August 25, 2021

7x24 Exchange
The end-to end reliability forum.
Northwest Chapter

Mission Statement
The 7x24 Exchange Northwest Chapter's mission is to provide an open educational forum dedicated to the continuous improvement and increased awareness of data center reliability by focusing on the key disciplines of design, construction, maintenance, security and management with the goal of obtaining continuous data center operations.
www.7x24northwest.org

2021 Fall Symposium and Chapter Meeting
September 14, 2021

Agenda
Codes and Considerations for Lithium-Ion Batteries, 2018 Washington State Energy Code Overview and Update, Leveraging AI for Thermal Optimization

Date & Time: **Tuesday, September 14, 2021 3:30 pm – 5:30 pm**

Location: **Virtual Meeting via Microsoft Teams**
Links to the Virtual Meeting will be sent out to attendees prior to the meeting after you register to attend. Register now at: https://7x24northwest.org/events

Agenda:

3:30 pm **Welcoming Remarks, Announcements**

3:40 pm **Lithium-Ion Battery Systems – Codes and Considerations for Deployment in Today's Changing Environment**
Ben Seager, Chief Technology Officer and Director, LDP Associates, Inc.

4:15 pm **2018 Washington State Energy Code Overview and Update**
Michael Baranick, Senior Associate | Energy Services, Hargis Engineers
Brian Cawley, Principal | Mechanical, Hargis Engineers
Mark Humiston, Associate Principal | Electrical, Hargis Engineers

4:45 pm **Leveraging AI for Thermal Optimization in Data Centers**
Kathryn Rose, Regional Business Manager, Data Center Solutions
Siemens Smart Infrastructure

5:15 pm **Open Mic: Roundtable Discussion**

5:30 pm **Adjourn**

RSVP Today!

Send your RSVP to Jim Svoboda at AC Power: jim@acpower.com Phone: 425.885.7493
Or go online to our website: https://7x24northwest.org/events

Symposium

Lithium-Ion Battery Systems – Codes and Considerations for Deployment in Today's Changing Environment

Ben Seager, Chief Technology Officer and Director, LDP Associates, Inc

Codes and standards continue to evolve with regards to Lithium-ion battery technology. This presentation will guide the attendees through the relevant codes and standards for deploying Lithium-Ion Energy Storage solutions today including IFC 2018, NFPA 855 & UL9540A.

About the Speaker

Ben serves as Chief Technology Officer & Director responsible for the Northwest Region of 5 states with teams in Salt Lake City, Seattle, and Portland. Ben's project experience spans hundreds of successful server room and data center deployments, including the first Lithium-Ion UPS deployment for Schneider Electric in North America. LDP Associates represents the Secure Power Business Division of Schneider Electric in 10 states and specializes in critical power and cooling applications.

The 2018 Washington State Energy Code Overview and Update

Michael Baranick, Senior Associate, Energy Services, Hargis Engineers

Brian Cawley, Principal, Mechanical, Hargis Engineers

Mark Humiston, Associate Principal, Electrical, Hargis Engineers

With each code cycle, there are advancements to make Washington facilities more energy efficient. The 2015 Washington State Energy Code (WSEC) and Seattle Energy Code (SEC) adopted a number of measures focused on mechanical systems. The 2018 codes will fine-tune some of those amendments, while introducing new ones for power, lighting, envelope performance-based compliance paths, and data centers to meet the new code requirements. Some of the notable changes:

Mechanical – Refinements to dedicated outside air systems (DOAS) are on the docket, along with new sections for single-zone high-efficient variable air volume (HE-VAV) systems and Total System Performance Ratio (TSPR) requirement. TSPR will require the use of specialized software to ensure the proposed HVAC system meets a minimum efficiency threshold based on the building for which it's installed.

Power – Expanded sub-metering to segregate more building functions is expected to enhance monitoring of system performance. Posing facilities to be net-zero ready with solar-ready infrastructure installed on Day 1.

Lighting – While lighting power will continue to drop, new controls technologies will continue to be implemented to more efficiently meet the requirements of the code.

Envelope – Leak testing is no longer the end game with the 2018 WSEC. Buildings will have to pass the test to be code compliant.

Compliance – If the 2018 WSEC is too prescriptive for your particular project, there will be options to achieve code compliance based upon performance: Total Building Performance (TBP) or Outcome-Based Energy Budget. The industry is familiar with TBP and energy use index (EUI) as a common reporting mechanism. Outcome-based energy budget is a new path that will continue to encourage the industry to embrace integrated design processes with interim modeling and performance validation post-occupancy. Changes to the C406 section will support these changes, as there will be more options, credits and a weighing system reflective of building type and use.

Data Centers – A comparison between the code iterations will be provided for data centers, as well as how the 2018 codes are expected to impact common mechanical/electrical systems utilized within this building type.

About the Speakers

Michael Baranick

Senior Associate, Energy Services

Michael brings forth the perspective of a mechanical engineer with a strong understanding of energy efficiency measures, sustainable approaches, and emerging code requirements. He serves on the Commercial Energy Codes Technical Advisory Group to support the State Building Code Council as an alternate Energy Modeling representative, a code review specialist to the City of Bellevue, and an on-call consultant to the State of Washington for life cycle cost analysis. As an energy conservation specialist, he has assisted Fortune 100 and public visionaries balance big picture objectives with granular detailed analytics. He holds a Bachelor of Science in Mechanical Engineering from Santa Clara University, and Masters in Business Administration from Seattle University.

Brian Cawley

Principal, Mechanical

As a professional consultant, Brian has applied his 16 years of experience to serve enterprise clients meet their capital investment and conservation goals. His ability to balance programmatic requirements with mechanical system options has contributed to high performance systems that align with project objectives. He has contributed to eight high-performance facilities, including three 24/7 mission critical centers. He holds a Bachelor of Science in Mechanical Engineering from Lehigh University.

Mark Humiston

Associate Principal, Electrical

Passionate about resource conservation, Mark serves as a knowledgeable advisor and consultant. His understanding of sustainable applications, technologies and approaches has supported the realization of highly sustainable facilities – including three with Net Zero design goals – in recent history. Mark holds a Bachelor of Science in Electrical Engineering from the University of Texas, Austin. Licensed as a professional engineer in the state of Washington, he is also a certified energy manager and green building engineer.

Leveraging AI for Thermal Optimization in Data Centers

Kathryn Rose, Regional Business Manager, Data Center Solutions

Siemens Smart Infrastructure

This presentation will examine how leveraging Artificial Intelligence for dynamic cooling management in your white space can increase reliability, reduce your energy usage and unlock cooling capacity.

About the Speaker

Kathryn Rose is the Regional Business Manager for Data Center Solutions for Siemens Smart Infrastructure and has a wide range of experience developing smart building strategies to improve operational efficiency, reliability and user experience in the data center market. She has been involved in the Pacific Northwest Data Center market for years and is the current VP of the Portland 7x24 Exchange chapter.

Open Mic!

Bring your hot topics, rants and raves, and burning industry questions to the virtual table for open discussion in the return of the popular open mic session.

Chapter News

Scholarship Program

In our Winter Meeting, we established a Scholarship Committee that will be charged with developing our Chapter's Scholarship Program. Thanks to the inaugural members of this Committee:

Dan Guglielmo, Hermanson Company; **Kerry Nicolaus**, Energy Systems; **Lee Moss,** Critical Power Services, Inc., **Elizabeth Sharp,** Affiliated Engineers.

The committee has held their inaugural meeting, if you are interested in taking part in the program, contact **Jim Svoboda at AC Power:** jim@acpower.com Phone: 425.885.7493

Sponsorship Program

Our sponsorship program has been an outstanding success and has allowed us to bring our membership the finest in up to date and industry leading presentations and networking opportunities. If you are interested in becoming a corporate sponsor, look at the sponsorship levels below and contact us at your convenience.

Sponsorship Level	*Annual Sponsorship Amount*	*Benefits*
Gold	$3,000	• Annual Corporate Membership*. • 30 minute product or service presentation slot at one meeting. • Table area for company literature at each event during the calendar year of sponsorship. • Prominent display of company name and logo on welcoming displays and chapter website for the calendar year of sponsorship. • Listing on Update Newsletter for current event. • Listing on Web page announcements for current event.
Silver	$1,500	• Annual Corporate Membership*. • 15 minute product or service presentation slot at one meeting. • Prominent display of company name and logo on welcoming displays and chapter website for the calendar year of sponsorship. • Listing on Update Newsletter for current event. • Listing on Web page announcements for current event.
Bronze	$500	• Annual Corporate Membership*. • Prominent display of company name and logo on welcoming displays and chapter website for the calendar year of sponsorship. • Listing on Update Newsletter for current event. • Listing on Web page announcements for current event.

*Corporate Memberships allow an unlimited number of members from your company and are normally $200 per year.

For more information or to sign up for a sponsorship, contact Jim Svoboda at AC Power Technology at:
Email: jim@acpower.com Phone: 425.885.7493

Thank you to our 2021 Sponsors for their continued support!

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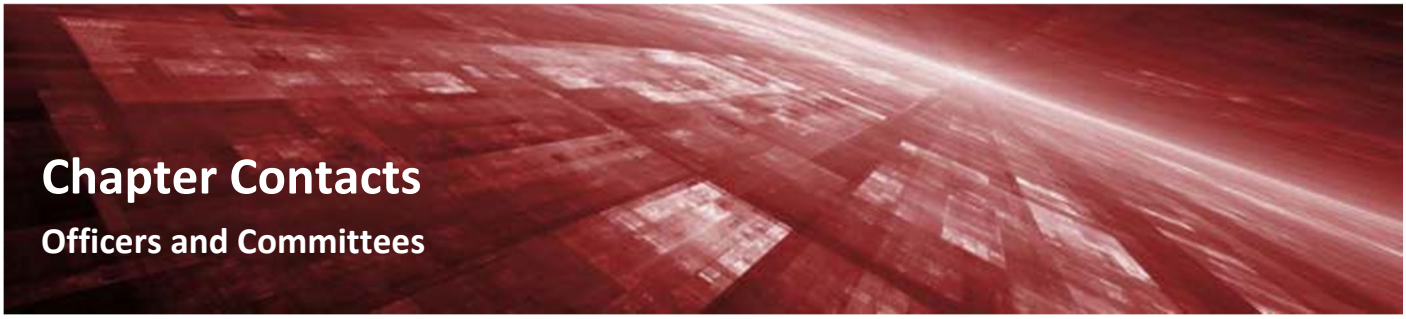
RSVP

Don't forget to RSVP today! Space is limited. Please respond by Tuesday, September 7th.
Contact Jim Svoboda at AC Power Technology at: Email: jim@acpower.com Phone: 425.885.7493
Or RSVP at our website: https://7x24northwest.org/events



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If you would like to get involved in Chapter activities, just let one of the board members know, we are always looking for more member participation in planning Chapter sessions and communications.