



INTERNATIONAL INSTITUTE OF REFRIGERATION

Statement by François Billiard
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Mr Chairman, Distinguished Delegates, Ladies and Gentlemen,

It is a great honour to address you today on behalf of the International Institute of Refrigeration, the IIR.

The IIR is an intergovernmental organization with 61 member countries, representing over 80% of the global population. It expresses its opinion in the name of refrigeration practitioners and scientific communities worldwide.

Refrigeration contributes to sustainable development

Refrigeration plays a vital role in many applications such as food preservation from harvest to consumer, the health sector thanks to vaccine storage, and cooling and indoor air quality in industrial, commercial and residential sectors. In this respect, refrigeration contributes to sustainable development.

Refrigeration stakeholders are playing a decisive role within the framework of the Montreal Protocol

Thanks to the Montreal Protocol, the refrigeration sector greatly contributed to the 87% reduction in CFC (chlorofluorocarbon) consumption occurring between 1986 and 2000. Refrigeration stakeholders thus played a decisive role in achieving the reduced levels of chlorine observed in the stratosphere since 2000, indicating that stratospheric ozone levels are likely to rise.

In addition, as CFCs are very potent greenhouse gases, their phase-out is greatly mitigating global warming.

HFC and non-HFC refrigerants

HFCs (hydrofluorocarbons) were developed to replace CFCs and introduced in the early 1990s. They have no ozone-depleting potential; however, they do exert global-warming effects, though to a lesser extent than CFCs, and are therefore included in the substances targeted by the Kyoto Protocol.

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Non-HFC refrigerants, such as ammonia, carbon dioxide or hydrocarbons are now quite widely used. However, some of these refrigerants pose user-safety problems, while for others energy-efficiency issues must be considered.

Choosing between these two families of refrigerants

The choice between HFC and non-HFC refrigerants should be based on life-cycle analysis of their environmental impact. In a refrigeration plant, about 20% of the global warming impact is due to direct emissions of fluorocarbons and about 80% derived from carbon dioxide emissions originating in the production of energy used by the plant. The world's one billion domestic refrigerators, for instance, consume about 5% of all electricity produced.

Refrigeration applications are very diversified. For some, HFCs may be the best refrigerants because of their good energy efficiency, while for certain others, especially in systems where leakage may occur, non-HFC refrigerants could be better.

The IIR's recommendations

The IIR recommends:

- to always favour the most environmentally friendly solutions based on the Life Cycle Climate Performance (LCCP), bearing in mind user safety and cost-effectiveness;
- to enhance initial training, continuing education and technician certification;
- to bridge the gap between industrialized and developing countries in terms of knowledge, technology and training.

Ambitious objectives should be implemented by 2020. These include:

- the halving of the impact of fluorocarbon emissions;
- the achieving of a 30-50% reduction in the energy consumption of refrigeration plants.

Briefly, refrigeration equipment should be environmentally friendly, safe for users, cost-effective and energy-efficient at design, maintenance and end-of-life management levels.

Implementation of the Kyoto Protocol

Countries are starting to enforce national regulations on HFCs and are adopting approaches that tend to vary greatly. The IIR promotes a common but diversified approach worldwide thanks to guidelines and regulations set up within the Kyoto Protocol framework, and is in favour of rapid implementation.

Moreover, we should take advantage of the Kyoto-Protocol context to step up technology transfer, technician training and the setting up of reliable cold chains in developing countries.

The IIR's commitment

The IIR reaffirms its determination to play a valuable leadership and advisory role for the benefit of the environment and humanity.