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## EUROPEAN HEATING & COOLING INDUSTRY: EPEE'S COMMITMENTS TOWARDS SUSTAINABLE COOLING

*The European Partnership for Energy and the Environment (EPEE) represents the refrigeration, air-conditioning and heat pump industry in Europe. Our members directly employ over 200,000 people and realise over 30 billion euros in annual turnover. EPEE member companies operate manufacturing sites and research and development facilities across the EU, which are leading innovation efforts in the global market.*

### Introduction: The Request for Concrete Action

#### UN Secretary General António Guterres: “we cannot lose this battle”

On 23 September 2019, the United Nations will host the 2019 Climate Action Summit in New York to boost ambition and accelerate actions to implement the Paris Agreement on Climate Change. In this context, UN Secretary-General António Guterres has been calling on leaders to come to New York with concrete, realistic plans to enhance their nationally determined contributions (NDCs) by 2020, in line with reducing greenhouse gas emissions by 45% over the next decade, and to net zero emissions by 2050.

“I want to hear about how we are going to stop the increase in emissions by 2020, and dramatically reduce emissions to reach net-zero emissions by mid-century (...) Business is on our side. Accelerated climate solutions can strengthen our economies and create jobs, while bringing cleaner air, preserving natural habitats and biodiversity, and protecting our environment.”



### Context: The need for sustainable cooling

Cooling is an intrinsic part of our lives: it makes our cities liveable, keeps our food safe and fresh, contributes to best-in-class health care and helps us to keep pace with digitalisation. The demand for cooling is set to grow significantly in the coming decades as the climate is warming – and even more so in the light of major trends which will directly impact the need for cooling including increasing urbanisation, a growing population and middle class and an increasing need for comfort, health and well-being.

In Europe alone, the number of air-conditioners and refrigerators is expected to double by 2030. Already today, 50% of the EU's final energy is used for heating & cooling, of which up to 6% are used

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for cooling. In datacentres and supermarkets, the share for cooling can reach half of their total energy consumption<sup>1</sup>.

On a global level, cooling is predicted to become the single largest user of electricity in buildings, accounting for 16% of global electricity consumption by 2050<sup>2</sup>.

The growing demand for cooling will impact energy consumption and if not properly addressed also the emissions – as typically today at least three quarters of the total emissions of cooling systems are related to energy use. In the EU, where over 70% of the primary energy use is still based on fossil fuels, the impact of energy on total greenhouse gas emissions is significant<sup>3</sup>. Furthermore, peaks in electricity demand, for example during heat waves in summer, can threaten the stability of electricity networks, unless appropriate adaptation measures are taken.

At a time when global energy and climate goals build on a total transformation of the energy system, while access to cooling and affordability of technologies remain a key priority to ensure quality of life for all citizens, it is crucial to address these factors. Energy efficiency must increase, fossil fuels in the primary energy mix must be reduced substantially and the share of renewables in the electricity mix and in final energy consumption needs to grow. Sustainable cooling must adapt to this renewable energy nexus and become mainstream on the way to carbon neutrality.

## The cooling industry is ready to address the challenge

The cooling industry has already shown that it is ready to address the sustainability challenge. The Montreal Protocol to eliminate ozone depleting substances and the recently agreed Kigali Amendment for a global phase-down of HFCs are tangible examples of the instrumental role the private sector plays in driving change. In this context, EPEE, representing the heating and cooling industry in Europe, published its [pledge](#) at the 2014 New York Climate Summit “to support a smooth & viable transition towards lower emissions technologies” in Europe.

The Kigali Amendment alone could avoid up to 0.4°C of global warming by 2100. These benefits could be further enhanced by high energy efficiency, and a shift towards adaption to renewable energies. Cooling has a massive potential to deliver on these priorities and, by doing so, to be an important enabler for carbon neutrality. Many technologies are readily available but have not been broadly deployed yet (e.g. heat pumps, heat recovery, Building Automation and Control Systems, smart appliances, thermal storage, etc.).

The European Union has undertaken concrete and ambitious climate action, notably through the revision of the EU F-Gas Regulation in 2015 and through the recently adopted Clean Energy Package, which aims to facilitate the transition away from fossil fuels towards cleaner energy and to deliver on the EU’s Paris Agreement commitments for reducing greenhouse gas emissions. EPEE supports the EU’s measures and welcomes the introduction of integrated 10-year national energy and climate plans (NECPs) for 2021 to 2030, as they will help Member States draw up concrete roadmaps to reach the 2030 climate and energy targets and beyond and provide more regulatory certainty to industry. EPEE also believes in global action such as the implementation of the Kigali Amendment, enhanced National

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<sup>1</sup> [Heating and cooling strategy](#), EC 2016

<sup>2</sup> [The future of cooling](#), IEA 2018

<sup>3</sup> [European Environment Agency statistics on energy](#)

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Determined Contributions (NDCs) and dedicated national heating and cooling plans to address emissions in a way that is economically viable, affordable and accessible to people, compatible with high safety standards and promotes energy efficiency as a fundamental pillar of the energy transition.

## **EPEE'S PLEDGE: #CountOnCooling**

With this pledge, EPEE commits to be an active and supportive industry player to provide and promote sustainable cooling solutions on the way to a carbon neutral Europe.

EPEE members will continue to undertake concrete, proactive actions to raise awareness about sustainable cooling solutions in order to help the EU and its Member States reach their targets and remain a leader in the reduction of greenhouse gas emissions:

- ➔ EPEE will continue to support a full and harmonised understanding of the EU F-Gas Regulation and its implementation across Europe, as well as global action in the context of the Kigali Amendment via dedicated tools and partnerships;
  - *Further development of 'HFC Outlook' in cooperation with Gluckman consulting and UN Environment, a dedicated tool to model different scenarios and assess progress towards the phase-down of HFCs according to the EU F-Gas Regulation and the Kigali Amendment*
- ➔ EPEE will continue to support EU Member States to develop and implement their national energy and climate plans (NECPs), raising awareness on the potential of sustainable cooling to improve energy efficiency, shift to renewable energies and enable carbon neutrality;
  - *Development of new tools for a better understanding of energy efficiency and the importance of reducing energy consumption in the context of sustainable cooling*
- ➔ EPEE will reach out to authorities and other stakeholders to highlight and address barriers preventing the uptake of sustainable cooling solutions and their integration with heating.
  - *Dedicated #CountOnCooling communication campaign on sustainable cooling and creation and support of new and existing partnerships to promote sustainable cooling*

## About EPEE

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 48 member companies, national and international associations from three continents (Europe, North America, Asia).

EPEE member companies realize a turnover of over 30 billion Euros, employ more than 200,000 people in Europe and also create indirect employment through a vast network of small and medium-sized enterprises such as contractors who install, service and maintain equipment.

EPEE member companies have manufacturing sites and research and development facilities across the EU, which innovate for the global market.

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. Please see our website ([www.epeeglobal.org](http://www.epeeglobal.org)) for further information.