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

LONDON CANADA CHAPTER #116

http://LondonCanada.AshraeChapters.org NOV 29/2010

TOPIC:

SOLAR PHOTOVOLTAIC TECHNOLOGY

Mr Michael E. LeBoldus, M.Sc, P.Eng.
Vice President & General Manager
Mitsubishi Electric Sales Canada Inc.

Meeting - MONDAY NOV 29/2010

RESEARCH NIGHT

>>>>>> **MOXIES** <<<<<<
441 Richmond St at Queens Ave
London

4:00pm - BOG Meeting

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:

What great weather we have been having it's been a good time to get your Christmas lights up before the snow starts falling.

I want to thank Mr. Eric VanUyfank for speaking last month on Fanwall Technology it was a great topic which we had allot of great feedback on. Also thanks you to O'dell & Associates for having LG as a table top.

One last thank you to all the Students from UWO who attended last months meeting at Windermere manor, we had 65 people total for our meeting which is almost double our monthly average so again thank you to Professor Walid and the ASHRAE Student Chapter.

This month we have Mr. Michael LeBoldus General Manager PVD Mitsbishi Electric Sales speaking on Solar PV Technology.

This month is also our Research Promotion night and I know Eric Shaw our Chapters Research Promotion chair will have some very interesting information for the chapter on ASHARE Research and where the Research dollars go and where we would be without it.

This months meeting is at Moxies Downtown, you tell them you are with ASHRAE and they will direct you upstairs to our meeting area which I know everyone will be very impressed with.

Also this month will be our first Social event, after the meeting is over everyone is welcome to stay and watch Monday Night Football the game is between the San Francisco 49er's and Arizona Cardinals. We encourage you all to stay and enjoy your- selves but we ask you to drink responsibly, if you drink please arrange for a ride home.

Remember there is no meeting in December we will see everyone in January on the 24th a week earlier because of the ASHRAE show in Las Vegas.

Jason Vandenberghe
President – ASHRAE London Chapter

Oct Meeting Summary:

Mr Eric Van Uyfanck from Venmar CES Group explained the principles and advantages behind the Fan Wall Technology. The multiple fan unit allows easier replacement and install while allow better performance by improved air distribution in the equipment.

The unit also allows patrial air flow if any one unit fails vs complete equipment shutdown. Eric also had examples and photos of projects incluing those with various speed control options.

ASHRAE Research Canada

Nov is research month for the chapter. Money that is contributed by Canadian ASHRAE Members remains in Canada to go towards projects being studied for ASHRAE. Be sure to contact Eric Shaw with your contribution.

Nov Speaker

Michael E. LeBoldus, M.B.A., M.Sc., P.Eng.
Vice President & General Manager
Mitsubishi Electric Sales Canada Inc.

Michael currently manages Mitsubishi Electric's solar photovoltaic division in Canada. He has over 20 years of experience in driving long term financial growth for new companies, hiring strong talent to execute a companies business and strategic plans and to motivate the corporations' staff to succeed. Michael is very strong in developing partnerships and customer relationships. Michael is also well connected at senior levels of government in Ontario and Ottawa.

Michael has many years of experience in plant operations, electronics, building technologies, finance & planning, oil & gas, government relations and now in "Green Energy – solar, wind and fuel cell solutions". Michael has previous leadership experience with Honeywell and Siemens Canada as Vice President and General Manager. He also has extensive experience with Suncor Energy in the downstream and upstream oil and gas sectors in Canada. Michael is a professional Engineer in Ontario and has completed his executive MBA from Laurier University and his Masters and B.SC. in Engineering degrees from Queen's University in Canada.

ASHRAE Holds the Sustainability Cards

Zero ENERGY DESIGN

Join ASHRAE at the 2011 Winter Conference, Jan. 29-Feb. 2, Las Vegas, Nevada

A full-house of professional and personal development activities are offered!

Register before November 5 and SAVE!
The early bird fee is $505
($685 non-members)

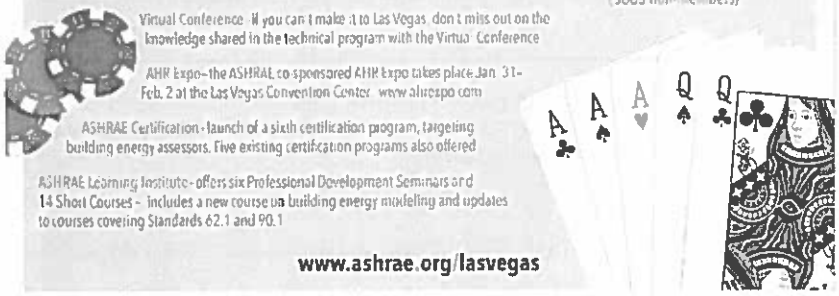
Technical Program - focused on the efficient use of energy, the greening of the industrial base, the real cost of zero-energy design

Virtual Conference - If you can't make it to Las Vegas, don't miss out on the knowledge shared in the technical program with the Virtual Conference

AHR Expo - the ASHRAE co-sponsored AHR Expo takes place Jan. 31-Feb. 2 at the Las Vegas Convention Center. www.ahrexpo.com

ASHRAE Certification - launch of a sixth certification program, targeting building energy assessors. Five existing certification programs also offered

ASHRAE Learning Institute - offers six Professional Development Seminars and 14 Short Courses - includes a new course on building energy modeling and updates to courses covering Standards 62.1 and 90.1



www.ashrae.org/lasvegas

Raising Energy Efficiency Highlighted at ASHRAE Meeting

ATLANTA – Raising efficiency to new levels was the focus of the ASHRAE 2010 Annual Conference held in Albuquerque, N.M. Highlights of the meeting included ASHRAE's receipt of ENERGY STAR® for its Headquarters in Atlanta, celebration of the 35th anniversary of publication of the energy conservation standard now known as Standard 90.1 and an update on the ASHRAE Building Energy Quotient program.

Some 1,456 attendees took part in the conference held June 26-30 in Albuquerque.

A highlight of the meeting was induction of the Society's first female president, Lynn G. Bellenger, P.E., Fellow ASHRAE, partner, Pathfinder Engineers & Architects, Rochester, N.Y. Her presidential theme focuses on "Modeling a Sustainable World," drawing attention to modeling tools that enable us to create and refine our vision of a building. To read her presidential address, visit www.ashrae.org/bellenger.

Another highlight was presentation of ENERGY STAR by Jean Lupinacci, chief of the ENERGY STAR Commercial & Industrial Branch, recognizing energy savings following the 2008 renovation of ASHRAE Headquarters. To earn ENERGY STAR, ASHRAE, among other steps, reduced its estimated annual energy usage by more than 32.5 percent through enhancements to the building envelope and use of the following systems: dedicated outside air system with energy recovery, ground-source heat pumps, and mini-split systems with heat recovery.

Together, ASHRAE and the Illuminating Engineering Society of North America celebrated the 35th anniversary of publication of its energy conservation standard, now known as ANSI/ASHRAE/IES Standard 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings. Since being developed in response to the energy crisis in the 1970s, Standard 90 has become the basis for building codes, and the standard for building design and construction throughout the United States

It was announced that ASHRAE, for a third year, had met its Research Promotion fundraising goal, hitting the $2,075,000 mark. The figure represents a 2 percent increase over last year. ASHRAE's Research program has supported more than 700 projects in the last 50 years, addressing areas such as indoor air quality, refrigeration and energy efficiency.

Conference attendees also received an update on the Building EQ program, which currently is a pilot program designed to encourage the building industry to cut energy use and costs. Seventeen provisional assessors have spent the last couple of months assessing 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. For more information on the program, visit www.buildingeq.com.

Top ASHRAE Learning Institute courses included Understanding Standard 189.1 for High-Performance Green Buildings and courses related to healthcare facility design.

Top-attended technical program sessions included a first look at proposed Standard 90.1-2010, retrofitting HVAC in older buildings for higher efficiency, evaluating the performance of existing buildings, evaporative cooling in high and dry climates, natural refrigerants, BIM load calculations, retrocommissioning, HVAC equipment needs for net-zero-energy homes, energy efficiency through building controls and building energy simulation. All of these sessions and others are available in the Albuquerque Virtual Conference at www.ashrae.org/NewMexicoVirtual.

Top-selling publications at the meeting were newly published standards, ANSI/ASHRAE Standard 62.2-2010, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings, andANSI/ASHRAE Standard 62.1-2010, Ventilation for Acceptable Indoor Air Quality, the newly published Performance Measurement Protocols for Commercial Buildings, developed in collaboration with the Chartered Institution of Building Service Engineers (CIBSE) and the U.S. Green Building Council (USGBC), Standard 189.1, Standard for the Design of High Performance, Green Buildings Except Low-Rise Residential Buildings, and the ASHRAE Handbook Online. ASHRAE also debuted a new online bookstore on ASHRAE.org designed to make finding products and publications quicker and easier.

As part of the Conference, the Albuquerque Host Committee is working to bring hope to a local nonprofit to leave behind a lasting sustainable footprint in the cities where the Society's Conferences are held. Casa Esperanza, or House of Hope, works with area hospitals to provide appropriate housing and emotional support for patients and their families who reside temporarily in Albuquerque while receiving treatment.

ASHRAE members are helping replace the organization's central boiler, which charges a storage tank, with a new tank containing a solar heating coil. Solar collectors are being placed on the roof and provide the primary means of charging the storage tank. A new boiler is being installed to make up any capacity deficiencies, such as a night. All necessary design services are provided by local ASHRAE members, who are soliciting equipment and labor donations from manufacturer representative and contractors.

ASHRAE holds its 2011 Winter Conference, Jan. 29-Feb. 2 in Las Vegas, accompanied by the AHR Expo, Jan. 31-Feb. 2. For more information, visit www.ashrae.org/lasvegas.

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.

ASHRAE Assists College Students with Tuition through Scholarships

ATLANTA—In order to reduce the financial strain on engineering students around the world, ASHRAE is awarding over $80,000 in scholarship money for the 2010-2011 school year.

"ASHRAE acknowledges the need to be supportive of students and the development of a future generation of ASHRAE members continuing to 'advance the arts and sciences of HVAC&R'," Victor Goldschmidt, chair of the ASHRAE Scholarship Trustees, said. "At these times of a challenging economy and need for technical advances it is more important than ever to be involved in providing scholarships to worthy students, and through our chapters, having a presence with institutions with HVAC&R related programs."

There are recipients of ASHRAE's scholarship assistance. Local awards include:

Reuben Trane Scholarship: $10,000 to be awarded over two years, Benjamin Oliver, McMaster University, mechanical engineering and management; Jacob Wagner, Kansas State University, mechanical engineering; and Sean Kolich, Kansas State University, architectural engineering. The scholarship was established by the Trane Co. in memory of its founder, an innovative engineer, inventor and business executive.

Over the course of 20 years ASHRAE has awarded a combined $1 million to over 200 deserving undergraduate and graduate students. It is ASHRAE's belief that aiding these future leaders of the heating, ventilation, air-conditioning and refrigeration industry will in turn benefit society as they lead the way in sustainable HVAC&R technology.

For more information on ASHRAE scholarships, visit www.ashrae.org/scholarships. Applications are now being accepted for the 2011-12 undergraduate, regional and university-specific scholarships. The deadline is Dec. 1, 2010.

ASHRAE IAQ Conference to Focus on Creating Healthier, Infection-Free Environments

ATLANTA –The 2003 SARS episode, the H1N1 pandemic and avian flu have transformed the built environment landscape, raising not only significant public health concerns but also economic implications on a global scale. Recognizing the challenge of controlling the spread of infection, ASHRAE hold its IAQ 2010 Conference series in Kuala Lumpur, Malaysia, Nov. 10-12, 2010.

The focus of ASHRAE's IAQ 2010 Conference is airborne infection control. The conference explores related questions on the role of HVAC in airborne infectious disease transmission, evaluation of the various design and control strategies and technology, pandemic preparedness and airborne infection control for various applications such as healthcare facilities, air and surface transportation, schools, offices, etc.

Besides addressing thermal comfort and IAQ issues, buildings and other enclosed environments are increasingly faced with the challenge of providing a healthy environment. Airborne infection and its control in the built environment pose considerable challenges to mankind that rival the need to also address climate change and environmental sustainability.

This will have tremendous impact in the design, operation and maintenance of buildings and other enclosed environments. IAQ 2010 reviews the state of knowledge about airborne infection in such environments and helps define future directions.

One technical paper of interest is "Indoor Air Quality, Airborne Infection Control and Ventilation Efficiency in Hospital Operating Rooms." The HVAC airside system plays an important role in maintaining adequate hygiene levels in an operating theatre; this session introduces suitable design of such a system.

The workshop "Are Ventilation Systems Enough to Prevent the Dispersion of Airborne Infectious Diseases in Hospitals?" focuses on space designs and additional disinfection applications that can increase the performance of ventilation systems in hospitals.

IAQ 2010 is the 16th in the ASHRAE IAQ Conference series that started in 1986 and the first to be held outside the United States. For more information, or to register, visit www.ashrae.org/iaq2010.

New ASHRAE GreenGuide Features Guidance on Sustainable Planning, Carbon, Water Efficiency and Existing Buildings

ATLANTA – The newly published third edition of the ASHRAE GreenGuide. The Design, Construction and Operation of Sustainable Buildings is an updated version of this easy-to-use reference that covers the need-to-know information on what to do, where to turn, what to suggest and how to interact with other members of the design team in a productive way.

The book features new information on guidelines on sustainable energy master planning; updates on teaming strategies; information on how issues related to carbon emissions affect building design and operational decisions; building information modeling (BIM); strategies for greening existing buildings; updates on newly developed green building rating systems and standards; and compliance strategies for key ASHRAE standards. Also, the GreenTips found throughout this edition highlight techniques, processes, measures or special systems in a concise format.

"The ASHRAE GreenGuide is a living document meant to be used by proactive design engineers working on green building design projects as part of a team that provides ideas and guidance of what to do, where to turn, what to advise and how to interact with other team members in a productive way," John Swift, co-author and co-editor of the GreenGuide, said.

A new chapter covers architectural design and planning impacts, including sustainable master planning. Such planning addresses resource use, landscape concerns and environmental, economic and social concerns. A major part of such planning is energy and water use.

"As a smart building services engineer, one must be familiar with the flows of energy from generation through transmissions to consumption," Tom Lawrence, co-author and chair of ASHRAE's technical committee on building environmental impacts, said. "Understanding these flows is critical to being able to provide solutions that increase overall system efficiencies and facilitate energy reductions at all levels."

The cost of the ASHRAE GreenGuide is $98 ($83, ASHRAE members). To order, contact ASHRAE Customer Service at 1-800-527-4723 (United States and Canada) or 404-636-8400 (worldwide), fax 404-321-5478, or visit www.ashrae.org/bookstore.

ASHRAE, IES Join Forces on Residential Energy Standard

ATLANTA – The team that brought you the national standard for energy efficiency in commercial buildings has joined together to help homes attain higher levels of energy performance.

ASHRAE and the Illuminating Engineering Society of North America (IES) are working together to strengthen requirements in ANSI/ASHRAE Standard 90.2, Energy Efficient Design of Low-Rise Residential Buildings. Previously, the standard was developed only by ASHRAE and was first published in 1993.

Standard 90.2 provides minimum requirements for the energy-efficient design of residential buildings. Last year, ASHRAE's Board of Directors recommended to the Standard 90.2 committee that it consider a goal of writing the standard so that it is 30 percent more efficient than the 2004 version, including both a prescriptive and a performance path.

The standard would target home builders and code officials in an easy-to-understand format that is simple to use. The committee plans to have an advisory public review of the standard later this year to determine whether proposed changes are meeting the needs of the audience.

"ASHRAE is honored and proud to have IES as a co-sponsor of Standard 90.2," ASHRAE President Lynn G. Bellenger said. "The partnership between ASHRAE and IES originated 35 years ago when we joined together to create the first building energy conservation standard, ANSI/ASHRAE/IES Standard 90-1975, Energy Standard for Buildings Except Low-Rise Residential Buildings. The partnership has flourished as we've collaborated on updates to that standard and created Advanced Energy Design Guides. Now, as we focus on the residential market, whose 107 million housing units consume 22 percent of the primary energy in the U.S., we have the opportunity once again to define the actions needed to make energy conservation our 'first fuel.' By identifying ways for this major market to reduce energy use and costs, we serve the public and increase our energy security."

"The opportunity to be a cosponsor with ASHRAE on this standard continues the long standing and successful partnership on a trilogy of standards addressing energy conservation – Standard 90.1, Energy Standard for Buildings Except Low Rise Residential Buildings, Standard 100, Energy Conservation in Existing Buildings, and now 90.2 dealing with efficient design of low-rise residential buildings," Rita M. Harrold, IESdirector of technology, said. "IES will contribute expertise in providing ways to achieve energy savings through lighting in this important market segment that consumes approximately 212 billion kWh per year, or approximately 15 percent of residential electricity consumption. The challenge here will be to achieve savings while still providing a quality environment to satisfy occupant needs."

Winter Conference Technical Program to Focus on Net-Zero Energy Design, Greening the Industry

ATLANTA–Highlighting the importance of finding balance in design, the extravagant setting of Las Vegas serves as a unique contrast to the 2011 ASHRAE Winter Conference Technical Program's theme of net-zero energy design.

The Technical Program features a wide-range of programs and papers addressing the real cost of net-zero energy design, the efficient use of energy, the greening of the industrial base and other topics related to design, standards, codes and professional skills. In total, the program includes paper-related sessions – five technical paper sessions, 24 conference paper sessions and a poster session – application-oriented, non-paper seminars (57) and open discussion forums (8).

Numerous sessions address the "real cost of net-zero energy buildings" and cover modeling and design, applications and equipment. Also, several sessions examine how countries around the world have approached net zero, such as Cutting-Edge Japanese Technologies for Zero-Energy Buildings, Zero Energy Buildings around the World and European Net-Zero Energy Activities and Buildings.

As a nod to the Conference location, several sessions focus on HVAC systems for casinos, such as Designing for Improved Air Quality in Casinos with ETS and Historical Perspectives: Las Vegas Casino Design Past to Present.

Other sessions address the growing demand for green buildings and the importance of integrated design. Mechanical Engineer's Role in Green Building and Building Development; High Performance Teamwork for High Performance Buildings.

Additional sessions of interest include:

* Smart Grid and Net Zero Buildings: Where Are We Now?
* Energy Modeling of Existing Buildings
* Modeling Extreme Events
* Controls for Central Chiller Plant Optimization
* Next Generation Heat Exchangers for Net-Zero Design
* Thermal Comfort Evaluation and Standards

With so many to choose from, Conference attendees are often forced to narrow down which technical sessions they attend to only a few. However the Virtual Conference, free for paid Conference registrants, allows attendees to catch up with sessions they might not have been able to attend in person due to conflicting schedules. The Virtual Conference includes access to all speakers' PowerPoint and audio presentations, an open forum for a two-week period following the conference and the ability to rate presentations.

The 2011 ASHRAE Winter Conference and will take place at the Las Vegas Hilton hotel, Las Vegas, Nev. For complete conference information, including abstracts on all technical program sessions, or to register, visit www.ashrae.org/lasvegas. Those who take part in the early-bird registration before Dec. 31 can save up to $160 from on-site costs.
