BRIEFING

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European policies on climate and energy towards 2020, 2030 and 2050

SUMMARY

The policies of the European Union (EU) on climate and energy are described, as well as the challenges that must be faced in order to achieve the Paris Agreement target of keeping the increase in global temperature well below 2°C and to pursue efforts to achieve 1.5°C. The EU has already made a commitment to reduce greenhouse gas (GHG) emissions by at least 20% below 1990 levels by 2020, while improving energy efficiency by 20% and increasing the share of renewable energy sources to 20%. In October 2014, the EU's framework for energy and climate was approved. Its aim was to reduce GHG emissions by at least 40% below 1990 levels by 2030, at the same time setting new targets for both renewable energy sources and energy efficiency. The target of 40% by 2030 was the basis for the EU's position before the international climate negotiations in Paris in December 2015, where a global agreement on climate was reached. In order to achieve the above-mentioned targets for 2020 and 2030, a large number of legislative actions were approved at EU level, including the emissions trading system, renewable energy sources, highly energy efficient buildings and products, standards for car emissions and emissions from fluorinated gases. Within the framework of the Paris Agreement, the European Commission also submitted, in November 2018, a strategy for a climate neutral economy by 2050, providing a cost-efficient trajectory towards the attainment of the target of net-zero emissions adopted in the Paris Agreement.

Introduction

The EU faces major challenges from the increased threats of climate change, with serious consequences in the energy sector, where urgent issues are arising concerning the national production mix of each Member State. The renewable energy share needs to be increased, and energy efficiency needs to be improved. In order to prevent dangerous climate change, the EU is working to reduce the GHG emissions it produces, at the same time encouraging other nations and regions to do the same. The EU, which is responsible for approximately 10% of global GHG emissions,[1] is playing a leading role with regard to the shift to an economy with net-zero GHG emissions. In recent decades it has managed to decouple GHG emissions from economic growth in Europe, through better energy efficiency, policies for a transition to other forms of fuel and the penetration of renewable energy sources, which have had a major effect on reducing these emissions.

The EU's policies on climate and energy are based on Articles 191-194 of the Treaty on the Functioning of the European Union. Under Article 191, combating climate change is one of the objectives of the EU's environment policy, while under Article 194 the EU promotes energy efficiency and energy saving and the development of new and renewable forms of energy.

The EU spends a substantial part of its budget on expenditure to support its policy in relation to climate and energy. Specifically, the EU's research programmes emphasise affordable, secure and sustainable energy

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technologies and other scientific solutions for an economically efficient transition to a society with net-zero emissions that is climate-resilient and efficient in terms of management of natural resources. With regard to renewable energy technologies, their cost must be further reduced and their performance must be improved, as well as their incorporation into the energy system; new state-of-the-art technologies must also be developed. With regard to fossil fuels, where their use cannot be replaced, it will be necessary to reduce to zero the carbon dioxide (CO2) produced, mainly through carbon capture, use and storage.

This briefing describes the EU's policies on climate and energy that enable the EU to achieve its commitments for 2020 and the Kyoto Protocol, as well as the challenges that must be faced in order to attain its targets for 2030 and the Paris Agreement, to which the EU and its Member States are co-signatories. In addition, the briefing describes the proposed roadmap to 2050 and the different ways in which the EU can achieve its target of reducing GHG emissions, in order to keep warming caused by climate change at less than 2°C, or even 1.5°C. However, other related EU policies for reducing GHG emissions, such as those on transport, the circular economy, non-CO2 GHGs (e.g. fluorinated gases), are not covered in this briefing.

Fulfilment of the EU's commitment for 2020

The climate and energy package

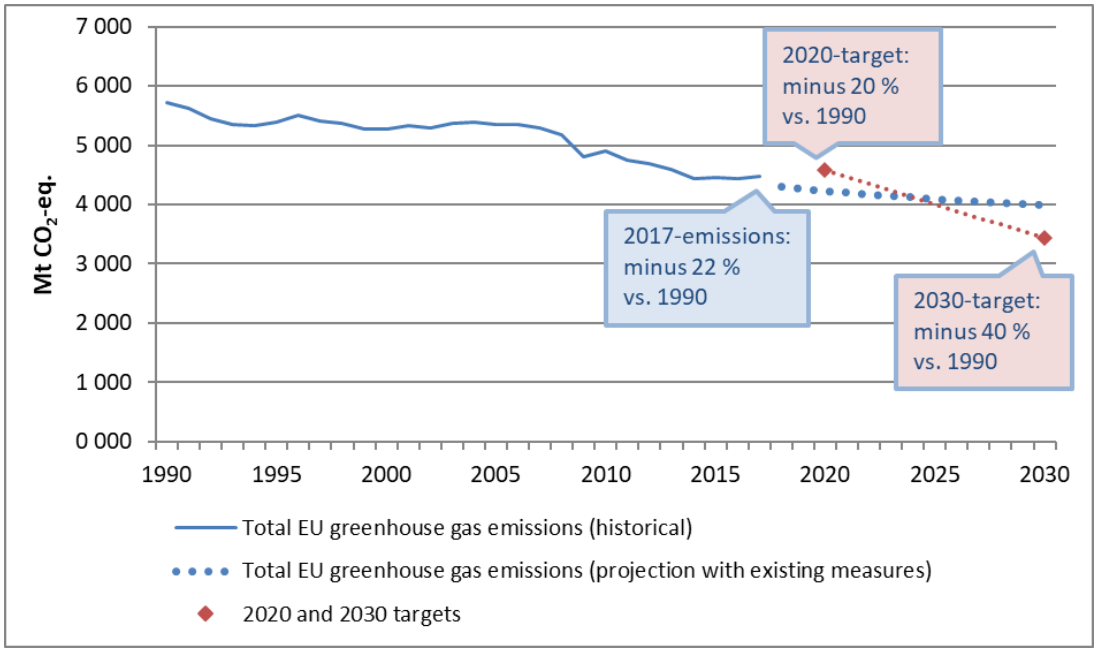
At the European Council of March 2007, the EU set targets to be met by 2020, with the aim of:

- reducing GHG emissions in the EU by at least 20% below 1990 levels,
- increasing the share of energy consumption from renewable sources to 20%,
- improving energy efficiency in order to reduce the use of primary energy by 20% compared to forecast levels.

In January 2008, the European Commission proposed binding legislation, known as the 'climate and energy package', in order to achieve the above targets. The package was agreed by the European Parliament and the Council in December 2008 and became law in June 2009. The EU had proposed to gradually intensify the reduction of its emissions, from 20% to 30% by 2020, on the condition that other major economies undertook to do their part in the global attempt to reduce emissions.

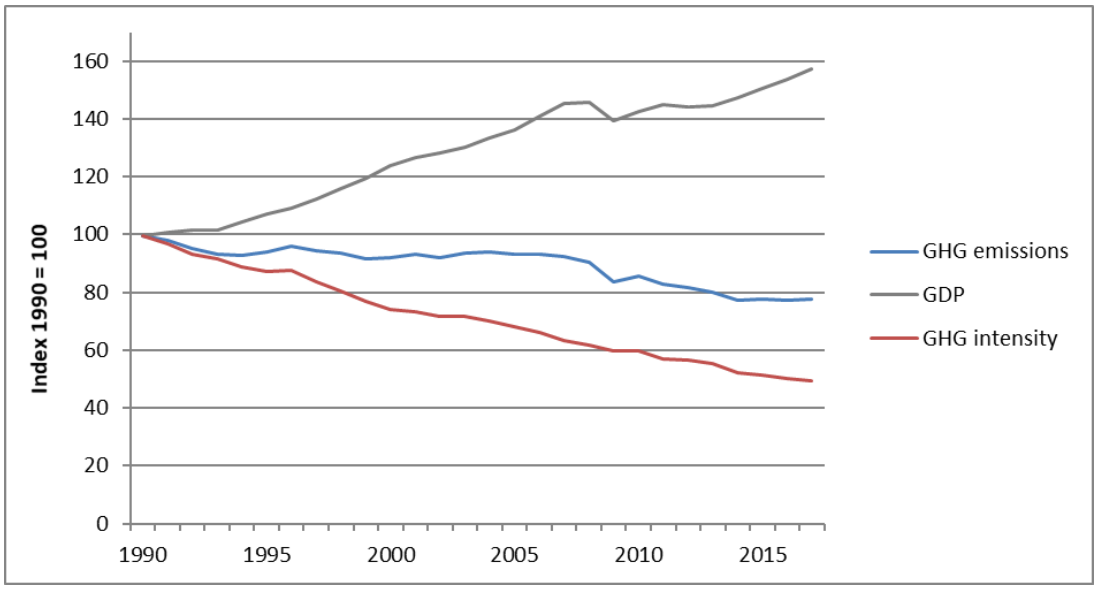
The EU remains on the right path to achieve the target of reducing GHG emissions by 20% below 1990 levels by 2020. In 2017, GHG emissions in the EU had decreased by 22% according to preliminary data, which also covered emissions from international air transport, but not emissions or removals resulting from land use, land use change or forestry activities.[2] Given that, according to Member States' forecasts, emissions will decrease further, the EU expects to overachieve its target by 2020. Under the policies that have been implemented to date and without any further measures, emissions in 2030 are forecast to be 30% lower than 1990 levels (Figure 1). The EU is also on the right path to achieve the quantitative targets it has set for 2020 for renewable energy and energy efficiency. The share of energy from renewable sources in the gross final consumption of energy increased from 8.5% in 2004 to 17% in 2016.[3] The EU has achieved the desired cumulative energy savings target for 2020 in the 2000-2014 period, as the EU's primary energy consumption has decreased during this period.[4] However, greater efforts are required in the coming years, mainly by the Member States that recorded amounts of savings below the required levels for the period 2015- 2017. This is because the EU energy consumption, after the 2016 and 2017 rose, now lies above the indicative trajectory towards 2020.[5] Overall, the EU is demonstrating that this transition to clean energy is not only feasible, but also profitable, as well as helping to combat climate change. The EU's pursuit of the above quantitative targets has already created new industrial sectors and new jobs in Europe, as well as an increase in technological innovation, reducing the cost of the respective technologies.

Figure 1: Total GHG emissions in the EU (historical emissions 1990-2017, forecast emissions 2018-2030) (in million tonnes of CO2 equivalent) and targets for reduction of GHG emissions[2]



During the last years, the decoupling of economic activity from GHG emissions continued in the EU. The economy's GHG emission intensity, which is defined as the ratio of emissions to Gross Domestic Product (GDP), fell to its lowest level yet of 315g CO2 equivalent per euro, which corresponds to half the level in 1990.[2] Between 1990 and 2017, the combined GDP of the EU increased by 58% while total GHG emissions fell by 22% (Figure 2).

Figure 2: GHG emissions, actual GDP and GHG emission intensity in the EU[2]



Revised emissions trading system

Set up in 2005, the EU Emissions Trading System (ETS) is the world's first international emissions trading system. The ETS includes all EU countries plus Iceland, Liechtenstein and Norway. It seeks to cut GHG emissions from the power sector and major industry cost-effectively by putting a market price on emissions through the application of a cap and trade policy. The ETS applies to some 11000 power stations and other large-scale industrial facilities and covers around 45% of the EU's total GHG emissions. In 2012, the ETS was expanded to include aviation emissions.

The ETS is underpinned by the Emissions Trading Directive, which was significantly revised and strengthened.[6] The revision applied from 2013, the start of the third trading period of the ETS, and introduces to the system:

- a single EU-wide cap on emission allowances (cut each year by 1.74%), replacing the system of national caps, so that by 2020 emissions will be 21% below 2005 levels (Figure 3),
- auctioning (purchase of emission allowances) to progressively replace the free allocation of allowances, starting with the power sector,
- broader coverage in terms of sectors and gases.

Effort Sharing Decision

The second legislative act in the package is the Effort Sharing Decision (ESD). This establishes binding annual targets for each EU Member State for GHG emissions reduction in the sectors not included in the ETS. These sectors, which account for the remaining 55% of total domestic EU emissions, include construction and agriculture, the non-ETS industry, the waste sector and transport (except for aviation which is part of ETS).[7]

The national targets, which cover the 2013-2020 period, vary in line with the relative wealth of the EU countries. They range from a 20% emissions reduction (from 2005 levels) for the richest EU countries to a 20% increase for the least wealthy. However, all countries must seek to reduce their emissions and must submit annual reports on their emissions, based on the EU monitoring mechanism.

National renewable energy targets

Under the Renewable Energy Directive, EU countries are given binding targets to raise the share of renewable energy in their energy consumption by 2020.[8] These targets depend on each country's use of renewables and the potential to increase their production, ranging from 10% in Malta to 49% in Sweden.

The national targets will enable the EU as a whole to reach its 20% renewable energy target for 2020 (it was 8.5% in 2004 and reached 17% in 2016) and a 10% share of renewable energy in the transport sector (it was 1.4% in 2004 and reached 7.1% in 2016).[3] The above targets will also help to cut GHG emissions and reduce the EU's dependence on imported energy. At least 10% of transport fuel in each country must be renewable (e.g. biofuels, hydrogen produced by electrolysis, electricity from renewable sources). Biofuels must meet agreed sustainability criteria.

Carbon capture and storage

The fourth part of the climate and energy package is a directive creating a legal framework for the environmentally safe use of carbon capture and storage (CCS) technologies. CCS involves capturing the CO2 emitted by industrial processes and storing it in underground geological formations where it does not

contribute to global warming.[9] The Directive covers all CO2 underground storage in the EU and lays down requirements that apply to the entire lifetime of storage sites.

Climate change adaptation

Moreover in April 2013, the European Commission adopted an EU strategy on adaptation to climate change which aims at making Europe more climate-resilient.[10] It promotes greater coordination and information sharing between Member States and fosters the mainstreaming of adaptation into all relevant EU policies. The adaptation strategy calls for all Member States to adopt national plans to cope with the inevitable impacts of climate change by 2017. By December 2018, 25 Member States have already developed adaptation strategies (except Bulgaria, Croatia and Latvia). These strategies include measures such as using less water, adapting building regulations, building flood defences, developing crops that cope better in drought conditions, etc.

In November 2018, the Commission published a report on the evaluation of the EU's strategy for adaptation to climate change.[11] The strategy has delivered on its objectives to promote action by Member States and to support better-informed decision-making. Through the strategy, adaptation has permeated and guided a wide range of the EU's own key policies and funding programmes, and reinforced links with disaster risk reduction, infrastructure resilience and the financial sector. Nevertheless, the evaluation outlines how Europe is still vulnerable to climate impacts within and outside its borders and suggests areas where more work needs to be done to prepare vulnerable regions and sectors.

Financial support 2014-2020

Under the Multiannual Financial Framework (MFF) 2014-2020, at least 20% of the EU's budget — as much as EUR 206 billion — should be spent on protecting the climate. Climate financing has been intergrated in most EU actions, including cohesion, agriculture, external aid, energy and transport, etc. The most recent available data show that the relevant expenditure amounted to 20.1% of the 2017 budget.[2] This amount is in addition to the funding from individual EU countries. The EU also finances low-carbon energy demonstration projects from the sale of emission certificates, including projects with CCS technologies.

International policy on climate: from the Kyoto Protocol to the Paris Agreement

The Kyoto Protocol was, until the Paris climate conference in December 2015, the world's only legally binding agreement to reduce GHG emissions. The Kyoto Protocol, adopted in 1997 at the Third Conference of the Parties (COP3) to the United Nations Framework Convention on Climate Change (UNFCCC), contains pledges by participating industrialised nations to reduce their total emissions of six GHGs (CO2, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride) by an average of 5% over the first commitment period (2008-2012) compared to 1990 levels.

At the Doha Conference (COP18) in December 2012, the Parties to the UNFCCC adopted the Doha Amendment, establishing a second commitment period of the Kyoto Protocol (2013-2020). The nitrogen trifluoride was added as the seveth GHG to be addressed by the Kyoto Protocol. Although the Doha Amendment to the Kyoto Protocol has not yet been implemented, the EU is fulfilling its commitment to reduce the GHG emissions it produces by at least 20% below 1990 levels for the 2013-2020 period.

On 12 December 2015, the Parties to the UNFCCC adopted the Paris Agreement at COP21, a new legally-binding framework for an internationally coordinated effort to tackle climate change. The Agreement

reached after six years of intense climate negotiations, since the failure of the 2009 Copenhagen Conference (COP15). It entered into force on 4 November 2016 after it had been ratified by the minimum number of 55 governments representing at least 55% of total global GHG emissions. The Agreement establishes a global warming goal of well below 2°C, while trying to maintain it at 1.5°C above pre-industrial averages. To accomplish these goals, the Parties aim to reach a global peak of GHG emissions as soon as possible, and to achieve net-zero emissions in the second half of this century. For the first time, all countries will develop plans on how to contribute to climate change mitigation and communicate their 'nationally determined contributions - NDCs' to the UNFCCC. The Agreement requires countries to formulate progressively more ambitious climate targets which are consistent with these goals, so that the collective progress can be assessed (Global Stocktake). The Paris Agreement recognizes the different starting points and responsibilities of countries, and emphasizes that the Agreement will be implemented in accordance with the 'principle of common but differentiated responsibilities and respective capabilities'. This means that developed countries have to continue to take the lead in mitigating climate change and support the actions taken by developing countries.

However, even if all the NDCs committed to by Parties to the Paris Agreement are added together, the increase in average global temperature is predicted to exceed 3°C by the end of this century.[12] In October 2018, the Intergovernmental Panel on Climate Change (IPCC) issued its Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global GHG emission pathways. The scientific assessment demonstrates that human-induced global warming has already reached 1°C above pre-industrial levels and is increasing at approximately 0.2°C per decade. Without increasing ambition in international climate action, global average temperature increase could reach 2°C soon after 2060 and will continue rising afterwards.[13] It was previously assumed that limiting warming to 2°C would be enough to avoid a worse-case climate scenario. However, the ICC Special Report reveals that limiting warming to 1.5°C above pre-industrial levels will be critical, if we are to preserve life on the planet as we know it.

In December 2018, at the Katowice UNFCCC Conference (COP24), Parties agreed to a common rulebook for the implementation of the Paris Agreement. It includes, among others, a reporting and review system which captures climate impacts and consequences (loss and damage), capacity building mechanisms that help those countries with limited government resources to improve their accounting and reporting, a process for defining inputs and outputs of the five-yearly Global Stocktake, etc. However, there was no agreement on the guidelines for voluntary carbon markets. Parties have also collectively reaffirmed 2020 as the moment to communicate their new NDCs with increased ambition and to submit mid-century strategies.

The EU's targets for 2030

The energy and climate framework

At the European Council of October 2014, the EU set domestic GHGs reduction target of at least 40% below 1990 levels by 2030, along with the other main building blocks of the 2030 policy framework. The EU also set targets of at least 27% for renewable energy and energy efficiency by 2030. The EU's aim was to make the economy and the energy system more competitive, secure and sustainable.

Following the Paris Agreement, the EU adopted a large number of legislative actions that will enable it to deliver on its commitment to reduce GHG emissions by at least 40% by 2030. Negotiations between the European Parliament and the Council also raised the level of the EU targets for renewable energy sources and energy efficiency to 32% and 32.5% respectively. Together, if fully implemented, it is estimated that these measures will result in a cut in EU emissions of around 45% by 2030. In its Resolution of 25 October 2018 on the 2018 Katowice UNFCCC Conference (COP24), the European Parliament supported updating the EU's target to reduce GHG emissions to 55% below 1990 levels by 2030.[14]

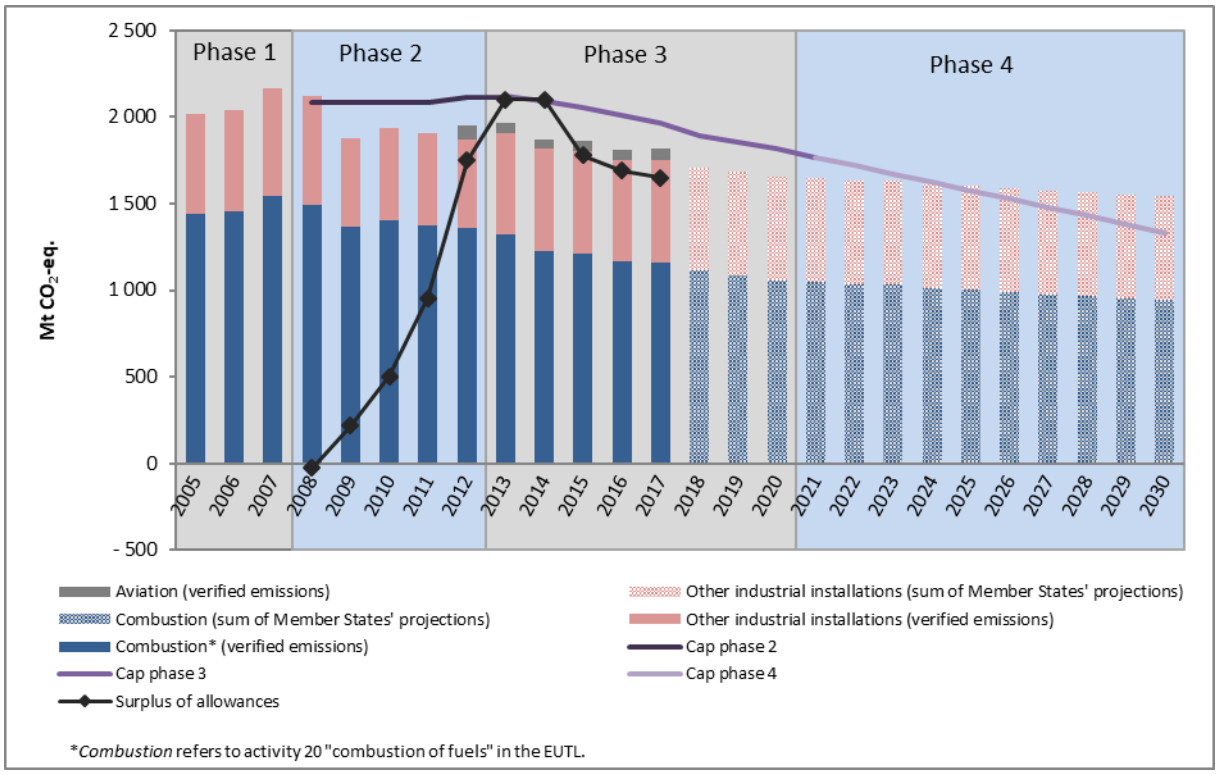
The EU has set its above targets for 2030 in accordance with a pathway of a 2°C increase in temperature and it is likely that it will continue to have the lowest per-GDP GHG emissions rate of the G20 countries by 2030.[2] However, other countries with developed economies whose GHG emissions continue to increase must speed up the process of reducing GHG emissions so that the increase in temperature may in fact be limited to a level that is well below 2°C, or even to 1.5°C.

Moreover, an EU Framework Strategy for the Energy Union was published by the Commission on 25 February 2015.[15] It is based on three long-term objectives: security of supply, sustainability and competitiveness. Its foundations are the 2030 energy and climate framework and the 2014 strategy for energy security,[16] and it integrates a series of policy areas into one unified and cohesive strategy. The Energy Union is structured around five mutually supportive sectors: (a) energy security, solidarity and mutual trust, (b) energy efficiency as a contribution to the moderation of energy demand, (c) a decarbonised economy, (d) research, innovation and competitiveness and (e) completion of the internal energy market.

Revision of the ETS regulatory framework

In November 2017, the European Parliament and the Council reached an agreement on the revision of the EU ETS for the post-2020 period, which was adopted in March 2018.[17] Among other things, it reduces the emissions cap further by raising the linear reduction factor to 2.2% a year (compared to 1.74 % currently), as of 2021. This means that, between 2021 and 2030, emissions will be cut by 48 Mt CO2-equivalent a year, as compared with 38 Mt in the current trading phase, thus keeping the EU ETS on track to meet its emissions reduction target by 2030. Under the revised ETS, the industrial emissions will be 43% lower than 2005. As shown in Figure 3, Member States' own projections, dating from 2017 for most Member States, show a smaller decrease in emissions than required by the ETS. The revised Directive addresses the surplus of allowances that has been built up since 2009, mainly as a result of the economic crisis. Over the last three years, the surplus has been declining steadily, by almost half a billion allowances (Figure 3).

Figure 3: Verified ETS emissions 2005-2017, projected ETS emissions 2018-2030, ETS cap phases 2, 3 and 4, accumulated surplus of ETS allowances 2008-2017 (Mt CO2-equivalent). Aviation is included in the cap for 2012-2017[2]



Effort Sharing Regulation

In the Effort Sharing Regulation (ESR), adopted in May 2018, the reduction of emissions in effort sharing sectors by 30% by 2030 is expressed in the form of binding annual GHG emissions reductions for each Member State for the period 2021–2030.[18] The ESR recognises that Member States' ability to take action varies and it sets differentiated national targets that primarily reflect per capita GDP. The 2030 national targets range from 0% to 40% compared with 2005 levels.

The ESR maintains the forms of flexibility that exist under the current ESD (e.g. banking, borrowing, buying and selling of emission allocations between Member States). In addition, eligible Member States will be allowed to use a limited number of ETS allowances, and all Member States will be allowed to use a limited amount of emissions removals in land use sectors to meet part of their targets.[2]

Energy efficiency and energy from renewable sources

In June 2018, the European Parliament and the Council reached an agreement on:

- the revised Directive on Energy Efficiency, which sets an energy efficiency target of 32.5% for the EU by 2030, with a clause for upward revision by 2023. It also extends the annual energy saving obligation beyond 2020.[19]

- the Renewable Energy Directive, which sets a binding renewable energy target of 32% for 2030, including a 2023 review clause for upward revision of the EU level target.[20] It also improves the design and stability of support schemes for renewables; pursues streamlining and reduction of administrative procedures; raises the level of ambition for the transport and heating/cooling sectors; and includes new sustainability criteria for forest biomass, aimed at minimising the risk of using unsustainable feedstock for energy generation in the EU.

In addition, in May 2018, the revised Directive on Energy Performance in Buildings was adopted. This includes measures that will accelerate the rate of building renovation towards more energy-efficient systems and improve the energy performance of new buildings, with the use of intelligent energy management systems.[21]

Governance of the Energy Union

In June 2018, the European Parliament and the Council reached an agreement on the Regulation on the governance of the Energy Union.[22] The new governance system will help to ensure that the EU and the Member States achieve their 2030 goals as regards GHG emissions reductions, renewables and energy efficiency. Member States will prepare national energy and climate plans for 2021-2030 and report on their progress in implementing the plans, mostly every two years, while the Commission will monitor the progress of the EU as a whole. The EU and Member States will also prepare long-term strategies, covering a period of at least 30 years from 2020 onwards. The Regulation will incorporate the existing EU climate monitoring and reporting mechanism and update it in line with the Paris Agreement's transparency requirements.[2]

Land use, land-use change and forestry

In May 2018, the EU adopted the Regulation on land use, land-use change and forestry (LULUCF), which incorporates emissions and removals from land into the 2030 climate and energy framework.[23] This is in line with the Paris Agreement, which points to the critical role of land use in reaching long-term climate mitigation objectives. The LULUCF Regulation establishes the EU's commitment for 2021-2030 to produce net-zero emissions from the described scope of the Regulation. Its scope covers all managed land, including

forest, cropland, grassland and wetland by 2026. It simplifies and upgrades the accounting methodology under the Kyoto Protocol and Decision No 529/2013/EU.[24] It also establishes a new EU governance process for monitoring how Member States calculate emissions and removals from activity in their forests.

At present, the EU's land absorbes more CO2 emissions than it emits and the LULUCF Regulation focuses on creating incentives at least to preserve this situation. It requires each Member State to ensure that accounted emissions from land use are entirely compensated for by an equivalent removal of CO2 from the atmosphere through action in the sector. This rule means that Member States have to offset emissions from deforestation, for instance, by equivalent carbon sinks from afforestation or improving the sustainable management of existing forests. The rules allow Member States some flexibility, e.g. if a Member State has net removals from land use and forestry, it will be able to transfer those quantities to other Member States.[2]

Financial support 2021-2027

In May 2018, the European Commission proposed a new MFF for the 2021-2027 period with a budget of EUR 1134,6 billion, fully tailored to the EU's priority policies. The proposed budget combines new instruments with modernised programmes with the aim of meeting challenges such as climate change, with 25% of its expenditure going towards that aim.[2]

Two of the programmes in the financial framework deserve to be mentioned specifically. The Horizon Europe programme, with a total budget of EUR 97.6 billion, is a research and innovation programme and a driver of economic growth and jobs. Its aim will be to support EU policies such as the transition to a low-carbon economy, the protection of the environment and climate actions. In addition, the LIFE programme, with an allocation of EUR 5.4 billion, is the programme for the environment and climate action. It focuses on developing and implementing innovative ways to respond to environmental and climate challenges, such as the transition to clean energy.

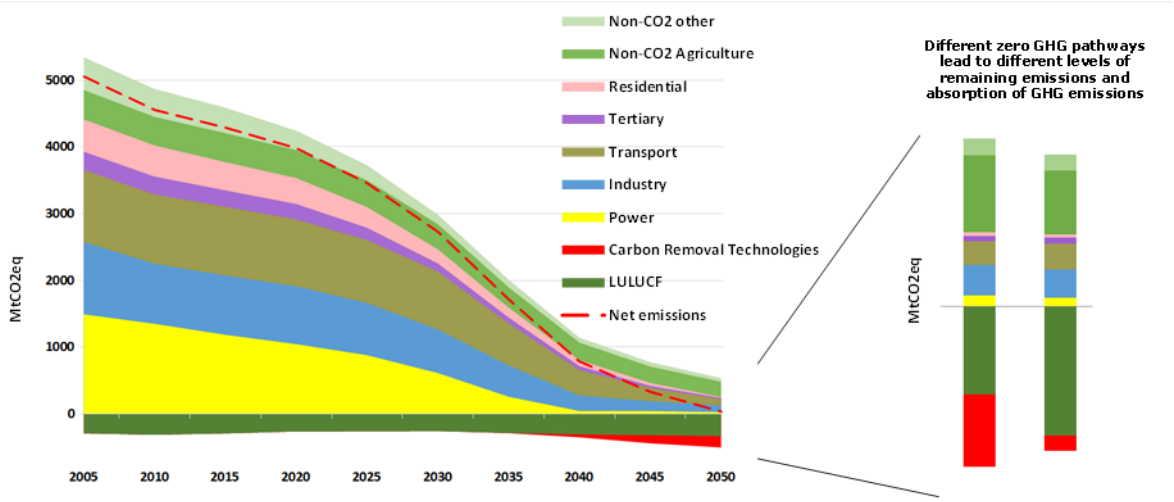
The long-term 2050 target

In March 2011, the European Commission published, for the first time, an energy roadmap up to 2050 on how to reduce GHG emissions in order to keep global warming caused by climate change at less than 2°C.[25] In its analysis, the Commission stated that the most economically efficient way of achieving the overall target is to reduce domestic emissions by 40%, 60% and 80% below 1990 levels by 2030, 2040 and 2050 respectively. The roadmap outlines milestones which will show whether the EU is on track for reaching its target, policy challenges, investment needs and opportunities in different sectors, bearing in mind that the long-term target in the EU will largely need to be met through actions inside the EU.

Within the framework of the commitments laid down in the Paris Agreement, in November 2018 the European Commission published a new long-term strategy which confirms Europe's commitment to lead on global climate action and to achieving net-zero GHG emissions by 2050, through a socially fair transition in a cost-efficient manner.[1] The proposed strategy underlines the opportunities that this transformation offers to European citizens and its economy, whilst identifying challenges ahead. The strategy does not intend to launch new policies, nor does the European Commission intend to revise the 2030 targets. It is rather meant to set the direction of transition of EU climate and energy policy, and to frame what the EU considers as its long-term contribution to achieving the Paris Agreement temperature objectives, in line with the UN Sustainable Development Goals, which will further affect a wider set of EU policies. The strategy opens a thorough debate involving European decision-makers as to how Europe should prepare itself, looking towards a 2050 horizon, and the subsequent submission of the European long-term strategy to the UN Framework Convention on Climate Change by 2020.

The new long-term strategy includes an analysis that covers different scenarios concerning the EU's contribution to the Paris Agreement targets and the UNFCCC commitments, including scenarios concerning the attainment of net-zero GHG emissions inside the Union by 2050 and subsequently for harmful emissions, as shown in Figure 4. The EU's new long-term strategy describes pathways for the whole of the economy with different choices for reducing CO2 emissions and their consequences on technological choices and socio-economic factors in all the main sectors of the economy. This includes a wide range of sectors, starting from the central role of energy, and including buildings, transport, industrial production and services provision, waste management, agriculture and land use, as well as the use of natural resources.

Figure 4: GHG emissions under the scenario of a global temperature increase of 1.5°C[1]



The long-term strategy looks into the portfolio of options available for Member States, business and citizens, and how these can contribute to the modernisation of our economy and improve the quality of life of Europeans. It also seeks to ensure that this transition is socially fair and enhances the competitiveness of the EU economy and industry on global markets, securing high-quality jobs and sustainable growth in Europe. Finally, it helps to address other environmental challenges, such as air quality or biodiversity loss.

The road to a climate neutral economy would require joint action in seven strategic areas: (a) energy efficiency; (b) deployment of renewables; (c) clean, safe and connected mobility; (d) competitive industry and circular economy; (e) infrastructure and interconnections; (f) bio-economy and natural carbon sinks; (g) CCS to address remaining emissions. Pursuing all these strategic priorities would contribute to making this vision a reality.

Conclusions

The Paris Agreement has put in motion nearly universal global action for climate and the EU is at the forefront of these efforts to tackle the root causes of climate change. The EU is stepping up its actions to implement the NDC that it committed to by 2030 under the Paris Agreement. For this purpose, the adoption of legislation relating to many different economic activities is ongoing up until the end of the current term of the European Parliament, in May 2019. However with the current unsufficient committments submitted by the Parties to the Paris Agreement, the EU needs to take climate action at global level. The EU should

further reinforce its capacity for climate diplomacy and strengthen its geopolitical relations by shaping accordingly its foreigh policy, but also trade, development, aid, security and conflict prevention.

Meanwhile, in line with its commitments under the Kyoto Protocol, the EU is on track to achieve all three quantitative targets it has set for 2020, on the reduction of GHG emissions, renewable energy and energy efficiency, being able to prove that economic development could be achieved in parallel with significant GHGs emission reductions.

Finally, as required by the Paris Agreement, the EU is reviewing its long-term strategy with a view to adopting it by 2020, taking into account the results of the 2018 IPCC report, with the aim of becoming a climate-neutral economy by 2050.

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[9] Directive 2009/31/EC of the European Parliament and of the Council of 23 April 2009 on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006 (OJ L 140, 5.6.2009, p. 114–135).

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[17] Directive (EU) 2018/410 of the European Parliament and of the Council of 14 March 2018 amending Directive 2003/87/EC to enhance cost-effective emission reductions and low-carbon investments, and Decision (EU) 2015/1814 (OJ L 76, 19.3.2018, p. 3–27).

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[19] Directive (EU) 2018/2002 of the European Parliament and of the Council of 11 December 2018 amending Directive 2012/27/EU on energy efficiency (OJ L 328, 21.12.2018, p. 210–230).

[20] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (OJ L 328, 21.12.2018, p. 82–209).

[21] Directive (EU) 2018/844 of the European Parliament and of the Council of 30 May 2018 amending Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency (OJ L 156, 19.6.2018, p. 75–91).

[22] Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action (OJ L 328, 21.12.2018).

[23] Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of GHG emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU (OJ L 156, 19.6.2018, p. 1-25).

[24] Decision No 529/2013/EU of the European Parliament and of the Council of 21 May 2013 on accounting rules on GHG emissions and removals resulting from activities relating to land use, land-use change and forestry and on information concerning actions relating to those activities (OJ L 165, 18.6.2013, p. 80–97).

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