Position Paper PP – 2024-07-12

Team member	Phone	Email	Date
Igor Sikonczyk	+32 (0)466 90 04 01	igor.sikonczyk@eurovent.eu	2024-07-12

Capability of mechanical ventilation control systems in non-residential buildings to support Article 13(10) of Directive 2024/1275 (EPBD).

Introduction

This document outlines the capability of commonly available mechanical ventilation systems for non-residential buildings to facilitate the implementation of provision of Article 13(10) of Directive 2024/1275 (EPBD recast). Its objective is to indicate technically and economically feasible solutions for consideration in the European Commission's guidance on the EPBD transposition by Member States.

New relevant and linked provisions of the Directive

Article 13(10) specifies properties of building automation and controls systems in non-residential buildings, which according to Article 13(9) should be applied where technically and economically feasible.

At the same time, in Article 13(4) the Directive obliges Member States to set requirements for the implementation of adequate indoor environmental quality standards in buildings, and in Article 13(5) it unconditionally requires non-residential zero-emission buildings - meaning in practice all new non-residential buildings from 2030 onwards, to be to be equipped with measuring and control devices for the monitoring and regulation of indoor air quality (IAQ).

Mechanical ventilation systems and combined ventilation and air-conditioning systems are essential to provide and regulate adequate IAQ and their employment may be necessary to meet the IAQ requirements in many new buildings.

Opportunity to exploit synergies

As we outlined in our position paper PP - 2024-06-21, the key component of ventilation systems is typically the air handling unit (AHU) with integrated controls capable of regulating and monitoring IAQ by means of optimised elements comprising the system.

This enables, particularly for small and middle-sized buildings to meet the requirements of Article 13(5), as well as the provision of Article 13(10d) without the need of additional and separate BAC systems, which in turn contributes significantly to the economical feasibility of implementing these provisions.

It should to be noted the commonly available integrated control systems of air handling units, in addition to their capability to support the IAQ monitoring provisions, also have the capability to support other provisions of Article 13(10) on building automation and control systems.

Even though these capabilities may not cover all technical building system, they do cover the entire scope of ventilation and combined ventilation and air-conditioning systems which in many cases are key technical building systems. Thus, integrated control of air handling units in interoperability with a separate BAC system, if it is needed, can reduce its extent and cost and thereby contribute to the economic feasibility of implementing the provision of Article 13(10).

Given that Article 13(9) states that the provisions of Article 13(10) should be applied where technically and economically feasible, we believe that this capability is very significant and creates synergies that can be exploited to facilitate the objectives of the Directive.

Capability of integrated AHU control systems to support Article 13(10)

More specifically, the integrated controls of air handling units, have the following capability to support provisions of Article 13(10):

a) Continuous monitoring, logging, analysing and allowing for adjusting energy use for ventilation systems and combined ventilation and air-conditioning systems.
b) Contribution via communication and interoperability with a central BAC system to buildings energy efficiency benchmarking, detecting losses, informing the responsible person, informing about opportunities for energy efficiency improvement with regard to ventilation systems and combined ventilation and air-conditioning systems.
c) Integrated controls of AHUs commonly allow communication via available standard communication protocols with other connected technical building systems and devices, in particular such as chillers, heat pumps, duct humidifiers, variable air volume units (VAV), room controllers, fire dampers, fan-coils etc.

Eurovent is developing a detailed recommendation addressing all these capabilities and once it is available, which is expected in Q3 2024, we will submit this document to the Commission.

Eurovent and transparency

When assessing position papers, are you aware whom you are dealing with?

Eurovent's structure rests upon democratic decision-making procedures between its members and their representatives. The more than 1.000 organisations within the Eurovent network count on us to represent their needs in a fair and transparent manner. Accordingly, we can answer policy makers' questions regarding our representativeness and decisions-making processes as follows:

1. Who receives which number of votes? At Eurovent, the number of votes is never determined by organisation sizes, country sizes, or membership fee levels. SMEs and large multinationals receive the same number of votes within our technical working groups: 2 votes if belonging to a national Member Association, 1 vote if not. In our General Assembly and Eurovent Commission ('steering committee'), our national Member Associations receive two votes per country.	**2. Who has the final decision-making power?** The Eurovent Commission acts as the association's 'steering committee'. It defines the overall association roadmap, makes decisions on horizontal topics, and mediates in case manufacturers cannot agree within technical working groups. The Commission consists of national Member Associations, receiving two votes per country independent from its size or economic weight.
3. How European is the association? More than 90 per cent of manufacturers within Eurovent manufacture in and come from Europe. They employ around 150.000 people in Europe largely within the secondary sector. Our structure as an umbrella enables us to consolidate manufacturers' positions across the industry, ensuring a broad and credible representation.	**4. How representative is the organisation?** Eurovent represents more than 1.000 companies of all sizes spread widely across 20+ European countries, which are treated equally. As each country receives the same number of votes, there is no 'leading' country. Our national Member Associations ensure a wide-ranging national outreach also to remote locations.

Check on us in the European Union Transparency Register under identification no. 89424237848-89.

We are Europe's Industry Association for Indoor Climate (HVAC), Process Cooling, and Food Cold Chain Technologies – thinking 'Beyond HVACR'

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Eurovent's roots date back to 1958. Over the years, the Brussels-based organisation has become a well-respected and known stakeholder that builds bridges between the manufacturers it represents, associations, legislators and standardisation bodies on a national, regional and international level. While Eurovent strongly supports energy efficient and sustainable technologies, it advocates a holistic approach that also integrates health, life and work quality as well as safety aspects. Eurovent holds in-depth relations with partner associations around the globe. It is a founding member of the ICARHMA network, supporter of REHVA, and contributor to various EU and UN initiatives.