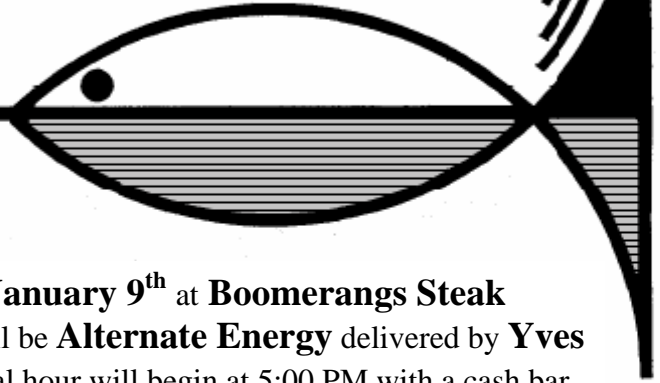




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January Meeting

The January meeting is scheduled for **January 9th** at **Boomerangs Steak House**. The topic for this meeting will be **Alternate Energy** delivered by **Yves Gagnong, P.Eng., D.Sc.** The social hour will begin at 5:00 PM with a cash bar. The presentation will follow at 6:00 PM. Dinner will be served at 7:00 PM.

January's meeting is **Research Promotion Night**. The meal is sponsored by **The Maricor Group**, make sure to check out their display table.

Executive Meeting Notice

A reminder to the Executive, Board of Governors, and the Committee Chairpersons that the executive meeting will start at 3:30 PM at Boomerangs.

ANSI/ASHRAE/IESNA Standard 90.1

Learn How to Comply Online, with ASHRAE eLearning

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Fundamentals of Standard 90.1 provide 35 PDH or 3.5 CEU credits. It is a US Green Building Council Approved Education Provider Program.

To take the first 2 modules of the course for Free, go to:

http://www.cyweb.co.uk/clients/ashrae/fundamentals_901.htm

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<http://books.elsevier.com/ASHRAE/?isbn=0123739969&srccode=ASH3>

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January's Speaker Biography:

Yves Gagnong, P.Eng., D.Sc

Dr. Yves Gagnon currently holds the K.C. Irving Chair in Sustainable Development and is actively involved in the Environmental Studies graduate program at the Université de Moncton. Until recently, Dr. Gagnon held the position of Visiting Executive at the Atlantic Regional Office of the Natural Sciences and Engineering Research Council (NSERC), with the mandate to establish and lead the first regional office of this important federal agency that supports research, innovation and advanced training. Prior to that, he was founding President and CEO of the New Brunswick Innovation Foundation and he was Associate Vice-President of Research and Dean of the Faculty of Graduate Studies and Research at the Université de Moncton.

After his undergraduate studies in New Brunswick and Québec as a mechanical engineer, Dr. Gagnon obtained graduate degrees from the Massachusetts Institute of Technology in the United States, and from the Université de Toulouse, in France. Very active in research, notably in wind energy, Dr. Gagnon is supported through various grants and research contracts. His work, done in national and international collaborations, has appeared in over 100 publications and reports. Regularly solicited as an external expert, he has been actively involved in committees, organizations and Board of Directors devoted to technological advancement, the development of knowledge, and economic and community development.

Abstract:

Wind Energy in New Brunswick and PEI: Wind Resource, Technical Aspects and Status of Development

The presentation will give a brief overview of the status of development of various renewable energy sources for the production of electricity, along with their limitations and challenges. As an emerging and viable source of energy for electricity production, the global context of the development of wind energy in the World will be presented. Comparisons with the Canadian context will be presented, along with a description of the technical aspects of wind energy production. This will set the stage for an overview on the state of development of wind energy in New Brunswick and in Prince Edward Island. In particular, the recent work of the research group on the wind resource assessment of New Brunswick and PEI will be presented, with the identification of the best locations that can be exploited for the production of electricity. Finally, the current models of development for the region will be discussed, both at the utility scale and for the small units of production of electricity.



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Summary of December 12, 2006 Meeting

Mr. Joseph Tarascio, Regional Equipment Director with Johnson Controls Canada, gave a very interesting illustrated talk on *Variable Speed Drives in Chillers*. Beginning with a review of system-head curves with respect to operating points at full and part load, he compared characteristics of constant speed machines with throttling devices, and variable speed machines without throttling.

Some observations of note:

- **load** has little effect on efficiency; **head** has a major effect on efficiency
- VSDs typically save 20-30% energy in chillers which are not base loaded
- a 5% increase in efficiency can save the cost of a chiller over its life cycle
- screw compressors avoid surge issues with capacity control
- The Integrated Part Load Value (IPLV) is an important performance metric

ARI Standard 550/590, **Performance Rating of Water Chilling Packages Using the Vapor Compression Cycle** is available for downloading at:

<http://ari.org/NR/ronlyres/8D924966-2E82-4854-8AF0-1F777E7D98AA/0/5505902003.pdf>.


The sponsorship of York is gratefully acknowledged. A table-top display of literature concerning variable speed drive chillers was available during the meeting for review.

Liquid Cooling Guidelines Available IT Heat Load Solution Discussed in New ASHRAE Publication

Heat loads generated by IT equipment can present significant problems for data centers by introducing effects such as decreased equipment availability, wasted floor space and inefficient cooling system operation. One solution, liquid cooling, is described in detail in ASHRAE's new publication, *Liquid Cooling Guidelines for Datacom Equipment Centers*.

Liquid Cooling Guidelines for Datacom Equipment Centers covers a broad range of liquid cooling topics such as facility cooling systems, facility piping design, liquid cooling implementation for datacom equipment, liquid cooling infrastructure requirements for chilled water systems, and liquid cooling infrastructure requirements for technology cooling systems.

The cost of *Liquid Cooling Guidelines for Datacom Equipment Centers* is \$49 (ASHRAE members, \$39) and is available in print and download versions. To order, contact ASHRAE Customer Service at 1-800-527-4723, by mail at 1791 Tullie Circle NE, Atlanta, GA 30329; or visit the Bookstore at www.ashrae.org.



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NB/PEI ASHRAE Chapter Meeting Schedule 2006/2007

January 9, 2007

Research Promotion Night

Topic: Alternate Energy, Scholarship Presentations

February 13, 2007

Student Night

Topic: Technical Tour of the Bonté Foods Plant

March 13, 2007

Membership Night

Topic: Commercial HVAC Systems

April 11, 2007 (Wednesday)

Student Night

Topic: ASHRAE Webcast on Indoor Air Quality

May 15, 2007


History Night

Distinguished Lecturer: Bill Lotz

Topic: Geothermal Heating and Cooling Systems Fail on Two Commercial Projects

June 12, 2007

Technical Tour of the Molson Brewery



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Building Commissioning Seminar

Reminder that if you are interested in ASHRAE's newest full-day seminar "Building Commissioning for New and Existing Buildings" and haven't confirmed your interest with Craig Brown, please do so at (506) 855-3133 or cbrown3@trane.com. We would love to be able to bring you this valuable seminar at a reduced cost. For more information check out the December issue of the *Herring Choker* at www.ashraenbpei.com.



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