

# Building Airtightness Impact on Energy Performance (EP) Calculations

**Monday 9 December 2024**

**10:00-11:30 (Brussels, BE)**

**9:00-10:30 (London, UK)**

**11:00-12:30 (Athens, GR)**

**REGISTER NOW**

**FREE** – Participation to the Webinar is free

**Registration is required:** A link to join the webinar will be included in the email confirmation

As it is now a well-known fact that air leakage can significantly impact the building energy performance, more and more countries are introducing requirements or recommendations on new buildings' airtightness level in their energy performance regulation. One key aspect to encourage good practice and good airtightness levels in new or retrofitted buildings is to properly include the air infiltration impact in the EP calculation. Nevertheless, for a given building and at a given point in time, an accurate calculation of the infiltration flow rate under natural operating conditions would require determining the precise distribution of leakages and pressure across the envelope which is not feasible in practice. As a result, many simplified models have been developed and are used around the world to estimate the infiltration rate for EP calculations, with different levels of accuracy. AIVC's Ventilation Information Paper n°46 "Building airtightness impact on Energy Performance (EP) calculations" describes those various methods and discusses their limits. In addition to the presentation of VIP 46, this webinar will discuss the specific applications for the regulation in Czech Republic and the United Kingdom. It will also present the equilibrium pressure model included in the EN 16798-7.

This webinar is organised with the support of the Air Infiltration and Ventilation Centre ([www.aivc.org](http://www.aivc.org)) and TightVent Europe ([www.tightvent.eu](http://www.tightvent.eu)). Both initiatives are facilitated by INIVE ([www.inive.org](http://www.inive.org)).

## Programme (Brussels time)

- ❖ 10:00 | Welcome & Introduction, *Valérie Leprince (Cerema, France)*
- ❖ 10:05 | AIVC's Ventilation Information Paper N°46 "Building Airtightness Impact on Energy Performance (EP) Calculations", *Valérie Leprince (Cerema, France)*
- ❖ 10:20 | Questions and Answers
- ❖ 10:25 | How is Building Airtightness Factored into the EP Assessment of Homes in the UK?, *Xiaofeng Zheng (University of Nottingham, United Kingdom)*
- ❖ 10:40 | Questions and Answers
- ❖ 10:45 | Estimating Energy Losses: EN 16798-7 Airtightness and Total Air Renewal Evaluation, *Valérie Leprince (Cerema, France)*
- ❖ 11:00 | Questions and Answers
- ❖ 11:05 | Building Airtightness in EP Calculation – Situation in Czech Republic, *Jiri Novak (Czech Technical University in Prague, Czechia)*
- ❖ 11:20 | Questions and Answers
- ❖ 11:30 | End of webinar

### Cost and registration

Participation to the webinar is free but requires you to register for the event. The webinar will be limited to a maximum of 1000 persons. To register, please click on the “Register now” button above.

### What is a webinar?

A webinar is a conference broadcasted on internet. To follow a webinar you must have a computer with a sound card and speakers or headphones. Once logged in the "webinar room", you will be able to see the slides of the presentation and to hear the panellists' comments. You will also be able to ask written questions to the speakers, and to answer on-line surveys.

### Hardware, software

Our webinars are powered by WebEx. The only thing you need is a computer with a sound card and speakers or a smartphone or tablet. Before you can log in the "webinar room", WebEx will install the required application. If you are not a WebEx user, please visit: <https://help.webex.com/en-us/article/8l0y08/Join-a-webinar> to check the system requirements and be informed on how to join a webinar. We recommend you join the event 5...10 minutes in advance

### About TightVent

TightVent Europe ([www.tightvent.eu](http://www.tightvent.eu)) aims at facilitating exchanges and progress on building and ductwork airtightness issues, including the organisation of conferences and workshops. It fosters experience sharing as well as knowledge production and dissemination on practical issues such as specifications, design, execution, control, etc., taking advantage of the lessons learnt from pioneering work while keeping in mind the need for adequate ventilation.

TightVent Europe has been initiated by INIVE (International Network for Information on Ventilation and Energy Performance) with at present the financial and/or technical support of the following partners: Lindab, MEZ-TECHNIK, Retrotec, Acin Instrumenten, BCCA, BlowerDoor GmbH, dooApp, Soudal, Build Test Solutions, Eurima, Gonal, SIGA and BPIE.

### About AIVC

Created in 1979, the Air Infiltration and Ventilation Centre ([www.aivc.org](http://www.aivc.org)) is one of the projects/annexes running under the International Energy Agency's Energy in Buildings and Communities (IEA-EBC) Programme. With the support of its member countries as well as key experts and various associations (REHVA, IBPSA, ISIAQ), the AIVC offers industry and research organisations technical support aimed at better understanding the ventilation challenges and optimising energy efficient ventilation.

The AIVC activities are supported by the following countries: Australia, Belgium, China, Denmark, France, Italy, Ireland, Japan, Netherlands, New Zealand, Norway, Republic of Korea, Spain, Sweden, UK and USA.

### About INIVE

INIVE (International Network for Information on Ventilation and Energy Performance) was created in 2001. The main reason for founding INIVE was to set up a worldwide acting network of excellence in knowledge gathering and dissemination. At present, INIVE has as member organizations Buildwise, Cerema, CETIAT, Ghent University, IBP-Fraunhofer, KU Leuven.

INIVE is coordinating and/or facilitating various international projects, e.g. AIVC ([www.aivc.org](http://www.aivc.org)), TightVent Europe ([www.tightvent.eu](http://www.tightvent.eu)), venticool (<https://venticool.eu/>) and Dynastee ([www.dynastee.info](http://www.dynastee.info)). INIVE has also coordinated the ASIEPI project dealing with the evaluation of the implementation and impact of the EU Energy Performance of Buildings Directive, the QUALICHECK project aiming towards improved compliance and quality of the works for better performing buildings, BUILD UP the European portal on Energy Efficiency and the EPBD feasibility study 19a.