything is bigger in Texas, and IDEA’s 29th Annual Campus Energy Conference, with its theme “The Changing Landscape,” certainly lived up to that expectation. Held Feb. 8-12, 2016, at the JW Marriott Austin hotel, the conference attracted over 840 registrants from colleges and universities, government agencies, and leading manufacturers and service providers based in 10 countries, 44 U.S. states and four Canadian provinces – establishing a new attendance record for this event.

Especially noteworthy was the largest-ever number of first-time attendees. An astounding 33 percent of the total attendees were attending their first IDEA conference – in absolute terms, 279 new faces. That reflects an increase of 150 percent over the last year’s campus conference in Denver where 28 percent of registrants were first-timers. Clearly, this IDEA event has gained a reputation for excellent content and high-quality participants. Throughout the conference, there was a buzz of enthusiasm in the air, with numerous attendees volunteering positive assessments of the best-practice insights gained from the workshops, technical presentations and panel discussions. The trade show was busy and active with plenty of networking, conversation and connecting with representatives from the 102 companies hosting exhibits at the event.

Three heavily attended workshops kicked off the event Monday and Tuesday, followed by opening panels and a multitrack series of rich technical presentations Wednesday and Thursday. Friday featured guided

technical tours of key portions of The University of Texas at Austin district energy system and two Austin Energy systems.

### DISTRIBUTION, DATA AND A DEEPER DIVE

The first session on the agenda was the “Thermal Distribution” workshop, held Monday afternoon and all day Tuesday. Co-chaired by Patrick Davin of Veolia North America and Jim Riley of Texas A&M University, the workshop drew 164 total attendees – a record turnout for the 26th year of this high-interest event. The program bifurcated into steam distribution and hot and chilled-water tracks, enabling conferees to focus on topics of key interest in each of these areas. Steam topics featured were remote monitoring of distribution assets, various piping design issues, and advances in water hammer prediction and control. Hot water and chilled-water workshop topics included advances in water treatment, high-pressure flushing technology, coil freezing prevention, corrosion control and new piping materials. The workshop concluded

Tuesday afternoon with a joint session featuring fiber-reinforced polymer (FRP) repair of concrete tunnels and man-holes and tunnel communications systems, as well as a roundtable discussion of issues covered and for future consideration.

The “Intelligent Data for a Smart, Resilient & Sustainable Campus” workshop, chaired by IDEA’s Laxmi Rao, opened with a discussion panel consisting of Abbe Bjorklund, Dartmouth College; Joan Kowal, Emory University; Mark Petty, Vanderbilt University; Juan Ontiveros, UT Austin; John Vucci, University of Maryland; and Les Williams, Texas A&M University. Discussions focused on the leveraging of data describing efficiency, resiliency, O&M performance and future building design by campus energy and water infrastructure managers, students, faculty and other campus stakeholders, to encourage the strategic stewardship of available energy and water resources. Presentations followed on the energy-water nexus, handling of big data, the “Internet of things” and innovations such as on-site dash-

boards to make users aware of their consumption and to encourage conservation, and much more.

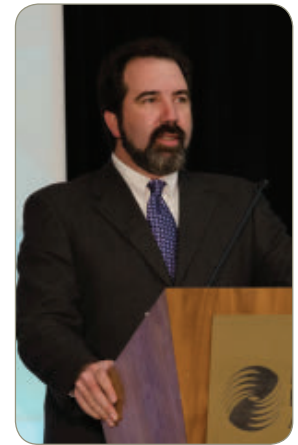
The third workshop, “A Deeper Dive into EPA Clean Power Plan,” chaired by IDEA President and CEO Rob Thornton, featured insightful presentations from Avi Zevin of Van Ness Feldman and IDEA’s Legislative Director Mark Spurr of FVB Energy. The presentations included an overview of the Clean Power Plan and a detailed look at its proposed model trading rule, implications for campus district energy, the opportunities inherent in the plan for CHP systems, and the likely state-by-state variations in rate-based and mass-based targets. Presentations were followed by a lively exchange of audience questions and responses from the speakers.

### THE CHANGING CAMPUS LANDSCAPE

IDEA Vice Chair Tim Griffin of RMF Engineering launched the formal portion of the campus conference Wednesday morning, cordially welcoming attendees as a pinch hitter for injured IDEA Chair Bruce Ander, who was unable to travel. Conference Technical Chair Ryan Thompson of The University of Texas at Austin, this year’s conference host, welcomed the gathering to Austin and provided an overview of the technical conference program.

The traditional opening plenary panel discussion followed, focusing on the theme “The Changing Campus Landscape.” Moderated by IDEA’s Rob Thornton, it featured panelists Mark Kirschenbaum, University of Washington; Joan Kowal, Emory University; Bob Manning, Harvard University; Tom Nyquist, Princeton University; Juan Ontiveros, UT Austin; Kent Reifsteck, University of Illinois; and Mark St. Onge, University of Arizona. These panelists shared strategies and best practices in managing the many dimensions of change affecting their campuses.

Discussion highlights included the panelists’ insightful responses to questions posed by Thornton: How



Welcoming campus conference attendees were (from left) IDEA President and CEO Rob Thornton, IDEA Vice Chair Tim Griffin and Conference Technical Chair Ryan Thompson of The University of Texas at Austin.



Moderated by IDEA’s Rob Thornton, “The Changing Campus Landscape” panel featured participants (from left) Mark Kirschenbaum, University of Washington; Joan Kowal, Emory University; Bob Manning, Harvard University; Tom Nyquist, Princeton University; Kent Reifsteck, University of Illinois; Juan Ontiveros, UT Austin; and Mark St. Onge, University of Arizona.



Conference goers touring the UT Austin district energy system were dwarfed by one of the plants’ heat recovery steam generators. The campus can island 100 percent, providing all of its electricity, heating and cooling demand at will.



Photo Len Phillips.

The technical tour of Austin Energy facilities included the downtown District Cooling Plant II and the Mueller Energy Center CHP plant. Here tour guide Michele Bryant (center), senior power system engineer, addressed the group at the chilled-water plant.



For the second year in a row, the University of Virginia won top honors in the annual Campus Energy System Video Contest. Pictured (from left) are video team members Jennifer Natyzak, Michael Jones and Adrianna Gorsky with IDEA's Rob Thornton.

important is sustainability to your students, trustees and administration? In other words, is having a low-carbon footprint more important than having a winning football team? (This immediately generated universal smiles.) And what has been the most significant change on campus over the past five years?

A packed agenda of 78 technical presentations and two symposia followed and continued through Thursday. IDEA member campuses shared innovations, new technology investments and strategies for investing in clean energy. Most presentations featured discussion of best practices to generate economic as well as environmental rewards.

Topics included detailed case studies in campus energy master

planning, combined heat and power, optimization and expansion of district cooling systems, innovations in resiliency, efficiency and waste energy recovery, carbon footprint reduction, metering and controls, training and talent management, creative project finance, demand response, information management, microgrids and more. As at all IDEA events, continuing education units (CEUs) were available to all registrants.

The IDEA Campus Forum met Thursday after the technical presentations, providing an open meeting where campus energy peers discussed the ideas and lessons learned from previous days' sessions and suggested topics for consideration for next year's campus energy conference program.

### TWO-TIME VIDEO CONTEST WINNERS

For the past five years, IDEA has held a video contest for student sustainability clubs at IDEA member institutions in an effort to start a dialogue around the importance of efficient and sustainable district energy systems.

The University of Virginia was announced during Wednesday's networking luncheon as the winner of the annual Campus Energy System Video Contest – for the second year in a row. The university's winning students were on hand to receive the award and gained valuable exposure to the district energy industry by attending the conference. Their winning submission can be viewed on the IDEA YouTube page: [www.youtube.com/DistrictEnergy1](http://www.youtube.com/DistrictEnergy1).



The trade show, featuring exhibits from 102 companies, was well-attended.

### PLAN NOW FOR 2017

IDEA looks forward to bringing campus energy stakeholders together again next year for the association's 30th Annual Campus Energy Conference and Trade Show. It's set for Feb. 18-24, 2017, at the Hyatt Regency Miami in Miami, Fla. Mark your calendars now!

## IDEA, GBCI COMMIT TO COLLABORATION ON MICROGRIDS, DISTRICT ENERGY/CHP

At a ceremony Wednesday, Feb. 10, IDEA and Green Business Certification Inc. formally signed a memorandum of understanding calling for further collaboration and cooperation to promote more sustainable, efficient and resilient electricity and thermal grids through the Performance Excellence in Electricity Renewal (PEER) certification program. GBCI is an independent credentialing entity that administers the PEER program for the U.S. Green Building Council. The MOU was signed during IDEA's 29th Annual Campus Energy Conference in Austin, Texas.

This agreement is evidence of USGBC's recognition that good infrastructure and integration of clean energy efficiency are part of resiliency and that there is a shift under way from just looking at the energy efficiency of single buildings to looking at entire communities, campuses and cities. It reflects a growing trend among IDEA member campuses already operating and optimizing their electricity systems in conjunction with thermal energy utilization. The MOU gives the industry a framework for working together and identifying best practices as they relate to grid operation and optimization.

The PEER certification program measures and improves power system performance and electricity delivery systems. It provides a comprehensive framework for defining, assessing and verifying the overall sustainable performance of electricity delivery system design and operations. The standards enable project teams to assess their current state, develop strategies for improvement, advance the business case and verify the value of system changes. PEER is the driving force behind the USGBC's vision to transform power systems, and it is the nation's first comprehensive, data-driven approach to evaluating and improving power system performance.

Under the leadership of Juan Ontiveros, associate vice president of utilities and energy management at the University of Texas at Austin, that institution became the first college campus in the world to attain PEER certification in 2014. According to GBCI in its report on the university's certification process, achieving PEER certification demonstrated Ontiveros' leadership in transforming the power

industry. The report identified the campus as "a showcase example of sustainable electricity system design," noting that "PEER certification validates UT Austin's accomplishments, sets a benchmark for other campus facilities, and demonstrates UT Austin's commitment to sustainable power systems and continuous improvement."

IDEA presented a special award to Juan Ontiveros during the Wednesday luncheon to commemorate his many contributions to advancing the industry and for his continued support and contribution to shared learning.



Signing the MOU between IDEA and GBCI are (front, from left) Rob Thornton, president and CEO, IDEA; and David Witek, senior vice president, finance, operations and administration, USGBC. Looking on are (back, from left) Aurel Selezeanu, Duke University; Jim Adams, University of Michigan; Ken Smith, District Energy St. Paul; Tim Griffin, RMF Engineering; Jamie Statter, USGBC; and John Kelly, PEER.



In recognition of his many contributions to advances in district energy, Juan Ontiveros of UT Austin was presented by IDEA with a Special Recognition for Global Leadership Award. From left are Tim Griffin, Dave Witek, Juan Ontiveros and Rob Thornton.

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