



# Capital Communiqué

2006 - 2007

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February 2007

## EVENING PROGRAM

- DATE:** Tuesday **February 20, 2007.** Social: 16:30 Dinner: 18:30 Program: 20:00  
La Contessa, 156 Cleopatra Dr., Nepean, Ont., (613) 224-8700
- TECH SESSION** **No Tour or Tech Session this month**
- THEME:** **Membership**
- PROGRAM:** **Fire Pumps - The Prescribed Codes - "The Players and the Pitfalls"**
- SPEAKER:** **Mr. Paul Latreille, C.E.T.**  
Zenix Engineering Ltd. - Senior Project Manager - Fire & Life Safety
- OVERVIEW:** Fire pumps can be considered to be the heart of any water based mechanical fire protection system. The principal appears quite simple – boost the pressure and increase the flow to meet code requirements. However, to accomplish this – there is a myriad of Codes, Ordinances, Standards, and listings that all must be addressed. Your pump doesn't come from a single vendor as it may appear. The heart of your fire protection system is put together on a component basis and in fact, is never tested or listed as a completed assembly by ULC. Typically, the first test of the entire assembled system is completed right in your building – when you, as the Owner or Owner's representative, start-up the system. This can lead to many new and exciting discoveries!

### SPEAKER BIO:



Paul Latreille, C.E.T., is a Senior Project Manager in the Fire and Life Safety Division of Zenix Engineering Ltd. Paul has worked exclusively in the fire protection industry since graduation from school and has 20 years of experience. Paul is the Executive Vice President of the local Chapter of the Society of Fire Protection Engineers, is a member of SFPE International, the National Fire Protection Association, the Canadian Fire Alarm Association, the Canadian Fire Safety Association, the Ontario Association of Certified Engineering Technicians and Technologists, and is a member of the "Joint Use and Egress and Housing and Small Buildings Task Group" for the National Research Council. Paul specializes in mechanical, electrical and specialty fire protection systems design and commissioning.

### Menu

- Garden Salad
- Chicken Cordon Bleu
- Cake/Pastry

Chapter Members: \$25.00 Guests: \$30.00



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President &  
CRC Delegate



## President's Message

By Glenn MacLean

The theme for our February meeting is membership. ASHRAE depends on the efforts of its volunteers to continue to update, improve and develop new standards, guidelines and design practices for the HVAC industry. Our local membership group is working hard to promote the benefits of being a member of ASHRAE and participating locally by becoming a chapter member as well. Due to some technical difficulties, they have not been able to mount their normal campaign to call members and encourage their continued support and membership. They assure me these technical problems have been resolved, so if you've allowed your membership to lapse or perhaps just forgot to send in the paper work (like most of us trying to juggle multiple responsibilities), expect a friendly reminder from our Christine Kemp and our membership group in the next little while.

Last month we had a very successful Career Fair that saw 14 companies participate either as exhibitors or sponsors. A great number of students attended in hopes of finding that career of choice or perhaps a summer posting. Thank you to Stephen Lynch of Regulvar for all your efforts in organizing and leading the committee that put this great event together.


You may also have noticed a little more 'content' to the newsletter in the last while. We've challenged our Chapter Technology Transfer Committee (CTTC) to submit more articles of technical merit for our members to benefit from. Rob Lefebvre has been very helpful in coordinating this effort with Niraj Chandra (CTTC Chair) and in making sure we have at least one article per month that tries to focus on sustainable design or greener technologies. Thank you Rob and Niraj for your continued efforts.

Our annual curling bonspiel is also fast approaching, and as always the ever dependable Chris Healey has the event well in hand. Please take note of the reminder included and contact Chis if you're looking to participate. If you are not interested in curling, but want to sponsor a student team let us know and we will gladly find 4 eager students to carry your company banner at this fine event - best of luck to all participants.

We've passed the half way mark for this ASHRAE season. We've had some excellent programs and presentations to date and this month is no exception. As always, we hope to see you at our next meeting, and look forward to hearing your comments or suggestions on any of our program topics, or events.

In your service,  
Glenn MacLean  
President 2006-2007  
Ottawa Valley Chapter ASHRAE  
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Committee  
Chair



## Theme - Membership

by Christine Kemp  
2006-2007 OVC Committee Chair

ASHRAE Ottawa Valley Chapter would like to welcome our new members this month: Shanhrokh Farzam, Gary Bond, Udo Friesen, Alex Zurawlev, Ajoy Biswas and Andrew Klassen.

We are also happy to have New Student members join us: Chad Starr, Jesse Moon, Sheilagh O'Leary and Amilabbas Sartipi.

We would like to encourage all of our members under the age of 35 to join YEA. YEA = Young Engineers in ASHRAE. YEA Connection is specifically targeted at young ASHRAE members who wish to network and communicate with one another. It's a great opportunity to stay abreast of Society news and events and network with young professionals around the world.

On a more serious note...It is delinquency time again. Please be sure that your Society dues and Chapter dues are all paid up. You may be receiving a friendly reminder call from one of our membership committee members.

Thanks,  
Christine Kemp  
ASHRAE Ottawa Valley Chapter  
Membership Chair Person

### Posh & Becks Time!

*Posh and Becks are sitting in front of the television watching the six o'clock news. The main story is a man threatening to jump off the Clifton Suspension Bridge on to the busy road below. Posh turns to Becks and says: "David, I bet you \$5,000 that he jumps!"*

*To which Beckham replies "\$5,000? Done! I bet that he doesn't."*

*So they shake hands on the bet and continue watching. Sure enough, the man jumps and hits the road below with a loud thud. Beckham takes \$5,000 out of his back pocket and hands it to Posh. But she refuses.*

*"I can't take your money, David," she says. "The truth is, I was cheating. I saw the five o'clock news, so I knew he was going to jump."*

*"No, babe, fair's fair" says David. "That money is yours fair and square, I was cheating just as you were. I saw the five o'clock news, too. I just didn't think he would do it again."*



Secretary



## What You Missed

January 16<sup>th</sup>, 2007 Chapter Meeting  
by Francois Belair  
Chapter Secretary 2006-2007

The first meeting of 2007 was an all day event with a 2pm start for the career fair. This Stephen Lynch collaboration was extremely well organized and attended by students from all local post secondary institutions. With approximately 14 exhibitors looking for young talent, this was a premiere showcase for the graduating youth to see the breadth and depth of the ASHRAE OVC with booths representing all sides of the mechanical trade including sales, contracting and of course consulting engineers.

As a result of the tremendous attendance the evening's program started a few minutes late but immediately upon seating a packed evening program began. With all guests names called, Jay Doshi made an appeal to the membership to support research followed by Glenn announcing the upcoming bonspiel date of March 23.

Post supper Nicolas Lemire, RVC student activities was asked to briefly discuss initiatives taken by ASHRAE to involve students and young professionals under the age of 32. These initiatives include dues rebates for society membership and enrolment in the Young Engineers in ASHRAE (YEA) program. Before beginning the evening program, tickets for the upcoming Barenaked Ladies concert at the Corel Centre were raffled to raise money for the student activities committee and subsequently donated to those students in attendance by Christine Kemp and Joel Primeau.

The evening program was Ground Coupled Heat Pump design by Mr. Michel Bernier Ph.D. For the students in attendance Michel began the presentation with a brief overview of the refrigeration cycle, heat pump operation, de-superheaters and the definition of Co-efficient of performance (COP). Michel's presentation then quickly escalated to specifics of borefield design, borehole techniques and annual ground temperatures for the local region and for the whole of Canada.

Mr. Bernier left no question that he is a pioneer and premier researcher in his respective field. His presentation was extremely detailed and covered every aspect of Ground Source Heat Pump systems and their design. The final attendance figures for the January meeting were approximately 100. This, coupled with a successful career fair and educational program, made for a model ASHRAE OVC evening that we can all be proud of.



Chow time



The ever-lovely Christine Kemp with Frank Bann

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President & CRC Delegate



## Student Sponsorship (Adopt a Student Program)

By Glenn MacLean

This year, as with most years, we are encouraging students from Carleton, University of Ottawa, Algonquin, CEGEP de L'Outaouais, and La Cite Collegiale to join us at our monthly meetings. We typically have two student nights per year in October and January, but encourage students to attend whenever their schedule permits. On student nights we invite the students to attend our meetings and we pick up the cost of their meals. This is a program we have been offering for some time, and wish to continue to offer in the future. However, as the program becomes more successful it also creates a greater draw on our Chapter funds and resources. We would also like to extend this offer to students attending on other nights as well. Currently, students are charged \$15 per meal when they attend on their own. Meals actually cost more than this, but any contribution members are able to make is appreciated.

If your company or you personally are interested in sponsoring a student for January's meeting or future meetings, please contact our Treasurer, Imtee Baksh [imteeb@lonhill.ca](mailto:imteeb@lonhill.ca), or see him at the check-in table at our monthly meetings. As a way of recognizing our members for their contributions we will give you a receipt for your investment in Student Activities, publish your name or your company's name on our website, and include you in our list of previous donors in the Capital Communiqué.

Thank you for your support,  
Glenn MacLean

Treasurer



## Student Sponsors January 16<sup>th</sup>, 2007 Meeting

By Imtee Baksh

The student sponsors for the ASHRAE Ottawa Valley Chapter January 2007 meeting are as follows:

Jay Jayerraman  
Frank Vaculik  
Michael Swayne  
Dilfo Mechanical also contributed \$200.00 for the Career Fair student shuttle bus!

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.

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The Energy Conservation People

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## Chapter/Regional Technology Awards Program: Call for Submissions

By Robert Kilpatrick  
Committee Chair

ASHRAE OVC COLLEAGUES, it is time once again for the TEGA committee to invite and encourage you, the membership of the Ottawa Valley Chapter, to submit a project for consideration in the annual Chapter Technology Awards Program.

Last year, as you recall, we received a number of excellent submissions, with two (2) entries from our colleagues at Genivar winning at the Chapter level as well as at the Regional level, earning well-deserved recognition for the individuals involved, as well as the Ottawa Valley Chapter.

Even more exciting, at least one (1) of these projects is now being considered for this year's Society level competition.

So, we would like to build on this success and look forward to even more quality submissions this year.

The purpose of the ASHRAE Technology Awards is threefold:

- To recognize ASHRAE members who design and/or conceive innovative technological concepts that are proven through actual operating data;
- To communicate innovative systems designs to other ASHRAE members;
- To highlight technological achievements of ASHRAE to others, including associated professionals and societies, and building and facility owners.

To align with the Society level awards, applications at the Chapter level are accepted in each of the following categories:

- I Commercial buildings (New and Existing)
- II Institutional buildings (New and Existing)
- III Health Care Facilities (New and Existing)
- IV Industrial Facilities or Processes (New and Existing)
- V Public assembly facilities (New and Existing)
- VI Residential buildings (New and Existing)
  - Single family
  - Multi-Family (Low and High Rise)
- VII Alternative and/or renewable energy use

At the Chapter level, the rules for entry are few, and very simple:

- All entrants (or at least one member of a team submission) must be a member of ASHRAE;
- The entrant must have had a significant role in the design or development of the project;
- The project submitted must have been in operation for a minimum of 1 year.

The winners in each category at the Chapter level are automatically submitted in the Regional level competition, and winners at that level could be considered for a Society level award.

(cont...)



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(...cont.)

All that is required of you is to nominate an appropriate project, complete a very simple, short-form application and provide a minimum amount of documentation on the systems or concepts used in the design.

So, if you represent a consulting engineer, an owner, or whomever, think about an applicable project you have been involved with, and let us know about it.

The deadline for submissions is March 30, 2007.

Bob Kilpatrick  
TEGA Awards Coordinator

**Posh & Becks Time!**

*David Beckham goes shopping, and sees something interesting in the Kitchen department of a large department store.*

*"What's that?" he asks.*

*"A Thermos flask," replies the assistant.*

*"What does it do?" asks Becks.*

*The assistant tells him it keeps hot things hot and cold things cold. Really impressed, Beckham buys one and takes it along to his next training session.*

*"Here, boys, look at this," Beckham says proudly. "It's a Thermos flask."*

*The lads are impressed. "What does it do?" they ask.*

*"It keeps hot things hot and cold things cold," says David.*

*"And what have you got in it?" ask the lads.*

*"Two cups of coffee and a Choc ice," replies David.*



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**Jack Teevens**  
Region General Manager

Swell Guy



## Career Fair a Big Success January 16<sup>th</sup>, 2007

By Stephen Lynch  
Regulvar

(we do not have a recent photo of Stephen so George agreed to stand-in)

Thanks to everyone who participated in the Career Fair; companies, committees, ASHRAE OVC volunteers and the students. The feedback has been extremely positive, particularly from the students who attended. I hope that the membership committee can keep up with all the new student member signups.

The Career Fair consisted of 14 companies (listed below) who committed staff, time and resources to meet with students from Algonquin College, Carleton University, CEGEP de l'Outaouais, and the University of Ottawa. In all, an estimated 70 students participated throughout the day's events, with approximately 30 who stayed for the evening's program. ASHRAE OVC provided these students with an opportunity to meet with industry professionals and work on their networking skills. It also provided these potential members a deeper insight into ASHRAE and the Ottawa Valley Chapter.

The Career Fair also provided the participating companies the opportunity to meet with emerging potential professionals and promote their companies and describe the work they are involved in. Also, after hearing the waning creaks of display boards being assembled, this was a great time to remember how to set these darn things up.

A particular note of interest was BOMA's support of our event. They were extremely impressed with ASHRAE OVC and the Career Fair. This is a great start for a strong connection with BOMA and a positive avenue for promoting ASHRAE.

Events like this support the old adage 'if you build it, they will come.'

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And a Special Thank You to  
**Dilfo Mechanical** for sponsoring the  
**Career Fair shuttle service!**




**Posh & Becks Time!**

*The Real Madrid players are in the dressing room on Saturday, just before the game, when Zidane walks in.*

*"Boss," he says, "there's a problem. I'm not playing unless I get a cortisone injection."*

*"Hey," says Becks. "If he's having a new car, so am I."*

**Guy H.J. Bourbonnière P.Eng.**  
District Manager





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## Using ASHRAE Standard 55 for Energy Savings

### IMPORTANT NOTE

This article represents my own personal views, opinions, and knowledge. It should not be construed in any way as representing the viewpoint of the organization I work for, or ASHRAE Society, or the Ottawa Valley Chapter.

Niraj Chandra, P.Eng

E-mail: [niraj\\_chandra@hotmail.com](mailto:niraj_chandra@hotmail.com)

ASHRAE Standard 55 “Thermal environmental conditions for human occupancy” is widely used in the HVAC industry for prescribing indoor temperature and humidity conditions for office buildings. A little used feature of this standard is the correlation it provides between clothing levels and acceptable indoor temperature. Using this feature, indoor temperature settings can be adjusted for maximum energy savings, simply by selecting appropriate clothing levels for summer and winter conditions, while maintaining comfort levels,

In Japan, the “cool-biz” concept has already taken off in a big way, with the Prime Minister himself taking the lead in prescribing cool business attire for the summer months, and asking all government offices to set the thermostat at 28 deg.C or higher during the cooling season. In winter, the temperature is mandated to be 20 deg.C or less, in government offices.

South Korea has adopted a similar approach, with dramatic savings in energy consumption, and as this concept evolves, many other countries in the Asia-Pacific region are expected to follow suit.

Would this approach work in North America? To find out, I used the “Comfort Calculator” software tool based on ASHRAE Standard 55 (see ref.2). This tool is based on the ASHRAE thermal sensation scale, defined as follows:

+3 hot, +2 warm, +1 slightly warm, 0 neutral, -1 slightly cool, -2 cool, and, -3 cold.

The inputs for this tool are relative humidity, indoor temperature, clothing level, and type of activity. Using these parameters, the tool calculates the comfort level based on the ASHRAE thermal sensation scale, and computes the optimum indoor temperature for the selected conditions. The tool is quick and easy to use, and it provides a graphical display of the results.

A humidity level of 50% for summer and 30% for winter was assumed as these are typical conditions for offices, in many parts of Canada. It was also assumed that air velocity effects are negligible; also, the effects of solar radiation were not considered.

For these conditions, computations were carried out, for different types of clothing, considering sedentary activity levels. The results are shown in Table 1 and Table 2 following:

(cont...)

Table 1: Summer condition, 50% humidity, sedentary activity

Dress	Indoor Air temperature	Comfort level	Remarks
Short sleeve shirt, pants	22.5 deg.C	Slightly cool	May be acceptable
	23-24.5 deg.C	Neutral	Acceptable
	<b>24.5 deg.C</b>	<b>Optimal comfort temperature</b>	Acceptable
	24.5-26 deg.C	Neutral	Acceptable
	26.5-30 deg.C	Slightly warm	May be acceptable
Business suit	31 deg.C	Warm	Not acceptable
	18 deg.C	Slightly cool	Acceptable
	18.5-20.2	Neutral	Optimum
	<b>20.2 deg C</b>	<b>Optimal comfort temperature</b>	Acceptable
	20.2- 22 deg.C	Neutral	Acceptable
	22.5-25 deg.C	Slightly warm	May be acceptable
	26 deg.C	Warm	Not acceptable

Table 2, Winter conditions, 30% humidity, sedentary activity

Dress	Indoor Air temperature	Comfort level	Remarks
Short sleeve shirt, pants	19 deg.C	Cool	Not acceptable
	20 –23 deg.C	Slightly cool	May be acceptable
	23.5-25 deg.C	Neutral	Acceptable
	<b>25 deg.C</b>	<b>Optimal comfort temperature</b>	Acceptable
	25-26.5 deg.C	Neutral	Acceptable
	27-30 deg.C	Slightly warm	May be acceptable
	31 deg.C	Warm	Not acceptable
Business suit			
	15 deg.C	Cool	Not acceptable
	16-18.5 deg.C	Slightly cool	May be acceptable
	19-20.8 deg.C	Neutral	Acceptable
	<b>20.8 deg.C</b>	<b>Optimal comfort temperature</b>	Acceptable
	20.8-22.5 deg.C	Neutral	Acceptable
	23-26 deg.C	Slightly warm	May be acceptable
	27 deg.C	Warm	Not acceptable

The results of this analysis indicate that in summer, the temperature should be set at around 22 deg.C with traditional business attire. However, by prescribing light clothing for all, the temperatures can be raised to 27 deg.C or even higher – an increase of at least 5 deg.C. A general rule of thumb is that there is a 2% energy saving for every one deg.C increase in temperature set point, in summer. Hence we can expect to save upto 10% energy by this simple change in dress code, and the corresponding temperature adjustment.

In winter, the analysis indicates that the temperature set point should be 23 deg.C or higher, with light clothing. However, by prescribing warm clothing, the set point can be reduced to 19 deg.C or lower, a reduction of at least 4 deg.C. This, again, translates to an energy saving of up to 8%, with the appropriate clothing level.


Other considerations may also apply in specific situations. For example, labor codes may dictate that indoor temperatures should be in the range of 20-26 deg.C for occupant comfort and safety.

But even with these restrictions, there is considerable scope for energy savings by adjusting indoor temperatures, without sacrificing occupant comfort. And, as always, ASHRAE leads the way in showing us how to do this most effectively.

#### References

ASHRAE Standard 55 “Thermal Environmental Conditions for human occupancy”  
 Honeywell, Inc. “Comfort Calculator”

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Past President



## Table Top Display

by Frank "Johnny Cash" Bann  
Past President 2001-2002

 	<p>Total HVAC Inc. and Selkirk Metalbestos are pleased to introduce the ZeroClear™ product line to the Ottawa market.</p> <p>ZeroClear™ is the most innovative factory-built kitchen grease duct in the industry. With a zero clearance rating, our integrated chase construction sets the standard for design and is the future for all kitchen grease duct installations.</p> <p>The integrated chase construction and 3" high temperature blanket insulation has a 2-hour fire rating and does not require an additional fire-rated chase. This reduces valuable floor space and reduces enclosure construction costs.</p>
	<p>Maurice Lachance will present Gridco Energy Conservation Limited.</p> <p>There is no doubt that energy prices will continue to rise and your energy expenses will follow. Gridco Ltd 's vision is to offer energy savings solutions that are paid from real-time generated savings in partnership with our customers.</p>

If you plan to have a tabletop the only remaining dates are April and May. We have 1 space available for only a few more Chapter meeting dates, April 17th 07 and May 15th 07. E-mail Frank Bann at fbann@gwal.com to book your table top and get the best captured audience in our industry. Your products deserve the best.

### Posh & Becks Time!

*Posh takes her car into a garage to have some dents removed. The mechanic knowing she isn't the brightest Spice Girl in the world, decides to play a joke on her.*

*"You don't need me to take those dents out," he says. "Just blow up the exhaust pipe and the metal will pop back into place".*

*So she takes the car home and tries it.*

*David spots her from the house and shouts "You silly cow! You have to wind the windows up first!"*

Committee  
Chair



## 2007 ASHRAE Curling Bonspiel

by Chris Healey  
2006-2007 OVC Committee Chair



When: Friday March 23, 2007

Where: The Nepean Sportsplex

Who: Anyone who would like to have a good time.

What: Four End games, a great dinner, prizes and fun!

Why: Why not!

The Skinny:

Please book in teams of 4, the cost will be \$360.00 (which includes prizes).

Curling will be from 1:00 pm to approximately 6:30 pm. Dinner will follow upstairs in the Richmond Room at approximately 6:45 pm. Spectators Bar & Grille will be open from 11:30 am for lunch and they promise a 'real' menu this year.

Contact:

Chris Healey – [chris@walmar.net](mailto:chris@walmar.net) or  
by phone @ 613-225-9774 or  
by fax @613-225-2972.

Swell  
Guy



## 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 appear in the electronic and printed version as well as on the Chapter website.

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



## Career Fair Images

by Rod Potter  
Editor, Governor, Gopher and Webmaster



I cannot think of anything clever to say this month, although I do think the Posh & Becks quips are rather clever, courtesy of my wonderful father in L.A. Actually, while we are on the subject of Posh & Becks, I have heard a rumour that Gary Hartmann might be signing on with the Los Angeles branch of a certain air handler company, for a reported 5 million dollar annual salary, and a signing bonus of 3 days at a cheap motel with Borat. But that of course, is just a rumour.

I leave you with four images of the January Career Fair, which proved to be an excellent and most enjoyable event:



Johnson Controls & BOMA



Trane Ottawa & McKee Engineering



Engineered Air & Regulvar (background)



Direct Energy, Johnson Controls, BOMA

- Advertisement -

# X-L-AIR

## ENERGY SERVICES Ltd.

[X-L-Air](#) is a locally owned contracting company operating as a prime mechanical contractor for commercial and institutional projects. Through controlled and steady growth we are currently one of the main mechanical contractors operating in the Ottawa area. We do several large projects in a year, some of which exceed \$10,000,000 in mechanical value. Please access our [X-L-Air](#) web site for more information on our company.

We are seeking the following individual:

### ESTIMATOR / PROJECT MANAGER

You have at least 10 years relevant experience, and an excellent understanding of mechanical HVAC systems, incl. Sheetmetal, Ducting, Plumbing, HVAC piping, etc. You have excellent technical and organizational skills. Your years of relevant experience have given you the ability to quickly and accurately estimate sheetmetal and piping work. Computer skills are essential, preferably with experience using a digitizer and estimating software. Training to use our own piping and sheetmetal estimating software will be provided if necessary.

*Reply in confidence and send resumes to Nick Haitas at X-L-Air Energy Services Ltd.  
1357 Second Line Rd., Kanata, Ont., K2K 1X7.  
Tel: (613) 839-1708, Fax: (613) 839-1803, Email: [x-l-air@rogers.com](mailto:x-l-air@rogers.com)*

\*\*\* end of Communiqué \*\*\*



Your card here!

