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ECOS vision on the EU Strategy for long-term greenhouse gas emissions reduction to 2050

Introduction

With the effects of climate change becoming increasingly visible and the stronger determination to prevent a dramatic global temperature increase of 2°C, ECOS urges the European Union, as well as International and European standardisation organisations, to commit to a full decarbonisation and circularisation of the economy.

Standards can offer the technical foundation for this to happen. ECOS wants to make sure that standards contribute to a successful achievement of the Paris Climate Agreement, the Montreal Protocol, and the EU 2050 GHG emissions reduction goal, by making clean tech solutions easily accessible to consumers and the market – be they electric vehicles, smart grids, or refrigerants. The achievement of a circular economy is a critical element of the EU's 2050 ambitions. ECOS also promotes meaningful energy improvements in products put on the EU market and advocates for an accurate and transparent measurement of the carbon footprint of products and processes. ECOS furthermore contributes to setting voluntary requirements applying to financial institutions helping to channel investments towards clean and climate resilient activities.

ECOS therefore calls on the European Commission and its Strategy for long-term EU greenhouse gas emissions reduction with a 2050 perspective:

1. To maintain the ambition to reduce emissions by 95% by 2050 compared to 1990 levels;
2. To support zero global warming potential solutions and make them easily accessible to consumers and the market in Europe and globally;
3. To support the role of standards in the reindustrialisation of Europe through digital, circular and low carbon innovation and clean mobility, through transparent and inclusive standardisation-making processes
4. To strongly disincentivize or even ban any activities, products and sources of energy that go against the objectives of the Paris Accord

Five asks for a long-term decarbonisation strategy

1. Ambitious energy efficiency measures through Ecodesign and Energy Labelling

The EU Ecodesign Directive and Energy Labelling framework Regulation are essential tools for the EU to achieve its energy, resource and CO₂ reductions objectives. It is imperative that the EU commits to the “energy-efficiency first” principle, through ambitious and properly implemented measures including all relevant products available on the market.

Thanks to Ecodesign and Energy Labelling, adopted energy efficiency measures are already expected to decrease Europe's energy dependence by as much as 165 million tonnes of oil equivalent annually by 2020, half of Europe's 2020 energy savings target. For 2030, these results will increase by over 60% according to the latest European Commission research on the topic.

ECOS aims to make the Ecodesign Directive better tackle resource efficiency aspects, including through the development of clear material efficiency standards and product-specific requirements. These could help increase product lifetime and recyclability, and avoid the use of hazardous substances.

We therefore call on the European Commission to be highly ambitious in its Long-Term Decarbonisation Strategy, through the timely adoption of ambitious implementation measures applied to all relevant products, as an essential cornerstone for the EU 2050 decarbonisation strategy.

2. An effective transition to renewable energy through Smart Grids

To achieve deep decarbonisation in the power system, innovation is essential to permit an efficient, optimised use of resources and support a 100% penetration of variable renewable energy sources (vRES) in the electricity grid.

ECOS aims at supporting an efficient operation of EU power systems through capturing flexibility within the demand-side. Together with digitalisation, demand-side flexibility is expected to provide meaningful environmental and economic benefits by 2050. As a resource, demand-side flexibility is a potential enabler for a 100% share of variable renewable energy sources, reduced system costs, improved power system efficiency and empowered consumers by 2050. For an effective uptake of flexibility products (e.g. smart meters, smart appliances, home energy storage, etc.), it is important for common European and international standards that ensure interoperability, functionality, usability and reduced costs for consumers. Since these products will be able to have an impact on the grid, it is also necessary that they adhere to Network Codes and be highly cybersecure.

ECOS urges the European Commission to support demand-side flexibility as a key resource for a deep long-term decarbonisation by 2050, while ensuring that the flexibility products adhere to Network Codes through standards.

3. Decarbonisation of the transport sector through electro-mobility

Transport is responsible for a quarter of all greenhouse gas emissions in Europe, and it is the energy sector with the [highest increases in emissions in 2016](#). Reducing such emissions in a large and complex system requires a number of technological innovations and services, implemented in a coherent and coordinated manner. Electric Vehicles (EVs) are expected to be among the main actors in the transition to a low carbon transport sector by 2050, as well as one such major source of flexibility.

For EVs and their infrastructure, standardisation provides the means to arrive at common solutions that avoid market fragmentation, thus speeding up transport sector decarbonisation. Effective European and international standards can solve proprietary solutions that trigger issues of interoperability, higher costs for end-users and inconsistent infrastructure functionalities across member states; ultimately hampering the widespread adoption of electric vehicles in Europe.

An interoperable infrastructure supporting "smart charging" offers an opportunity to mitigate this risk through the coordination of demand and support the integration of vRES in EU power systems, thereby reducing the need for expensive grid reinforcement.

The European Commission must commit to ambitious measures for a full decarbonisation of the transport sector, and speed up the implementation of innovative transport technologies integrated in a fully renewable power system.

4. Channelling public and private investments towards clean and climate resilient activities

A long-term decarbonisation and adaptation to the consequences of climate change will not happen without massive financial investments – 180 billion each year to achieve the EU 2030 Climate and Energy targets¹. The on-going international standardisation developments on climate finance as well as the current EU work on sustainable finance contribute to the implementation of the Paris Agreement and to a deep decarbonisation to 2050.

Properly developed standards will help investors channel their investments into activities where climate-related financial risks are well managed and help achieve environmental targets.

ECOS urge the EU to develop a highly ambitious legal framework that will truly encourage public and private entities to invest into activities that mitigate climate change and strongly penalize brown investments. We also encourage the EU to ensure that their work will at worst be compatible with that of ISO and at best, inspire the drafting of ambitious international standards which would have a global impact.

5. The use of natural refrigerants for a GHG emissions reduction

Fluorinated gases have historically been used as substitutes for ozone-depleting substances in refrigeration, air-conditioning and heat pump (RACHP) systems, but have a high global warming potential (GWP) - up to 23 000 times greater than CO₂. With the so-called F-Gas Regulation, the EU committed to achieve the UN Montreal Protocol on the Ozone Layer, and fluorinated gas emissions are supposed to be reduced by two-thirds by 2030, as compared with 2014 levels. More recently, the Kigali Agreement recognised the importance of updating international standards for flammable low-GWP refrigerants.

Mainly driven by climate change, it is expected that the global stock of air conditioners in buildings will [grow to 5.6 billion by 2050, up from 1.6 billion today](#).

A significant component of this phase-down are the standards that govern the design, construction, operation, maintenance and recovery of RACHP systems, since they enable (or restrict) the use of any refrigerant. These restrictive requirements ultimately steer European and international manufacturers of RACHP systems towards synthetic refrigerants, and away from lower GWP alternatives.

It is imperative for the European Commission to keep up the ambition shown in the F-Gas Regulation, but also to require European and international standardisation organisations to eliminate the barriers posed by standards to the use of climate-friendly technologies in RACHP systems.

¹ European Commission, 2018, Fact Sheet on Commission proposals on financing sustainable growth, http://europa.eu/rapid/press-release_MEMO-18-3730_en.htm