

Technology Industries of Finland's views on the EU's post-2030 climate and energy policy

Technology Industries of Finland is committed to the objectives of the Paris Agreement to limit global warming, as well as to the European Union's objective of achieving climate neutrality by 2050. Technology Industries of Finland emphasises that the twin transition, built on clean and digital technologies, can help the Union reduce its environmental footprint while at the same time creating a vibrant and competitive economy and strengthening the resilience of our societies.

The EU's climate and energy policy framework is being revised for the post-2030 period. Technology Industries of Finland supports the EU's 90% greenhouse gas emission reduction target for 2040, which constitutes an intermediate milestone on the path towards climate neutrality in 2050. The EU's climate and energy policy for the 2030s must lay the foundation for achieving this target.

According to the impact assessments, the 2040 target requires at EU level a nearly emission-free electricity system and an increase in clean energy, a significant improvement in energy efficiency and the rate of electrification, substantial emission reductions in industry and transport, as well as the scaling-up of carbon capture. This entails the modernisation of existing industry, investment in new production, and the deployment of innovative clean technologies. Climate action must also be pursued broadly across the different sectors.

Achieving the target requires a stable and predictable operating environment for businesses, a sound economic foundation, and a cost-effective and technology-neutral climate and energy policy framework that secures the long-term operating conditions for sustainable business models and creates demand for new technologies.

Target structure

The primary objective of the EU's climate policy is to reduce emissions and achieve climate neutrality by 2050. Accordingly, the architecture of the EU's climate and energy policy must enable and promote a broad range of means for reducing emissions. In addition, indicative EU-wide targets or binding sub-targets and policy instruments set, for example, for renewable energy, energy efficiency or electrification may be necessary to promote investment and the deployment of technologies. However, they must not conflict with the overarching objective. Regulation must treat different clean technologies and emission reduction methods on an equal footing. For instance, nuclear power must be recognised in EU regulation as a source of emission-free energy.

The priorities of the Energy Union – namely energy security, the internal energy market, energy efficiency, decarbonisation, as well as research, innovation and competitiveness – remain relevant and are strongly interlinked. Attention must also be paid to the availability of clean energy at competitive prices.

In addition to targets, high-quality regulation and implementation are central. The revision of the EU's climate and energy policy for the post-2030 period must be based on comprehensive impact assessments that examine effects of the policies under consideration on climate, competitiveness and costs. Regulation must contribute to a well-functioning EU internal market while recognising the differing circumstances of the Member States.

In revising legislation, the aim must be to simplify procedures and to reduce overlapping requirements and administrative burden. At the same time, it must be ensured that the regulatory environment remains predictable, provides continuity and leaves room for effective implementation.

The EU Emissions Trading System (ETS)

Emissions trading (the ETS) is the workhorse of the EU's efforts to drive emission reductions. It is a fit-for-purpose, market-based, technology-neutral and cost-effective instrument that provides businesses with a predictable, long-term outlook for investment planning.

The trajectory for the supply of allowances must create a clear pathway towards the 2040 and 2050 climate targets and provide incentives for emission reductions and the deployment of innovative technologies. The level of ambition must remain high. For this reason, changes to the structures of the ETS, such as the Market Stability Reserve or the linear reduction factor for allowances, must also be assessed in terms of their combined effects.

The phase-out of free allocation must proceed at the same pace and according to the planned timetable as the introduction of the Carbon Border Adjustment Mechanism (CBAM).

Extending emissions trading to new activities, such as the energy recovery of waste, can help create a more level playing field between different energy sources and promote cost-effective emission reductions. Any extension of the ETS must be based on careful impact assessments. Installations using more than 95% biomass should be brought back within the scope of emissions trading.

In maritime emissions trading, the ice class of vessels must continue to be taken into account. In addition to its own emissions trading system, the EU must actively promote international carbon pricing for maritime and air transport within the frameworks of the IMO and ICAO.

Carbon capture and removals

Reducing emissions is the priority in mitigating climate change. Removals generated through technological sinks are, however, an increasingly important complementary means of achieving the climate targets. Biogenic and recycled carbon, in addition to carbon captured from the atmosphere or converted into solid form is also a valuable feedstock. In certain industrial processes and applications, such as maritime transport, the capture of fossil carbon dioxide may be a techno-economically justified means of reducing emissions.

The voluntary inclusion of permanent removals in emissions trading may offer a means of promoting carbon capture. At the same time, it is important to ensure that the inclusion of removals does not steer the use of biomass or bio-based carbon flows in an inappropriate manner. Removals must also take into account carbon that is chemically and permanently bound in products. The revision of the climate and energy policy for the 2030s must also assess other means of promoting the capture, utilisation and storage of biogenic carbon dioxide. It is important, for example, to promote the development of infrastructure for the transport of carbon dioxide.

Emissions trading must continue to enable the reduction of greenhouse gas emissions through carbon capture in the sectors falling within the scope of the Directive. Emissions trading and other climate regulation must, however, recognise the difference between carbon dioxide of fossil and of biological origin, based on their respective climate impacts. Legislation promoting carbon capture and utilisation must take into account, in addition to carbon dioxide, other applicable carbon compounds, such as carbon monoxide.

ETS 2

The new emissions trading system for fuel combustion in buildings and road transport, ETS 2, must begin operations according to the planned timetable, meaning that allowances must be surrendered for verified emissions in 2028.

Use of revenues

Emissions trading revenues should be channelled to support decarbonisation in the sectors affected by emissions trading. The revenues should be used primarily to develop and commercialise technologies that are not yet sufficiently mature or that do not enjoy a level playing field vis-à-vis fossil alternatives.

EU-level funding should be allocated competitively on the basis of project quality, for example through the Innovation Fund. New funding instruments, such as the Industrial Decarbonisation Bank, should be based on the same principles. The development of targeted funding mechanisms addressing specific decarbonisation challenges is welcome.

International credits

The limited use of international credits under Article 6 of the Paris Agreement in achieving the 2040 target can enhance the cost-effectiveness and global impact of the EU's climate policy. The credits should be used primarily as a flexibility mechanism enabling Member States to achieve their national targets and the EU's common targets. The credits should not be included in the EU Emissions Trading System.

Only high-quality credits should be accepted. These must be based on genuinely additional and permanent to make sure their use leads to material emission reductions.

International credits should be used strategically to create demand for exports of clean technologies. The use of credits should aim to strengthen partnerships that are important for the EU, and they can also support the decarbonisation of EU candidate countries such as

Ukraine and their alignment with the EU's climate and energy policy. In due course, this would directly support the achievement of the EU's climate targets.

The Renewable Energy Directive

The EU's Renewable Energy Directive is a key instrument for promoting the deployment of sustainable renewable energy technologies as well as renewable and synthetic fuels. Technology Industries of Finland has supported an indicative EU-wide renewable energy target as a means of advancing the energy transition and creating demand for new technologies. Under such an approach, Member States can set out, in their national energy and climate plans, the means best suited to their own circumstances for promoting the use of renewable energy sources.

In addition to the indicative overall target, binding sector-specific sub-targets and policy instruments can be used to promote, in a targeted manner, the deployment of renewable energy and the transition towards a clean energy system. It should always be possible to meet the obligations in a technology-neutral way, including through other low-emission solutions, provided that their climate impacts are comparable to those of renewable energy.

The revision of the Directive should simplify administrative procedures and reduce overlapping reporting requirements.

As the share of renewable electricity grows, the focus of the Renewable Energy Directive (RED) must shift towards promoting a well-functioning energy system as a whole and, on the other hand, towards targeting action at areas where the transition is less advanced. The revision must take into account security of supply, the flexibility of the energy system, firm and flexible generation that complements variable generation, demand response and energy storage, digitalisation, sector integration, and the growing importance of electricity grids.

Electricity systems are becoming ever more closely integrated with other sectors. Combined heat and power generation and the use of waste heat are increasingly complemented by stronger links to fuel production and to industry through renewable fuels and hydrogen. The EED, the RED and other instruments should encourage the EU and the Member States to plan key infrastructure jointly and on a voluntary basis and to ensure an approach that minimises overall costs and emissions.

Electricity market legislation and, where necessary, complementary instruments must ensure sufficient investment in clean electricity generation and its smooth integration through energy storage, thermal generation and demand response. Grid connections must be available rapidly, and the rules on prioritisation must be clear.

Hydrogen and renewable and synthetic fuels

Sector-specific targets have an important role to play, for example in creating demand for renewable and synthetic fuels and hydrogen. To strengthen the availability of renewable and synthetic fuels, mechanisms are also needed to aggregate demand or otherwise improve the matching of supply and demand, such as book-and-claim systems, two-sided auctions, or

the use of market intermediaries. The EU must also promote the development of a comprehensive distribution and recharging infrastructure.

In addition to demand-side targets (the RED and FuelEU Maritime), supply-side obligations should also be considered, that is, requirements that a certain share of the fuels supplied be sustainable or synthetic. Such obligations must also be assessed from the perspective of their cost and competitiveness effects. The importance of clean fuels in strengthening the EU's security of supply must be recognised. In order to increase supply, the harmonisation of the requirements for road, air and maritime transport fuels set out in the various legislative acts must also be examined.

The Commission has expressed its intention to simplify the rules on renewable fuels of non-biological origin (RFNBOs). Simplification should improve the availability of clean fuels and hydrogen and accelerate the achievement of the emission reduction targets. In assessing the RFNBO rules, consideration should be given, for example, to the necessity of the hourly correlation requirement and of the restrictions on the use of electricity based on sustainable biomass. Any changes to the rules must take into account the economic viability of projects based on the current rules. It must also be possible to meet RFNBO use obligations with hydrogen and fuels that have a comparable climate impact.

In addition to fuels, the inclusion of renewable electricity used in transport in the distribution obligation, together with other measures, has advanced the transition of transport to clean energy carriers across the board. The tools provided by the Directive also create a framework for the transition of non-road mobile machinery to clean fuels and electricity. This development must be supported by the revised Directive as well.

Bioenergy and sustainability criteria

The sustainable use of biomass, bio-based raw materials and bioenergy will continue to play an important role in achieving the climate targets and in the EU's energy system as a weather-independent and local form of energy.

The current risk-based sustainability criteria for biomass are largely a solid basis for ensuring the sustainability of biomass. Moreover, the efficiency requirements in force for bioenergy installations are, from a technological standpoint, already highly ambitious, and tightening the requirements relating to efficiency or flexibility is therefore not justified. As regards bioenergy, the focus must be on the smooth implementation of the existing legislation. Reopening the criteria would create uncertainty at a time when the national implementation of the current requirements has taken an exceptionally long time.

In order to promote the circular economy, regulation as a whole must steer waste flows so that the fractions ending up in energy recovery are those that cannot be reused. This can be promoted, for example, by requiring, within the sustainability criteria for bioenergy, that mixed waste be sorted prior to combustion. The Renewable Energy Directive currently only gives Member States the option of requiring sorting in order to remove fossil materials. A sorting requirement would increase the availability of material that can be used in the circular economy, which currently constitutes a bottleneck for the deployment of many new technologies.

Electrification target

Electrification is a key means of reducing emissions and increasing energy efficiency, and it should be promoted as part of the Renewable Energy Directive, the Energy Efficiency Directive and other climate and energy legislation. An indicative electrification target, or one in the form of an indicator (KPI), may be justified alongside other corresponding targets. A binding target is not advisable, since the principal objective must be to reduce emissions by making use of the solutions best suited to the various purposes, and a new binding target would add complexity to the policy framework. Monitoring the rate of electrification and designing measures to promote a level playing field for electrification could form a part of the Member States' national energy and climate plans.

The Energy Efficiency Directive

Improving energy efficiency has a key role in achieving the EU's climate targets. The EU must ensure sufficient incentives and policy instruments for improving energy efficiency in the post-2030 regulatory framework. Significant energy efficiency improvements can be achieved, for example, in the building stock, in industrial processes and equipment, in energy generation and energy systems, and in transport.

In the forthcoming review of the Energy Efficiency Directive (EED), Technology Industries of Finland draws attention to the EU-level targets for primary and final energy consumption. The targets must steer specifically towards improvements in energy efficiency. As the EU pursues reindustrialisation, electrification and the renewal of its economy, it is important that the targets do not prevent growth in total energy consumption while efficiency improves at the level of equipment, processes and the building stock.

Primary energy consumption in particular may increase at the same time as the economy decarbonises and grows, as a recent long-term analysis by VTT shows. An increase in electricity consumption in individual Member States, for example owing to the production of clean hydrogen, synthetic fuels or low-emission metals, may also support the achievement of the EU's climate targets as a whole. Rather than limiting total energy use, the focus should therefore be on implementing the energy efficiency first principle. In addition, hybrid targets that combine intensity-based metrics – for example, value added generated, or emissions per unit of energy – with absolute energy use must be considered.

With regard to individual measures, the EED has provided Member States with sufficient flexibility to choose the solutions best suited to national circumstances for improving energy efficiency. Voluntary energy efficiency agreements should continue to remain an option available to Member States.

Efficient district heating and cooling, and high-efficiency cogeneration

As regards the requirements for efficient district heating and high-efficiency cogeneration, the EED should recognise the various complementary fuels that support an efficient and low-emission district heating system. The current criteria allow the limited use of natural gas also in efficient district heating systems and high-efficiency cogeneration.

Corresponding flexibilities should also be ensured for sorted waste, which can be used as a complementary fuel. The energy recovery of sorted waste is a necessary means of final treatment for certain waste fractions, and its use as a substitute for natural gas would help reduce emissions at system level.

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Technology Industries of Finland (Transparency Register ID: 39705603497-38) represents Finnish technology industries and counts over 1,800 member companies, ranging from SMEs and start-ups to world leading MNEs. The organisation brings together companies from five subsectors: electronics and the electrotechnical industry, mechanical engineering, the metals industry, design and consulting, and information technology. The Finnish technology industry is the nation's most prominent export industry, with operations constituting over 50 % of all Finnish exports and accounting for 70 % of all private investments.