



# Energy Performance of Gas Phase Air Cleaning

Friday 21 February 2025

11:00-12:30 (Brussels, BE)

10:00-11:30 (London, UK)

18:00-19:30 (Singapore, SG)

19:00-20:30 (Tokyo, JP)

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In many parts of the world, outdoor air quality is so poor that it is better to avoid ventilation with outdoor air. In such cases, the alternative is to substitute ventilation with air cleaning to maintain high indoor air quality. Even when outdoor air quality is good, the use of air cleaning substituting ventilation with outdoor air could reduce the rate of outside air supplied indoors and thereby energy for conditioning (heating/cooling) the ventilation air, filtration and for transporting the air (fan energy) can be saved.

This webinar will focus on the energy performance of gas-phase air cleaning. Standalone air cleaners may improve air quality by delivering a certain Clean Air Delivery Rate (CADR). For the same level of air quality, the ventilation rate can be reduced by a similar amount. However, standalone air cleaners are also using energy. Air cleaners built into the ventilation system may increase pressure drop and using some power, which both increase the energy use. A couple of studies based on models and dynamic building simulations on energy use for heating, cooling, and ventilation have been used to study the overall energy implications of using gas phase air cleaners. The results will be presented and discussed in this webinar.

This webinar is organised by the Air Infiltration and Ventilation Centre ([www.aivc.org](http://www.aivc.org)) in collaboration with IEA-EBC Annex 78 (<https://annex78.iea-ebc.org/>), and facilitated by INIVE ([www.inive.org](http://www.inive.org)).

## Agenda (CET)

11:00	<b>Welcome &amp; Introduction to IEA EBC Annex 78</b> Bjarne W. Olesen (International Centre for Indoor Environment and Energy, Technical University of Denmark, Denmark)	11:40	<b>Gas phase air cleaning effects on ventilation energy use and KPIs for Energy Performance</b> Bjarne W. Olesen (International Centre for Indoor Environment and Energy, Technical University of Denmark, Denmark)
11:10	<b>The Present and Future Role of Gas-Phase Air Cleaning as an Alternative to Increased Ventilation in Office Buildings</b> Alireza Afshari (Department of the Built Environment (BUILD), Aalborg University Copenhagen, Denmark)	11:55	<b>Questions and answers</b>
11:25	<b>Exploring the Energy-Saving Benefits of Gas-Phase Air Cleaning in Nordic Buildings</b> Sasan Sadrizadeh (KTH Royal Institute of Technology, Stockholm, Sweden)	12:30	<b>End of Webinar</b>





Air Infiltration and Ventilation Centre

### 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.

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### 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, Canada, Denmark, France, Italy, Ireland, Japan, Netherlands, New Zealand, Norway, Republic of Korea, Spain, Sweden, UK and USA.

### About IEA EBC Annex 78 - Supplementing Ventilation with Gas-phase Air Cleaning, Implementation and Energy Implications

Annex 78 Supplementing Ventilation with Gas-phase Air Cleaning, Implementation and Energy Implications (<https://annex78.iea-ebc.org/>) is an international research project of the IEA Energy in Buildings and Communities (EBC) programme. The Annex should bring researchers and industry together to investigate the possible energy benefits by using gas phase air cleaners (partial substitute for ventilation) and establish procedures for improving indoor air quality or reduced amount of ventilation by gas phase air cleaning. The project shall also establish a test method for air cleaners that considers the influence on the perceived air quality and substances in the indoor air.

### 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 organisations Buildwise, 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.

