

# 2008 - 2009 President Patrick St-Onge President Elect Jason Alexander Secretary Christine Kemp Treasurer Stephen Lynch

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Rob Lefebvre
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Robert Lefebvre
Membership
Phil Lemieux
Program

Aaron Dobson
Student Activities
Separties Laroche

Sebastien Laroche
TEGA

Thomas Chiykowski Chapter Historian Roderic Potter

Special Events
Chris Healey
Adam Beales

Communiqué Georges Maamari BIO:

Publicity

Jason Alexander

Table Top
Frank Bann
Telephone

Cathy Godin
Greeter

Mike Swayne Roster

Kevin Toll Webmaster

Roderic Potter
PAOE
Jason Alexander

Business Cards

Rod Lancefield
Nominations
David Eastwood
CRC Action

Patrick St-Onge

# 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

#### **EVENING PROGRAM**

DATE: Tuesday **May 12<sup>th</sup>, 2009**. Social: 17:30 Dinner: 18:30 Program: 20:00

Travelodge Ottawa Hotel & Conference Centre, 1376 Carling Avenue, Ottawa, Ont., 613-722-7600

TOUR Library and Archives Canada – Preservation Centre in Gatineau (**Details are included in** 

SESSION Aaron Dobson's article)

THEME: History / Companions / Past Presidents

PROGRAM: Maintain to Sustain – Delivering ASHRAE's Sustainability Promise

SPEAKER: William A. Harrison, 2008-09 ASHRAE Society President

OVERVIEW: In 2006, the ASHRAE Board of Directors approved a strategic plan with four principal

directions, and that plan has served us very well. The first direction was to lead the advancement of sustainable building design and operation. Last year, Presidential Member Kent Peterson asked our members to focus on innovative designs to provide elegant solutions for high-performance buildings. This year, I am asking our members to focus on the operation of high-performance buildings. The unfortunate truth is that many buildings with great designs fade from green to grey when building operators don't understand how to realize the full potential of the energy conserving systems they manage. ASHRAE Presidential Member Terry Townsend promised the world that our Society would lead the advancement of sustainability and my theme, Maintain to Sustain – Delivering ASHRAE's Sustainability Promise, will challenge ASHRAE to produce the tools required to deliver on

that promise after construction is complete and the contractor has left the site.

SPEAKER William Harrison is president, Trane Arkansas, Little Rock, Ark. As ASHRAE's president,

Harrison directs the Society's Board of Directors and oversees the Executive Committee. His presidential theme, *Maintain to Sustain – Delivering ASHRAE's Sustainability Promise*, focuses on operating buildings to deliver the energy efficiency inherent in their design, including effective commissioning, improved documentation, and programs to educate and certify building operators. He also is chair of the Headquarters Building Renovation Committee. He has served as president-elect, treasurer, vice president, Region VIII director and regional chair, chair of Member Council, Technology Council and the Finance Committee, a member of the Nominating Committee, and vice chair of the Refrigeration Committee and the Society Rules Committee. Harrison was president of the Shreveport Chapter. He has received the Distinguished Service Award. Harrison received a Bachelor of Science in industrial engineering from the University of Arkansas.

#### Menu

Assorted Rolls and Butter with Cream of Leek and Potato Soup Roasted Turkey with Traditional Stuffing & Gravy with Roasted Potatoes and Vegetables Lemon Meringue Pie with Raspberry Coulis, Coffee & Tea

Chapter Members: \$30.00 Guests: \$45.00











## President's Message By Patrick St-Onge P.Eng., LEED AP

2008-2009 OVC President

As the May meeting is approaching, this is my last President's Message. Being President of the Ottawa Valley Chapter has been an incredible experience and a privilege. A lot has been accomplished and I am very proud of the year our chapter has had and what we have achieved together. It is a year in which many changes happened: First, there was the change of location from the Cleo to the Travelodge. Secondly, we continued the transition of our accountability from a manual method to a computerized one. Also, we now accept all major credit cards for payments, which many of you have already benefited from. Thanks to our Treasurer Stephen Lynch who made this possible through his hard work and dedication. Finally, we have made a change in the order of positions on the executive. Starting next season, the first position on the executive will be Secretary instead of Treasurer. This will allow a smoother transition to the very demanding position of Treasurer.

ASHRAE is a society that is supported by the volunteer efforts of its members. Year after year, members donate their precious time to make this chapter a very active one. Still, we are always looking for more people to get involved as committee chair, as committee members or simply to give a hand on ad-hoc occasions. Being involved in ASHRAE has always been a great experience and provided me with great benefits, both personally and professionally. Please do not hesitate, if you are interested in putting a shoulder to the wheel: let me know or anyone else on the board of governors, we will make sure that the chapter will profit from your involvement.

As summer is knocking on our door, the 2009 golf tournament that will once again be held at the Loch March is on June 11<sup>th</sup>. This event is traditionally very well attended and enjoyed by all. See further information in this communiqué for registration. All proceeds from the tournament go to ASHRAE Research.

The May meeting is Past Presidents and Companions night with the theme of History. This is always a well attended one and for those who have been around for some time, it is an opportunity to catch up with people who you may not have seen in a while. It is also the time for you to bring along your spouse, who may have been wondering just what exactly these ASHRAE meetings are about.

For our last meeting, this year's evening program promises to be extraordinary as we have the honour and privilege of receiving a visit from Society President, William Harrison. The title of the presentation will be "Maintain to Sustain - Delivering ASHRAE's Sustainability Promise", which is the presidential theme that focuses on operating buildings to deliver energy efficiency inherent in their design, including effective commissioning, improved documentation and education. Mr. Harrison will be present for the entire duration of our meeting. You will get the opportunity to meet with him and get a good overview of what is the vision of ASHRAE and its role in our society.

May the 12<sup>th</sup> will be my last Chapter meeting as President of the Chapter. I would like to take the opportunity to thank all of those who have participated actively in the activities of the Chapter. It has been a great pleasure to work with all of you at running our local chapter. I wish continued success to Jason Alexander in guiding the Ottawa Valley Chapter for the year 2009-2010.

Yours very truly,

Patrick St-Onge, P.Eng., LEED AP ASHRAE Ottawa Valley Chapter 2008-2009 President



Doug P. Breckenridge, P.Eng.

877 Boyd Avenue, Ostawa, ON K2A 2E2 Tel.: (613) 728-0060 • F2x: (613) 725-2637 doug@brech-mar.com









#### **Technical Tour**

By Aaron Dobson 2008-2009 Program Chair

<u>Technical Tour : Library and Archives</u> <u>Canada – Preservation Centre</u> 625 boulevard du Carrefour, Gatineau

#### SITE TOUR: 1:00 PM TO 2:30 PM, Tuesday May 12th

Located in Gatineau, Québec, the Library and Archives Canada Preservation Centre houses all of Library and Archives Canada's preservation laboratories. Also included in this building are records storage vaults which accommodate a significant portion of Canada's documentary heritage. Opened in June 1997, this unique purpose-built facility is a key component of the institution's long-term accommodation strategy

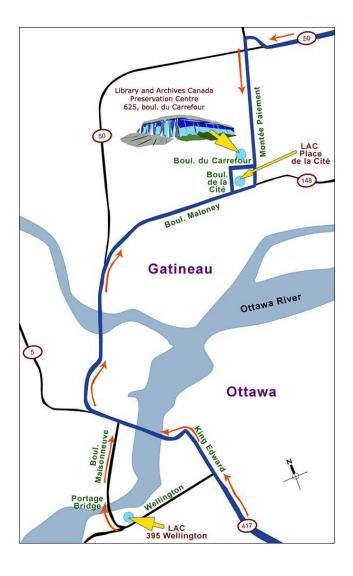
### \*\*\* LIMITED CAPACITY, PLEASE REGISTER EARLY \*\*\*

There is a limit of 15 people for the tour so please register early. E-mail Patrick St-Onge at <a href="Maron.Dobson@directenergy.com">Aaron.Dobson@directenergy.com</a> or call him at 613-247-7938 before Friday May 8th.

Visitors parking in the 2 front left rows. Anyone parking in visitors must register with the Commissionaire. All outdoor coats must be put in the cloakroom. All large bags and handbags must go in the cloakroom as well. If they are personal items that need to be locked up the Commissionaire can provide locks for the lockers. No drinks or food allowed. No photos in the mechanical plant.

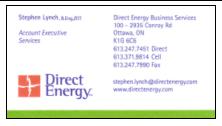
Please arrive 15 minutes early. Tour starts at 1 pm.

Meeting place will be the main entrance Additional information will be provided to the registered persons.



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What you missed By Christine Kemp 2008-2009 Chapter Secretary

The night's theme was TEGA / Research Promotion

This month's table tops were:

<u>Master Group – Airtap</u> - connects to existing water heater and acts as a conventional heat pump, using a compressor to extract heat from the surrounding air an transferring this heat into your tank.

<u>Walmar Ventilation Products – air2000</u> - with more than 50 years experience, air2000 specialize in ERV/HRV ventilation equipment.

Thanks went out to Chris Healey for all of his work in organizing this year's curling bonspiel. Please check out the website to see pictures and video.

Robert Lefebvre spoke about Research Promotion. Rob is counting on our support in continuing the long tradition of the Ottawa Valley Chapter members being a strong investor in ASHRAE Research Canada. Thanks to the Curling Bonspiel, we raised \$1,475.00 for ASHRAE Research. Thank you for your generosity.

The Algonquin students have presented their project and came in first place. Way too go!! The next step is to submit it to the Region. Good luck team. At May's meeting the students will have their project on display at a table top.

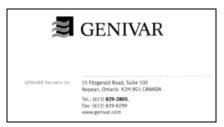
There has been a change in Executive positions. The first position on the executive will now be secretary and the second will be treasurer, in order to ensure an easier transition to the treasurer's position. David Eastwood announced the nominations for 2009/2010 executive and Board of Governors:

- Secretary Don Weekes
- **Treasurer** Stephen Lynch
- **President Elect** Christine Kemp
- President Jason Alexander
- Past President Patrick St-Onge

Board of Governors - Frank Bann, Steve Moons, Georges Maamari and Patrick Albert

Next month's meeting will be held one week earlier (May 12/09) - ASHRAE Society president Bill Harrison will be in attendance. This meeting is also Past Presidents night and Spouse night.

The Program was Energy Conservation. Our speaker Peter Love, Ontario's Chief Energy Conservation Officer. Mr. Love's presentation addressed; information on the Conservation Bureau and the Ontario Power Authority, benefits of conservation and demand management, current conservation Bureau/OPA initiative, potential megawatt savings from those initiatives and recommendations for the future.

















Student Sponsors
By Stephen Lynch
2008-2009 OVC Treasurer

The student sponsors at the ASHRAE Ottawa Valley Chapter April 2009 meeting were:

Joel Primeau Sebastien Laroche

Your student sponsorship is much appreciated by the ASHRAE Ottawa Valley Chapter. Your contribution to help compensate student meals allows the chapter to provide meals to the students at no cost to them. A lot of the students that attend these meetings will one day become ASHRAE members and your contributions help to grow our membership which is the heart of the Ottawa Valley Chapter.

Committee Chair



**TEGA**By Tom Chiykowski
2008-2009 OVC Committee Chair

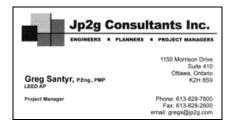
Another year closes for the submission for TEGA (*Technical*, *Energy* and *Government Activities*) Awards. The local Chapter Awards will be presented during the May meeting.

The next step in the TEGA process will be to review the submissions for advancement to the Regional level. We are expecting several of the Ottawa Chapter submissions to be seriously considered for advancement. We will keep you posted.

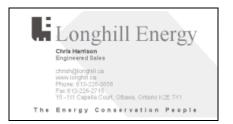
During the submission process for 2008-2009 we received submissions that did not quite meet the timeline requirements (projects must be in operation for one full year before submission). The good news is that we are already off to a great start to the 2009-2010 TEGA year! Please remember that we are always on the lookout for worthy projects. If you know of a project that deserves consideration please let us know at any time. The TEGA committee will be more than happy to track the progress of the project and notify applicants as deadlines approach.

I would like to thank those members that took the time to submit a project for the TEGA Awards. We are all pressed to meet a range of deadlines so your attention to the "TEGA call" is appreciated. I would also like to thank the other members of the TEGA Committee, Bob Kilpatrick and Frank Vaculik for their time and effort.

We look forward to presenting the awards at the May meeting.











#### **Research Promotion**

By Robert Lefebvre P.Eng., LEED AP 2008-2009 Past President and Research Promotion Chair

#### Hi Everyone,

Investments in ASHRAE Research Canada are continuing to come in. As of the end of April, the following people and companies have made an investment (in order of date received):

- Engineered Air
- > Jason Alexander
- > Stephen Lynch
- > Christine Kemp
- > Robert Lefebvre
- ➤ Patrick St.-Onge
- Joel Primeau
- > Fred Krumreich

- Eric Van Benschoten
- Chris Harrison
- Chris Fudge
- > Steve Moons
- > Hugh Williamson Associates
- ➤ Goodkey Weedmark & Associates
  - Paul Baker

Thanks for your investment in ASHRAE Research Canada.

At this point in the Research Promotion Campaign, many of you have been contacted by an RP committee member and graciously made a pledge to invest in ASHRAE Research Canada. It is very important to follow through and honour that pledge in a timely manner. A few years ago, a number of cheques arrived too late to be included in the RP campaign of that year. We don't want a repeat of that, so I am encouraging everyone to get their investments in ASAP.

Cheques should be made out to: **ASHRAE Research Canada**.

Please send cheques care of Robert Lefebvre at **1688 Woodward Drive**, **Ottawa**, **Ontario K2C 3R8**. Better yet, give me a call at **613-727-5111 ext. 234**, and either myself or one of the RP committee members will come by and pick-up the check. Invoices/receipts are available upon request.

Thank you,

Robert Lefebvre, P.Eng., LEED AP ASHRAE Ottawa Valley Chapter 2008-2009 Research Promotion Chair

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#### **ASHRAE 2009 Golf Tournament**

By Adam Beales 2008-2009 Program Chair

Get those clubs cleaned and bags packed with balls, it won't be long now!

The 2009 ASHRAE Golf Tournament remains scheduled for Thursday June 11, 2009 at the Loch March GC. Thanks to our keen eyed Members who picked up that it was not in fact a Tuesday as identified in our original notice. Thursday June 11, 2009 it is!

Registration forms with full details have been emailed to all of last years Registered Team contacts. Spots for returning Teams will be held until May 11, 2009 only, after which the field will be opened up to new Teams. Registrations will only be accepted and confirmed upon return of the Registration Form to the attention of Adam Beales.

We again extend the invitation to the Membership to get involved as Hole Sponsors.

Information on this program is on the Registration Form. As we are all hopefully aware, the recipient of funds raised at this event is ASHRAE Research. Accordingly the more we put into this effort the more we will gain as a community.

Please contact Adam Beales @ 612-723-4611 or <a href="mailto:adamb@totalhvac.com">adamb@totalhvac.com</a> with any inquiry or comment. As always we are on our way to a sellout so don't delay in returning your Registration Forms, and getting your game in shape!

#### Sincerely,

Your 2009 ASHRAE Golf Tournament Organizing Committee

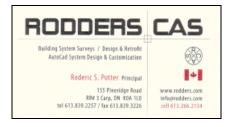
















Table Top Display By Frank Bann, P.Eng.

#### HTS is pleased to present Tempeff Dual Core Energy Recovery Ventilators at their table top.





Building on over 20 years of European innovation, Tempeff North America is pleased to offer Dual Core<sup>TM</sup> energy recovery ventilation equipment with the highest efficiency available.

Tempeff North America products employ Dual Core<sup>TM</sup> regenerative technology that offers up to 95% temperature efficiency. The Dual Core<sup>TM</sup> design is significantly more energy efficient in all conditions, thus payback periods are extremely attractive. This technology does not require defrosting, thus its high efficiency is maintained down to the coldest day seen in Ottawa.

#### LG Electronics is pleased to feature the LG Multi at their table top.



We will be discussing the advantages of simultaneous heat/cool systems utilizing variable flow refrigerant. This will show the excellent energy savings and comfort that can occur from this technology which, in some cases, requires no active outdoor condenser as the heat is transferred from one zone to another

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# Past President



## News Update By Robert Lefebvre P.Eng., LEED AP OVC Past President

#### **Technical News:**

#### ASHRAE Funds Research into Keeping Kitchen Staff Cool and Comfortable

April 20, 2009

ATLANTA – As the old saying goes, "if you can't stand the heat, get out of the kitchen." But for the 12.2 million people in the United States employed in the restaurant industry, getting out of the kitchen is not an option.

Seeking to provide a cool and comfortable working environment for those kitchen workers, ASHRAE is funding research in thermal comfort in commercial kitchens.

A 2005 report by the Restaurant Opportunities Center of New York and the New York City Restaurant Industry Coalition found that "nearly half of the 530 workers surveyed reported that it gets unsafely hot in the kitchen where they work."

"Understanding thermal comfort in commercial kitchens is paramount to understanding and providing a controlled and comfortable environment for kitchen workers," said Greg Duchane, a member of ASHRAE's technical committee 5.10 on kitchen ventilation that is overseeing the project and manager of retail market sales, Trane Commercial Systems. "This research can be used by engineers and kitchen consultants in designing HVAC systems and in the operation of restaurants. It will give us more accurate understanding of employee comfort and how employees are impacted by heat loads."

The research will include walk-in surveys and on-site data collections of operational commercial kitchens in selected cities across the United States.

ASHRAE is accepting proposals on this and 16 other proposed research projects. Submissions are due May 18, 2009. For more information, visit <a href="https://www.ashrae.org/research">www.ashrae.org/research</a>.

The projects are scheduled to begin Sept. 1, 2009. Projects are:

- 1339-RFP, Selection of Desiccant Equipment at Altitude, sponsoring technical committee: TC 8.12, Desiccant Dehumidification Equipment and Components
- 1369-TRP, Design Guidelines to Prevent Snow Causing Shutdown of HVAC Systems, TC 5.2, Duct Design
- 1385-TRP, Development of Design Tools for Surface Water Heat Pump Systems (SWHP), TC 6.8, Geothermal Energy Utilization
- 1404-TRP, Measurement, Modeling, Analysis and Reporting Protocols for Short-term M&V of Whole Building Energy Performance, TC 4.7, Energy Calculations
- 1409-TRP, Stability of Candidate Lubricants for CO2 Refrigeration, TC 3.2, System Chemistry
- 1413-TRP, Developing Standard Procedures for Filling Climatic Data Gaps for Use in Building Performance Monitoring and Analysis, TC 4.2, Climatic Information
- 1415-TRP, Thermal and Lighting Performance Metrics of Tubular Daylighting Devices, TC 4.5, Fenestration
- 1420-TRP, Inlet and Discharge Installation Effects on Airfoil (AF) Centrifugal PLENUM/PLUG Fans for Air and Sound Performance, TC 5.1, Fans
- 1448-TRP, Ventilation Requirements for Refrigerating Machinery Rooms, TC 4.3 Ventilation Requirements & Infiltration
- 1467-TRP, Balancing Latent Heat Load Between Display Cases and Store Comfort Cooling, TC 10.7, Commercial Food Display and Storage Equipment

(cont...)

- 1469-TRP, Thermal Comfort in Commercial Kitchens, TC 5.10, Kitchen Ventilation
- 1478-TRP, Measuring Air-tightness of Mid- and High-Rise Non-residential Buildings, TC 4.3, Ventilation Requirements and Infiltration
- 1507-TRP, Binary Refrigerant Flame Boundary Concentrations, TC 3.1, Refrigerants and Secondary Coolants
- 1512-TRP, CFD Resource Decisions in Particle Transport Modeling, TC 4.10, Indoor Environmental Modeling
- 1515-TRP, Thermal and Air Quality Acceptability in Buildings that Reduce Energy by Reducing Minimum Airflow from Overhead Diffusers, TC 2.1, Physiology and Human Comfort
- 1522-TRP, Establishment of Design Procedures to Predict Room Airflow Requirements in Partially Mixed Room Air Distribution Systems, TC 5.3, Room Air Distribution
- 1544-TRP, Establishing Benchmark Levels and Patterns of Commercial Building Hot Water Use, TC 6.6, Service Water Systems

#### **Sustainability News:**

#### Super Skyscraper Design takes it Lying Down

March 13, 2009

The new Vanke Center in Shenzhen, Guandong Province, is a "horizontal skyscraper" designed by maverick architect Steven Holl.

Steven Holl is turning the traditional idea of a skyscraper on its head - or rather on its side. The new Vanke Center is a "horizontal skyscraper" and is being built in Shenzhen, Guandong Province. If it was stood up vertically, it would be as tall as the Empire State Building, but lying horizontally it stands just 35 meters.

Due to be finished in 2010, the building will be the new headquarters for China Vanke, one of the country's largest real estate developers. It will also house apartments, condos and a hotel. More remarkably, the Vanke Center will take up almost zero space on the ground. These features allow it to solve the unique problems of Chinese metropolises, as well as address environmental impact.



Although the project covers an area of 60,000 square meters off the coast of the South China Sea, the building itself will be raised on eight columns so that its ground floor is at the same height as the third floor of most other buildings. This "floating" design is poetically described by its designers as if the building were "once floating on a higher sea that has now subsided; leaving the structure propped up high on glass and white, coral-like legs."

The Vanke Center is the latest project in Holl's repertoire of mega, mixed use developments in China. The other two, Beijing's Linked Hybrid and Sliced Porosity Blocks in Chengdu, Sichuan Province, have wowed the architectural world with their innovative solutions to the problems of Chinese metropolises.

(cont...)







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Urban planning is struggling to keep up with a growing population in major cities. The result, says Holl, is mega block projects, huge shopping malls stacked with offices and residential blocks, and a dearth of variety with open, green spaces. Holl's projects question the current trend for building monolithic vertical structures. He builds "micro cities" that combine mixed use buildings of different shapes and sizes linked by a wealth of horizontal paths that encourage walking. They are also "porous" rather than gated communities, encouraging outside visitors and interaction.

These characteristics are clear in the horizontal Vanke Center. The elevated structure frees up ground space which is made into a public park, with the building itself providing shaded areas. Rather than the conventional walled-off nature of corporate compounds, as much land as possible will thus be given back to the public. Sea and land breezes can blow freely through the underside of the buildings and into a garden of tropical plants, pools and walkways with cafes and restaurants. The park design is based on the modern yet naturalistic gardens of famed Brazilian landscape architect, Roberto Burle Marx. The combined result will be that of a "sea scribble" according to Holl. For the Vanke Center's occupants, the raised structure creates the largest possible number of views. Many rooms will look directly out onto the South China Sea. Glass "flow lights" sunk into the underbelly of the building called, "Shenzhen Windows" will allow views down to the gardens and people below.

Another characteristic common to Holl's China buildings is environmental consciousness. Both his previous projects have been certified LEED Gold. (LEED is the American standard for green building design, and stands for Leadership in Energy Environmental Design.) This is a much needed precedent in China as only a tiny proportion of buildings currently consider environmental issues. The Vanke Center takes this one step further. The wing containing the Vanke headquarters offices is aiming to be the first LEED platinum building in China.

This article is based on a news release from ShanghaiDaily.com by Nancy Zhang.





## CogenCanada's 3<sup>rd</sup> Annual Conference

By Georges Maamari 2008-2009 Governor

The CogenCanada's  $3^{rd}$  Annual Conference on Cogeneration, Polygeneration, Eco- Industrial Networking, Renewable Energy will take place in Ottawa on June 2, 3, 4, 2009 at the Hilton Garden Inn.

You can read all about it at their website: www.cogencanada.org/Conference2009

This Conference will cover the technologies, business considerations and public policy – regulatory, environmental and infrastructure initiatives. Cogeneration is evolving from a specialized application to becoming a significant component in the energy industry – the foundation of the next generation of economic prosperity, community development and the renaissance of the manufacturing sector.

There is no better time than now, with Canada and the US at a crossroads in energy generation, to invest in the future of the industry. And there is no better investment than the *COGENCanadas 3rd Annual Conference*. It is the Canadian power industry Conference with the best return on investment in human capital in 2009.

#### Delegates will gain:

- Enhanced networks of peers in the private and public sectors
- Insights from industry leaders and key government officials
- A competitive edge from service and product suppliers offerings
- Increased knowledge of cogeneration and the industry from expert speakers
- Strong relationships by visiting the sponsor-exhibitor Hospitality Suites

In these times of transition, the best investment is one which provides a clearer view of the present and the future. Get that clearer view from Canada's premier heat and power event, the *COGENCanada CHP Association 3rd Annual Conference*.

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## **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, <a href="mailto:rodl@htseng.com">rodl@htseng.com</a>, (613) 728-7400.



Your card here!



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