



AMERICAN SOCIETY OF HEATING,
REFRIGERATION AND AIR CONDITIONING
ENGINEERS INC.

LONDON CANADA CHAPTER #116

<http://LondonCanada.AshraeChapters.org>

SEPT 27/2010

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TOPIC:

Changes to LEED in Canada

Mr JOHN KOKKO, P.Eng., LEED AP

Vice President, Director of Commissioning Services
Enermodal Engineering, Kitchener, Ont.

Meeting - MONDAY SEPT 27/2009¹⁰

Best Western / Lamplighter Inn

591 Wellington Rd., London

5:15pm Social 6:00pm-Dinner
7:15pm - Program

\$35.00 for London Chapter dues paid members
or \$175.00 for meal plan

\$10.00 for Students with valid student card

\$45.00 for others





President's Message:

Welcome back everyone to another year of ASHRAE. We had a great summer with great weather and apparently the fall is quickly here with no warning. We started our 2010 /2011 year with a great CRC in Halifax, the chapter from Halifax put on one of the best CRC's I have ever been to so Thanks again to the Halifax Chapter we all had a great time.

As some of you may have already heard that Jack Maynard our Chapter Vice President has accepted a promotion within his company (Johnson Controls Inc.) to move to Toronto and run their Toronto operation.

We are losing a great individual and someone who has a true passion for ASHRAE. Jack has spent allot of his spare time helping out and moving through the chairs of the London ASHRAE Chapter Board of Governors over the past years. On behalf of the London ASHRAE Chapter Jack we wish you and your family all the best in the future endeavors and maybe you can attend one of our monthly meetings in the future.

So on Monday September the 24th at the Monthly meeting, I will open up nominations to the chapter members to any one who would like to put their name(s) forward so we can have a vote. We will keep the nominations open until the October meeting at that point in time we will have a vote and to fill the Vice President's position.

This Month to start our new ASHRAE year we are very fortunate this month to have John Kokko, P.Eng., LEED AP Vice President, Director of Commissioning Services for Enermodal Engineering. John will be speaking to us about the new LEED changes coming to our Building Code. I encourage everyone to come out and listen to John, I would also encourage you bring some of your co-workers with you also ask the Architects, Building Owners and even City officials you are working close with to come out as well.

I look forward to seeing everyone at our first meeting of the year.

Jason Vandenberghe
President – ASHRAE London Chapter

Sept Speaker:

John Kokko P.Eng., LEED AP
Vice-President, Enermodal Engineering

John Kokko is a professional engineer and vice president of Enermodal Engineering. John has worked in the building HVAC field on new and existing buildings for 28 years. He has performed research studies, feasibility studies, designed small and large HVAC systems, provided energy audits, commissioning of new building systems, measurement and verification and commissioning on existing buildings.

Currently, John is the division head for commissioning services at Enermodal providing optimization services for existing buildings through audits, re-commissioning, retrofit design, and project management for mechanical, electrical and alternative energy systems in energy efficient and sustainable commercial building projects.

John will be presenting an overview of the Changes to LEED in Canada.

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Chapter Regional Conference - Halifax 2010:

The Chapter Technology and Transfer Committee (CTTC) focus this year at the regional conference was on government advocacy.

Adding to the discussion was a special guest, Doug Read, ASHRAE's Program Director for Government Affairs in Washington. Doug helped highlight how ASHRAE is engaging both the Senate and Congress to bring ASHRAE standards to the forefront of the ongoing debate around energy efficiency.

A key take-away from the advocacy discussion was the important role we as a chapter play in advocacy, especially at the local level. While we must be careful not to speak on behalf of ASHRAE, we can advocate for the ASHRAE standards in the project we design and continue to educate those groups of ASHRAE's long term goal of a net zero building design standard.

Should you be a local decision maker wondering how best to apply ASHRAE standards I hope you will reach out to your Chapter CTTC chair as a resource.

Jack Maynard
 ASHRAE London Chapter CTTC Chair

A Message From The RP Chair:

Welcome back from our summer break, and get ready for an interesting and challenging new year with us at ASHRAE here in London.

I would like to take this opportunity to thank everyone that contributed to ASHRAE Research – both through financial contributions in the past, and by their attendance at the London ASHRAE Golf Tournament which makes up a significant part of our yearly campaign, and helps to keep this very important process going. Last year at the Society level, ASHRAE Research sent out \$14,000,000 to support ongoing research projects globally – a large amount compared to what was taken in from contributions. In our region last year, for every \$1 (one dollar) contributed to ASHRAE Research, \$2.75 came back to the region to help fund local research projects. The Canadian component to the Society total contributions of \$2.1 million dollars collected last year totaled \$240,000.00 (Region 2 total was \$144,840.00)

ASHRAE Research at the Society Level has had another successful year for the 2009/2010 period in that we exceeded the \$2,000,000 mile mark for the second year in a row.

This year, I will be responsible for the London Chapter Research Promotion Chair, and vested with the challenge of leading our chapter to achieve its goal for research this fiscal year - \$11,000.00.

We will be holding a Research Promotion Night at the chapter level this year, and I will be contacting many of you personally to ask for your continued participation in keeping the ASHRAE Research Promotion process strong and on target to achieve its goal.

We look forward to seeing you all out at the meeting on September 27th.

Eric Shaw
 ASHRAE London Chapter Research Promotion Chair

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2009/2010 Financial Report:

With 2010 fiscal year closed I am pleased to report the London ASHRAE chapter finances are balanced year-over-year on par with budgets set last September.

To our membership here were some changes we brought in to 2010 to balance our budgets:

* The ASHRAE monthly dinner rates were raised:

Meal Plan will be \$175

Chapter Member meals will be \$35

Guest meals will be \$45

Students will be charged a discounted \$10/meal to attend student night

Detailed 2010 chapter financials summarized breakdown below. Please Note, ASHRAE London Chapter, a chapter arm of a charitable organization, uses the cash accounting method for all revenues/expenses.

Jack Maynard

ASHRAE London Chapter Vice President

BANK BALANCE, July 1 2009			\$17,641.48
Cash Inflows			
ASHRAE Monthly Meeting Revenues	\$	8 690 00	
Golf Tournament Revenues	\$	19 050 00	
ASHRAE Membership Chapter Dues	\$	3 900 00	
Promotional Advertisements	\$	1 100 00	
			\$ 32,740.00
Cash Outflows			
ASHRAE & Community Involvement			
ASHRAE Award, University of Western Ontario	\$	1 000 00	
ASHRAE Student Sponsorship	\$	364 29	
ASHRAE & Community Involvement Total	\$	1 364 29	
ASHRAE Monthly Meeting Expense	\$	8 559 68	
CRC & ASHRAE Regional Expense	\$	4 687 92	
Golf Tournament Expense	\$	17 315 10	
ASHRAE Board of Government Functions	\$	161 14	
Miscellaneous Chapter/Region Expenses	\$	729 89	
Total Expenses			\$ (32,818.02)
Final Bank Balance, June 30 2010			\$ 17,563.46

ASHRAE, founded in 1894, is an international organization of some 50,000 persons. ASHRAE fulfills its mission of advancing heating, ventilation, air conditioning and refrigeration to serve humanity and promote a sustainable world through research, standards writing, publishing and continuing education.



What's Your Building EQ? Pilot Program Buildings About to Find Out!

ATLANTA – Engineers across the country have begun assessing the energy use of selected buildings as part of a pilot program designed to encourage the building industry to cut energy use and costs.

The Building Energy Quotient program, which is known as Building EQ, includes both As Designed (asset) and In Operation (as operational) ratings for all building types except residential. It also provides a detailed certificate with data on actual energy use, energy demand profiles, indoor air quality and other information that will enable building owners to evaluate and reduce their building's energy use. The program is administered by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE). For complete information, visit www.buildingeq.com.

Seventeen provisional assessors have been named by ASHRAE to assess energy use, which is then provided in an easily understood scale to convey a building's energy use in comparison to similar buildings, occupancy types and climate zone. Building owners also are given building-specific information that can be used to improve building energy performance.

"I wanted to participate in the Building EQ effort because it will play a role in the United States' drive to a carbon-neutral future," said Matthew Dwyer, P.E., Dwyer Engineering, who is assessing buildings in Washington, D.C., and Plymouth, Mass. "Past labeling programs were sometimes based on marketing as much as engineering, because we all needed a motivation to be green. People get the importance of being green now, so we need to take another step. Building EQ takes us further by distinguishing net-zero buildings from merely good buildings."

Under the pilot program, which launched in December 2009, new buildings are eligible to receive an As Designed, or asset, rating, which provides an assessment of the building based on the components specified in the design and is based on the results of building energy modeling and simulation. An In Operation rating is available once the building has at least one year of data on the actual energy use and is based on a combination of the structure of the building and how it is operated. Existing buildings would be eligible to receive both an As Designed and In Operation rating.

"The process of checking a building's EQ is not just a grading process," Dwyer, who has completed one assessment, said. "The engineer not only examines building energy use and carbon footprint, but tests and measures the building environment and meets with building engineers on site. After spending time onsite, we then work with the building owner to understand the building systems and provide goals and suggestions on future improvements. The intent is to create a path so that more and more buildings can move from a low grade to a top grade."

Among the pilot participants is Hines, a privately owned real estate firm involved in real estate investment, development and property management worldwide headquartered in London and Houston, Texas. Hines has six buildings across the country being assessed in the program.

"Hines has agreed to join with ASHRAE in piloting the Building EQ program because the program's objective to improve building efficiency and reduce greenhouse gas emissions is well aligned with Hines' long-standing commitment to deliver energy-efficient, cost-effective projects to the market," Clayton Ulrich, senior vice president - Engineering Services, Hines, said. "We have a tremendous respect for the ASHRAE organization and the work of the ASHRAE members. One of our key goals in participating is to encourage the program leaders to leverage the existing resources and data collected in ENERGY STAR® to ensure a consistent platform in the industry. While not all buildings will benefit equally, we believe there are buildings in the market that can benefit significantly from the technical expertise ASHRAE brings to the table."

Standard 90.1 Featured in ASHRAE Fall Educational Courses

ATLANTA – Two new courses related to Standard 90.1 are part of the 12 online professional development courses being offered this fall by ASHRAE through the ASHRAE Learning Institute (ALI). ALI courses provide professional development through in-depth information that is timely, practical and advanced beyond a fundamental level. The online courses allow attendees to log in to learn from anywhere with an Internet connection. Course participants earn three professional development hours, 3 continuing education units, or three American Institute of Architects learning units for each seminar completed. Courses are instructor-led, drawing upon professional knowledge of leading practitioners.

The courses are:

- * Understanding Standard 189.1 for High-Performance Green Buildings, Sept. 22
- * Determining Energy Savings from Energy-Efficient Projects: Applying IPMVP and Guideline 14 to performance Contracting and LEED, Sept. 27
- * Energy Management in New and Existing Buildings, Sept. 29
- * Complying with Requirements of Standard 62.1-2010, Ventilation for Acceptable Indoor Air Quality, Oct. 6
- * The Basics of Panel Heating and Cooling, Oct. 13
- * Complying with Standard 90.1-2010 HVAC/Mechanical (New) – two dates – Oct. 18 and 25
- * Complying with Standard 90.1-2010 Envelope/Lighting (New), Oct. 20
- * The Commissioning Process and Guideline 0, The Commissioning Process (co-sponsored with Building Commissioning Authority, Illuminating Engineering Society of North America and National Environmental Balancing Bureau), Oct. 27
- * Engineering for Sustainability: Understanding Air-to-Air Energy Recovery Technologies and Applications, Nov. 1
- * Introduction to Cleanrooms, Nov. 3
- * Understanding and Designing Dedicated Outside Air Systems, Nov. 10

The cost of each course is \$224 (\$164, ASHRAE members). Site licenses are available to organizations that will be having five or more seminar participants. For more information, e-mail edu@ashrae.org or call 678-539-1146

To register, visit www.ashrae.org/onlinecourses.

**ASHRAE '11 - ASHRAE hold all the sustainability cards, Winter Conference to be held in Las Vegas**

ATLANTA—Las Vegas, Nev. continues to build upon its reputation as a vibrant showcase for the extraordinary by offering the grandest hotels, the biggest stars in entertainment and, of course, the brightest lights. It's no wonder that the world's biggest HVAC Expo and the largest membership-based HVAC&R engineering society have chosen the city as the site of the ASHRAE 2011 Winter Conference and AHR Expo.

The extravagant setting of Las Vegas serves as a unique contrast to ASHRAE's Winter Conference theme of A Safe Bet Zero-Energy Design. It is sure to highlight the importance of finding the balance in design. The 2011 Winter Conference takes place January 29-February 2 at the Las Vegas Hilton. The International Air-Conditioning, Heating, Refrigerating Expo®, held in conjunction with the Winter Conference, will run January 31-February 2. The Expo is held at the Las Vegas Convention Center, a short distance from the Hilton, the Conference headquarters hotel.

In keeping with ASHRAE's goal of continuing education the Conference offers over 200 Professional Development Credits, as well as Continuing Education Units, which can be applied toward a Professional Engineering license.

The technical program features more than 90 programs and 300 speakers addressing the efficient use of energy in new and existing buildings, refrigeration updates, applications including data centers, laboratories, healthcare facilities, the real cost of zero-energy design and other topics related to design, standards, codes and professional skills. Nearly all of the technical program sessions will be approved for NY PDHs and by USGBC for GBCI CE hours for LEED professionals. The Las Vegas Virtual Conference, included with paid attendees' registrations, will be available to non-attendees.

Six Professional Development Seminars and 14 Short Courses are offered to help industry professionals stay up-to-date on industry trends. ALI offers a new course on building energy modeling that focuses on HVAC&R systems and updates to courses covering Standards 62.1 and 90.1 to reflect changes in the 2010 versions of these standards from previous versions.

Additionally, ASHRAE continues to listen to the market and launches a sixth certification program in conjunction with the 2011 Winter Conference. This new program targets Energy Assessors/Energy Auditors and is appropriate for those individuals who perform energy assessments or audits for commercial, industrial or residential buildings. More information can be found at www.ashrae.org/certification.

This winter's technical tours spotlight how technology developed by ASHRAE members is practically applied to buildings and include the central plant at Planet Hollywood and MGM Center and Springs Preserve.

When members are not attending courses at the Conference, observing the technological advancements featured at the AHR Expo or touring the local sustainable buildings there are numerous general tours such as Hoover Dam, Springs Preserve, the Venetian Grand Canal Shoppes, the Bodies and Titanic exhibits and the Las Vegas Strip.

Those who take part in the early-bird registration before December 31 have the opportunity to save up to \$195. Complete information is available at www.ashrae.org/lasvegas.

ASHRAE Design Competition Gives Students Hands-On Experience in Practical Design

ATLANTA—Engineering practices such as BIM, geothermal and combined cooling, heating and power are highlighted in the winning entries in the 2010 ASHRAE Student Design Competition.

This year's Student Design Competition featured a mock design of the Ginsburg Tower at Florida Hospital in Orlando, Fla. This structure, the tallest hospital building in the state, is a 15-story patient tower that contains the Florida Hospital Cardiovascular Institute, 440 patient beds and one of the largest emergency departments in the country. Among the 31 entries from around the world, three in particular stood out as first place winners in the three categories that the Competition offers.

First place in HVAC System Design is awarded to Nathaniel Boyd, Michael Angell, Justin Wiese, Edward Gillett and Trong Duc Nguyen, of University of Central Florida, Orlando, Fla. Their faculty advisor is Marcel Ilie, Ph.D. After constructing a complete building information model (BIM), the students chose a constant volume air-handling unit as the primary air source and latent load control, and onsite combined cooling, heating and power (CCHP) plant based on a bank of micro-turbines fuelled by natural gas.

These HVAC systems eliminate nosocomial infections via proper ventilation directional control and would provide uninterrupted HVAC service to hospital occupants, even during natural disasters, as well as reduction of environmental and economic impact of the HVAC design.

First place in HVAC System Selection is awarded to Matt Kolins, Joel Wheeler, Nicole Vogt, Jared Palan, Todd Kuno and Zac Buckmiller, of Kansas State University, Manhattan, Kan. Their faculty advisors are Fred Hasler, P.E. and Julia Keen, P.E. The students selected a combination of air handling units with patient room heat pumps, chillers and cooling towers and shell-and-tube heat exchangers. Additionally a geothermal loop in Lake Estelle, adjacent to the hospital, acts as a heat sink. Not only is the system environmentally conscious, but also has the best return on investment.

First place in Integrated Sustainable Building Design is awarded to Ryland Phelps, Carolyn Lamb and Amy Rose Keyzer, of Lawrence Technological University, Southfield, Mich. Their advisors are Daniel Faoro and Janice Means.

The students set out to design a sustainable and energy efficient building without sacrificing visual appeal, while responding to climate conditions and surrounding buildings and forms.

They were able to achieve this by using water reducing fixtures in all bathrooms, supplying alternative energy through photovoltaic panels and architectural fabric, using geothermal wells and evacuated tubes to reduce loads on mechanical equipment and implementing a daylighting system to reduce lighting loads and bring daylight into the building.

The first place teams are given 10-15 minutes to present their projects at the 2011 Winter Conference in Las Vegas, Nev., Jan 29-Feb. 2.