

Image used with permission

**Today's Low  
Load Homes**

**You're invited to attend this technical forum to:**

- ✓ Learn how to avoid call backs related to heating and cooling comfort for homes with low design heating loads.
- ✓ Learn a new procedure to quickly define the type of mechanical equipment (furnace or combo based system) and distribution approach that best suits your next low load homes.
- ✓ Compare 4 competitive manufacturer approaches to the same Case Study Home challenge – for an energy efficient, costed, best practice HVAC system.



## Gas Mechanical Technology Forum

Date:

December 12, 2017 (8:00 am - 4 p.m.)

Location:

Best Western Stonebridge Inn,  
6675 Burtwistle Lane, London, Ontario

Register at <https://leepforumlondon.eventbrite.ca> or call (519) 686-0343 if you have questions. This event is administered by London's HBA on behalf of SW Ontario HBAs. Cost: \$60 + HST & includes lunch (\$40 per additional employee or student). \$20 from your registration will go to your local HBA or OBOA.

OBOA members: Approved for 6 credits with your association.

This Forum has been developed in response to builder demand for heating and cooling systems that better address homes with design space heating loads of 30,000 btu or less. It will help you find solutions in a time saving way.

Home building practices are changing with more housing that is either attached, tall, open concept, and/or energy efficient. CHBA's Technical Research Committee has identified that the industry needs mechanical solutions for these homes.

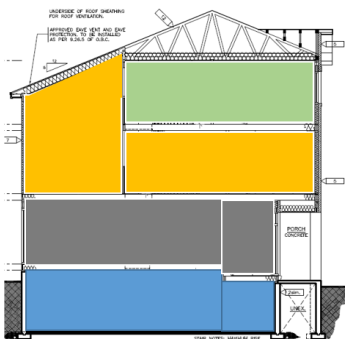
This Forum has been developed by Natural Resources Canada's LEEP team with support from the Canadian Gas Association. It brings together experts and pre-vetted manufacturers to present their recommended solutions for your review.

Developed for Southwestern Ontario and supported by:



CANADIAN GAS ASSOCIATION  
ASSOCIATION CANADIENNE DU GAZ

# LEEP Gas Mechanicals Technology Forum Hosted in London for Southwestern Ontario, 2017



## REGISTRATION (8:00 - 8:30 am)

Welcome (8:30 am)	Peder Madsen, President, LHBA
Today's logistics	James Glouchkow, NRCan LEEP
Interactive Panel discussion: HVAC challenges for homes with low design loads	Industry Panel: Dara Bowser, Andy Oding, and Doug Tarry
Learn a new procedure to quickly define the type of mechanical equipment and distribution system that best suits your next low load home project.	Facilitator: Terry Strack, Strack & Associates

## BREAK

Review case study home duct design and installation practices	Dara Bowser, Bowsertech
ENERGY STAR® for New Homes Update	Andy Oding, Building Knowledge
Mechanical solution for case study home (furnace-based)	Philippe Verhas, Dettson

## LUNCH

How to shortlist combo systems using CSA P.9-11 test results	Dara Bowser, Bowsertech
Mechanical solution for case study home (combo-based)	Luigi Pulice, Ecosmart

## BREAK

Mechanical solution for case study home (combo-based)	Steve Bagshaw, NTI
Mechanical solution for case study home (combo-based)	Ramzi Handal, iFLOW

## WRAP-UP (by 4 pm)

Manufacturers will remain available for further discussions until 4:30 pm.

This event is open to builders, renovators, mechanical designers, contractors, energy service organizations and advisors, municipal staff and building inspectors, and students.

The manufacturers were selected through competition by the participating gas utilities with support from building industry advisors, and therefore is not open to other manufacturers.

This Forum was developed by Natural Resources Canada's LEEP team in partnership with the Canadian Gas Association and member utilities: Atco Gas, Enbridge, SaskENERGY, and Union Gas. We would like to thank Union Gas for supporting this workshop delivery in London. Participant fees cover local HBA administration.



# Gas Mechanicals Technology Forum

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**Industry leaders express why you should attend the LEEP Gas Mechanicals Technology Forum which has been specially developed to address the unique technical challenges of HVAC systems for today's growing market share of homes with low design space heating loads:**

“Ontario builders first raised the issue of oversized mechanicals for low load homes after the new CSA F280-12 design heat loss and heat gain standard started to recognize advances in window and wall system technologies and the use of heat and energy recovery ventilators.

Builders could not get small enough equipment, and run times were often too short to provide comfort in rooms located far from the heating and cooling equipment. It's great that the gas utilities have responded by working with NRCan's LEEP team to address these builder needs. This LEEP Forum goes way beyond this single issue to address mechanicals more holistically. *Hope you can make it!*” **Andy Oding, Building Knowledge ; Chair, CHBA Technical Research Committee (TRC)**

“We don't build homes the way we did 40 years ago, so why haven't HVAC systems kept pace? New HVAC systems are available that better suit low load homes and provide zoning which improves comfort.

The systems selected for presentation at this Forum are good examples of the new HVAC approaches needed for modern homes. That said, equipment alone does not provide better comfort. The guide developed for this Forum walks through the decisions that builders and HVAC designers need to take in order to deliver improved HVAC systems.

During the Forum, I will also talk about improving air distribution, cost effective duct sealing and quick on site measurements that can improve quality and reduce call backs. *Looking forward to seeing you at the LEEP Gas Mechanicals Forum.*” **Dara Bowser, Bowsertech**

“As the building code increases the air tightness and efficiency of new homes, it is important that the mechanical systems are right-sized to the demands. It is not just about right-sizing the heating systems for the homes we build now, it is also equally important to ensure our cooling systems are of a similar size. Mechanical and duct sizing is now often being designed based on the cooling load needs. We need to get the windows right so our duct sizing for cooling is in line with that for heating, and we do not have localized overheating issues.

I have been part of the team developing the new mechanicals decision guide that will be used at the Forum and it addresses these challenges. We need Forums like this to help us match the efficient homes we build in Southwestern Ontario with the mechanicals that meet their needs. This is a great opportunity for builders, HVAC contractors and building inspectors to develop a greater understanding of how these systems work and why it's so important to look at the whole home in a holistic manner.” **Doug Tarry, Doug Tarry Homes**