

# Capital Communiqué



**ASHRAE - AMERICAN SOCIETY OF  
HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS**

<http://www.ashrae.ottawa.on.ca> **OTTAWA VALLEY CHAPTER** e-mail: [contact@ashrae.ottawa.on.ca](mailto:contact@ashrae.ottawa.on.ca)

**2009 - 2010**

**President**

*Jason Alexander*

**President Elect**

*Christine Kemp*

**Treasurer**

*Stephen Lynch*

**Secretary**

*Donald Weekes*

**Past President**

*Patrick St-Onge*

**Governors**

*Patrick Albert*

*Steve Moons*

*Frank Bann*

*Georges Maamari*

**COMMITTEES**

**Audit**

*Cathy Godin*

**Research Prom.**

*Patrick St-Onge*

**Membership**

*Phil Lemieux*

**Program**

*Aaron Dobson*

**Student Activities**

*Matthew Edmonds*

**TEGA**

*Georges Maamari*

**Chapter Historian**

*Roderic Potter*

**Special Events**

*Chris Healey*

*Adam Beales*

**Communiqué**

*Georges Maamari*

**Publicity**

*Jason Alexander*

**Table Top**

*Frank Bann*

**Telephone**

*Cathy Godin*

**Greeter**

*Mike Swayne*

**Roster**

*Kevin Toll*

**Webmaster**

*Roderic Potter*

**PAOE**

*Christine Kemp*

**Business Cards**

*Rod Lancefield*

**Nominations**

*David Eastwood*

**CRC Action**

*Jason Alexander*

## **EVENING PROGRAM**

### **DATE:**

**Tuesday May 18, 2010.** Social: 17:30 Dinner: 18:30 Program: 20:00  
Travelodge Ottawa Hotel & Conference Centre, 1376 Carling Avenue, Ottawa, Ont., 613-722-7600

### **THEME**

*HISTORY / COMPANIONS / PAST PRESIDENTS*

### **PROGRAM**

*ONTARIO'S GREEN ENERGY FUTURE*

Parliamentary Assistant to Ontario's Minister of Energy and Infrastructure and Member of Provincial Parliament for Ottawa-Orleans Phil McNeely will make a presentation on Ontario's Green Energy Act, one year after its passage. A great opportunity to learn how North America's most ambitious feed-in tariff program is changing the face of our manufacturing and energy sectors, and a chance to explore Ontario's climate change action plan.

### **SPEAKER**

*PHIL McNEELY*



### **Menu**

Assorted Rolls and Butter, Butternut Squash Soup  
Roasted Alberta Beef with Herb Jus, served with Roasted Potatoes and Seasonal Vegetables  
Chocolate Cake with Berry Sauce  
Coffee/Tea  
Chapter Members: \$35.00    Guests: \$50.00

## EVENING PROGRAM (CONT.)

### BIOGRAPHY:

Since first being elected to the Ontario legislature in October 2003, Phil McNeely has worked hard to meet the needs of constituents in Ottawa-Orleans. The voters acknowledged his hard work in October 2007 when they re-elected him to represent their interests at Queen's Park for a second term.

Phil was appointed to the position of Parliamentary Assistant to the Minister of Public Infrastructure Renewal in 2007. In 2008, with the amalgamation of the Energy and Public Infrastructure ministries, Phil was appointed to the position of Parliamentary Assistant to the Minister of Energy and Infrastructure.

Along with his Parliamentary Assistant responsibilities, Phil also serves on the Standing Committees on Estimates and is Vice-Chair of the Legislation and Regulations Committee.

Whether advocating for Orleans in the legislature or meeting with a concerned constituent about a local issue, Phil is focused on making the east-end a better place to live.

Phil continues to lead the charge on issues that matter to the residents of Orleans and Ontarians everywhere, including transportation, education, and health care. He took particular action against the terrible health impacts of smoking and second-hand smoke by bringing forth the 'McNeely Amendment' that helped form legislation banning power walls from convenience stores and retail businesses. The amendment, which came into effect on May 31 2008, has helped keep cigarettes out of the sight of children.

Among his many achievements since first being elected to the Legislature, Phil has delivered two Family Health Teams, MRI services in the community and funding to help traffic congestion at the Hwy. 417/174 SPLIT, and \$2.5 million for the creation of the Shenkman Arts Centre Endowment Fund, the proceeds of which will benefit aspiring young artists.

More recently he was able to get a commitment from the provincial government to build a Family Health Hub in Orleans which will be the first of its kind in Ontario.

After more than 35 years as the head of his own engineering firm, Phil successfully ran for a seat on the newly-amalgamated Ottawa city council representing Cumberland Ward.

He would prove the oddsmakers wrong once again in October 2003 when he defeated a Conservative Cabinet minister to earn a seat in the fledgling McGuinty government.

Phil is fluently bilingual. He attended Lisgar Collegiate and graduated from McGill University with a bachelor's degree in engineering. He earned the equivalent of a Master's degree in Engineering from the Imperial College of Science, Technology and Medicine in London, England.

During his tenure on council, Phil earned a reputation as a hard worker who could tackle tough issues. He was determined to ensure Ottawa's east end had a strong voice. To that end, he was at the forefront of several important initiatives including the transformation of Petrie Island into a recreation destination; the Hay West initiative, which transported thousands of tones of hay from local farms to drought-stricken farmers in Alberta and Saskatchewan; and the creation of a community arts facility which would eventually become the Shenkman Arts Centre.

Phil and his wife Anna Marie live in Orleans. They have three sons, James, D'Arcy, and Jonathan, and two grandchildren.

**AMERESCO**  
Green • Clean • Sustainable

**ROY SAMHABER, P. ENG.**  
senior project manager

P: 613 224 7500 x6156 | P: 888 283 7267 | F: 613 224 3726  
rsamhaber@ameresco.com | ameresco.ca  
Ameresco Canada Inc.  
106 Colonnade Rd N, Ste 200 | Ottawa, ON K2E 7L6

Green • Clean • Sustainable

**BAXTEC**  
Mechanical Services  
Your energy savings partner

**MARK CSIFFARY P.ENG.**  
President • mark@baxtec.com

Office: 613-738-7450 Fax: 613-738-2973  
Cell: 613-229-8277 www.baxtec.com  
2470 Dan Reid Drive, Ottawa, ON K1H 1E1 A member of

**Belnor**  
Engineering Inc.  
innovation control solutions

1 Royal Gate Boulevard, Unit 7  
Vaughan, ON L4L 8Z7  
☎ 905-264-6372 & 905-264-6432  
Proven Safety for Laboratory Standards

**Guy Mongeon**  
Sales  
www.belnor.com

**Dave Fanset**  
Project Coordinator

**PHOENIX**  
**STROBIC**  
**PARAGON**  
**MAFNA**  
**PLASTEC**

dfanset@belnor.com — Healthcare Solutions — gmongeon@belnor.com

1501 Carling Ave, Suite 8, Ottawa, ON K1Z 7H1 ☎ 613-729-6660 & 613-729-2695

**BRECK-MAR**  
*Heating, Ventilation, Air Conditioning, VSD's & Humidification*

**Doug P. Breckenridge, P.Eng.**

877 Boyd Avenue, Ottawa, ON K2A 2E2  
 Tel: (613) 728-0060 • Fax: (613) 725-2637  
 doug@breck-mar.com

AIR CONDITIONING VENTILATION AIR CLIMATE

**Dillo Mechanical Limited**

1100 STAR TOP ROAD  
 OTTAWA, ONTARIO K1B 5W8

DANNY DILLON  
 VICE PRESIDENT

E-mail: danny@dilo.com

TEL: 741-7731  
 745-3613  
 FAX: 741-9882

Stephen Lynch, B.Eng./EIT

Account Executive Services

Direct Energy Business Services  
 100 - 2935 Conroy Rd  
 Ottawa, ON  
 K1G 6C6  
 613.247.7451 Direct  
 613.371.9814 Cell  
 613.247.7990 Fax

stephen.lynch@directenergy.com  
 www.directenergy.com

**Direct Energy**

President & CRC Delegate



## President's Message

By Jason Alexander, P.Eng.  
 2009-2010 OVC President

It is hard to believe that this will be my last presidential address. Time is relative and it has sped past at an astonishing rate. It has been an honour and privilege to serve as the ASHRAE Ottawa Valley Chapter President. I must admit there is some emotion involved when things come to an end. I reflect back on this year and have to give a sincere thank you to all of the Executive, Board of Governors and all the committee's and their chairs who's diligent work throughout the year made this year run smoothly. Without you this year would have never happened. I also have to thank Goodkey Weedmark and the Principals who allowed me so much time to "disappear" and work on ASHRAE related matters. It takes a very understanding employer when one becomes involved with the board at the executive level. I also have to thank my fiancée Melissa for understanding all the nights I didn't come home till very late.

May's meeting is about our history and companions. At the May meeting we welcome back the past presidents and all the spouses who support our chapter members. Please invite out your companions to experience what it is we ASHRAE members have committed too. We welcome Phil McNeely, MPP who will be speaking to us about Canada's future energy issues. I am sure this will be an interesting topic for all. We will also be closing nominations and swearing in your new executive and board of governors.

As the grass starts to green and hay fever sets in I would like to remind everyone about the annual ASHRAE OVC golf tournament. Please get your teams signed up as spaces fill in fast. We also have the full day variable frequency drive seminar on May 11. The seminar is sure to be very informative and well worth the low cost.

I hope your experiences as chapter and society members this year has been a positive one. I hope you will continue to be active in ASHRAE and support the local Ottawa chapter. I wish all the best for your incoming President Christine Kemp and the new board. May they experience continued success and have another smooth and well planned season. With best wishes and hoping all of you have a great summer I thank you Ottawa Valley Chapter.

Sincerely,  
 Jason Alexander, P.Eng.  
 2009-2010 OVC President

**GENIVAR**

GENIVAR ONTARIO INC. 15 Fitzgerald Road, Suite 100  
 Nepean, Ontario K2H 9G1 CANADA

Tel: (613) 829-2800  
 Fax: (613) 829-8299  
 www.genivar.com

**Goodkey, Weedmark & Associates Limited**  
 Consulting Engineers

50 years  
 1956 - 2006

**Ross McIntyre, P.Eng.**  
 Principal, Designated Consultant, Mechanical Engineer

1688 Woodward Dr., Ottawa, ON, Canada, K2C 3R8  
 Telephone: 613-727-5111 ext. 239 Fax: 613-727-5115  
 rossmc@gwal.com

**HTS ENGINEERING LTD**

Rod Lancefield, P.Eng., LEED A.P.

1646 Woodward Drive, Ottawa, Ontario K2C 3R8  
 Tel: (613) 728-7400 Tollfree: 1-888-280-8544  
 Email: rod@htseng.com Fax: (613) 728-8032  
 Website: www.htseng.com Cell: (613) 851-1997



## What you missed

By Donald Weeks  
2009-2010 OVC Secretary

The night's theme was Membership. There was no Technical Session.

There were two (2) table top displays from Total HVAC – Aaon and EI Solutions - Munters.

President Jason Alexander opened the meeting and welcomed members, guests and students. President Alexander introduced the Board of Governors and the Executive Board.

Donald Weekes (Secretary) introduced the guests and students for the evening.

President Alexander introduced Phil Lemieux, the Membership Chair. Mr. Lemieux indicated that there were five (5) new members in April.

President Alexander introduces Adam Beales, Chair of Golf Tournament to discuss the tournament. Loch Marche – Thursday, June 10<sup>th</sup>.

President Alexander introduced Pat Albert to discuss the details on the upcoming seminar on May 11<sup>th</sup>, 2010 regarding Variable Speed Drives.

The evening's program was entitled, 'DX and Dehumidification: Why Systems Fail and Some Systems Work?' presented by David Knebel. Mr. Knebel is Vice President of Sales and Technology at AAON, Inc. where he is responsible for Sales, Warranty, Parts, Applications Engineering, and Software Development. Mr. Knebel is the author of the ASHRAE text on Simplified Energy Analysis.

Mr. Knebel reviewed a variety of HVAC systems and the engineering controls that can be used to modify humidity levels. Many of the controls have been in use for over eighty (80) years. Mr. Knebel presented a number of DX systems, including: simple on-off control; mixed air bypass; return air bypass; modulating hot gas reheat; and systems including combinations of these basis types. With the use of a computer program, Mr. Knebel was able to determine what system configurations can control dry bulb temperature and relative humidity under a variety of room load conditions and ambient conditions.

Jason Alexander thanked for his presentation and presented him with a gift. President Alexander asked that the member survey be completed for each table.

**InAIR Environmental Ltd.**

**Lan Chi Nguyen Thi, P.Eng.**  
Partner

1390 Prince of Wales Dr., Suite 503  
Ottawa, Ontario K2C 3N6  
Phone 613.224.3863  
Fax 613.224.2561  
lanchi.nguyen@inairenvironmental.ca  
www.inairenvironmental.ca

Mould & Flood Remediation  
Drinking Water Testing  
Training Courses  
IAQ Surveys

**InAIR**  
Environmental Ltd.

**Jp2g Consultants Inc.**  
ENGINEERS • PLANNERS • PROJECT MANAGERS

1150 Morrison Drive  
Suite 410  
Ottawa, Ontario  
K2H 8S9

**Greg Santyr, P.Eng., PMP**  
LEED AP  
Project Manager

Phone: 613-828-7800  
Fax: 613-828-2600  
email: gregs@jp2g.com

**Longhill Energy**

**Chris Harrison**  
Engineered Sales

chris@longhill.ca  
www.longhill.ca  
Phone: 613-226-3856  
Fax: 613-226-2715  
15 -111 Capella Court, Ottawa, Ontario K2E 7X1

**The Energy Conservation People**



**Daniel Laurin**  
Regional Sales Director  
dlaurin@master.ca

The Master Group L.P.  
25H, Northside Road  
Nepean (Ontario)  
K2H 8S1

T **613.829.2816**  
C 613 794 4872  
F 613.829.3731  
1 866 429.1977  
www.master.ca



**Jim Siciliano, P.Eng.**  
Partner/Mechanical Section Head  
Jim.Siciliano@mckeeottawa.ca

1785 Woodward Drive  
Ottawa, ON K2C 0P9  
CANADA  
Tel.: (613) 723-9585 x109  
Fax: (613) 723-9584  
www.mckeeottawa.ca



**METHOT**  
THE HEATING SPECIALIST

**Michael McNamara, P. Eng.**  
President  
michael.mcnamara@methot.ca

Tel : 905.850.3037 Toll free  
Cell: 416.986.7822 Tel : 1.800.638.4682  
Fax : 905.850.8012 Fax : 1.800.433.3398

1060, boul. Michèle-Bohec, suite 101  
Blainville (Quebec) J7C 5E2

Governor



## VFD Seminar

By Patrick Albert  
2009-2010 OVC Governor

May 11<sup>th</sup> the ASHRAE OVC will be hosting a Variable Frequency Drive Seminar. Come and learn about the intricacies of controlling pumps and fans as we strive to achieve the maximum level of comfort and energy savings. During this full day seminar you will learn what goes on in a VFD and how they can change a pump or fan curve to save your client money. This seminar will also show you how to identify the proper application, implementation and what to look for when specifying an appropriate device. The topics covered will also include line reactors and basics of VFD installation and maintenance.

The seminar will be hosted by Ken Fonstad, who has dedicated his career to educating people regarding VFD's. For Ken's biography, and more information, please see attached flyer. For any additional information please do not hesitate to contact me at any time.

Patrick Albert  
ASHRAE OVC, Governor  
(T) 613-728-4744

Committee Chair



## Membership

By Philippe Lemieux  
2009-2010 OVC Membership Promotion Chair

The ASHRAE Ottawa Valley Chapter would officially like to welcome the new members for the month of April 2010. They are;

Mr. Will Trayner;  
Mr. Ryan Gregory;  
Mr. Vernon J McGuigan;  
Mr. William Truong;

Mr. Gordon L Batley;  
Mr. Martin Pierre Brassard;  
Mr. Robert E. Pollak;

Please note that on **July 1, 2010**, Society dues for Members and Associates will increase to \$180, and dues for Students will increase to \$20. Please contact [membership@ashrae.org](mailto:membership@ashrae.org) with any questions or concerns.

Regards,  
Phil



**REGULVAR CANADA INC.**  
 170, Laurier Avenue West, suite 714  
 Ottawa (Ontario)  
 Canada K1P 5V5  
 tél.: (613) 565-2129  
 fax: (613) 565-8895

**Stéphan Riffault, P.Eng.**  
 Sales Engineer  
 srriffau@regulvar.com



Building System Surveys / Design & Retrofit  
 AutoCad System Design & Customization

**Roderic S. Potter Principal**  
 155 Pineledge Road  
 RR# 3 Carp, ON K0A 1L0  
 tel 613.839.2257 / fax 613.839.3226

[www.roddeers.com](http://www.roddeers.com)  
[info@roddeers.com](mailto:info@roddeers.com)  
 cell 613.266.2134



Siemens Building Technologies, Ltd.  
 2435 Holly Lane  
 Ottawa, ON K1V 7P2  
 Canada

Tel: (613) 733-9781 Ext. 223  
 Fax: (613) 737-4985  
 Tel: (800) 526-3478  
[ray.rochefort@siemens.com](mailto:ray.rochefort@siemens.com)  
[www.sbt.siemens.com](http://www.sbt.siemens.com)

**Ray Rochefort**  
 Area General Manager

Governor



## TEGA Awards

By Georges Maamari  
 2009-2010 OVC Committee Chair

The TEGA committee is pleased to present the Technology awards to worthy recipients of our chapter in recognition of their significant contributions in the application of ASHRAE based technologies in the design of their projects.

These awards are presented annually, first at the chapter level, and later at the regional level, to recognize the achievements of chapter members who design or conceive projects using proven innovative technologies, where effective energy use is achieved, or where an improved indoor environment is provided.

This year there were a total of eight (8) winners in six (6) categories as follows:

### 1st Place New Commercial Buildings

Patrick St-Onge, Wood Banani Bouthillette Parizeau.

For the Gatineau Fire Station # 5: a new 28 000 square foot fire station including an administration department occupying 40 people.

Design Highlights: Use of geothermal exchange as the primary heating and cooling source.

### 1st Place New Public Assembly

Patrick St-Onge, Wood Banani Bouthillette Parizeau.

For the Albion Heatherington Community Center: a new 7 700 square foot community center, including a gym, locker rooms, a multipurpose room and offices.

Design Highlights: Use of displacement ventilation in 90% of all spaces. Supply air temperature of 64°F.

### 1st Place New Institutional Building

Mike Swayne, JP2G

For the new Briarbrook Elementary School: a new 2 storey, 50 000 square foot elementary school.

Design Highlights: Incorporates a highly efficient heat pump system located throughout to provide both heating and cooling.

### 1st Place Existing Commercial

David Landsberg, Dessau

For the reconfiguration of the central cooling system at the CD Howe building.

Design Highlights: This extensive modernization included heat recovery addition under full occupancy.

### 2<sup>nd</sup> Place Existing Commercial

Kashyap Desai, Stantec

For the chiller, EMCS and lighting upgrade at 116 Albert St.

Design Highlights: New 300 ton high efficiency VFD chiller, VFD secondary pump system, and new base-building EMCS.

(cont...)



**1st Place New Residential**

Kashyap Desai, Stantec

For the new LeBreton Flats high rise condominiums, Phase 1.

Design Highlights: Three condensing natural gas boilers with an actual efficiency of 93.5%, MUA with enthalpy energy recovery.

**1st Place New Industrial Facility**

Kashyap Desai, Stantec

For the new chiller plant and cooling system upgrade at CFIA.

Design Highlights: Two 750 tons high efficiency VFD chillers with VFD chilled water and condenser water pumps, VFD cooling tower fans, high efficiency closed loop and open loop filtration, new BACNET DDC.

**2<sup>nd</sup> Place New Industrial Facility**

Kashyap Desai, Stantec

For the new chiller installation at the NRC chiller plant.

Design Highlights: Two 500 tons high efficiency VFD chillers with three new VFD chilled water pumps.

Congratulations to all the winners and participants. All of these projects will be moving on to the Regional competition where they will be competing against other chapters in the Region II district. Let's wish them all good luck!

Regards,  
Georges Maamari



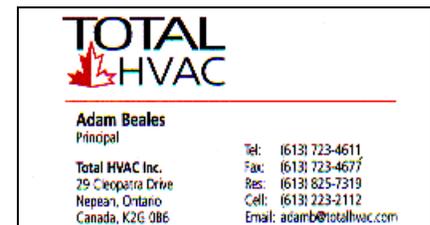
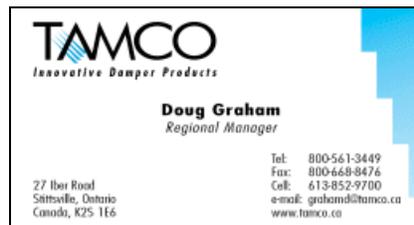
**Student Meal Sponsor**

By Stephen Lynch  
2009-2010 OVC Treasurer

Student Meal Donations - In an effort to have more students attend we need sponsorship to cover the cost of meals of students as long as they have a valid ASHRAE membership. Last month's student meals sponsors were:

Joel Primeau  
Matthew Edmonds  
Donald Weeks

Thank you for your continued support. Should you have any questions, please do not hesitate to contact the Treasurer



Mike Tomkinson, P.Eng.  
Sales Manager



Trane Ontario

1024 Morrison Drive  
Ottawa, ON K2H 8K7  
Tel: (613) 820-8111  
Fax: (613) 820-1414

Mobile: (416) 819-0195  
Email: mltomkinson@trane.com  
Website: www.trane.com/ottawa



ERIC VAN BENSCHOTEN  
35 LE ROY STREET, EASTVIEW, QUÉBEC  
CANADA J0V 1G0

vanfort@vanfort.ca

418-246-1681  
418-556-6524



24 Gurdwara Road  
Nepean, Ontario  
K2E 8B5

**RANDY CAVILL, C.E.T.**  
President

Tel: (613) 225-9774  
Fax: (613) 225-2972

e-mail: randy@walmart.net  
VENTILATION & FILTRATION PRODUCTS

Governor



## Survey Summary

By Georges Maamari  
2009-2010 OVC Committee Chair

Dear members,

For the past 6 months we have been asking our meeting attendees to fill-in the evaluation forms left at the dinner tables. These forms are used to help us identify what our members are interested in when they come to the monthly meeting. The main focus of these evaluation forms were on the program topics presented at the monthly meeting. The following table shows the overall appreciation of the topics and speaker.

Month	Topic	Overall Appreciation (%)
October	Chilled Beams	60.5
November	Solar Energy	87.8
January	Refrigeration at the Olympics	68.0
February	Seismic Restraints	74.5
March	ASHRAE's Core Values and their Implications	88.5
April	DX and Dehumidification	94.1

We had also asked assigned members to fill an online survey that 56 people (75% being chapter members) have taken the time to complete. The focus of that survey was on the program and communications with the membership. We were surprised to discover that 100% of those who have answered the survey read the communiqué, 50% read it religiously from front to back each month and 83% consider it as the main source of information. It is a great effort to send out a newsletter each month, but we realize that we need to continue and improve it. It also came out strong that social events are greatly appreciated and that more could be organized.

These results will be taken into consideration when your BOG and Executive committee get together over the summer to prepare for next year's program.

On behalf of the CTTC committee, I would like to thank all of you who participated in the surveys.

Regards,  
Georges



100-3740 Richmond Road  
Ottawa, Ontario K2H 5B9

Tel: (613) 596-6454

Patrick St. Onge, P.Eng., LEED AP  
Project Manager – Mechanical Engineer

[www.WBBEngineering.com](http://www.WBBEngineering.com)  
[patrick.stonge@WBBEngineering.com](mailto:patrick.stonge@WBBEngineering.com)



50 Rensson Drive, Suite 160 • Toronto, Ontario • M9W 1B3  
Tel: 416-251-8990 • Watts: 1-800-613-3789 • Fax: 416-251-8900  
[www.wesmechtech.com](http://www.wesmechtech.com)

**Joseph McCallion, C.E.T.**  
President

[josephm@wesmechtech.com](mailto:josephm@wesmechtech.com) cell: 416-720-8976



## Nominations

By Jason Alexander, P.Eng.  
2009-2010 OVC President

ASHRAE as a society is organized and run by volunteers. The Ottawa Valley Chapter from the president to every committee member is a volunteer. For those that have been active in chapter activities they can understand how much work and dedication it takes to make the operations run smoothly. The time and effort put into this chapter by its membership is what keeps it strong and active.

Each year the roles within the organization change slightly. The changes start at the executive level as each member shifts one role. The president becomes past president, the president-elect becomes president, the treasurer becomes the president-elect, and the secretary becomes treasurer. The shift in roles leaves one spot open in the executive for an outstanding individual within the organization.

The board of governors and the committee chairs are also open for discussion. The incoming president, past president and president-elect meet with the nominations committee and review the possible candidates for the vacant or soon to be vacant positions. The candidates are evaluated and a nominated individual will be voted in.

Nominations are still open and if any of our membership would like to become active or if you know of someone we should approach to get active please forward their name to Jason Alexander at [jalexander@gwal.com](mailto:jalexander@gwal.com). We will contact the individual to discuss how they would best fit into the chapter operations.

The nominated individuals will be put into office at the May meeting and will start immediately working to ensure the chapter stays strong and active.

Regards,  
Jason Alexander



## Calling all ASHRAE Golfers

By Adam Beales

**The 2010 ASHRAE Golf Tournament is scheduled for Thursday June 10, 2010 at the Loch March G&CC..**

Registration forms with full details have been emailed to all of last years Registered Participants. Spots for returning teams will be held until the April 20, 2010 Chapter meeting date only, after which time the field will be opened up to new teams. Registration forms will be available at the April Chapter Meeting. Registrations will only be confirmed upon return of the completed Registration form and payment.

The registration form also extends an invitation to the Membership to become involved as Hole Sponsors. Our Hole Sponsorship for ASHRAE Research Program has been wonderfully supported by our Chapter Membership in the past and we need and appreciate your continued support at this years event. As we are all aware the beneficiary of this day is ASHRAE Research and accordingly the more successful we are in this effort the more we will gain as a community. As always we expect a quick sellout so don't delay in returning your responses, and getting your game in shape!

Should you have any questions about the Tournament or Hole Sponsorship Program please contact Adam Beales at [adamb@totalhvac.com](mailto:adamb@totalhvac.com) or 613-723-4611



## Table Top

By Frank Bann  
2009-2010 OVC Governor

Wesmech is pleased to feature Exhausto at their table top.



Our May table top will be on the Exhausto demand controlled venting systems. The systems include venting of gas appliances (Categories I, II, III and IV), clothes dryers, kitchen hoods and bathrooms. Features include precise draft and combustion air control as well as substantial energy savings.

Wesmech Technical Sales Inc. is a manufacturer's representative for the Ontario market with over 25 years of successful Canadian project installations. Product lines include; Exhausto, Ajax Boiler, PVI Water Heaters, Riverside Hydronics, Van-Packer, Reco, Crown Boiler, Viega Radiant Floor Heating and Watson McDaniel.



## News Update

By Jason Alexander, P.Eng.  
2009-2010 OVC President

### Existing Building Upgrades: Energy-Conserving Practices and Policies Focus of NYC ASHRAE Conference

ATLANTA – From the city's most recognizable building to its first green commercial office tower, lessons learned underneath the sustainability skyline of New York City will be shared at an ASHRAE speciality conference in April.

Among the speakers at ASHRAE's *Existing Buildings in Urban Areas: Dramatically Cutting the Energy Waste*, are Tony Malkin, president, Malkin Properties, a real estate firm that owns and manages over 14 million square feet of office, retail residential and other properties in 15 states, including the Empire State Building, and Jody Durst, co-president, The Durst Organization, the owner, manager and builder of 9 million square feet of mid-town Manhattan office and residential properties, including 4 Times Square. These owners will help highlight NYC's ground-breaking "Greener, Greater Buildings" laws, the first in the nation to address energy usage in existing buildings.

The ASHRAE conference serves to guide the building community and government in reducing energy in existing buildings. The conference takes place April 19-20, 2010, at the Grand Hyatt in New York, N.Y. To register or for more information, visit [www.ashrae.org/cutenergywaste](http://www.ashrae.org/cutenergywaste). The conference is endorsed by BOMA International and the U.S. Green Building Council and sponsored by the New York State Energy Research and Development Authority.

Malkin and Durst are taking part in an April 19 panel focused on real estate executives. They will share lessons learned in making their properties sustainable and discuss why sustainability is a driving force in the real estate industry.

(cont...)

“The founders of these two organizations helped construct the city’s skyline,” Michael Bobker, conference chair said. “And today’s generation is working to make that skyline more sustainable. The Empire State Building is undergoing a \$500 million renovation with a focus on greatly reduced energy consumption and carbon emissions. And the Durst property portfolio sets new standards for use of new technologies. They truly can speak to our conference goal of cutting energy waste.”

Also taking place at the conference is a session on Energy Performance Rating and Disclosure, which will include an update on ASHRAE’s Building Energy Quotient program. The program, launched in a pilot phase in December, serves to inform building owners and operators, tenants and prospective buyers on the energy use of buildings, to encourage the building industry to find ways to cut energy use and costs. Some 25 buildings, represented by leading building owners and designers, real estate developers and government agencies, are involved in the pilot program.

On April 20, a breakfast talk on *Strategizing an Urban Campaign* is featured. Those taking part include representatives of ICLEI - Local Governments for Sustainability, an international association of local governments as well as national and regional local government organizations that have made a commitment to sustainable development, and Rohit T. Aggarwala, director, the Office of Long-Term Planning and Sustainability, City of New York. Aggarwala will provide an update on Plan NYC, New York City’s ambitious long-term sustainability plan.

Also taking place on April 20 is a session *Real Estate Decision-Making – Bridging the Gap between Engineers and Decision-Makers*. Featured speakers from TIAA-CREF, Sentinel Real Estate Corp. and Prudential Real Estate Investors will evaluate investment in energy efficiency in existing buildings. Real estate decision makers will explain opportunity cost of capital and other barriers to investing, as well as what drives them to invest and what they need to see from engineering companies and energy service companies.

The conference addresses investment and financial decision-making, effective public policies, and necessary technical steps (energy audits, commissioning, retro-commissioning, benchmarking of utility consumption, and design and construction of energy related problems).

### **Sustainability News:**

#### **Changes to Decrease Energy Use in Elevators, Parking Garages Proposed for Standard 90.1**

ATLANTA – Going down? Energy use in buildings could drop with a proposed requirement to Standard 90.1 regulating ventilation and cab lighting in elevators.

Proposed addendum *df* to ANSI/ASHRAE/IESNA Standard 90.1-2007, *Energy Standard for Buildings Except Low-Rise Residential Buildings*, takes a first step in addressing inefficiency of ventilation fans and cab lighting, both of which often operate 24/7, regardless of load or occupancy. The addendum is one of 12 proposed addenda to the standard currently out for public comment.

The American Council for an Energy-Efficient Economy and the European E4 Committee estimate elevator energy use to be in the range of 2 to 5 percent of total building electric consumption. Proposed addendum *df* would require cab lighting systems to have efficacy of not less than 35 lumens per watt; that cab ventilation fans for elevators without air conditioning shall not consume over 0.7 W\*s/L at maximum speed; and that when stopped and unoccupied with doors closed for over 15 minutes, cab interior lighting and ventilation shall be de-energized until required for operation.

“Two to 5 percent of building energy consumption is significant; beginning to realize those savings using this addendum is an important step,” Drake Erbe, chair of the 90.1 mechanical subcommittee, said.

Also open for public review is proposed addendum *di*, which sets requirements for parking garage ventilation. In 1999, the standard required garage ventilation fan systems with a total design capacity greater than 30,000 cfm to have either an automatic control capable of staging fans or modeling fan volume or an automatic control capable of shutting off fans or reducing fan volume when the garage is not in use.

The 2007 *ASHRAE Handbook, HVAC Applications*, recommends “if permitted by local codes, the ventilation airflow rate should be varied to conserve energy.” The proposed flow rates and concentrations in the addendum are from the International Mechanical Code requirements.

(cont...)

“The energy savings depends on the hours of operations and the use profile of the garage,” Erbe said. “In garages that have morning and afternoon peaks and low usage during the day, the Handbook documents savings of 60 percent of fan power.”

Below is a listing of proposed addenda to 90.1 currently open for review:

**Public Review April 9-May 9, 2010:**

- 90.1 *ck* allows for more flexibility in meeting ventilation requirements by referencing the Standard 62.1 definition of system ventilation efficiency and not the variables used in the Standard 62.1 multiple-spaces equation.
- 90.1 *db* provides an exception for certain systems serving laboratory spaces from the design airflow rate requirement in Appendix G. In addition it clarifies that the system fan power shall have the same proportion as in the proposed design.
- 90.1 *de* splits the “generic lobby” from common elevator lobbies in the lighting power density (LPD) tables with adjusted LPDs to reflect specific space needs for elevator and non-elevator lobby spaces. In addition, this removes the fitness center audience seating from the LPD table.
- 90.1 *df* takes a first step in addressing ventilation and cab lighting in elevators regardless of occupancy.
- 90.1 *dg* adds a definition for the term “field-fabricated fenestration” used in section 5.4.3.2, consistent with an official interpretation approved by the Standard 90.1 committee and similar language in California’s Title 24
- 90.1 *dh* clarifies the credit for on-site renewable energy and site recovered energy in Section 11 and Appendix G.
- 90.1 *di* sets requirements for parking garage ventilation.
- 90.1 *dk* adds clarity and instruction to the users of Appendix C, the envelope trade off option, for new skylighting and daylighting requirements that were added in addendum *al*, *bc* and *bn*.
- 90.1 *dl* gives instruction to the users of Appendix C, the envelope trade off option on how to model the base envelope design and the proposed envelope design on how to comply with the cool roof provisions of Section 5.
- 90.1 *do* attempts to clearly establish the goals and requirements of the lighting system to ensure that owners are provided all the information necessary to best use and maintain the lighting systems.

**Public Review from April 9-May 24, 2010:**

- 90.1 *dj* limits the fan energy allowance for energy recovery devices to values that approximate the results of the economic analysis performed for the previously approved addendum *e*, with some allowance to permit adequate pressure drop for products near the minimum recovery effectiveness of 50 percent. A separate allowance is also created for coil runaround loop systems.
- 90.1 *dn* shows changes in Appendix G relative to addendum *cj* (warehouses) to 90.1-2007.

The proposed addenda to ASHRAE/IESNA Standard 90.1 are available for comment only during their public review period. To read the addenda or to comment, visit [www.ashrae.org/publicreviews](http://www.ashrae.org/publicreviews).

If no comments are received on these addenda, they likely will be incorporated into the 2010 version of the standard slated to be published this fall. If comments are received, the substance and volume of those comments will determine whether they are incorporated into the 2010 standard.

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.



## Business Card Ads

by Rod Lancefield

You can support your chapter and promote your business by placing your business card in the Capital Communiqué. It will also appear on the Chapter website.

Cost is \$225.00 for the year; contact Rod Lancefield, [rod1@htseng.com](mailto:rod1@htseng.com) , (613) 728-7400.



Your card here!



## ASHRAE Learning Institute Spring 2010 Online Course Series

### 2 WAYS TO REGISTER

**Internet:** [www.ashrae.org/onlinecourses](http://www.ashrae.org/onlinecourses)

**Phone:** Call toll-free at 1-800-527-4723  
(US and Canada) or 404-636-8400 (worldwide)

**Note:** You may register up to 24 hours prior to an online seminar.  
Courses are in US Eastern Standard Time.



### Courses in May

**District Cooling & Heating Systems: Central Plants**  
Monday, May 3, 2010 – 1:00 p.m. to 4:00 p.m. EDT

**Complying with Requirements of ASHRAE Standard 62.1-2007**  
Wednesday, May 5, 2010 – 1:00 p.m. to 4:00 p.m. EDT

**Understanding & Designing Dedicated Outside Air Systems (DOAS)**  
Monday, May 10, 2010 – 1:00 p.m. to 4:00 p.m. EDT



## Standard 189.1 Training

The ASHRAE Learning Institute (ALI) is bringing *Standard 189.1-2009* training to a city near you.

**Understanding Standard 189.1-2009 for High-Performance Green Buildings**  
May 25, 2010 – 1:30pm – 4:30pm, San Francisco, CA

**Understanding Standard 189.1-2009 for High-Performance Green Buildings**  
June 2, 2010 – 1:00pm – 4:00pm, Arlington, TX

**Implementing Standard 189.1-2009 for High-Performance Green Buildings**  
June 10, 2010 – 8:00am – 4:00pm, Atlanta, GA

**Implementing Standard 189.1-2009 for High-Performance Green Buildings**  
June 26, 2010 – 8:00am – 4:00pm, Albuquerque, NM

Visit [www.ashrae.org/189.1courses](http://www.ashrae.org/189.1courses) for more information and to register

## Hot Products from ASHRAE

A leader in HVAC&R technology, ASHRAE publications cover topics that impact every facet of the environment, both indoors and out.

### Latest Publications from ASHRAE!

- Standard 189.1-2009, Standard for the Design of High-Performance Green Buildings* (A Jurisdictional Compliance Option of the IGCC)
- ASHRAE Handbook Online* – Web-Based access to all 4 volumes
- ASHRAE Pocket Guide* – Useful information that fits in a shirt pocket
- IAQ Guide: Best Practices for Design, Construction and Commissioning*
- Load Calculation Applications Manual (SI)*

### Other Products from ASHRAE!

- Energy Efficiency Guide for Existing Commercial Buildings*
- Dampers and Airflow Control*
- Advanced Energy Design Guide for Small Hospitals and Healthcare Facilities*
- Principles of Heating, Ventilating, and Air Conditioning* – Textbook based on the 2009 ASHRAE Handbook - Fundamentals

Visit [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore) to learn more about these and other outstanding ASHRAE publications!

### Order Today From ASHRAE Customer Service

1-800-527-4723 (US/Canada) or (404) 636-8400 (Worldwide)  
or visit: [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore)

## ASHRAE Handbook ONLINE

- Access from any internet connection
- Search in seconds over 3,600 pages of important technical data
- Print, copy, and paste functionality
- Immediate access with your one-year subscription and no shipping fees

<http://handbook.ashrae.org>

## Renew Your Membership Online!

Visit [ashrae.org](http://ashrae.org)  
and  
Manage Your  
Membership





**ASHRAE®**  
**Ottawa Valley Chapter**



**AMERICAN SOCIETY OF HEATING REFRIGERATION AND AIR CONDITIONING ENGINEERS**

is proud to present

# **Variable Frequency Drive & Energy Savings Seminar**

**May 11<sup>th</sup>, 2010**

at



1376 Carling Avenue  
(613) 722-7600

## **Objective:**

This seminar will provide you with an in-depth knowledge of the internal components and proper application of a Variable Frequency Drive (VFD) to achieve maximum energy savings. Participants will be able to identify ideal VFD application to minimize energy losses and improve overall comfort.

## **Seminar Leader:**

Ken Fonstad graduated from the University of Wisconsin—Parkside with Bachelor of Science degrees in Physics and Mathematics and from the University of Wisconsin—Milwaukee with a Masters of Science degree in Environmental Engineering.

Ken taught Physics and Mathematics at Brookfield Central High School, Waukesha County Technical College, and Marquette University and has been a visiting lecturer at the Milwaukee School of Engineering. He has worked as the Marketing Manager for Shimpo Drives, a manufacturer of industrial adjustable speed drives, speed reducers, and related control equipment. Ken founded *Technical Assistance*, a company that provides technical support services, such as custom technical training programs, technical writing, electronic publishing, and custom computer programming. He is the Training Manager for Danfoss Drives in Milwaukee, Wisconsin, and has served as a member of the Danfoss Drives Global Training Team. In 2007 Ken served as the Chair of the Engineering Committee



of the Variable Frequency Drives Product Section of the Air-Conditioning and Refrigeration Institute (ARI, now the AHRI).

Articles written by Ken have appeared in *Consulting/Specifying Engineer*, *Energy Engineering*, and *Power Transmission Design*. He also presented a paper dealing with power line harmonics at the 2004 *World Energy Exposition Congress* and has made presentations on adjustable frequency drives and their application to HVAC systems to various local ASHRAE chapters and national meetings.

## **Agenda:**

8:30am to 9:00am **Registration**

9:00am to 10:15am **Variable Frequency Drive Fundamentals**

- A. Basic AC Motor Operation
- B. Controlling a AC Motor's Speed
- C. Basic Variable Frequency Drive Design
- D. Controlling the Motor's Frequency and Voltage
- E. Extended Frequency Operation
- F. Basic Considerations when Installing a Variable Frequency Drive

10:15am to 10:30am **Break**

10:30am to 12pm **Using Variable Frequency Drives in Variable Torque HVAC Applications**

- A. Overview of Variable Torque HVAC Applications
- B. Why flow Control?
- C. Why Variable Frequency Drives?
- D. Controlling Secondary Pumps
- E. Controlling Fans
  - 1. Supply Fans
  - 2. Return Fans
  - 3. Exhaust Fans
  - 4. Cooling Tower Fans
  - 5. Condenser Fans
- F. Other Pumping Applications
  - 1. Condenser Water Pumps
  - 2. Primary Pumps
  - 3. Pressure Booster Pumps

12pm to 12:30pm **Lunch**

12:30pm to 2pm **What's the Difference Between AC Drives?**

- A. Power Circuit Considerations



- B. Power Control Considerations
- C. Application Interface Software

2pm to 2:15pm **Break**

2:15pm to 4pm **Applying Variable Frequency Drives in HVAC Systems: The Potential and the Pitfalls**

- A. Miss-Use of the Centrifugal Affinity "Laws"
- B. Removed Pressure Drop
- C. Lack of System Knowledge
- D. Poor Pressure Sensor Location

If you have any questions or concerns, feel free to contact:

Patrick Albert  
ASHRAE OVC Governor  
(T) 613-728-0060  
(F) 613-725-2637  
[patrick@breck-mar.com](mailto:patrick@breck-mar.com)



Variable Frequency Drives & Energy Savings

REGISTRATION FORM

(SPACE IS LIMITED TO **40** PARTICIPANTS – FIRST COME FIRST SERVED)

**FEES:**

ASHRAE OTTAWA VALLEY CHAPTER MEMBERS \_\_\_ \$ 325.00  
NON-MEMBERS \_\_\_ \$ 375.00

- **Deadline for sign-up and payment is May 1<sup>st</sup>, 2010**

**Fees include documentation and Coffee, beverages and Lunch**

**Important Note: Register in advance as there will be NO on-site registration**

**PLEASE FAX or E-MAIL YOUR REGISTRATION FORM TO:**

**ATTENTION: PATRICK ALBERT**

FAX: (613) 725-2637 E-Mail: [patrick@breck-mar.com](mailto:patrick@breck-mar.com)

Then forward your cheque to:

Breck-Mar Sales & Service  
877 boyd Avenue  
Ottawa, Ontario K2A 2E2

***Attendee Information:***

Name(s): \_\_\_\_\_

ASHRAE Membership # \_\_\_\_\_

Daytime Telephone: \_\_\_\_\_ E-mail: \_\_\_\_\_

Company Name and Mailing Address:

\_\_\_\_\_  
\_\_\_\_\_

***Please make cheque payable to- ASHRAE Ottawa Valley Chapter***