

## EVIA proposal on controls, DCV and monitoring bonus for non-residential ventilation units – EU 1253 and 1254/2014 (LOT 6) Review

EVIA welcomes the intention to include a control bonus for non-residential ventilation units. Demand control systems are suitable solutions to optimise the energy demand of ventilation systems. There are a wide range of non-residential applications for ventilation units and a simplified approach, similar to the one applied for the residential sector, is just not possible or feasible.

## The reasons are:

- In general, the application of a non-residential ventilation unit is not in all cases known by the manufacturer;
- Key elements of demand control might not be part of the AHU delivery (i.e. VAV controller, dampers, and diffusors);
- A high percentage of AHUs are not equipped with any control system, because this is part of the installer's work or the customer specifies his needs according to their individual BACS needs and the manufacturer has no choice over the installation of a control system in the product.

## Proposal for a control bonus:

Considering the aspects above, EVIA would like to propose a 2-stage bonus system on the minimum requirement of SFP<sub>int</sub>., if the bi-directional ventilation unit (BVU) or Unidirectional Ventilation Unit (UVU) (with or without air treatment) is equipped by the manufacturer with a control system, covering:

- 0. Units without controls minimum requirement speed control of fan (current regulation).
- Aspects of DCV readiness and relevant control functions (ventilation functions and others, if unit is equipped with) of the delivered control systems (see following table).
   15% Bonus on SFP<sub>int</sub>
- Aspects of BACS, Smart readiness and monitoring functions. ... function level 3 or higher (EN 15232)... (see following table) add 10% Bonus on SFP<sub>int</sub>



				BVU	UVU
Bonus on SFP 25% (if both)		1	Controls and DCV READINESS		
		1.1	Unit delivered with factory mounted demand-driven, stepless control of the volumetric flow (Frequency Inverter, Commutation unit)	Х	X
	Bonus 15% (if fulfilled)	1.2	<ul> <li>Factory mounted or co-delivered control system for ventilation unit including</li> <li>Fan (see 1.1.) to be connected to the VU controller</li> <li>Heatrecovery (e.g. thermal bypass or capacity control)</li> <li>Any other function if implemented (for example) <ul> <li>Heating</li> <li>Cooling</li> <li>Dampers</li> <li>Humidification, dehumidification</li> </ul> </li> <li>Interface for devices or sensors to allow continuously demand controlled ventilation, e.g. one or more of the following:</li> <li>CO2 sensor</li> <li>Use / presence</li> <li>VOC</li> <li>Pressure in the duct</li> <li>Interface to BMS System (option to use third party devices)</li> </ul>	x	If present
		1.4	Frost Protection Embedded icing protection, if provided	X	SUP
	Bonus 10% (add.)	2			
			All measured data shall be at least displayed on the unit controller		
			Measurement of the volumetric flow of each fan	Х	X
			Measurement of the consumed electrical power (W)	Х	X
			Measurement of the consumed electrical energy (Wh)	Х	X
			Supply air temperature at AHU outlet	Х	TC C1
			Continuous measurement of filter's pressure drop	Х	If filter present
			Interface for downloading the data for the monitoring	Х	x
			Operating time (normal, bypass, de-icing)	Х	Х
			Operation information on heat recovery operation	Х	
			Operation information of add. Components in the AHU (heating, cooling, humidification, dehumidification, add. Filtration) if the unit is equipped with such components	X	Х

## **About EVIA**

The European Ventilation Industry Association (EVIA)'s mission is to represent the views and interests of the ventilation industry and serve as a platform between all the relevant European stakeholders involved in the ventilation sector, such as decision-makers at the EU level as well as our partners in EU Member States. Our membership is composed of more than 35 member companies and 6 national associations across Europe, realising an annual turnover of over 7 billion euros and employing more than 45,000 people in Europe.

EVIA aims to promote highly energy efficient ventilation applications across Europe, with high consideration for health and comfort aspects. Fresh and good indoor air quality is a critical element of comfort and contributes to keeping people healthy in buildings.