

New UNEP report recognizes: There is no ‘one-size-fits-all’ refrigerant solution

Brussels, December 2011 – In a new report analysing the critical role of HFCs in protecting the climate, The United Nations Environment Programme (UNEP) warns that the increased use of high GWP HFCs will undermine the significant climate benefits achieved by the global phase-out of ozone depleting substances (ODS). It recognizes, however, that there is no ‘one-size-fits-all’ refrigerant solution.

According to the [UNEP report](#), the phasing-out of ozone depleting substances under the Montreal Protocol lead to the largest reduction to date of global greenhouse gas emissions. In 2010 alone, it achieved an annual emission reduction of 10 Gt of CO₂eq which is about five times greater than the annual emissions reduction target of the Kyoto Protocol’s first commitment period. HFCs have been the replacement of choice for ozone depleting substances, as they are safe, technically easy to use and do not deplete the stratospheric ozone layer. However, many of them have a high global warming potential (GWP) which is the reason why, if no further action is taken, their emissions may offset the significant climate benefit achieved by the Montreal Protocol.

Several options are available to avoid this from happening, the report continues. As a first step refrigerant emissions can be reduced by improving equipment design and technical procedures during manufacturing, use, servicing and disposal as well as by reducing the refrigerant charge. Further reductions can be achieved by employing alternative methods and processes, the use of non HFC substances such as ammonia, CO₂ and hydrocarbons and the use of low GWP HFCs. However, UNEP clearly recognizes that there is no ‘one-size-fits-all’ solution to replace HFC refrigerants. The solution will depend on many factors such as the local situation for production and use, the cost of different alternatives, the availability of components and the feasibility of implementation.

EPEE, the European association of manufacturers of heating and cooling equipment, supports UNEP’s conclusion that further action is needed to reduce the climate impact of heating and cooling equipment. Andrea Voigt, EPEE’s Director General explains: “Market growth and on-going replacement of ODS will lead to the growth of more products using HFCs and by 2050, over 75% of global HFC emissions will be generated by developing countries. Therefore, EPEE strongly supports a global phase-down scheme for fluorinated gases.”

Furthermore, EPEE shares UNEP’s view that alternative refrigerants still need to overcome numerous barriers. These include: the need for further technological developments, risks due to flammability and toxicity, regulations and standards that inhibit the use of alternatives, insufficient supply of components, investment costs and lack of relevant skills among technicians. Andrea Voigt: “EPEE agrees with UNEP that there is no ‘one-size-fits-all’ solution to replace HFC refrigerants in all applications. Industry should not be rushed into using new technologies as this may turn out to be counter-productive for energy efficiency and the climate. Moreover, it may put at risk installers and

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technicians if they are forced into using flammable or toxic refrigerants for which they may still lack sufficient skills.”

EPEE recently published a report carried out by the French research institutes ARMINES and ERIE which shows typical shifts in refrigerant technologies which can be expected over the coming decades. Combined with improved containment and expertise, this is expected to achieve reductions in refrigerant emissions of up to 90 million tonnes of CO₂eq in the EU-27.

Ends.

Please click here to go to the [Executive Summary](#) of the ARMINES / ERIE study.

Want to find out more on refrigerants and energy efficiency? Please click here to see our [latest factsheets](#).

To see what EPEE members do to contribute to the switch to a low-carbon and energy efficient economy, please see the [EPEE Green Business Cases](#).

Interested in being involved in the EU's public consultation process? Click [here](#) to respond to the European Commission's public consultation.

Notes to the Editor:

The European Partnership for Energy and the Environment (EPEE) represents the refrigeration, air-conditioning and heat pump industry in Europe. Founded in the year 2000, EPEE's membership is composed of 40 member companies and national associations across Europe realising a turnover of over 30 billion Euros and employing more than 200,000 people in Europe. As an expert association, EPEE is supporting safe, environmentally and economically viable technologies with the objective of promoting a better understanding of the sector in the EU and contributing to the development of effective European policies. For more information please visit: www.epeeglobal.org

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