



Global Campus Energy Manager's Workshop

Day 1 - Tuesday, October 22

UC Davis Conference Center - Ballroom B

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|--------------|---|--------------|---|
| 8:30 | Breakfast | 12:15 | Lunch |
| 9:00 | Welcome & Introduction <i>Allen Tollefson, AVC Facilities, UC Davis</i> | 1:00 | Campus Energy Manager Workshops Afternoon Kickoff <i>Kelly Ratliff, Vice Chancellor, UC Davis</i> |
| 9:15 | UCOP Carbon Neutrality Initiative <i>David Phillips, Associate VP for Energy & Sustainability, UC Office of the President</i> Introduction to the University of California's Carbon Neutrality Initiative; learn about the progress and strategic planning for all UC campuses to be carbon neutral by 2025. | 1:15 | Building an Energy Team <i>Joshua Morejohn & Nico Fauchier-Magnan</i> Learn how UC Davis developed a self-funded Energy Engineering team with the right skillsets to succeed, and key relationships with operational staff that have enabled successful energy saving programs. Q&A with Panel |
| 9:45 | Eliminating Energy Waste at UC Davis: Building a Team to Innovate & Save <i>Joshua Morejohn & Dr. Kurt Kornbluth, UC Davis</i> Introduction to Facilities Energy & Engineering, current initiatives, and the Sustainable Campus, Sustainable Cities partnership. | 2:00 | Designing Efficient Buildings <i>Gabriel Cardenosa Arrayas, UA Barcelona</i> <i>Ardie Dehghani & Julie Nola, UC Davis</i> Case studies of new building designs utilizing state-of-the-art energy efficiency technology and systems. Q&A with Panel |
| 10:15 | Attendee Introductions Participants will share current energy projects underway at their institution. | | |
| 11:00 | Campus Energy Manager Workshops Utility Metering <i>David Trombly, Courtney Doss & Joe Yonkoski, UC Davis</i> Learn how to build a metering database for the future, monitor your energy meters, and develop collaborative processes to improve your campus metering systems. Q&A with Panel | 3:00 | Global Sustainable Campus Partnership Program Working Session An open forum for participants to share the current state of campus energy programs they represent and learn from other participants. |
| 11:30 | Data Analytics <i>Chris Weyandt, Berkeley Lab & Nico Fauchier-Magnan, UC Davis</i> See how two campus energy teams have integrated SkySpark into operations for data-driven fault detection and energy saving analytics. Q&A with Panel | 3:45 | UC Davis Energy Centers Introductions <i>Western Cooling Efficiency Center</i> <i>California Lighting Technology Center</i> <i>Plug-in Hybrid & Electric Vehicle Research Center</i> <i>Center for Water Energy Efficiency</i> |
| | | 4:00 | Hors d'oeuvres Hour |

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District Energy Workshop

Day 2 - Wednesday, October 23

UC Davis Conference Center - Conference Room B

8:30 Breakfast

9:00 Welcome & Sponsor Introductions

9:20 **Panel 1: Energy Masterplan & District Energy Planning**

How to secure support from campus admin, what to avoid, how to compare alternatives and build a plan that can be realized.

UC Davis District Energy Planning for Carbon Neutrality

*Joshua Morejohn, UC Davis
Colin Moyer, AEI*

CSU Long Beach Clean Energy Masterplan

*Shawn Cun, CSULB
Brian Stern & Gordon Stewart, Glumac*

10:00 **Q&A with Panel**

10:30 **Break**

11:00 **Panel 2: District Energy Optimization**

Benefits to district energy include system optimization opportunities - especially when thermal energy storage is involved. Learn about strategies, opportunities, and challenges to optimization.

District Energy Operations & Optimization

*Joe Yonkoski & Justin Lewis, UC Davis
Travis Smith, Smith Engineering*

11:30 **Q&A with Panel**

11:45 **Lunch**



*Sponsored by
Smith Engineering*

12:45 **Panel 3: District Energy Project Implementation**

Hear success stories and lessons learned from campus district energy system implementations.

Stanford Energy System Innovations

Michael Huang, Stanford

UC Davis Main Campus Hot Water Conversion

*Joshua Morejohn, UC Davis
Pius Kao, AEI*

UCSB District Energy Expansion

Jordan Sager, UC Santa Barbara

1:30 **Q&A with Panel**

1:45 **Break**

2:00 **Panel 4: District Energy Design for the Future**

How to turn a district energy nightmare into a state-of-the-art system for a carbon neutral future.

UC Davis Primate Center Energy System Upgrades

*Joe Yonkoski, UC Davis
Quindi Guiseppe, Syska Hennessy*

Brown University Heating System Conversion

Jean-Philippe Drouin, Ecosystem

2:40 **Q&A with Panel**

3:00 **Industry Panel: District Energy Lessons Learned**

4:30 **Happy Hour at UC Davis Hyatt**



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Energy Course Design Workshop

Day 2 - Wednesday, October 23

UC Davis Conference Center - Conference Room A

8:30 Breakfast

9:00 Welcome

Dr. Kurt Kornbluth, UC Davis

9:20 Energy Coursework - Introductions

UC Davis Instructors

Learn about the client-focused project-based approach of the "Path to Zero-Net-Energy"

10:00 Energy Course Design Workshop - Part I

Working in teams and using a design approach, identify important criteria for a proposed course in energy at your institution.

10:30 Break

11:00 Energy Course Design Workshop - Part II

Using various design tools, continue with further detailed course development.

11:45 Lunch

12:45 Energy Course Design Workshop - Part III

Begin to prepare a pitch for your course and plan the implementation of your course on campus.

1:45 Break

2:00 Energy Course Pitch Presentations from Workshop

Hear from all participants of the workshop present the courses they designed and provide feedback on how to most effectively sell the courses.

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Small Building HVAC Control & Campus Tours

Day 3 - Thursday, October 24

UC Davis Conference Center - Conference Room A

8:30 Breakfast

9:00 Introduction to SWARM: Small Workplace Automation & Remote Monitoring

Rhys Davis & Devon Schmidt, UC Davis

Learn about SWARM, a UC Davis program to centralize HVAC control for small, isolated buildings on campus.

9:15 SWARM at UC Davis

Tom Ryan, Rhys Davis & Devon Schmidt

Understand the SWARM program structure at UC Davis, the benefits to stakeholders, and the total costs and savings associated with the program.

9:30 SWARM for Energy Managers

Rhys Davis

As part of our UCOP-funded initiative to set other campuses up to implement SWARM, we've developed resources to guide energy managers through the process

9:45 SWARM for HVAC & Refrigeration Technicians

Nathan Cardoza, Refrigeration Shop Supervisor, UC Davis

Learn about the UC Davis Facilities Refrigeration Shop's experience with SWARM, including benefits and the learning curve associated with the program.

10:00 SWARM Workshop

UC Davis SWARM Team

Sit down with members of the UC Davis SWARM team to evaluate the viability of SWARM on your campus and build a custom plan for starting your own version of SWARM.

11:00 UC Davis Campus Energy Walking Tour

Go on a tour of UC Davis's campus, with a highlight on energy-related points of interest and the UC Davis Energy Conservation Office

12:00 Lunch

12:30 Central Heating & Cooling Plant Tour

See the inner workings of the campus energy hub and learn about how it all works and what new developments are coming soon.

1:00 West Village Tours

Visit West Village, our planned Zero Net Energy community, where cutting edge research is being done on building energy efficiency, electrical vehicles, and net-zero homes.

Western Cooling & Efficiency Center

Honda Smart Home

Renewable Energy Anaerobic Digester

2:15 UC Davis Jess S. Jackson Sustainable Winery Building

Learn about the state-of-the art building design and systems optimization that go into wine production on UC Davis's campus

3:00 Off-Campus Tours

SunPower R&D Ranch

Tour the R&D facility of one of the leading photovoltaic technology companies and learn about their new products and systems.

California Lighting Technology Center

Visit another UC Davis research center to see how lighting systems can save energy and improve occupant health.

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