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Eurovent position on ecodesign requirements for NRVU controls in the revised VU Regulation.

In a nutshell

With this paper Eurovent provides its position on requirements for NRVU control systems proposed in the draft Ecodesign Regulation for Ventilation Units of April 2025. In particular, Eurovent members recon that:

- **there should be a clear exemption allowing to apply C-bonus if the NRVU manufacturer is unable to deliver the control system for reasons beyond his control,**
- **no external Demand Ventilation Control components, i.e. those installed outside the NRVU reference configuration, may be a mandatory part of the NRVU control package.**

Introduction

With this document, members of the Eurovent Product Group 'Air Handling Units', which brings together 110 manufacturers representing the majority of European AHU industry, complement the previous PP – 2025-05-20, and present Eurovent's position on ecodesign requirements for NRVU control systems in the revised VU Regulation.

General position and comments

Eurovent fully supports the requirements for NRVU control systems and understands that this the right way for improving the overall energy efficiency of ventilation units. At the same time, Eurovent holds that applying the proposed C bonus should not result in offsetting the low efficiency of the unit itself. For this reason, in previous position papers (including PP – 2019-05-14 and PP – 2021-04-30) Eurovent proposed to set minimum requirements for ventilation demand control (VDC) function for all NRVUs. This proposal, however, was not included in the draft revised Regulation of April 2025.
If the Commission cannot accept the minimum requirements for controls and supports the C bonus approach, we would like to highlight the following key aspects which, in our opinion, should be taken into consideration to ensure effective implementation of the requirements and their acceptance on the market:

- The market of NRVUs is very diversified and covers a variety of applications, from simple and compact ones requiring basic controls to highly complex and extended systems requiring advanced control systems and interoperability between various building and process elements. For all these applications the ecodesign requirements for NRVUs apply.
- A considerable share of the market are applications, where the control system cannot be delivered by the NRVU manufacturers for reasons beyond their power, for instance:
    - Ventilation in industrial applications (e.g. pharmaceutical / chemical plants), where the main purpose of ventilation is for a process and not for people, and where all control elements must be standardized and validated by a third party.
    - Extension of existing buildings and plants, where the already installed automation systems must meet specific standards and have the capacity to connect new NRVUs.

  - Complex buildings, such as hospitals where the needed automation system must meet specific requirements and will cooperate with other systems
- If there will be a requirement that the C bonus can only be applied with controls delivered by the NRVU manufacturer, NRVUs in such cases will have to be larger to meet the SFP_{int_limit}, although they may indeed be controlled by an external system in accordance with the C bonus specification. This would:
  - penalize both the NRVU manufacturer and the customer
  - be contrary to the principle of optimising capital expenditure and reducing environmental impact due to the production of an unnecessarily large NRVU.

  As a result, it is very likely that market players would seek ways to circumvent the ecodesign requirements.

Exemption allowing use of C-bonus without delivering controls

Given the above arguments, Eurovent calls the Commission to lay down a clear and unambiguous exemption regarding the applicability of the C bonus if the NRVU manufacturer is unable to supply the control system for reasons beyond its control.

The exemption shall be based on clear guidelines and shall not lead to misuse and circumvention of provisions. The guidelines should be all-encompassing, so that the C-Bonus cannot be misused to deliver a smaller unit (read less energy efficient unit) by shifting the responsibility.

On the other hand, meeting the conditions for exemption must be reasonably achievable for manufacturers and not lead to excessive administrative burdens for them.

Unambiguous definition of co-delivered and co-purchased NRVU control package

Definitions of terms 'NRVU-package', 'co-purchased' and 'co-delivered' used in the draft Regulation are missing. This poses a considerable risk of misinterpretation, circumvention and lack of verifiability by Market Surveillance Authorities of the 'NRVU-package' scope.

Eurovent members consider that no external DCV components, i.e. those installed outside the NRVU reference configuration, such as VAV devices in ventilation ducts or room sensors, can be a mandatory part of the NRVU control package. Delivery of these elements is not the responsibility of NRVU manufacturer, who often does not even know how many of such devices will be installed (it is HVAC contractor's job). The NVRU control system must be capable to communicate with such devices, but they must be excluded from the NVRU – package.

Similarly, the monitoring functions covered by C2 factor, must be limited to measurements carried out within the NRVU reference configuration.

Scope of controls corresponding to C1 and C2 values

Assuming that the above two issues, i.e. exemption and excluding external elements from the NRVU-package, can be resolved and satisfied, Eurovent suggests the following clarification of the scope of controls corresponding to values of C1 and C2 coefficients.

Definitions

'*co-purchased and co-delivered NRVU control package*' is a set of all control elements needed to meet the ecodesign requirements, which is offered by the NRVU manufactured and purchased and delivered together with the NRVU.

Exemption

If the NRVU manufacturer cannot deliver the NRVU package due to critical applications that require a combination of the ventilation units controls with other control systems to ensure processes (e.g. in clean room applications or applications where the main purpose of ventilation is for a process and not for people) then the NRVU manufacturers can apply the C bonus in the assessment of ecodesign requirements, provided that the control system is completed according to the NRVU manufacturer specifications on site

ANNEX VII

e) Control bonus

Depending on the type of controls that are co-purchased and co-delivered with the NRVU package, the following values for the control bonus are applicable.

Control bonus 'C'

Smart control options included in the NRVU package		C=C1*C2
Regarding controls and VDC-readiness		C1
0	No smart control options NRVU control package has a multi-speed drive or an on-off thermal bypass or only visual signalling of filter pressure drop. i.e. meeting the minimum requirements.	1.00
1	Time or presence related ventilation controls Control package enables the NRVU to run according to the scheduled operating mode (off/occupied/unoccupied) or/and based on the external presence signal[1)].	1.05
2	Interface for allowing VDC-devices In addition to level 1, NRVU package enables: - variable speed control of fans to adjust airflow or pressure based on the set point from any external control system[2)] (e.g. based on IAQ via CO_2, temperature, pressure). - stepless temperature controlled thermal bypass - remote signalling of the filter pressure drop	1.10
3	Ventilation Demand Control In addition to level 1, NRVU package enables: - Controlling[3)] a given parameter (e.g. CO_2, temperature, humidity) based on readings from at least one sensor[4)]. - variable speed control of fans to adjust airflow or pressure to maintain the setpoint of the controlled parameter. - stepless temperature controlled thermal bypass - remote signalling of the filter pressure drop, - Auxiliary devices (such as sensors, room controllers, air flow control devices) does not need to be part of the NRVU-package	1.15
Regarding monitoring functions		C2

4	Monitoring of air flowrates, electrical power, electricity consumption, supply air temperature, filter pressure drop within the NRVU reference configuration, interface for downloading monitoring data is included in the NRVU control software and C1is equal or higher than 1.10	1.10

[1)] External presence signal (sensor) is not part of the NRVU-package.
[2)] External control system (e.g. communicating via BMS) is not part of the NRVU-package
[3)] AHU controller must provide logic to maintain setpoint of controlled parameter
[4)] The sensor does not need be part of the NRVU-package

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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.

About Eurovent

Eurovent is the voice of the European HVACR industry, representing over 100 companies directly and more than 1.000 indirectly through our 16 national associations. The majority are small and medium-sized companies that manufacture indoor climate, process cooling, and cold chain technologies across more than 350 manufacturing sites in Europe. They generate a combined annual turnover of more than 30 billion EUR and employ over 150.000 Europeans in good quality tech jobs.

Mission

Eurovent's mission is to bring together HVACR technology providers to collaborate with policymakers and other stakeholders towards conditions that foster fair competition, innovation, and sustainable growth for the European HVACR industry.

Vision

Eurovent's vision is an innovative and competitive European HVACR industry that enables sustainable development in Europe and globally, which works for people, businesses, and the environment.

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