eurelectric
powering people

Public consultation for the EU climate ambition for 2030 and for the design of certain climate and energy policies of the European Green Deal

Eurelectric response paper

June 2020

Eurelectric represents the interests of the electricity industry in Europe. Our work covers all major issues affecting our sector. Our members represent the electricity industry in over 30 European countries.

We cover the entire industry from electricity generation and markets to distribution networks and customer issues. We also have affiliates active on several other continents and business associates from a wide variety of sectors with a direct interest in the electricity industry.

We stand for

The vision of the European power sector is to enable and sustain:

- A vibrant competitive European economy, reliably powered by clean, carbon-neutral energy
- A smart, energy efficient and truly sustainable society for all citizens of Europe

We are committed to lead a cost-effective energy transition by:

investing in clean power generation and transition-enabling solutions, to reduce emissions and actively pursue efforts to become carbon-neutral well before mid-century, taking into account different starting points and commercial availability of key transition technologies;

transforming the energy system to make it more responsive, resilient and efficient. This includes increased use of renewable energy, digitalisation, demand side response and reinforcement of grids so they can function as platforms and enablers for customers, cities and communities;

accelerating the energy transition in other economic sectors by offering competitive electricity as a transformation tool for transport, heating and industry;

embedding sustainability in all parts of our value chain and take measures to support the transformation of existing assets towards a zero carbon society;

innovating to discover the cutting-edge business models and develop the breakthrough technologies that are indispensable to allow our industry to lead this transition.

Dépôt légal: D/2020/12.105/38

Generation & Environment Committee

Contact:
Hélène LAVRAY, Senior Advisor Renewables & Environment –
hlavray@eurelectric.org

As an industry, we are committed to deliver carbon neutral power supply well before 2050[1] and to make a key contribution to the decarbonisation of transport, buildings and industry through electrification. Eurelectric supports the ambition of net-zero greenhouse gas (GHG) emissions in the European economy by 2050[2]. In a context of increased emission reductions up to -55% by 2030, burden-sharing between ETS and non-ETS sectors will be determinant for future trajectories. The impact assessment to be made by the European Commission on the consequences it will have and on the changes implied by the Covid-19 crisis is necessary to define precisely new targets in the context of the European Green Recovery plan. Further, in the context of the EU Recovery Plan a better outline is needed on the implications a higher target would have in terms of burden sharing between the Member States.

1. A clear decarbonisation pathway

Going climate neutral means that, by 2045, the power sector needs to invest €100 billion per year in generation and storage alone. However, yearly investments are currently insufficient, in the range of €60 billion per year. Significant investments will also be required in infrastructure and transmission and distribution grids, including their digitalisation, in the range of €60 to 110 billion per year[3]. Going forward, predictable, long-term, stable, transparent and market-based frameworks are needed to ensure the necessary investments in renewables, carbon neutral energy sources and key transition enabling technologies such as storage, Power-to-X and demand side flexibility, while addressing the security of supply challenge.

Considering the overlapping effects between Greenhouse Gases (GHG), Renewables (RES) and Energy Efficiency (EE) targets, any change in targets should be decided on the basis of a thorough impact assessment ensuring that the decarbonisation is maintained on a cost efficient pathway.

As demonstrated by the European Commission's long-term scenarios, a carbon neutral power system will be dominated by renewable energy sources, which would represent more than 80% of the electricity mix by 2045, complemented by other carbon neutral sources. Sharp decrease in costs of clean technologies, in particular renewables, will need to be reflected in the upcoming assessment. A significant acceleration of the pace of renewables deployment is necessary to achieve the CEP RES target, with a yearly capacity addition superior to what has been achieved so far. Focus must be on implementing the CEP and continuously working towards an integrated European market. Policymakers should allow the markets to work freely, as much as possible unhindered by distortions and interventions, while efforts to streamline authorisation and permitting processes and legal frameworks should continue. Public acceptance issues should be addressed in line with best practice tools.

A successful and cost-effective transition also relies on using energy in a more efficient way. This would reduce the carbon footprint in all sectors by promoting reliable carbon-free technologies and by developing innovative services as well as electric solutions through the use of the most energy-efficient vector.

---

[1] European power sector calls for a climate neutral economy by 2050, April 2020

[2] The EU power sector supports the ambition of net-zero greenhouse gas emissions in the European economy by 2050 – key enablers are needed, September 2019. Eurelectric's Polish member association PKEE supporting the need for a transformation towards innovative and low-emission economy, could be able to support the EU 2050 Climate ambition assuming that prior to establishing EU climate-neutrality binding measures, a fair burden-sharing mechanism will be created taking into account compensations for Member States with different starting points.

[3] A Clean Planet for all A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy, COM (2018) 773 final.

See Eurelectric, E-invest. The power sector investment challenge: €100bn per year and counting, September 2019.

2. Clean and smart electrification at the heart of the energy transition

Carbon-neutral electricity is clearly the main contributor to the transition towards a climate neutral Europe, mainly through direct electrification but also transformed into another energy vectors. Not only will it enable the decarbonisation of fossil-dependent sectors, it will also make energy supply more efficient, secure and affordable.

It is crucial to deliver on electric mobility through the acceleration of the roll out of electric charging infrastructure to drive emission reductions in the transport sector by revising the Alternative Fuels Infrastructure Directive and the EU guidelines for the development of the trans-European transport (TEN-T) network. It is also necessary to ensure the effective integration of electric vehicles in the power system by removing the remaining barriers to smart charging and vehicle to grid services. It would need significant investments in grid infrastructure which will play a key role in the integration of RES and decentralised energy generation into the system.

Electrification will also accelerate emission reductions in buildings. It is important to capitalise on the key role of clean electricity in decarbonising buildings and to acknowledge the energy efficiency benefits from electrification via key technologies such as heat pumps. It will also be necessary to foster sector integration and carbon neutral power-to-x technologies to unlock system benefits, increase energy efficiency and the use of clean energy in the heating & cooling sector.

3. Making the EU ETS fit for purpose under the Green Deal

The European Green Deal and the European Climate Law should enable climate neutrality by 2050 and an increased emission reduction of up to 55% by 2030. One of the main policy tools to achieve this is the EU Emissions Trading System (ETS). Eurelectric supports an EU ETS geared to reaching the net zero in Europe by 2050 and the increased 2030 target. The Linear Reduction Factor (LRF) and compensatory mechanisms such as the Modernisation Fund should be appropriately adjusted in the EU ETS Directive as soon as feasible after the adoption of a 2050 climate neutrality target. The adjustment of LRF should also take into account the changes to the EU 2030 targets as well as the consequences for the time after 2030 to reach carbon neutrality by 2050.

A holistic view of all the measures to be decided under the current legislature in the field of energy and climate policies is necessary to ensure that the decarbonisation trajectory is cost-effective. The Market Stability Reserve review in 2021 has to take into account any changes to the EU level of ambition to 2030 and the impact of allowances in the aviation sector with the ultimate aim of maintaining market stability and meaningful ETS prices. If changes are considered for RES and EE targets, their effects on the ETS should be assessed in order to identify which options are the most cost efficient, and to eventually adapt the ETS and the Market Stability Reserve (MSR) simultaneously with those changes. Notwithstanding any changes in RES or EE targets, the MSR intake rate should be kept at 24% after 2023 instead of reducing it to 12%, and the MSR thresholds should be updated to reflect an increasingly decarbonised economy. The MSR hedging thresholds should be updated to reflect lower demand for ETS allowances in an increasingly decarbonised economy. To account for national decisions on decommissioning coal-fired power plants Member States should withdraw a corresponding amount of ETS allowances, e.g. via voluntary EUA cancellations. The amount of EUA (but not EUAA) used for compliance purposes in the aviation sector needs to be included in the calculation formula for the total number of allowances in circulation (TNAC) in the fourth trading period.

The proposed measures could lead to an increase in the carbon price and associated compliance costs for the electricity sector before 2030 as a result of additional operational costs associated with the purchase of ETS allowances on the market. At the same time, Member States with high carbon intensity and low GDP/capita levels would also face significantly higher investment needs to comply with the new European Green Deal commitments. Therefore, proportionally to the new commitments and additional carbon cost, the ETS Directive review in 2021 has to increase the number of allowances dedicated to the Modernisation Fund and the share of allowances dedicated to the "solidarity pool". It should be directly stated in the ETS Directive that the certain percentage of the national carbon revenues should be earmarked solely for the transformation of the energy generation in Member States concerned.

See Eurelectric, Powering the Green Deal through a robust ETS and effective carbon pricing, April 2020.

4. Effort-sharing and carbon pricing in other sectors

To achieve the cost-optimising benefits of a coherent economy-wide approach, it is crucial that a consistent carbon pricing should apply across all sectors of the economy, thus enabling the efficient distribution of assets and efforts. In order to reach the 2050 decarbonisation objective, GHG emissions must be reduced at the end user level in all sectors, including transport and buildings.

In a context of increased emission reductions by 2030, burden-sharing between ETS (considering the potential inclusion of new sectors under the ETS) and non-ETS sectors will be determinant for future trajectories. The most cost-efficient emission reduction policies must be identified and the relevance of a scope extension of the EU ETS needs to be carefully assessed while taking into account differing circumstances and starting points in Member States and sectors. Currently, the EU ETS covers around 45% of the EU's greenhouse gas emissions in a tightly regulated framework which can be adjusted to match new levels of ambition (see above). While the electricity sector is committed to decarbonise, it is at the same time of utmost importance to tackle emissions from sectors outside the EU ETS, specifically in heating & transport, where emissions have been decreasing at a slower pace or even increasing. Promoting electrification is both an opportunity to reduce emissions in heating & transport and increase the share of emissions covered by the EU ETS.

In order to assess the effectiveness of carbon pricing in non-ETS sectors (through an ETS extension or other carbon pricing tools), upcoming Commission impact assessment needs to look at the number of emissions sources, respective abatement costs, effect on the overall cap and the existing national policies and taxes. In principle, expanding the scope of the EU ETS to other sectors could be an option but given the very significant differences between sectors (i.e. marginal abatement cost, sources of emissions, subject or not to international competition…) this is not necessarily optimal and it could also result in creating a parallel ETS system. Not all sectors will be suited for the same carbon pricing instrument and the most appropriate solution should be implemented for each sector. What is important for the efficiency of EU climate policy overall is that all sectors are subject to a meaningful CO2 price signal.

Sectors which are not exposed to any carbon price (e.g. maritime) or an insufficient carbon price (e.g. individual heating, in some Member States) should be addressed either by extending the ETS scope (if their marginal abatement costs are close enough to ETS price) or by carbon pricing measures, using the most efficient tool for each sector. Short sea shipping and inland waterways offer greater potential for electrification or electricity-based fuels. Such sectors with high

electrification potential are gradually indirectly included in the ETS. Direct inclusion could be an alternative and needs to be assessed in more detail. The introduction of measures to address potential distributional effects of carbon pricing among the different sectors and consumers should be analysed.

See Eurelectric, Powering the Green Deal through a robust ETS and effective carbon pricing, April 2020.

5. Just Transition

The energy and climate policies necessary to enable the transition could affect people in different ways across EU countries. In particular, depending on how they are designed, some policies could have a disproportionate negative effect on lower income households. It is important that this policy making phase considers how to minimise the regressive effects of the measures and takes into account their distributional effects across society and European regions. Policymakers should, on one hand, identify and address the potential distributional effects to avoid increasing societal inequality and improve the awareness of citizens on the benefits of decarbonisation. On the other hand, legislation needs to ensure that climate action costs are not disproportionately placed on the electricity bill, by lowering or removing the non-energy costs such as taxes and levies in the electricity price, so as not to hamper electrification, which is itself a key lever for decarbonisation.

It is also important to acknowledge the different starting points for EU Member States on their path to decarbonisation and their individual journeys to achieve climate neutrality. The National Energy & Climate Plans (NECPs) in the Governance framework should be used to ensure that Member States synergise levers to accelerate electrification, to decarbonise and to quantify RES deployment.

Regions and companies with high carbon value chains should be supported in the transition. The proposed Just Transition Fund should be fuelled with 'fresh' EU money which does not rely on reallocating money from existing EU Funds. Eurelectric welcomes the Commission's proposal to establish a €40bn Fund as part of its recovery plan. Transition funding should be prioritised for highly carbon-intensive regions, notably those heavily reliant on coal-mining and coal power plants and with GDP per capita below the EU average. It is in those regions where citizens are faced with the biggest challenges. Support for projects in enterprises bigger than SMEs should be allowed under the Just Transition Fund as large enterprises are the biggest employers in transforming sectors of the economy.

See Eurelectric, Shaping a Just Transition Fund fit for purpose, March 2020 & Eurelectric comments paper, Energy Taxation Directive review – Inception impact assessment, April 2020.

6. Impact of the Covid-19 crisis

The disruptions caused by the coronavirus crisis is highlighting how much modern societies rely on electricity. In this context, it will be crucial that, when designing recovery programs and investments packages to tackle the Covid-19 crisis, the Commission and Member States target areas that will help accelerate the energy transition while at the same time ensure economic recovery (as proposed by the European Council). The Commission should: prioritise investments in a zero-carbon infrastructure and innovative solutions as they are the best and most cost-effective route to economic recovery on a national and supranational level while at the same time preparing the grounds for a secure and sustainable energy system; bring forward the necessary investments for rapid recovery; and use the stimulus packages to accelerate investments in energy efficiency, carbon neutral solutions, renewable heating and cooling, electricity, mobility, zero-carbon

buildings, and industrial processes. An electrification strategy for Europe should be at the heart of this recovery plan. It will create a path for the immediate deployment of available technologies that can decarbonise the transport and heating & cooling sectors.

See Eurelectric's dedicated webpage on the Covid-19 situation & Electrification Alliance, Call to EU leaders: #EUGreenRecovery to restart Europe, April 2020.

7. Infrastructure and sector integration

Clear decarbonisation goals for 2030 and 2050 will drive joint efforts towards fighting climate change. Europe needs an ambitious smart sector integration strategy to: unlock all the system benefits resulting from positive synergies among sectors; foster energy efficiency; and benefit from decarbonised and renewable energy sources across the economy.

By integrating different sectors, Europe will facilitate the use of clean and carbon-neutral power supply to decarbonise efficiently transport, industry and heating & cooling. In other words, through a coherent sector integration plan, the European Union can make the best use of a decarbonised energy system to reach the climate objectives.

Reaching carbon neutrality by 2050 requires drastic changes in the way we generate, transport and consume energy. We are moving to a more decentralised, digitalised and decarbonised energy system where new types of interactions between electricity and gas sectors offer new perspectives. Therefore, the coupling of electricity and gas sectors is a key link. In a highly renewables powered future, P2G and G2P will participate in balancing the networks and contribute to security of supply. Intelligent linking of existing infrastructures (electricity, gas and heat networks) and joint infrastructure planning, e.g. as already started in the Ten-Year Network Development Plans (TYNDPs), to connect generation, transport, storage and usage more efficiently will be key.

Sector integration will only fully contribute to a cost-effective energy transition if the energy conversion from power is flexible or if it is storable. Digitalisation from decarbonised production to final consumption is the glue that enables direct electrification and hybrid solutions to provide a cost-effective transition in heating/cooling of buildings, transport and industrial processes.

The electricity grid is evolving fast to transport growing shares of renewable electricity while ensuring balancing and flexibility for the entire energy system. A revised TEN-E Regulation, fully aligned with the EU energy and climate targets, should underpin the wider decarbonisation of the EU economy by driving investments in carbon neutral power generation, transmission, storage, demand side management, industrial and energy efficiency solutions, electro-mobility, low and medium voltage networks as well as the entire spectrum of smart grid solutions.

See Eurelectric, Recommendations on Smart Sector Integration Strategy, April 2020; An EU Strategy for smart sector integration. A Eurelectric response paper to European Commission questions , June 2020 ; 10 key points for a revised Trans-European Energy (TEN-E) Regulation, April 2020; Reply to the impact assessment/ roadmap on TEN-E, June 2020.

8. Address the increasing risk of carbon leakage

The transformation of European society through decarbonisation and electrification will enable EU industry to show its global leadership in developing, scaling and delivering cost-competitive & sustainable technologies and business models in a circular economy. An enabling regulatory, financial and investment framework must ensure that both public and private investment accelerate the energy transition and the uptake of clean and sustainable technologies.

Designing criteria for carbon border adjustment mechanisms would need to be workable and in compliance with international agreements, while at the same time raising mitigation efforts in third countries. Additionally, ensuring fairness could foresee a part of the derived funds being earmarked for green power generation projects in third countries. Ultimately, the solution to prevent carbon leakage in the power sector would be a more global carbon pricing. Greater collaboration with other regions is essential and climate diplomacy will play a key role. Eurelectric supports the European Commission for engaging the international community with ambitious carbon pricing policy frameworks.

Eurelectric views the EU ETS as an effective instrument for delivering significant GHG reduction across Europe. However, we recognise the need to address the increasing carbon leakage risk for the ETS-related industries in the context of greater climate ambition.

Regarding electricity imports, Eurelectric supports the ongoing European Commission work on assessing carbon border adjustment mechanism focused on environmental integrity and competitiveness. The power sector observes increased cross-border power trading and imports from third countries with high carbon content, requiring the investigation of a carbon border adjustment mechanism. As a result, electricity-intensive producers covered by the EU ETS as well as others outside its scope could be negatively impacted. An impact assessment needs to analyse the respective effects on the power market and the overall compatibility of the mechanism in relation to its scope and coverage.

See Eurelectric, Carbon Border Adjustment: opportunities to complement efforts under the Green Deal, March 2020.

Contribution ID: e082b7e0-2f73-49da-8b00-4041818b7f6d
Date: 22/06/2020 21:35:47

Public consultation for the EU climate ambition for 2030 and for the design of certain climate and energy policies of the European Green Deal

Fields marked with * are mandatory.

Introduction

Global warming is happening and affecting citizens while threatening our long-term sustainability on this planet. The average temperature of our planet has already increased by 1°C and the world is currently not on track to achieve the Paris Agreement objective of limiting temperature change below 2°C, let alone 1.5°C. The 2018 special report of the Intergovernmental Panel on Climate Change on 1.5°C indicated that already at 2°C the world would see dramatic and potentially irreversible impacts due to climate change. Science is also clear on the close link and interdependence of climate change and biodiversity loss.

The EU has taken global leadership in tackling climate change and actively pursues policies to cut its greenhouse gas emissions and to decouple these from economic growth. This allows the EU to modernise its economy and energy system, making them sustainable in the long term and to improve energy security and the health of its citizens by reduced air pollution.

The EU has already adopted climate and energy legislation to reduce greenhouse gas emissions by at least 40% by 2030 compared to 1990 levels. Furthermore, it adopted ambitious energy efficiency and renewable energy legislation, whose full implementation is estimated to reduce greenhouse gas emissions beyond the existing target - by around 45% by 2030. As part of this legislation, Member States develop National Energy and Climate Plans to ensure that common EU objectives will be met. Unless complemented by further policies, the agreed legislation is expected to lead to around 60% greenhouse gas emissions reductions by 2050. In 2018, the Commission proposed for the EU to become climate neutral by 2050 (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52018DC0773) compensating any remaining GHG emissions by absorptions. The European Parliament and the European Council endorsed this objective in 2019. The Commission has proposed to enshrine this objective in the European Climate Law (https://ec.europa.eu/clima/policies/eu-climate-action/law_en).

According to the latest Eurobarometer survey, 93% of EU citizens see climate change as a serious problem and a significant majority of the EU population wants to see increased action on climate change. As a reflection of this and due to the urgency of the climate and linked ecological challenges, the European Commission has proposed in December 2019 a European Green Deal (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52019DC0640) as one of its priorities including a list of forthcoming proposals to deliver it. The Green Deal aims, among others, to align all EU policies with the 2050 climate neutrality objective, sending an early and predictable signal to all sectors and actors to plan for the transformation.

As part of the Green Deal, the Commission intends to propose to increase the EU's 2030 target for greenhouse gas emission reductions to at least -50% and towards -55% compared to 1990 levels, in a responsible way. The Commission will thoroughly assess the feasibility and the social, economic and environmental impacts of increasing the 2030 target. This assessment will look into how to increase ambition in a way that enhances EU competitiveness, ensures social fairness and access to secure, affordable and sustainable energy and other material resources, benefits citizens and reverses biodiversity loss and environmental degradation. The Commission intends to present a comprehensive plan to increase the EU 2030 climate target in the third quarter of 2020.

Building on the existing 2030 legislation and the upcoming comprehensive plan, the Commission will review and propose to revise, where necessary, the key relevant energy and climate legislation by June 2021. This will include a coherent set of changes to the existing 2030 climate, energy and transport framework, notably related to the EU Emissions Trading System Directive, the Effort Sharing Regulation and the Land Use, Land Use Change and Forestry Regulation, CO_2 Emissions Performance Standards for Cars and Vans and, as appropriate, the Renewable Energy Directive and the Energy Efficiency Directive.

This public consultation invites citizens and organisations to contribute to the assessment of how to increase the EU 2030 emission reduction ambition in a responsible way. Please note that relevant questions and topics may also be covered under other public consultations such as for instance the Strategy on Sustainable and Smart Mobility, the EU Adaptation Strategy, the "Farm to Fork" Strategy, the Action Plan to implement the European Pillar of Social Rights, the Targeted Consultation for the Evaluation of the Guidelines on State aid for Environmental protection and Energy 2014-2020.

Guidance on the questionnaire

This public consultation consists of some introductory questions related to your profile, followed by a questionnaire split into two parts. **Please note that you are not obliged to respond to both parts of the questionnaire, and can choose to fill in only one of the two. Also, not all questions in the questionnaire need to be answered.**

The first part of the questionnaire focusses on the overall climate ambition and how actions in the energy sector and other sectors can contribute. The second part is more technical in nature, investigating options on how to improve the design of specific EU policies and may require more expert knowledge.

The **first part of the questionnaire** seeks the opinion on:

- The overall EU climate ambition for 2030 and opportunities and challenges associated with it (Section 1)

- Sectoral potential in the energy sector as well as other sectors to reduce greenhouse gas emissions by 2030 and the instruments and actions to achieve this (Section 2)
- The wider enabling conditions and related policies needed to foster greenhouse gas emission reductions (Section 3)

The **second part of the questionnaire** is more technical and focuses on the design of EU policies. As such it seeks for opinions on:

- The design of specific climate and energy policies (Section 5)
- EU policies and outreach towards third countries on climate change (Section 6)

At the end of both parts, you are invited to provide any additional comments and to upload additional information, position papers or policy briefs that express the position or views of yourself or your organisation. If you select to fill in both parts of the questionnaire, please upload any position papers or policy briefs only once.

The results of the questionnaire as well as the uploaded position papers and policy briefs will be published online. Please read the specific privacy statement attached to this consultation informing on how personal data and contributions will be dealt with.

In the interest of transparency, if you are replying on behalf of an organisation, please register with the register of interest representatives if you have not already done so. Registering commits you to complying with a Code of Conduct. If you do not wish to register, your contribution will be treated and published together with those received from individuals.

About you

*Language of my contribution

English

*I am giving my contribution as

Business association

*First name

Helene

*Surname

LAVRAY

*Email (this won't be published)

hlavray@eurelectric.org

*Organisation name

255 character(s) maximum

Eurelectric

*Organisation size

Small (10 to 49 employees)

Transparency register number

255 character(s) maximum

Check if your organisation is on the transparency register (http://ec.europa.eu/transparencyregister/public/homePage.do?redir=false&locale=en). It's a voluntary database for organisations seeking to influence EU decision-making.

4271427696-87

*Country of origin

Please add your country of origin, or that of your organisation.

Belgium

Please indicate the economic sector you are active in (as an individual or as an organisation)

Electricity, Gas and Water Supply

If you are a civil society organisation or a public administration, please indicate your main area of focus or your area of competence

300 character(s) maximum

*Publication privacy settings

The Commission will publish the responses to this public consultation. You can choose whether you would like your details to be made public or to remain anonymous.

- **Anonymous**
  Only your type of respondent, country of origin and contribution will be published. All other personal details (name, organisation name and size, transparency register number) will not be published.
- **Public**
  Your personal details (name, organisation name and size, transparency register number, country of origin) will be published with your contribution.

Please note that regardless of the option chosen, your contribution may be subject to a request for access to documents under Regulation 1049/2001 on public access to European Parliament, Council and Commission documents. In this case the request will be assessed against the conditions set out in the Regulation and in accordance with applicable data protection rules.

- [x] I agree with the personal data protection provisions (https://ec.europa.eu/info/law/better-regulation/specific-privacy-statement_en)

PART I

Please note that you are not obliged to respond to both parts of the questionnaire, and can choose to fill in only one of the two. Also, not all questions in the questionnaire need to be answered.

PART I

1 Overall climate ambition for 2030, opportunities and challenges

1.1 2030 greenhouse gas emission reduction target for the EU

The EU has set itself a target to reduce greenhouse gas emissions domestically by at least 40% by 2030 compared to 1990, a significant stepping up of annual reductions compared to the reductions achieved over the last 3 decades. The effective implementation of energy efficiency and renewable energy legislation as

agreed on the EU level for 2030 is actually estimated to lead to around 45% greenhouse gas emission reductions by 2030.

With the recently agreed EU objective of achieving climate neutrality by 2050 and with climate and environmental action towards zero pollution increasingly recognised as urgent, what should be the EU's 2030 target to reduce greenhouse gas domestically?

- ○ It should remain unchanged with a target to reduce greenhouse gas emissions in the EU by at least 40% compared to 1990 levels.
- ○ It should be increased to at least 50%.
- ○ It should be increased to at least 55%

1.2 Opportunities and challenges associated with an increased level of climate ambition in 2030

Which of the **opportunities** in the list below would you consider as most relevant for the undertaking of a higher climate ambition by 2030.

Multiple options are possible.

- ☐ It will be a chance to do our part in saving the planet and thus fulfilling our duty towards the future generations.
- ☑ It will allow a more gradual pathway to reaching a climate neutral EU by 2050
- ☑ It will help mitigate costs associated with climate change to the society (from e.g. extreme weather events, droughts, loss of ecosystems etc.)
- ☐ It will ensure a growing EU economy based on new production and consumption models (e.g. circular economy approach)
- ☐ It will reinforce EU leadership and inspire action to battle climate change globally
- ☑ It will create new (green) jobs, including those that are difficult to outsource outside the EU (e.g. maintenance of renewable energy installations, construction)
- ☑ It will lower pollution, improve health, make cities and buildings more liveable and thus increase the well-being of citizens.
- ☐ It will give the EU industry a first-mover advantage on global markets
- ☑ It will improve energy security and reduce the EU dependency on imported fossil fuels
- ☑ Other (please specify in answer box)

Please specify:

300 character(s) maximum

```
The decarbonisation of the EU's economy must be a fair transition. Costs and benefits will be unevenly distributed due to different starting-points, adaptation costs and specific challenges. Well-balanced policies which enhance the social acceptance and involvement of citizens will be key.
```

Which of the **challenges** in the list below would you consider as most relevant for the undertaking of a higher climate ambition by 2030.

Multiple options are possible

- [x] It will represent a significant investment challenge for EU industry, services, transport and energy sectors. The costs of investments are likely to be passed on to consumers via higher prices or taxes
- [x] It will likely lead to a structural shift and changing skill requirements in the economy, in particular leading to a decline of sectors and jobs linked to fossil fuels extraction and carbon-intensive manufacturing
- [x] It will change the existing policy and will confront us with reduced lead-time for devising and implementing additional measures and for the economic actors to adjust.
- [x] The simultaneous transition to climate neutral, circular and digital economy and society may lead to significant labour reallocation across sectors, occupations and regions. Businesses, especially SMEs could face challenges in re-skilling and ensuring sufficient workforce
- [x] It may lead to societal inequalities due to an initially higher cost of green products, sustainable food and transport and renewable energy, which may negatively impact the lower income people/regions and contribute to energy poverty
- [ ] Even with a more ambitious 2030 target, it is difficult to ensure sufficient action to reduce greenhouse gas emissions on the ground
- [ ] The EU, if acting alone, will lose out in terms of international competitiveness
- [ ] Other (please specify in answer box)

1.3 Balance of opportunities and challenges

For the opportunities and challenges you indicated in the above questions, do you consider that the opportunities would outweigh the challenges in your daily life (individuals responding) or sector of activity (organisations/authorities responding)?

- (•) Agree
- ( ) Disagree
- ( ) Do not know/Do not have an opinion

PART I

2 Sectoral action and potential to reduce greenhouse gas emissions by 2030

2.1 Importance of contributions by sectors

Please prioritise the sectors where you consider most efforts to reduce greenhouse gas emissions and increase absorptions are necessary in the perspective of increased greenhouse gas emission reduction target for 2030.

Priorities from 1 (most important) to 8 (least important)

	1	2	3	4	5	6	7	8
Services (including ICT)	○	○	○	○	○	◉	○	○
Buildings	○	◉	○	○	○	○	○	○
Industry	○	○	◉	○	○	○	○	○
Mobility/Transport	◉	○	○	○	○	○	○	○
Energy supply	○	○	○	◉	○	○	○	○
Agriculture	○	○	○	○	◉	○	○	○
Forestry	○	○	○	○	○	○	◉	○
Waste management	○	○	○	○	○	○	○	◉

2.2 Energy system

Energy production and consumption remain largely based on fossil fuels and represent more than 75% of the EU's greenhouse gas emissions. To achieve climate neutrality by 2050, this will need to change profoundly.

In your opinion, if the EU is to achieve a higher 2030 greenhouse gas emission reduction target, what would be the main drivers of the necessary energy transition by 2030?

Multiple options are possible.

- [x] Higher energy efficiency
- [x] Higher penetration of renewable energy
- [x] Use of nuclear energy for power generation
- [x] Electrification of final energy use
- [x] Phase-out of solid fossil fuels
- [ ] More limited role of natural gas
- [x] Better sector coupling between gas and electricity sectors
- [ ] Use of carbon capture and use technologies
- [ ] Use of carbon-neutral energy carriers such as green/blue hydrogen, bio-methane, e-gas or e-fuels

- [ ] Reduced need for energy thanks to life-style changes (e.g. using active modes of transport, circular economy approaches)
- [ ] Do not know/Do not have an opinion

2.3 Renewable energy ambition

In the existing legislation, the EU level target is to have at least 32% share of renewable energy in the final energy consumption in 2030. The costs of renewable energy technologies have significantly declined over the past years.

In your view, what would be the required EU ambition for renewable energy in 2030 to contribute to the EU 2030 greenhouse gas emission reduction target (that you indicated in question **1.1**) and to the EU long-term objective to achieve a climate neutrality by 2050?

- ○ Achieve at least a share of 32% renewable energy in the final energy consumption in the EU by 2030, i.e. unchanged from the level already agreed
- ○ Achieve at least a share of 35% renewable energy in the final energy consumption in the EU by 2030
- ○ Achieve at least a share of 40% renewable energy in the final energy consumption in the EU by 2030
- ○ Achieve even higher level of ambition than at least a share of 40% renewable energy in the final energy consumption in the EU by 2030
- ○ Do not know/Do not have an opinion

2.4 Energy Efficiency ambition

In the existing legislation, the EU level target is to have at least 32.5% energy efficiency in 2030[1] in both primary and final energy consumption and the EU is committed to the "energy efficiency first" principle[2].

[1] Compared to 2007 Baseline.

[2] 'Energy efficiency first' means taking utmost account in energy planning, and in policy and investment decisions, of alternative cost-efficient energy efficiency measures to make energy demand and energy supply more efficient, in particular by means of cost-effective end-use energy savings, demand response initiatives and more efficient conversion, transmission and distribution of energy, whilst still achieving the objectives of those decisions (Regulation (EU) 2018/1999).

In your view, what would be the required EU ambition for energy efficiency in 2030 to contribute to the EU 2030 greenhouse gas emission reduction target (that you indicated in question **1.1**) and to the EU long-term objective to achieve a climate neutrality by 2050?

- ○ Achieve at least 32.5% energy efficiency (in both primary and final energy consumption) by 2030, i.e. unchanged from the level already agreed
- ○ Achieve at least 35% energy efficiency (in both primary and final energy consumption) by 2030
- ○ Achieve at least 40% energy efficiency (in both primary and final energy consumption) by 2030
- ○ Achieve even higher level of ambition than at least 40% energy efficiency (in both primary and final energy consumption) by 2030

- ○ Do not know/Do not have an opinion

2.5 Role of fossil fuels

2.5.1 Solid fossil fuels

Solid fossil fuels, such as coal, lignite, peat and oil shale (herein referred to as "solid fossil fuels") have greatly supported the development of our economies since the industrial revolution. At the same time, these fuels result in high greenhouse gas and other polluting emissions. Their use without abating their emissions is thus not compatible with the EU's 2050 climate neutrality objective.

In your opinion, how can this be addressed in addition to the existing legislation and greenhouse gas emission reduction targets for 2030 and 2050?

Multiple options are possible.

- ☐ No further public intervention is needed in addition to existing framework
- ☐ Regulate on the national level, by imposing a phase out of solid fossil fuels in power generation by a certain date
- ☑ Regulate on the national level, by imposing a phase out of solid fossil fuels in heating by a certain date
- ☑ Clearly indicate to consumers that the use of solid fossil fuels in heating is not sustainable
- ☑ Give a stronger price signal on EU and national level for fuel switch away from solid fossil fuels (e.g. through carbon taxation or emission trading)
- ☐ Phase out of any public support to solid fossil fuel related investments and use.
- ☑ Promote clean technologies (such as carbon capture and storage/utilisation), which could allow for the continuation of the consumption of solid fossil fuels
- ☑ Promote carbon-neutral power generation and electrification of the final demand (e.g. renewables-based power generation and electric heat pumps and vehicles)
- ☐ Do not know/Do not have an opinion

2.5.2 Natural gas

In your view, can natural gas and other gases help the EU energy system decarbonise and contribute to meeting the 2030 greenhouse gas reduction target with a view to achieving the EU long-term objective to achieve climate neutrality by 2050?

- ○ Yes, natural gas can help the EU reach the 2030 targets as it is a more climate friendly alternative to coal or oil in heating, transport and power generation and it is a source of flexibility for an increasingly renewable energy based power system

- (●) Natural gas may have a role as a transition fuel but, at the latest after 2030, it should be increasingly replaced by carbon-neutral alternatives, such as biogas, bio-methane, green hydrogen and e-gas
- ( ) Natural gas is a fossil fuel, its continued use will make it harder to meet the 2030 target and create lock-in effects in the longer term; a focus on energy efficiency and electrification will help reduce demand for natural gas
- ( ) Do not know/Do not have an opinion

2.6 Buildings

Buildings today are responsible for 40% of the final energy consumption, including electricity consumption. Buildings also emit 13% of the total greenhouse gas emissions in the EU (34% if including indirect emissions coming from power & district heating generation). Buildings can be decarbonised and their energy performance can be improved through a number of solutions.

2.6.1 Residential buildings - solutions for home owners

For residential buildings, please rate the options below to indicate what you would consider as most relevant solutions towards climate neutral homes for home owners.

Rating from 5 (very relevant) to 1 (little relevant). Not all options need to be rated.

	1	2	3	4	5
Replace the current heating & cooling system by a more efficient one (e.g. replace a gas boiler by a heat pump)	( )	( )	( )	(●)	( )
Replace old or inefficient heating equipment using bioenergy, solid or liquid fossil fuels	( )	( )	( )	( )	(●)
Use renewable energy on-site (e.g. biomass, solar thermal, PV panels, geothermal) or off-site through district heating/cooling networks	( )	( )	( )	(●)	( )
Improve the thermal properties of the building’s envelope through better insulation and windows	( )	( )	( )	( )	(●)
Use smart technologies (e.g. building automation and control systems, room temperature controls, smart meters)	( )	( )	(●)	( )	( )
Use more energy efficient appliances	( )	( )	(●)	( )	( )

2.6.2 Non-residential buildings - solutions for building owners

For non-residential buildings such as offices, shops, hospitals, schools, please rate the options below to indicate what you would consider as most relevant solutions towards climate neutral buildings for building owners.

Rating from 5 (very relevant) to 1 (little relevant). Not all options need to be rated.

	1	2	3	4	5
Use of building automation and control systems and smart building technologies	○	○	◉	○	○
Improve the thermal properties of the building's envelope through better insulation and windows	○	○	○	○	◉
Introduce more energy efficient heating & cooling systems	○	○	○	○	◉
Use renewable energy on-site (e.g. biomass, solar thermal, PV panels, geothermal) or off-site through district heating/cooling networks	○	○	○	○	◉
Apply energy management systems	○	○	◉	○	○

2.7 Industry

Industry is responsible for 25% of the final energy consumption and for about 20% of the total greenhouse gas emissions. Significantly reducing their emissions in order to contribute to climate neutrality by 2050 and to meet the zero pollution ambition is a particular challenge, and will require technologies to be tested and deployed at scale within the 2030 timeframe, taking into account the investment cycles in industry.

Please rate the items in the table below to indicate the importance of the technologies and other solutions for the reduction of greenhouse gas emissions in industrial installations, in the 2030 time horizon.

Rating from 5 (very relevant) to 1 (little relevant). Not all options need to be rated.

	1	2	3	4	5
Higher energy efficiency of industrial processes	○	○	○	◉	○
Electrification of industrial processes	○	○	○	○	◉
Use of hydrogen in industrial applications as e.g. fuel, feedstock or reducing agent	○	○	○	◉	○
Use of e-fuels in industrial applications	○	○	◉	○	○

Use of sustainable biomass as a feedstock (e.g. in the chemicals industry)	○	○	◉	○	○
Use of sustainable biomass as a fuel	○	○	◉	○	○
Use of carbon capture and storage or carbon capture and use	○	○	○	○	○
Developing a more circular economy where products and materials are more re-used and recycled, developing new business concepts	○	○	○	○	○
Substitution of emissions intensive products by alternative products produced with no or low greenhouse gas emissions	○	○	○	○	○

2.8 Mobility: road transport

Please note, the Commission will also launch a relevant public consultation for the Strategy on "Sustainable and Smart Mobility".

Road transport is responsible for around 70% of the EU greenhouse gas emissions in transport and around 20% of total EU emissions. Therefore, it plays an important role in the transition towards a climate neutral economy and any increase of ambition of the 2030 greenhouse gas emission reduction target. The EU has a number of policies in place, such as for instance minimum fuel taxation and targets for 2025 and 2030 to reduce CO_2 emissions of new cars, vans and trucks.

In view of climate and environmental challenges, please rate how important it is for EU action to focus on the following areas.

Rating from 5 (very important) to 1 (little important). Not all options need to be rated.

	1	2	3	4	5
Increasing the share of more sustainable transport modes (e.g. supporting multimodality, active transport mode such as walking and cycling)	○	○	◉	○	○
Improving the efficiency of the whole transport system (e.g. through better traffic management systems)	○	○	○	◉	○
Increasing the uptake of clean vehicles such as electric and hydrogen-fuelled vehicles (e.g. emission standards) and ensuring their efficient integration into the energy grid	○	○	○	○	◉
Increase the uptake of sustainable alternative fuels (e.g. developing recharging/refuelling infrastructure, blending mandates)	○	○	○	○	◉
Incentivising sustainable consumer choices and low-emission mobility practices (e.g. increased application of the 'polluter-pays' and 'user-pays' principles, better consumer information on carbon footprint)	○	○	○	○	◉

Increasing investment in sustainable transport infrastructure and solutions (e.g. high-speed rail, inland waterways, recharging and refuelling infrastructure)	○	○	○	○	◉
Fostering the deployment of innovative digital solutions in transport	○	○	○	◉	○
Improving affordability and accessibility of sustainable transport	○	○	○	○	◉

In your view, what are the main barriers for market uptake of zero-emission vehicles?

Multiple options possible

- ☑ Purchase price of low and zero-emission vehicles
- ☑ Availability of recharging/refuelling infrastructure
- ☑ Availability of vehicles models
- ☐ Insufficient range capacity
- ☑ Tax treatment of low and zero-emission vehicles
- ☑ Other

2.9 Agriculture, Forestry and Land Use

Land use can contribute to reducing greenhouse gas emissions by substituting carbon intensive fuels and fossil fuels by biomass and by increasing absorption of CO_2 in soil carbon and biomass. On the other hand, agriculture practices emit themselves greenhouse gas emissions, and wood harvesting and agriculture practices release CO_2 from forests and lands.

In your opinion, which of the solutions listed below play the most important role to reduce greenhouse gas emissions and increase CO_2 removals in the land use sectors?

Multiple options are possible.

- ☑ Afforestation to increase forest cover in Europe
- ☑ Sustainable forest management, restoration and preservation of forests to ensure existing forests absorb more CO_2
- ☑ Ensuring forests are a source of material for the bio-economy, while pursuing sustainable forest management practices
- ☐ Enhancing agriculture practices to allow to store more CO_2 in agricultural soils and reduce activities that release such soil carbon
- ☐ Promoting agroforestry and agro-ecological practices
- ☐ Agriculture/aquaculture as a source of biomass for bio-energy and bio-fuels: *Based on food crops*
- ☑ Agriculture/aquaculture as a source of biomass for bio-energy and bio-fuels: *Based on agricultural waste*

- [ ] Agriculture/aquaculture as a source of biomass for bio-energy and bio-fuels: *Based on woody biomass (e.g. perennials, woody and herbaceous crops, short rotation coppice)*
- [ ] Agriculture/aquaculture as a source of biomass for bio-energy and bio-fuels: *Based on algae production*
- [ ] Conservation and restoration of organic soils, wetlands, peatlands
- [ ] Conservation and restoration of grassland
- [ ] Reducing emissions from livestock
- [ ] Reducing emissions from fertilizer, including through reduced fertilizer use, in agriculture
- [ ] Reducing emissions from tilling practices in agriculture
- [ ] Shifting food and feed production from land to sustainable aquaculture

PART I

3 Enabling conditions and other policies

3.1 Consumer choice

Consumer choices and behavioural change can considerably impact our greenhouse gas emissions. Which potential changes do you consider to have the highest potential to reduce greenhouse gas emissions?

Multiple options possible

- [ ] Use less the car. Walk, cycle and use public transport more often
- [ ] Travel less by plane or replace it by less emitting alternatives, such as train travel or video conferencing
- [ ] Change your diet towards a more healthy and less carbon intensive one
- [ ] Avoid overconsumption, by changing demand for appliances, clothing and other products
- [ ] Switch to product-as-a-service business models (e.g. leasing rather than owning products) or other circular business models (e.g. sharing)
- [ ] Move to a more energy and material efficient building
- [ ] Reduce and recycle more your waste

3.2 Just transition and employment

An ambitious 2030 target for reduction of EU greenhouse gas emissions will represent a transition challenge for the economy as a whole and citizens. It is essential that the costs of this transition are shared. If costs are disproportionate for some groups of society, measures are proposed to alleviate them. Likewise, benefits should be shared by all groups of society.

Which type of actions should the EU support in the context of its funding tools under climate policy like the Modernisation Fund under to EU ETS to promote a just and socially balanced transition?

Multiple options are possible.

- [ ] Economic diversification and modernisation away from the use of fossil fuels
- [x] Energy system modernisation focussing on energy efficiency and renewable energies deployment
- [x] Re-skilling of workers in greenhouse gas intensive sectors or sectors producing goods that are greenhouse gas intensive
- [ ] Social and welfare policies, such as policies addressing energy poverty and supporting labour market transitions
- [ ] Other

3.3 Taxation and carbon pricing: use of revenue

Carbon pricing, while increasing the costs of energy, also offers the possibility to use revenue in a beneficial way. Which of the following would you consider as the most useful way of using proceeds from carbon pricing instrument?

Multiple options are possible.

- [ ] Recycle revenue via reductions in labour taxes (i.e. reform tax systems to make them more employment friendly)
- [ ] Use revenue to compensate low income households, or other vulnerable groups
- [x] Use revenue to support low-income households in the transition process (e.g. targeted subsidies for home insulation and energy efficiency or low-emission mobility)
- [x] Use revenue to finance deployment of green technologies, deployment of low-emissions mobility infrastructure, etc.
- [x] Use revenue to support just-transition process in vulnerable regions

3.4 Research, innovation and deployment

In your view, where the government research funding would be most important to achieve deeper emission reductions by 2030 with a view to achieving a climate neutral EU by 2050. Please select at most five options.

Multiple options are possible.

- [ ] Climate science
- [x] Hydrogen economy and fuel cells

- [x] Synthetic fuels
- [ ] Circular, zero-carbon industry
- [x] Carbon capture, use and storage technologies
- [ ] Energy efficiency
- [x] Renewable energy
- [x] Energy storage
- [x] Sustainable and smart mobility
- [x] Smart and sustainable buildings
- [ ] Bio-economy, agriculture and forestry, nature-based solutions on land and sea
- [x] Technology integration, infrastructure and digitalisation
- [ ] Socio-economic and behavioural research and innovation

PART I

4 Additional information

Are there other key aspects which you did not find reflected in the questions and you would like to comment upon?

1,000 character(s) maximum

Eurelectric is aiming at finalising a more detailed answer in a separate paper which will be available shortly.

If appropriate, please upload any additional materials such as concise position papers or policy briefs that express the position or views of yourself or your organisation.

PART II (for experts)

Please note that you are not obliged to respond to both parts of the questionnaire, and can choose to fill in only one of the two. Also, not all questions in the questionnaire need to be answered.

The questions in the second part of the questionnaire are more policy specific, investigating options on how to improve the design of the existing and any additional climate and energy policies to enable deeper greenhouse gas emission reductions by 2030.

PART II (for experts)

5 Climate and energy policy design

The main climate legislation concerned with an ambition increase is:

- *the Emissions Trading System Directive (EU ETS) that regulates large point sources and aviation;*
- *the Effort Sharing Regulation (ESR), which distributes between Member States greenhouse gas emission reduction efforts in other sectors of the economy such as transport, buildings, small industry, agriculture and waste;*
- *the Land Use, Land Use Change and Forestry Regulation (LULUCF) that regulates the emissions and absorptions from the natural carbon dioxide sink (soil carbon and biomass) in the EU and*
- *the CO_2 Emissions Performance Standards for Cars and Vans.*

The main energy legislation concerned with a potential ambition increase is the Renewable Energy Directive (RED) and the Energy Efficiency Directive (EED).

Deeper GHG emission cuts by 2030 should also be supported by an appropriate enabling framework and coherent policies in other fields, such as mobility, agriculture, energy taxation etc.

5.1 Role of the different climate policy instruments

The present climate legislation envisages that the sectors covered by the EU Emission Trading System will reduce emissions by 2030 with 43% compared to 2005. For the sectors covered the Effort Sharing Regulation the targets are set at a combined reduction of 30% by 2030 compared to 2005. For the land use sink under the Land Use, Land Use Change and Forestry regulation the objective is to ensure that the EU carbon sink at least performs as well by 2030 as what is planned under current land use practices.

Of these three key pieces of climate legislation which ones would require a substantial increase in ambition in order to allow the EU to achieve greenhouse gas emissions reduction in the range of 50% to 55% by 2030 compared to 1990. Please rate the items in the table below:

Rating from 5 (in need of a significant ambition increase) to 1 (not important, no increase in climate ambition is needed for this piece of legislation).

	1	2	3	4	5

EU Emission Trading System	○	○	◉	○	○
Effort Sharing Regulation	○	○	○	○	◉
Land Use, Land Use Change and Forestry Regulation	○	○	◉	○	○

5.2 EU Emissions Trading System (EU ETS)

In the existing legal framework for 2021 - 2030, the amount of greenhouse gas emissions covered by the EU ETS is set to decline by 2.2% per year during the 2021 - 2030 period. However, to achieve higher ambition, this decline may need to be made steeper or other actions can be contemplated that impact the carbon pricing signal.

The EU ETS ambition can be strengthened through different policy options. How could the EU ETS ambition be best increased in order to effectively contribute to an emission reduction of 50 to 55% by 2030?

Multiple options are possible.

- [x] Increase the linear reduction factor and as such reduce faster the amount of allowances available each year
- [x] Increase the linear reduction factor as well as lower the starting point on which the linear reduction factor is applied (i.e. shifting the total allocation downwards)
- [ ] Introduce a pricing policy (e.g. minimum price floor)
- [x] Reduce or eliminate the share of free allocation
- [ ] Strengthen the Market Stability Reserve rules (e.g. update feed rates) but allow other policies to be the primary drivers to increase greenhouse gas reduction ambition

5.2.1 Addressing carbon leakage risk for energy intensive industry

Increased ambition will make the overall ETS allowance budget (the cap) lower, affecting both the budget available for auctioning and free allocation of allowances. Auctioning is the default method for allocating allowances, and free allocation aims to address the carbon leakage risk for energy intensive sectors covered by the EU ETS. Should differences in levels of ambition worldwide persist, as the EU increases its climate ambition, the Commission undertook in the European Green Deal Communication to propose a Carbon Border Adjustment mechanism for selected sectors to reduce the risk of carbon leakage. This measure will be designed to comply with World Trade Organization rules and other international obligations of the EU.

If targets are increased to match an overall economy wide ambition of 50% to 55% greenhouse gas reduction by 2030 compared to 1990, and if free allocation to industry is maintained as a tool to address carbon leakage, should the share of free allocation be changed?

- ○ The share of free allocation for industry in the ETS cap is allowed to increase
- ○ The share of free allocation for industry in the ETS cap should remain at the present level
- ◉ The share of free allocation for industry in the ETS should decline
- ○ Don’t know/Don’t have an opinion

5.3 EU emissions trading extension to road transport and buildings

5.3.1 The role of carbon pricing

How do you see the role of carbon pricing to reduce emissions in the buildings and road transport sectors?

- ◉ Should be complementary to other sector specific policies, including taxes, duties and charges already in place
- ○ Should replace other sector-specific measures
- ○ Is not suitable/feasible and other measures should drive emission reductions instead
- ○ Don’t know/Don’t have an opinion

5.3.2 How to introduce carbon pricing

If the EU introduced a carbon price in buildings or the road transport sector, which option would you prefer:

- ◉ Proposing a CO_2 tax for these sectors
- ○ Include these sectors in an emission trading system and apply auctioning
- ○ Don’t know/Don’t have an opinion

5.3.3 Interlinkage with Effort Sharing Regulation

If the EU ETS was extended to energy related emissions from the road transport and buildings sectors, should also other energy emissions currently covered by the Effort Sharing Regulation be moved to the EU ETS?

- Yes
- No
- Don’t know/Don’t have an opinion

5.3.4 Harmonisation of carbon pricing for buildings and road transport

What is your view on what is the most desirable degree of harmonisation of carbon prices for **buildings** and the current EU ETS sectors?

- There should be immediately uniform carbon prices across Member States in the buildings sector by inclusion of the buildings sector in the EU ETS
- A carbon price should be applied EU-wide in the buildings sector but it should be possible that carbon prices in the buildings sector differ from carbon prices in existing ETS sectors
- A carbon price for the building sector needs to be set, but Member States should retain the possibility to determine national carbon prices in the buildings sector
- It is not suitable to apply an EU-wide carbon price given the already existing national instruments (taxes, levies etc.)

What is your view on what is the most desirable degree of harmonisation of carbon prices for **road transport** and the current EU ETS sectors?

- There should be immediately uniform carbon prices across Member States in the road transport sector by inclusion of the road transport sector in the EU ETS
- A carbon price should be applied EU-wide in the road transport sector but it should be possible that carbon prices in the road transport sector differ from carbon prices in existing ETS sectors
- A carbon price for the road transport sector needs to be set but Member States should retain the possibility to determine national carbon prices in the transport sector
- It is not suitable to apply an EU-wide carbon price given the already existing national instruments (taxes, levies etc.)

5.3.5 Extension of EU emissions trading - opportunities

What do you see as **opportunities** related to the extension of EU emissions trading to sectors such as buildings and transport? Please rate the below opportunities to indicate which play the most important role:

Rating from 5 (very relevant) to 1 (little relevant). Not all options need to be rated.

	1	2	3	4	5
Increases economic efficiency	○	○	◉	○	○

Makes renovation and electrification of buildings financially more attractive	○	○	○	◉	○
Electric vehicles and fossil fuelled vehicles face the same carbon price incentive	○	◉	○	○	○
Generates revenues which can be used to facilitate transition and compensate lower income households	○	○	○	○	○
Helps EU to achieve its climate and environmental objectives	○	○	○	○	○

5.3.6 Extension of EU emissions trading - challenges

What do you see as **challenges** related to the extension of EU emissions trading to sectors such as buildings and transport? Please rate the below challenges to indicate which play the most important role:

Rating from 5 (very important) to 1 (little important). Not all options need to be rated.

	1	2	3	4	5
The required level of carbon price signal needed for buildings and road transport actors to reduce emissions	○	○	○	○	◉
The resulting impact on the EU ETS price	○	○	○	○	◉
Administrative complexity and implementation of robust monitoring, reporting and verification system	○	○	◉	○	○
Overlap with existing pricing measures (in particular taxation) in these sectors	○	○	○	◉	○
Social acceptability with a view to a just transition	○	○	○	○	◉
Political acceptability of introducing a carbon price in these sectors	○	○	○	◉	○

5.3.7 How to introduce carbon pricing in the maritime transport sector

If the EU would introduce a carbon price in the maritime transport sector, it should do so by:

- ○ Proposing a fuel levy for the sector, creating certainty about the carbon pricing incentive provided but not about the environmental outcome
- ◉ Include the sectors in the EU ETS and apply auctioning, creating certainty about the overall greenhouse gas emission reduction outcome for all sectors included in the EU ETS
- ○ Don’t know/Don’t have an opinion

5.3.8 EU ETS and the maritime transport sector - key aspects to consider

What are the most important aspects to consider in extending the EU ETS to maritime transport?

Multiple options are possible.

- [x] Greenhouse gas emissions to be covered (emissions at ports, intra/extra EU emissions)
- [x] Cost-effectiveness of emission reduction measures based on a technology neutral and flexible approach
- [x] Generation of revenues to support investments to reduce emissions in the maritime sector
- [x] Risk of avoidance/evasion
- [x] Competiveness of the EU maritime transport sector
- [x] Enforceability (e.g. administrative burden for shipping companies)
- [x] Paving the way for future emission reduction measures at the global level

5.4 Role of the Effort Sharing Regulation

Which of the following statements best reflects your view on how the Effort Sharing Regulation and corresponding national emission reduction targets should reflect the increased climate ambition by 2030?

Multiple options are possible.

- [x] The overall ambition of the Effort Sharing Regulation should be derived from the cost-effective contribution of effort sharing sectors to overall emission reductions compared to the EU Emission Trading System and the Land use, Land Use Change and Forestry sectors
- [ ] The additional contribution of the effort sharing sectors should be lower than the additional contribution of the ETS sectors
- [ ] The increased EU level 2030 climate ambition for effort sharing sectors does not have to be fully reflected in national targets under the Regulation, but part of additional emission cuts could be delivered e.g. by actions by non-state actors or by enabling policies
- [ ] CO_2 emissions from effort sharing sectors, such as from buildings and transport, should be covered to the extent possible by an emissions trading system, and be excluded from the scope of the national targets under the Effort Sharing Regulation
- [x] CO_2 emissions from effort sharing sectors, such as from buildings and transport, should be covered to the extent possible by an emissions trading system and also remain under the national emission reduction targets under the Effort Sharing Regulation to retain incentives for Member States to implement complementary policies to reduce emissions
- [ ] Don’t know/Don’t have an opinion

If national emission reduction targets under the Effort Sharing Regulation are increased, are there other elements of the Regulation which should be adapted?

Multiple options are possible.

- [ ] No, the current design of the Regulation is fit for purpose

- [x] Give cost efficiency more weight in the methodology with which the increases in national targets are calculated
- [x] Adapt the limits of the flexibilities related to banking, borrowing and transfers
- [ ] Increase the possibility to use LULUCF credits
- [x] Increase or widen access to the flexibility with the EU ETS
- [ ] Don’t know/Don’t have an opinion

5.5 Role of the Regulation on Land Use, Land Use Change and Forestry (LULUCF)

How could the LULUCF sector further contribute to increased climate ambition by 2030 and to achieving climate neutrality by 2050? Please rate the options in the list below:

Rating from 5 (very relevant) to 1 (little relevant). Not all options need to be rated.

	1	2	3	4	5
Make LULUCF accounting rules more stringent, so more effort is required to generate LULUCF credits	○	○	○	○	○
Increase the ambition of LULUCF removals across the whole sector	○	○	○	○	○
Increase the existing flexibility in how LULUCF credits are used towards climate targets (e.g. wider trade flexibility options within LULUCF; higher flexibility with the Effort Sharing Regulation, including off-setting of agricultural emissions)	○	○	○	○	○
Develop an EU methodology to certify carbon dioxide removal credits at the level of farmers and foresters for different types of carbon dioxide removals in forestry and agriculture, including afforestation, protecting and restoring wetlands, increasing soil carbon content or carbon storage in long-lived wood products	○	○	○	○	○
Don’t know/Don’t have an opinion	○	○	○	○	○

5.6 Role of energy policies

The European Green Deal makes it clear that in case of a higher climate ambition the Commission would need to review and propose to revise, where necessary, the relevant legislation by June 2021.

What are your views on which legislative instruments in the energy field should be revised to contribute to the increased climate ambition for 2030.

Multiple options are possible.

- [ ] Energy Efficiency Directive
- [ ] Renewable Energy Directive
- [ ] Regulation on the Governance of the Energy Union and Climate Action
- [ ] Internal energy market legislation
- [x] Other
- [ ] No revision needed

5.6.1 Renewable energy policies

In case of higher ambition (than 32%) for renewable energy, please rate potential action/instruments that could be considered in the list below:

Rating from 5 (very relevant) to 1 (little relevant). Not all options need to be rated.

	1	2	3	4	5
Stronger enforcement of the existing legislation	○	○	○	○	◉
Additional technical and financial support in implementation of the existing legislation	○	○	○	◉	○
Additional measures to incentivise a more Europe-wide approach for renewable energy production (e.g. cross-border projects for renewable electricity production)	○	○	○	◉	○
Additional measures to increase decentralised renewable energy production (e.g. self-consumption, energy communities)	○	○	○	○	○
Additional measures to increase renewable electricity production, including development of necessary infrastructure	○	○	◉	○	○
Additional measures to increase renewable heat and cold production (both in buildings and in industry)	○	○	◉	○	○
Additional measures to increase renewable energy consumption in industry	○	○	◉	○	○
Additional measures to increase renewable energy consumption in buildings	○	○	◉	○	○
Additional measures to increase renewable energy consumption in transport	○	○	◉	○	○
Additional measures to ensure that biomass use remains sustainable	○	○	◉	○	○
Additional measures to support innovation related to renewable energy production	○	○	○	○	◉

5.6.2 Energy efficiency policies

In case of a higher ambition (than 32.5%) for energy efficiency, please rate potential action/instruments that could be considered in the list below:

Rating from 5 (very relevant) to 1 (little relevant). Not all options need to be rated.

	1	2	3	4	5
Stronger enforcement of the existing legislation	○	○	○	○	◉
Additional technical and financial support in implementation of the existing legislation	○	○	○	◉	○
Making the “Energy Efficiency First” principle a compulsory test in relevant legislative, investment and planning decisions	○	◉	○	○	○
More stringent energy performance standards for products	○	○	○	◉	○
More stringent energy performance requirements for buildings	○	○	○	◉	○
More stringent energy performance requirements for industrial processes, including through process integration and waste heat reuse	○	○	○	○	○
More stringent energy performance requirements for transport vehicles	○	○	○	◉	○
New requirements for agriculture sector and promoting electrification of machinery	○	○	○	◉	○
Standards for ICT sector to promote energy efficiency and reuse of waste heat (e.g. though decisions on location and design of data centres)	○	○	○	○	◉

5.6.3 Renovations

Renovation is a key tool to reduce greenhouse gas emissions from buildings, promote the uptake of renewable energy and improve energy performance.

In your view, how building renovation could be best incentivised?

Multiple options are possible.

- [x] Removing administrative barriers preventing energy efficiency and renewable solutions
- [x] Raising awareness and communicating better the wider benefits of sustainable buildings, notably in terms of costs savings
- [ ] More frequent and clear information about gas consumption enabled by smart meters to increase consumers’ awareness
- [x] Better education and training of architects, engineers and workforce to provide quality renovations

- [x] Targets for mandatory renovation in specific sectors, e.g. public buildings, social housing, schools, hospitals
- [ ] Energy saving obligation schemes
- [ ] Obligation to go beyond a certain energy performance standard before renting, phasing out the worst-performing buildings
- [x] Financial mechanisms (access to finance and incentives), including schemes directly attached to the property itself, and not to the person renting the building
- [x] Promoting one-stop-shops, reducing administrative burden and delays and other approaches to facilitate the “renovation journey”, including prefabricating energy efficiency solutions
- [x] Giving households right to a free, independent energy audits (e.g. paid by authorities or via an obligation on fossil heating fuel suppliers)
- [x] Carbon pricing
- [ ] Aggregating smaller projects to make the investment more attractive
- [ ] Working with building portfolio owners in order to shift to climate neutral/low emission buildings
- [x] Promoting the use of Energy Performance Contracts and Energy Service Companies
- [x] Public sector leading by example (e.g. renting or buying climate neutral/low emission buildings or renovating existing public buildings)
- [x] Encourage better urban planning, for the construction of sustainable buildings and the refurbishment of existing buildings and promote green infrastructure (e.g. green roofs or green walls)
- [ ] For rented buildings/apartments, finding new ways to share the costs and benefits of green solutions with the landlord
- [ ] Encourage construction sector to apply circular approaches, in particular design for easy dismantling and expansion of life span, apply material efficiency, use low carbon materials and maximise recycled/reused content

---

5.6.4 Barriers to renovations

In your view, what are the main barriers for renovating buildings more frequently and more deeply?

Multiple options possible.

- [x] Split incentives (different interests of owners and tenants)
- [x] Long pay-back periods
- [ ] Lack of technologies
- [x] Lack of skills in the construction/renovation sector and lack of available workforce
- [x] Limited offer for packaged and easy to install integrated solutions by local ‘one-stop-shops’ for building renovation
- [x] Households’ inability or unwillingness to pay for energy audits
- [x] Lack of information/low awareness amongst consumers
- [x] Lack of access to suitable financing solutions
- [ ] Discomfort and trouble related to the works
- [x] Too complex administrative procedures (permits required, high number of contacts and contracts needed)

- [x] Possible negative impact on the building aspect
- [ ] Lack of trust in the new technologies and the solutions currently proposed by the market

5.7 Energy infrastructure and sector integration

Decarbonisation is leading to an increased focus on the construction of electricity transmission lines as well as the need for more smart grids and local grids to handle increased decentralised electricity production. Similarly, regarding gas networks, focus will increasingly be on future proofing of gas infrastructure to allow carbon-neutral gas supply.

What do you think should be the priorities for the EU's infrastructure planning in the years ahead to facilitate decarbonisation?

Multiple choices are possible.

- [ ] As long as natural gas demand is strong, the EU should allow public support for the construction of new gas pipelines.
- [x] Strike a balance between electricity and gas infrastructure. Electricity cannot cover all energy demand, and thus gas will still be needed, but will have to be decarbonised. Part of the electricity production can be converted into synthetic gas/hydrogen through power-to-gas technologies and transported to demand centres.
- [x] Put the focus on electricity transmission and smart grids. With the expansion of renewable electricity and the electrification of energy demand, the priority is to expand the electricity network, notably to reap full potential of wind
- [ ] Natural gas is a fossil fuel and does not contribute to the decarbonisation of the EU's energy system. The construction of new gas infrastructure has a lock-in effect that will lead to continued consumption of the fossil natural gas; the large-scale decarbonisation of gas remains a distant perspective.

5.8 Enabling conditions and polices for industrial transformation

Many industrial players have in their recent industrial roadmaps committed to achieving the objective of a climate-neutral Europe by 2050, though they point out that there are specific enabling conditions, next to a sufficient carbon price signal in the EU Emissions Trading System, that need to be met for them to be able to do so.

Please rate the enabling conditions for the reduction of greenhouse gas emissions in industry, in the **2030 time horizon**.

Rating from 5 (very important) to 1 (little important). Not all options need to be rated.

	1	2	3	4	5
Progressive decarbonisation of energy supply and of industrial feedstock	○	○	○	○	◉

Competitive clean energy prices and feedstocks.	○	○	○	○	◉
Markets for zero- and low-carbon products via policy intervention (e.g. labelling, public procurement, standards, guarantees of origin)	○	○	○	○	◉
EU legal and financing framework for infrastructure, networks and grids	○	○	○	○	◉
Reduced administrative burdens e.g. faster access to construction and environmental permits	○	○	○	○	◉
Addressing public perception of some technologies, such as carbon capture and storage (CCS) and carbon capture and use (CCU)	○	○	○	○	○
Develop an EU methodology to certify carbon dioxide removal credits at the level of installations for different types of carbon dioxide removals in energy and industry, including use of bioenergy with CCS/mineralisation, air capture with CCS/mineralisation.	○	○	○	○	○
More circular economy, ensuring we re-use and recycle more products and materials in the EU, choose products with smaller environmental and carbon footprint, reduce waste and develop new business concepts for EU industry	○	○	○	○	○
Making mandatory the implementation of the recommendations in the energy audits	○	○	○	○	○
Offer SMEs the right to free energy audits or similar support	○	○	○	○	○
Border adjustment mechanism allowing EU industries to decarbonise without risk of “carbon leakage”, i.e. production shift to countries with less strict climate regulation	○	◉	○	○	○
Enhanced focus on joint solutions by the social partners contributing to the achievement of climate-neutrality and to address just transition within the sector	○	○	○	○	○
Support instruments providing stable incentives and increased investment certainty such as carbon contracts for difference	○	○	○	○	○
Increased coherence of price signals (including taxes, levies, carbon prices) for incentivising clean energy technologies	○	○	◉	○	○
Stronger EU Emissions Trading System price signal	○	○	○	○	◉
Support measures that would allow closing the financing gap for the demonstration and first deployment of innovative low-carbon technologies or products, and seamless combination with other EU funding instruments, such as a strengthened Innovation Fund	○	○	○	◉	○
Secure supply of sustainable raw materials needed for clean technology value chains	○	○	○	○	○

5.9 Waste management

The EU has a comprehensive legislation for waste management in place.

In your view, which waste policies would play the most important role to reduce greenhouse gas emissions?

at most 3 choice(s)

- [ ] Introduce further waste recycling targets for instance related to construction and industrial waste
- [ ] Introduce overall waste prevention target
- [ ] Introduce a target to reduce EU food waste
- [ ] Introduce a target to ensure a certain amount of our food and animal waste is converted into biogas
- [ ] Introduce legislation focussed on reducing greenhouse gas emissions from wastewater and liquid waste (e.g. sewage sludge)
- [ ] Prohibit landfilling of waste that can be treated differently and limit as much as possible incineration with a view to increasing recycling
- [ ] Harmonise the treatment of waste incinerators under climate legislation

PART II (for experts)

6 EU policies and outreach towards third countries on climate change policy

The threat of climate change requires a decisive and sustained response from all countries, particularly the major emitters. However, the aggregate effect of national climate plans is currently insufficient to keep the world on track to stay below 2°C of global warming, let alone 1.5°C. The EU's share of global emissions is currently at 9% and decreasing.

By the virtue of decades of climate policy implementation, the EU has developed extensive experience and expertise in design and development of regulations, incentives, and evidence based approaches to drive the transition to low carbon economy. As the rest of the world advances with the implementation of their Paris Agreement goals and targets, the “EU model” of decoupling economic growth from the growth of greenhouse gas emissions has become of particular interest to our partners around the world. The EU should work decisively to use its experience to promote the uptake of ambition at global level, as foreseen in the Green Deal Communication.
At their December 2019 meeting, EU Heads of States and Governments also invited the Commission to propose an update to the EU nationally determined contribution (NDC) under the Paris Agreement in good time before the UN Climate Change Conference in Glasgow in November 2020.

Next to that, the EU is also engaging more actively with partner countries to encourage and support extra efforts that reflect the highest possible ambition considering national circumstances. Solidarity with the efforts of the poorest and most vulnerable countries to deal with the consequences of climate change is more essential than ever.

In order to lead international negotiations, the EU will need to develop a stronger 'green deal diplomacy' focused on convincing and supporting others to take on their share of promoting more sustainable development. More generally, the EU will use its diplomatic and financial tools to ensure that green alliances are part of its relations with partner countries and regions, considering also the international security implications of climate change.

6.1 Priorities for climate diplomacy

Where do you think the EU should concentrate its climate diplomacy and cooperation efforts in the coming years?

Multiple options possible.

- [ ] Western Balkans, Eastern Europe and Central Asia
- [ ] Middle-East and North Africa
- [ ] Sub-Saharan Africa
- [ ] North-Atlantic region including the USA
- [ ] Latin America and Caribbean including Brazil
- [ ] South Asia including India
- [ ] East Asia including China
- [ ] South East Asia
- [ ] Australia, New Zealand and the Pacific Region
- [ ] G20/G7
- [ ] International Financial Institutions (IMF, WB, OECD, etc.)

6.2 Approach for development assistance and climate financing in third countries

In terms of development assistance and climate financing in third countries, what approaches would you consider most pertinent?

Multiple options possible.

- [ ] Building coalitions around adaptation with the most vulnerable countries and regions
- [ ] Allowing countries with limited energy supply to leapfrog to climate neutral technologies
- [ ] Providing support for the development of comprehensive national plans and strategies

- [ ] Development of low emissions infrastructure
- [ ] Supporting just transition
- [ ] Development of climate compatible land-use practises and nature based solutions
- [ ] Promoting circular economy and decent supply chains
- [ ] Development of sustainable finance and investment environments (enabling environments)

6.3 Coherence of climate, trade and other strategic foreign policy instruments

Which improvements in the coherence of climate, trade and other strategic foreign policy instruments would be most important to support the EU's low emissions transition priority?

Multiple options possible.

- [ ] Pursue ambitious external action to encourage other countries to raise their climate ambition to levels similar to the EU's.
- [ ] Prepare to introduce border measures to avoid carbon leakage in case others don't respond with comparable action
- [ ] Pursue positive trade cooperation in the context of tariffs, public procurement rules, standards and regulation
- [ ] Promote green tech/low carbon business dialogues
- [ ] Enforce the climate provisions of the Trade and Sustainable Development (TSD) chapters of the Free Trade Agreements
- [ ] Lead by example and increase the EU's greenhouse emissions target for 2030 to 50% to 55% compared to 1990
- [ ] Drive further progress on climate action in other international fora such as ICAO (aviation) and IMO (shipping)
- [ ] Better address the security implications of climate change
- [ ] Intensify dialogues at leaders' level

6.4 Deliverables for the next UN Climate conference (COP26)

In view of EU's international leadership, what deliverables do you consider most important for the next UN Climate conference - the Glasgow COP?

Multiple options possible.

- [x] Maintaining global momentum and stakeholder engagement in support of the implementation of the Paris Agreement through a signal of commitment to increase global ambition in line with science
- [ ] Demonstrating climate efforts by non-state actors
- [x] Submission of ambitious long-term low greenhouse gas emission strategies
- [x] Finalisation of the Katowice rulebook to make the Paris Agreement fully operational
- [x] Announcement of new headline targets - Nationally Determined Contributions (NDCs)

- [ ] Reaching agreement on the process to establish the post-2025 climate finance pledge
- [ ] Establishing processes to direct private sector funds to sustainable and resilient climate investments
- [ ] Increasing the share of international climate financing for adaptation and resilience
- [ ] Making progress under the work programme for Warsaw International Mechanism to address loss and damage associated with impacts of climate change in the most vulnerable developing countries

PART II (for experts)

7 Additional information

Are there other key aspects which you did not find reflected in the questions and you would like to comment upon?

1,000 character(s) maximum

Eurelectric is aiming at finalising a more detailed answer in a separate paper which will be available shortly.

If appropriate, please upload concise position papers or policy briefs that express the position or views of yourself or your organisation.

Contact

CLIMA-ENER-2030-PLAN@ec.europa.eu

Eurelectric pursues in all its activities the application of the following sustainable development values:

Economic Development

- Growth, added-value, efficiency

Environmental Leadership

- Commitment, innovation, pro-activeness

Social Responsibility

- Transparency, ethics, accountability

Union of the Electricity Industry - Eurelectric aisbl
Boulevard de l'Impératrice, 66 – bte 2 - 1000 Brussels, Belgium
Tel: + 32 2 515 10 00 - VAT: BE 0462 679 112 • www.eurelectric.org
EU Transparency Register number: 4271427696-87