

**Room 1D
LIGHTING & LED**

**Room 1E
HVAC and ANALYTICS**

**Room 1F
STRATEGIC ENERGY MANAGEMENT**

9:15 - 10:30 AM

<p>Applying LEDs to the ABCs of Lighting</p> <p>For those new to the lighting industry, the learning curve can seem insurmountable. Adding in LED technology can make the task even more challenging. This overview will acquaint attendees with many of the fundamental building blocks of lighting with an emphasis on how they apply to LED.</p> <p>Eric Strandberg, LC, Lighting Design Lab</p>	<p>HVAC System Maintenance and Tuning <i>Tame the Boiler Before You Get Burned</i></p> <p>Boiler problems can result in expensive repairs and frequent replacements. At Seattle Public Schools we have monitored our equipment maintenance logs and an analysis shows that by enforcing regular check-up for our boiler devices we can dramatically reduce work orders and the need for emergency repairs.</p> <p>Shane Holderby, Honeywell/Smart Energy Ted Carroll, Seattle Public Schools</p>	<p>Three Big Questions in the Energy World and Why They All Have the Same Answer</p> <p>Paul Birkeland, Global Strategic Energy</p>
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10:45 AM - Noon

<p>LEDs: Good, Better and Best</p> <p>LEDs differ from 'legacy' technologies in many ways, offering a range of efficient solutions to address project needs. The presenters will discuss these differences in products, performance characteristics, measurement, and application and controls, and provide insight into new market developments.</p> <p>Tony Adams and Jeff Anderson, LC Evergreen Consulting</p>	<p>Advanced Rooftop Controllers</p> <p>This session will look at efficiency opportunities for rooftop HVAC systems (RTUs) via field retrofit upgrades with advanced controls. RTUs serve 70% of the conditioned commercial floor space in North America and consume more energy than any other commercial cooling technology. It is now possible to address the excessive energy use of these systems through cost-effective upgrades that deliver energy savings and much more.</p> <p>Bill Prilliman, Air Northwest Danny Miller, Transformative Wave Technology Pat Hart, Northshore Christian Church</p>	<p>Capturing Those Easy Wins</p> <p>Please join us to learn how Crane Aerospace & Snohomish County reduced their energy bottom lines with low cost/no cost changes in the way that their facilities operate. Learn how you can help manage your facility's energy consumption effectively by educating and fully engaging employees and management.</p> <p>Steve Zwaller, Crane Aerospace Lisa Dulude, Snohomish County</p>
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1:15 - 2:30 PM

<p>Effective Lighting Controls for Today and Tomorrow</p> <p>Shannon Markey, LEED AP, LC, Wattstopper & Legrand Controls Michael Lane, Puget Sound Energy Dan Salinas, Salinas Lighting Consult, Inc.</p>	<p>Drive Your Building with Data</p> <p>This session will provide a roadmap to data analytics and explain why attendees will want to take the journey. We'll describe data analytics from the grassroots options available to managing greater degrees of complexity and larger data sets. Attendees from any facility will take away ideas that will help them operate more efficiently and more economically.</p> <p>Rbert Cowan, Fred Hutchinson Cancer Research Center Cody Graves, Automated Energy Inc. Chris Olmsted, ATS Automation</p>	<p>Leverage and Utilize Energy Data</p> <p>We Mean Business When We Set EUIs We measure and trend energy use at 100 buildings representing 10 million square feet in the heart of Seattle. What sets us apart is our aggressive owners specifications which require all remodels and new construction to exceed the energy code. We have moved from looking at code to looking at results from energy efficiency measures. We'll show you how we achieve results by shifting our way of thinking and analysis.</p> <p>Bonnie Meyer, Rina Fa'amoe-Cross, and Nicole Laky Seattle Public Schools</p>
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2:45 - 4:00 PM

<p>The Future of Lighting</p> <p>Ever since the breakthrough of blue LEDs in the 1990's, there has been a rapid advancement in LED color quality and light output that has revolutionized so many segments including architectural lighting. This session will look at these advancements and how they are encouraging the advancement of other technologies such as IR LEDs, OLEDs, White Lasers, Quantum Dots, LEICs, Li-Fi and the relation to the Internet of Things.</p> <p>Andrew Pultorak LC, MIES, Puget Sound Energy</p>	<p>The Future of HVAC</p> <p>The recent availability of very high efficiency European heat recovery ventilation equipment makes possible significant HVAC energy use reductions and dramatic improvements in indoor air quality in smaller commercial buildings. Session attendees will learn about the technology, its proper application, and results from recent pilot retrofit projects that are delivering whole-building energy savings of more than 50%.</p> <p>Charlie Stephens, Northwest Energy Efficiency Alliance</p>	<p>The Future of Strategic Energy Management</p> <p>You may be staying ahead of the competition, but if energy accounts for a significant portion of your monthly operating expenses, a key part of your business strategy should be to gain control of those energy costs. Hear from experts in Strategic Energy Management on the Future of SEM.</p> <p>Julie Hayes, Milepost Elly Bunzendahl, O'Brien and Company Martin Lott, Cascade Energy</p>
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