

Session Details



Monday, 10:15 am - Petun I

Allan Kelly—Markham Stouffville Hospital

Strategy to Keep the Power ON—A Case Study at MSH

In May of 2022 a Tornado touched down in Markham causing damage to properties including the electrical infrastructure of Alectra Utilities. After the tornado touched down the hospital experience 18 power hits spanning a period of over 6 months. We needed to come up with a solution so patients, family and staff are not impacted. How can our most critical areas and patients be without power and lights even for 10 seconds. We engineered a strategy to treat our hospital like a data center.

Monday, 10:15 am - Petun II

Amandeep Deol, Ian Jarvis—Enerlife

Innovative Delivery Models for Decarbonizing

Healthcare facilities are tasked with the challenge of providing exceptional patient care while also reducing their carbon footprint and energy consumption. When considering upgrades to aging ventilation, heating, and cooling systems, these facilities often contemplate traditional project delivery models, such as Design-Bid-Build (DBB), Design-Build (DB), Integrated Project Delivery (IPD), or Public-Private Partnership (PPP). Each of these models carries its own set of advantages and limitations. This presentation introduces a forward-looking delivery model designed to harness the strengths of these established models and tailor them to the unique needs of healthcare facilities striving to decarbonize their operations. The approach centers on evidence-based high-performance targets, performance-based commissioning, and a pragmatic pain share/gain share mechanism, all of which foster a positive and collaborative environment for every stakeholder involved.

Monday, 1:15 pm. - Petun I

Will Rea—HTS, Kurt Montiero—Smith+Andersen

Retrofitting Heat Pumps in Existing Health Care Facilities

Healthcare facilities are in constant need of replacement equipment. Traditionally most owners have done like-for-like replacements. We will explore and showcase projects where for minimal cost adds, owners can replace existing equipment with different options to both solve operations issues and/or reduce green house gas emissions. Through long-term planning, facilities can both improve resiliency and improve efficiency/emissions. Some examples are:

- Replacing an air cooled chiller with an air cooled heat pump
- Replacing a water cooled chiller with a high temp water-water heat pump
- Revising domestic hot water systems to allow heat pump integration

Monday, 1:15 pm. - Petun II

Kathryn WorriLOW, Dave Beccatini—Lifeaire Systems

Transformative Effects of Advanced Air Purification

Many pathogens that cause facility acquired infections (FAIs) are airborne. Advanced air purification technology (AAPT) was developed to destroy airborne pathogens and remove VOCs. The AAPT was installed in the HVAC ductwork within a hospital and a senior living facility (SLF). In both study locations, the control area only received air cleaned via a HEPA filter. The locations with the AAPT realized a decrease of over 98% of airborne pathogens and over 89% of surface bacteria and VOCs. The AAPT meets all requirements of the new ASHRAE Standard 241 such as, providing "real-world" test data and single pass pathogen remediation effectiveness. This is ASHRAE's first ever standard targeted at reducing the risk of the spread of airborne pathogens.

Session Details

Monday, 2:15 pm. - Petun I

Steve Tratt—WTI Services

Transforming HCF through Building Envelope Energy Measures

Researchers, architects and code writers have shown that attention to specific details in both new and retrofitted envelopes result in better performing buildings with better comfort and long durability as well as lower energy consumption. Air leakage through the building envelope is silent, invisible and cunning. It causes numerous building envelope problems including wetting of cavity materials, spalling of masonry, premature corrosion of metals, blistering of paint, icicles, staining of contraction. Continuity is important, but strength is even more important. In buildings, the air barrier system must be designed, and specified on plans. It has specific performance criteria and specific material requirements.

Monday, 2:15 pm. - Petun II

Craig Doerksen—CSA Technical Sub-Committee

CSA Z8004—Operation and Infection Prevention in LTC Homes

The Standards Council of Canada (SCC), Health Standards Organization (HSO) and Canadian Standards Association (CSA Group) are working collaboratively to develop two new National Standards of Canada for long-term care (LTC) that will be shaped by the needs of residents, families and workers. This is the new Standard for Operation and Infection Control in LTC Homes

Tuesday, 9:00 am. - Petun I

M. Canon—Lakehead HC, D. Corbin—Ecosystem

Project LHEAD—Outcome Based Procurement

Hospital facilities professionals are increasingly interested in outcome-based procurement to transform their facilities toward decarbonization. Lakeridge Health, which serves the eastern Greater Toronto Area, is well-experienced with this approach. It completed its first outcome-based deep energy retrofit in 2016, and its new Project LHEAD is in the early stages. A part of the hospital's climate action response, Project LHEAD is a showpiece demonstrating how economically sustainable decarbonization can be imagined and delivered. When hospitals procure with their desired outcomes, vendors are contractually accountable for achieving them. This approach aligns the interests of the hospital owner and delivery partner, driving collaborative teaming, innovative project development, adaptability across the project

Tuesday, 9:00 am.— Petun II

Jamie Cook, Carly Ellis—Colliers Project Leaders

From Planning to Podium—Navigating the Capital Process

You have the patient projections, you have the case for expansion, you have the long-term master plan, you have the facility plan, you know what healthcare facilities your community needs to provide health care for the future. Now what? Navigating Ontario's complex capital planning process – especially in the current competitive environment – is challenging. Engaging with this process and decision makers strategically and effectively is critical to get your project in the queue and progressing towards construction.

Tuesday, 10:15 am. - Petun I

Alex Sullo—CKHA, TBD—Alphakor Security

Critical Failure—Lessons from a Disaster

This will be a case study from the Ransomware attack on Erie-St.Clair LHIN computer systems. A total loss of network computers left Windsor, Leamington, Chatham and Sarnia without computers. No network, no BMS, no work-order system, no email. Lessons learned and recommendations for other hospitals from leading Security Experts..