



The Voice of European Air-Conditioning, Refrigeration and Heat Pumps Contractors

European Commission report: HFCs and HFC alternatives in split air conditioning systems

AREA views on the use of R-290 in new single split AC with a cooling capacity below 7 kW

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A few months ago, the European Commission DG CLIMA published a report on “The availability of refrigerants for new split air conditioning systems that can replace fluorinated greenhouse gases or result in a lower climate impact” (C(2020) 6637). In its conclusion, the report indicates that *“it appears technically possible to avoid F-gases today in new single split air conditioning with a cooling capacity below 7 kW by using the refrigerant R-290”*.

Supportive of the F-Gas Regulation’s objectives and neutral towards refrigerants, refrigeration, air conditioning and heat pump (RACHP) contractors believe natural and low GWP synthetic refrigerants will play an important role in the green transition. Consequently, AREA has no preconceived idea about HCs, which are indeed a good option for certain types of applications and the use of which is likely to develop in the future.

At the same time, the safety issues posed by HCs cannot be ignored. Their high flammability imposes a careful and thought-through approach that takes into account all impacts that a regulatory push of HCs in air conditioning applications could have. We would like to mention in particular the following aspects, some of which, we believe, are absolutely essential prerequisites to any further consideration on the use of HCs in (some) air conditioning applications:

- It must be guaranteed that RACHP contractors who handle such units are fully competent. To this end, the F-Gas qualification and certification scheme must be extended to alternative low GWP refrigerants, including HCs. Only then can we ensure their safe and efficient handling.
- As a matter of consistency with the above point, F-Gas certification obligations for companies must also be extended to low GWP alternative refrigerants.
- Mandatory maintenance and leak checking of HC units must be legally prescribed, as currently is the case for F-Gases.
- A framework on the sale of HC units must be in place requiring the installation of HC units by certified contractors only. Such a framework needs to be properly enforced to avoid DIY installation, a situation too often encountered with HFC units but the consequences of which would be disastrous from a safety point of view.
- Quality standards of manufacturing must be high enough, notably for imported products.

- Impacts on insurance premiums should be properly measured. First informal feedback indicates substantial increases of home/building insurance (up to 1/3) and professional insurance (up to 50%). For owners, the absence of a declaration will inevitably lead to a loss of insurance cover in case of accident.
- Strict technical specifications should be prescribed as regards refrigerant charge against room size. What is commonly found on HC air conditioning systems currently on sale is totally inadequate and actually dangerous.
- It should be pointed out that in some cases it is currently impossible to respect EN 378 provisions with R290.

AREA remains available to further discuss these points.