



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

## POSITION PAPER

Brussels, 11<sup>th</sup> December 2009

**RE: RES Directive – certification or equivalent qualification schemes for installers of heat pumps**

### **What is AREA?**

AREA ([www.area-eur.be](http://www.area-eur.be)) is the European organisation of air-conditioning, refrigeration and heat pumps contractors. Established in 1988, AREA voices the interests of 24 national members from 19 European countries, representing more than 9,000 companies across Europe (mainly small to medium sized enterprises), employing some 125,000 people and with an annual turnover approaching € 20 billion.

### **1. AIM**

→ To assist the EC and member states in ensuring the successful transition of those aspects of the Renewable Energy Sources (RES) Directive 2009/28/EC, relating to heat pumps, in to national schemes by 2012.

### **2. BACKGROUND**

RES Article 14 paragraph 3, requires every member state to introduce certification or equivalent qualification schemes by 31 December 2012 for installers of heat pumps.

Heat pumps (HP) are energy efficient devices with circuits that contain refrigerant and they depend upon the physical laws of the refrigeration cycle for their beneficial effect. Those benefits will not materialise in most cases unless the design, installation, servicing and maintenance are executed by persons trained and competent in refrigeration and air conditioning (RAC) technology.

### **3. LEGISLATION**

- a. F Gas Regulation<sup>1</sup> The European legislation (EC) No 842/2006 governs the training, qualification and certification of individuals and the registration of companies able to work on RAC systems containing HFC refrigerants. AREA supports and promotes this legislation to encourage the highest standards of professionalism amongst RAC contractors in order to match the ambitions of the regulation. It is entirely inconsistent with environmental objectives for AREA to recommend anything other than complete compliance with the F Gas Regulation as the absolute minimum requirement for anyone to work on an HP system, except for the most basic of products.

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<sup>1</sup> Regulation (EC) No 842/2006 on certain fluorinated greenhouse gases

Some may argue that the F Gas Regulation only applies to charges over 3 Kgs, but this completely misses the point that numerous domestic HP systems across Europe with charges less than 3 Kgs could contribute massively to undesirable emissions without professional RAC supervision.

- b. National The potential contribution of HP to meeting member state commitments to conserve energy, reduce carbon emissions and meet the requirements of the RES directive has been recognised in a variety of ways across Europe, for example:
- (i) Italy offers subsidies against the capital cost of HP (as much as 55% claimable via tax returns).
  - (ii) Austria provides a subsidy for the use of an installer qualified under the EU-CERT. HP scheme.
  - (iii) Germany offers reduced charges for electricity that power HP.
  - (iv) UK has initiated a Micro Generation Scheme (MCS) that includes HP, and offers subsidies for both efficient products and competent installers, based upon certification under MCS standards.
  - (v) Portugal has a special tax rate for RES equipment of 12 % instead of the tax rate of 20 % of the RAC equipment

#### **4. VOLUNTARY**

In order to promote the energy benefits of HP, there has been a range of voluntary efforts to encourage their wider use, such as:

- a. The consortium development of a Euro Certification scheme by Arsenal Research in Austria. (The Certified EU-CERT.HP installer).
- b. Manufacturers providing performance test results to obtain an Eco label for HP products.
- c. Manufacturers recommending the use of qualified RAC installers to undertake HP projects having attended specific training on their products.
- d. The European Heat Pump Association developing a quality mark for HP based upon EN 14511, known as EHPA-DACH.

#### **5. SCOPE**

- a. General Despite the current emphasis on the value of HP in dwellings, and their ability to reduce fuel poverty in those regions in Europe where only electricity is available, the contribution of HP to energy conservation extends far beyond in to commercial and industrial applications.
- b. Domestic Certain types of HP are based upon the split air conditioner model and these fall entirely under the F Gas Regulation. Others, known as compacts, or self-contained units, may not require qualified RAC craftsmen to install them unless they have to perform operations on the refrigeration system.

- c. Commercial/Industrial These larger systems will inevitably require the design capabilities of RAC contractors to optimise the system. Installing and commissioning the large HP will necessitate work on the refrigeration components containing HFCs and therefore only those competent under the F Gas Regulation can undertake such tasks.
- d. Alternative Refrigerants Some HP operate on alternative fluids, such as CO<sub>2</sub>. While not covered by the F Gas Regulation, these alternatives introduce special requirements (e.g.: higher working pressures for CO<sub>2</sub>), of which only RAC specialists will be aware.

## 6. RECOMMENDATIONS

- a. General The following proposals are not intended to question or replace national schemes that already exist to promote wider acceptance of HP, or that ensure competent installation, servicing or maintenance. They are offered to assist member state compliance with Article 14, paragraph 3, of the RES Directive from the perspective of responsible RAC contractors, who are members of national trade associations within AREA.
- b. Convergence In preparing national schemes, it is strongly recommended that the requirements closely match those of the F Gas Regulation in order to avoid duplicate or divergent legislation. This is extremely important in the case of HP, as the majority of installations need to be completed by competent RAC tradesmen already covered by the F Gas Regulation.
- c. Training Content Due to the diversity of existing national vocational qualifications, or schemes to encourage the use of HP, great care will need to be taken by member states as they develop certification/qualification regulations. Otherwise, onerous additional requirements could be placed upon the numerous SMEs who form the bulk of the installer community. One way to avoid this situation is to use the expertise of the AREA member association(s) in each country to assist in developing the state scheme. (See [www.area-eur.be](http://www.area-eur.be)).
- d. Base Scheme As a starting point, the basis of a national scheme, where non-exists at the moment, could be that developed by Arsenal Research in Vienna known as Certified EU-CERT.HP installer. This scheme is being further developed by EHPA.
- e. Product Certification While not a requirement under Article 14, the spirit of the RES Directive is to promote certified and guaranteed products from reputable suppliers. This can be achieved by member states linking the installer scheme to existing HP recognition under the Eco Label directive, the EHPA-DACH quality mark, or national initiatives such as the UK Enhanced Capital Allowance scheme for HP.

## 7. CONCLUSION

The RES Directive offers an enormous opportunity for carbon savings across Europe. An essential component of this effort is the correct installation of reliable HP. The member companies of AREA's national associations are in the best position to ensure that the Directive achieves its aims for HP and wish to assist their countries to comply as fully as possible. The above recommendations form the first step in this industry's contribution to that intent.