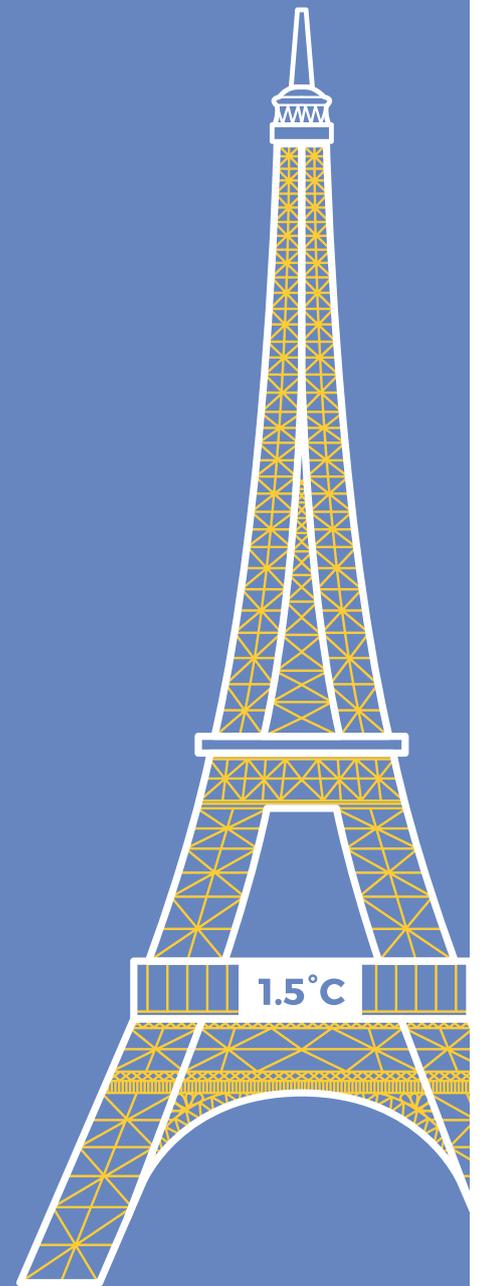


TIME TO
**PICK UP
THE PACE**

Insights into the draft
National Energy &
Climate Plans



KEY ELEMENTS & RECOMMENDATIONS

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NECPS: IN A NUTSHELL

According to the new Governance Regulation adopted last year, Member States had to prepare their draft National Energy and Climate Plans (NECPs) and submit them to the European Commission by 31st December 2018, while the final version needs to be prepared by 31st December 2019. In these plans, each Member State has to describe, in an integrated manner, its climate and energy objectives, targets, policies and measures for the period from 2021 to 2030, ensuring that the Union's 2030 targets for greenhouse gas emission reductions, renewable energy and energy savings will be met.

The minimum ambition level the NECPs are required to deliver is set by the EU's sectoral climate and energy legislation including the Effort Sharing Regulation, the Renewable Energy Directive and the Energy Efficiency Directive. This means that Member States need to show how they will deliver their national binding greenhouse gas emission reduction targets for sectors not included in the EU Emissions Trading System (such as transport, buildings, waste, agriculture) and contribute to the EU's recently adopted energy targets of at least 32% renewable energy and 32.5% energy efficiency by 2030.

However, there is no limitation on Member States to design more ambitious plans. As none of the 2030 targets agreed are adequate for the EU to deliver on its commitments under the Paris Agreement, Member States should use their NECPs to go beyond what is required to meet the overall EU climate and energy targets for 2030.

The European Commission is now assessing the draft plans and by June 2019 will issue recommendations to Member States that do not present a sufficient contribution to reaching the Energy Union's goals or if the policies, measures and the objectives included in the plans of all Member States are not enough collectively to achieve the goals. Member States will have to finalise their NECPs by the end of 2019, taking into account these recommendations.

This briefing presents the initial views of NGOs regarding the submitted draft NECPs. It is not meant to be a comprehensive analysis of all aspects of the plans but provides a first overview of some of the main issues that will need to be addressed in the European Commission's recommendations in June. The briefing includes general recommendations and country factsheets highlighting key issues [1] to improve on so that the NECPs really pivot the energy transition.

[1] Details and background information used in the analysis not presented in the main body of the briefing are included in the Notes section at the end.

#EUNECP



RECOMMENDATIONS

In the NECPs, Member States need to elaborate concrete steps to reduce their emissions and transition their energy systems away from fossil fuels in order to reach EU's climate and energy targets for 2030. It is positive that the draft NECPs are now submitted, offering a starting point for engagement in detailed discussions on the way to 2030 and beyond. This is important as from our analysis, there are clear indications that the draft plans lag behind on ambition and concrete measures to accelerate the shift to a fully energy efficient and renewable energy system.

Overall, the submitted draft NECPs do not address the urgency of climate change, as they do not reflect the scale of the action needed to speed up the transition and achieve the long term objectives of the Paris Agreement.

Luckily, there is still enough time for Member States to improve the plans before finalising them at the end of 2019. The European Commission must hold EU governments accountable for the quality of the draft plans, and make recommendations that will ensure the EU gears towards higher climate ambition in the short term and net-zero emissions well before 2050. Based on the first insights from the draft NECPs, it is clear that Member States need to:



Increase the level of climate ambition



Go beyond the minimum requirements for renewable energy and energy savings



Develop robust policies and measures to underpin the delivery of the energy transition



Plan for phasing out coal



Ensure climate-proofing of new energy infrastructure



Shift financial flows away from fossil fuels



Ensure public participation and debate

INCREASE THE LEVEL OF CLIMATE AMBITION

Going beyond the minimum requirements of the Governance Regulation, Sweden, Portugal, Denmark, the Netherlands, Finland and France have a long-term target to reach net-zero emissions by 2045 or 2050 at the latest. NGOs are calling for the EU to achieve net-zero emissions by 2040. Furthermore, Luxembourg and Sweden have explicitly set a higher national 2030 target for emission reductions in sectors such as transport, buildings, agriculture, and waste (non-ETS sectors) compared to their binding target under EU law. Spain also has a higher non-ETS target but this is still linked to an overall emission reduction of only 20% compared to 1990 levels by 2030.

More specifically, regarding the emissions in the non-ETS sectors, countries such as Belgium, France, Italy and Spain, present projections under both existing and proposed policies and measures. These indicate that the emission reductions required would be achieved by 2030 after the implementation of the new measures, which still needs to take place. Others, such as Austria, Sweden, Latvia, Germany and the Netherlands provide emission reduction projections under existing measures without yet including a comprehensive analysis of emission reductions under planned measures. These only confirm that existing measures are expected to be insufficient to achieve the necessary emission reductions by 2030.

There are also countries such as Bulgaria, Estonia, Slovenia and Slovakia which provide insufficient data regarding the projected reductions in the non-ETS sectors as a whole in their draft NECPs. This makes an adequate judgement on aggregate EU performance challenging. Finally for countries such as Croatia, Greece and Bulgaria, achieving their non-ETS target would require very little to no additional effort compared to emission reductions that are expected to be achieved under existing measures.

In light of recent climate science, in particular the IPCC Special Report on Global Warming of 1.5°C, all Member States need to substantially increase their national 2030 emission reduction commitments and deliver the required reductions.



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GO BEYOND THE MINIMUM REQUIREMENTS FOR RENEWABLE ENERGY AND ENERGY SAVINGS

There are some countries that indicate commitments to boost renewable energy in their NECPs. For example, Portugal is planning to double its renewable energy installed capacity in the electricity sector by 2030. Austria has set a 100% renewable electricity target for 2030. At the same time, a range of Member States are not fully using their renewable energy potential. Moreover countries such as Bulgaria, Czechia and Finland indicate a lower share of renewable energy as a starting point in 2020 to reach their 2030 contribution than the share they have already achieved in 2017. Given these countries are not building on developments that have already taken place, they could be much more ambitious when setting out their 2030 renewable energy contribution. There are also a range of countries such as the Netherlands, France, Ireland, Belgium, Poland and Luxembourg which are still far away from their 2020 target and will have to step up efforts to ensure they are on the right track to 2030.

Overall, the plans need to reflect potentials: renewable energy deployment should not be limited to meeting the set EU 2030 target and targets should be backed up by credible policies and measures.

Concerning energy efficiency, the draft NECPs show that more ambition is needed to deliver the benefits energy efficiency offers to the economy, the people and the environment. Taking into account

that not all Member States include the necessary information in their NECPs, a preliminary analysis suggests that the collective level of ambition will not be sufficient to achieve the EU 2030 energy efficiency target. Based on the available information, for primary energy, it is estimated that only 27.4% energy savings would be reached by 2030 instead of the agreed EU target of 32.5%. In terms of final energy, the gap is smaller as it is estimated that around 31% of energy savings would be reached. This is without taking into account the contribution from Germany, which is one of the countries that have not submitted information on their final energy consumption for 2030 in their draft NECP.

From the countries that indicate lower energy consumption by 2030 compared to today (the most recent Eurostat data for current levels of consumption are for the year 2017), the Netherlands foresees the highest reduction in primary energy consumption and Luxembourg the highest reduction in final energy consumption. Among the countries that foresee an increase in their energy consumption by 2030, Cyprus, Malta, Ireland and Denmark assume a consumption level that would lead to an increase compared to today; either to the most recent EU business as usual projections (PRIMES 2016); or to their 2020 energy efficiency target for both primary and final energy. This is also the case for Hungary, even though the increase in final energy

is marginal compared to today. For Greece and Finland, the level of their energy consumption for 2030 is similar to their indicative 2020 energy efficiency target and would also lead to an increase of energy consumption compared to today and the most recent EU business as usual projections.

As a bare minimum, the national energy efficiency contributions should at least match the ambition of the EU energy efficiency target, while aiming to seize the full energy efficiency potential for 2030.



DEVELOP ROBUST POLICIES & MEASURES TO UNDERPIN THE DELIVERY OF THE ENERGY TRANSITION

The NECPs need to include strong policies and measures that will substantiate the delivery of the 2030 targets. This crucial element needs to be further developed for most Member States by the end of the year, as either clear measures or elaboration on policies and measures proposed are often missing from the draft plans. Sweden and Luxembourg, for example, still need to present a full range of measures and their impact, while for Croatia the measures are purely descriptive. In countries such as Estonia, Ireland and Germany, it has already been assessed at the national level that new measures will be needed to deliver the targets but these are not adequately included in the NECPs.

Furthermore, countries such as Austria, Belgium and Portugal are missing measures for a real mobility shift. Denmark that commits to a ban on sales of diesel and petrol cars by 2030, now needs to back this with clear strategies and incentives to support the implementation. In addition, energy efficiency measures, particularly in buildings need to be further developed in countries such as France, Italy, Portugal and Germany. In countries such as Denmark, Estonia, Hungary, Finland and the Netherlands, it appears that levels of biomass and biofuels use go far beyond sustainable levels.

The rights of citizens to produce their own energy are also not properly addressed in the NECPs in several Member States, including Hungary and Bulgaria, while for example in Czechia, Hungary and Slovenia, the role of energy communities is not fully acknowledged despite the important role they can play in the energy transition. On the contrary, in Greece energy communities and prosumers are supported with dedicated provisions for the promotion of small decentralized renewable systems. Other encouraging indications include a goal for the increase of offshore wind energy capacity in Belgium and intentions to enable offshore wind development in Poland as well.

In order to allow a proper assessment on whether the EU will at least meet its 2030 climate and energy targets, the planned policies and measures need to be comprehensive, credible, quantified and based on up to date information. All the background data and underlying methodologies need to be publicly available in order to allow for proper analysis.

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PLAN FOR PHASING OUT COAL

Some countries put forward much needed goals to phase out coal, as for example Italy that confirms its commitment to a coal phase out by 2025, or Portugal which aims to close all of its coal fired power plants by 2030. Furthermore, Spain published together with the draft NECP, a “Just Transition” draft Strategy, which is an integral aspect of phasing out coal. However, there are still a number of Member States such as Bulgaria, Romania, Greece, Poland, Slovenia and Czechia, where according to the NECPs, coal will continue to play an important role in the energy system beyond 2030. Slovakia also does not take the opportunity provided by the development of the NECPs to plan for a proper phase out of coal. This is both incompatible with the Paris Agreement and costly for European citizens.

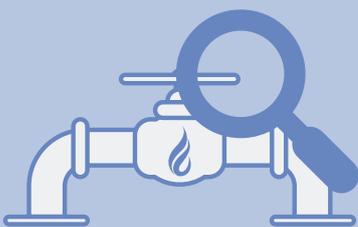
The effort to reduce reliance on coal needs to be evident within the NECPs with the aim of phasing it out completely by 2030 at the latest. This should be conditional for receiving funds for the just transition, in particular those channelled via the Coal Regions in Transition Platform.



ENSURE CLIMATE-PROOFING OF NEW ENERGY INFRASTRUCTURE

Prioritising investments in clean energy solutions will trigger the transition needed to modernise Europe’s energy system and meet the EU’s climate objectives. However, many Members States such as Italy, Greece, Poland, Ireland and Bulgaria plan to invest further into new fossil fuel infrastructure, namely for fossil gas.

Investing in new fossil fuel infrastructure risks creating lock-in effects and stranded infrastructure assets. At the same time, investments into maintaining existing fossil fuel infrastructure bar the way to a system-switch towards energy savings and renewable energy sources.



SHIFT FINANCIAL FLOWS AWAY FROM FOSSIL FUELS

In general, detailed information about investment needs for implementing envisaged measures, as well as the financial support that goes to fossil fuels is missing from the NECPs. Overall, few countries mention the role that post-2020 EU funds might play in achieving set targets, even without committing to any funding priorities at this point. For example, France includes an investment needs roadmap for transport, housing, energy and networks, calculating annual investment needs for each of the sectors until 2050.

The NECPs need to include information on the financial pillar (investment needs and means) to all sectors and measures in order to increase credibility, enable implementation, and to provide certainty to markets and investors.

On the state of play and phasing-out plans for fossil fuel subsidies, some Member States such as Austria report that they will add energy subsidies information later in the process, while some others do report on aspects of their current support for fossil fuels. The Italian NECP includes a comprehensive list of fossil fuel subsidies but still lacks a commitment on how and when these subsidies will be eliminated. However, there are also countries that either do not include any information or claim they do not provide support for fossil fuel subsidies. For example, Sweden, Belgium, Estonia and France do not report on this issue, although there is ample evidence regarding the level of fossil fuel subsidies in these countries.

NECPs need to clearly summarise available information on fossil fuel subsidies and outline commitments to phase them out.

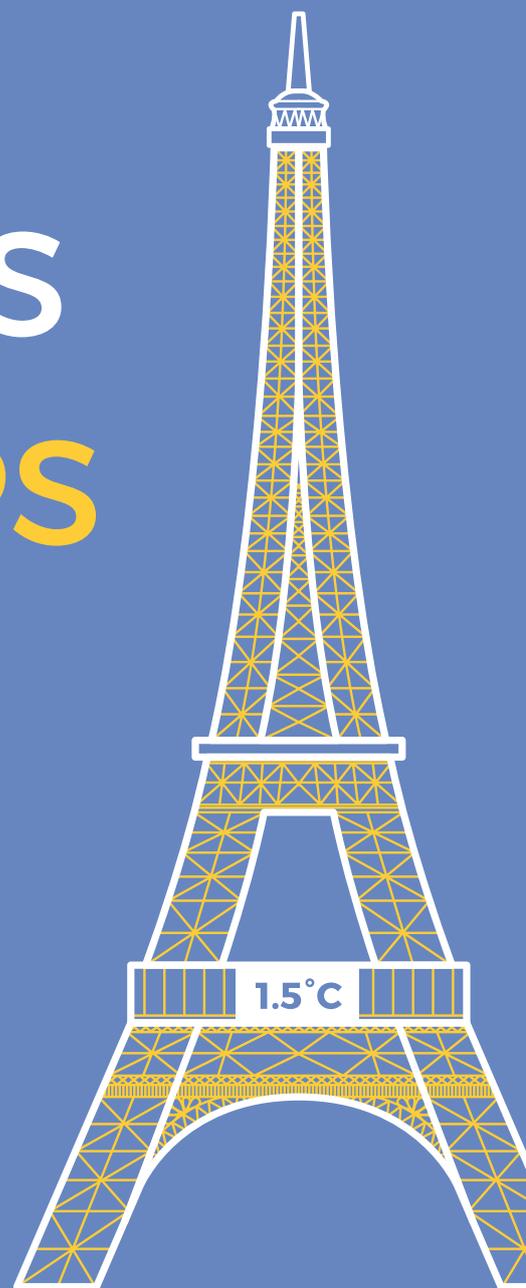
ENSURE PUBLIC PARTICIPATION AND DEBATE

In the drafting of the NECPs, stakeholder and citizen consultation is required. In countries such as Czechia, Slovakia and Croatia, the consultation period was limited. Furthermore, in Germany, a consultation still needs to be organised.

Member states have to facilitate public participation while all options are still open and citizens still have the real ability to input into plans. This is essential for meaningful and effective consultation.



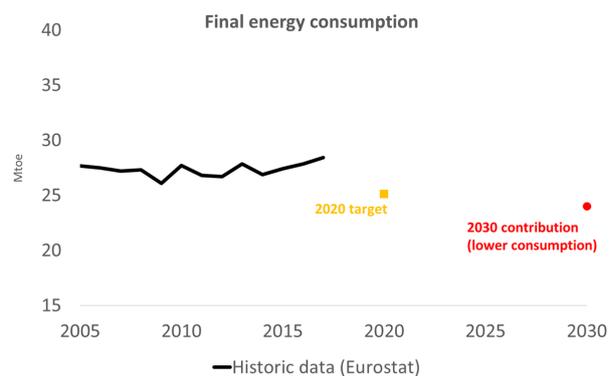
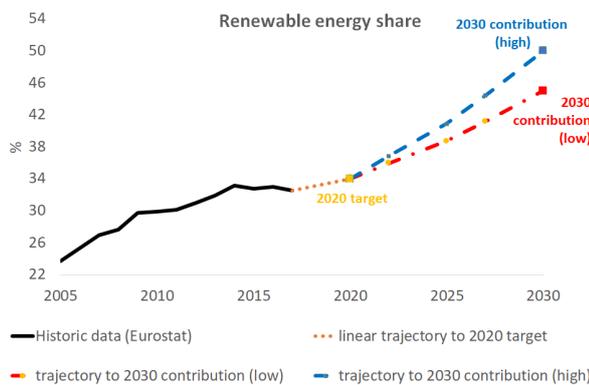
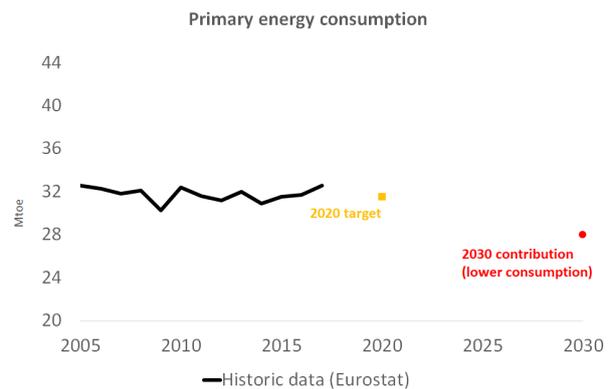
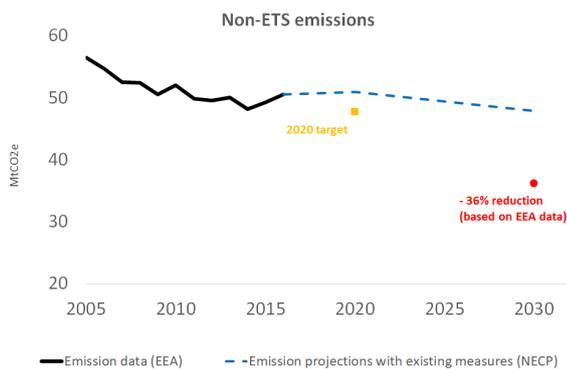
FACTSHEETS ON 24 NECPS





Austria

Austria has a target to achieve a 36% greenhouse gas emission reduction in sectors such as transport, buildings, waste and agriculture (non-ETS sectors) compared to 2005 by 2030, as required by the EU law. However, according to the draft National Energy and Climate Plan (NECP) existing measures are expected to achieve only a 15.7% reduction (leading to a level of emissions of 47.9 MtCO₂e). The draft plan is still missing an impact assessment of proposed measures. Austria has a target of 100% renewable green electricity by 2030. The overall renewable energy contribution is set between 45-50% in 2030, starting in 2020 with a 34% share, which is also the country's 2020 renewable energy target. Austria has opted for an energy intensity target that allows energy consumption to fluctuate with GDP growth. For a 25-30% energy intensity improvement, the draft plan indicates a level of energy consumption in 2030 of around 30-28 Mtoe of primary energy and 25-24 Mtoe of final energy.



KEY ISSUES AND RECOMMENDATIONS

Come forward with concrete measures

Measures in the NECP are too vague. Studies such as the "Transition 2030, 2050" describe measures to achieve the targets, but these are missing from the draft plan. Furthermore, given that transport emissions have increased by 72% compared to 1990, a ban of diesel and benzine fueled cars is needed by 2030 at the latest.

Act on commitments to ban fossil fuel heating systems

The "phase-out of oil-fired heating" is announced repeatedly as a political commitment but the plan only foresees to "aim" for fully renewable heating systems from 2021 instead of making a clear decision. Furthermore, the installation of fossil gas heating systems in "exceptional cases" in new buildings will still be allowed after 2020. Especially in new construction, fossil energy should be banned.

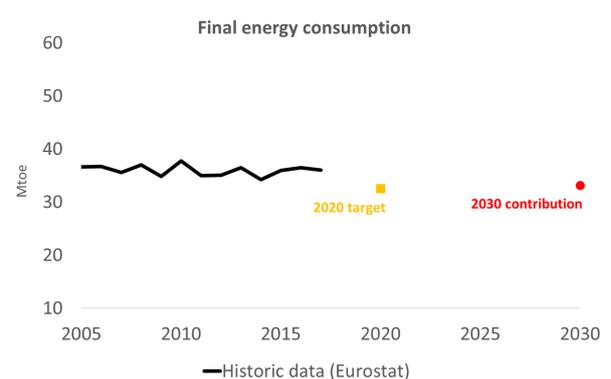
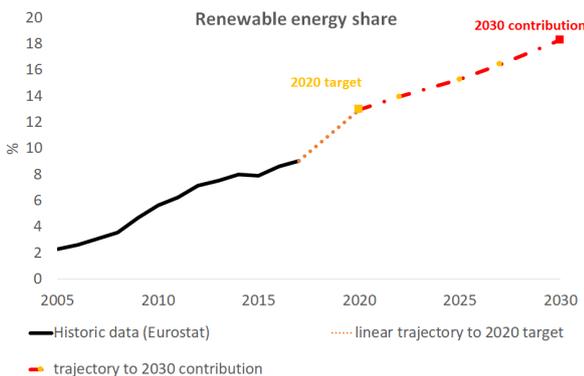
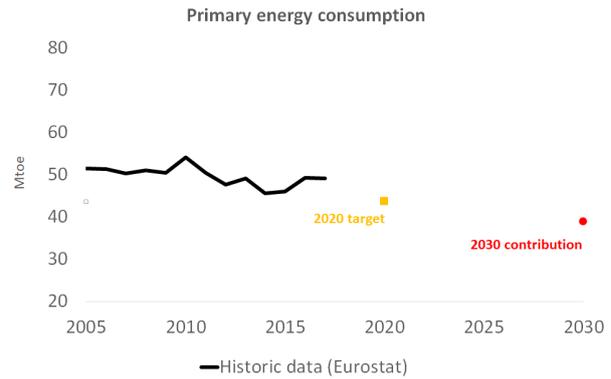
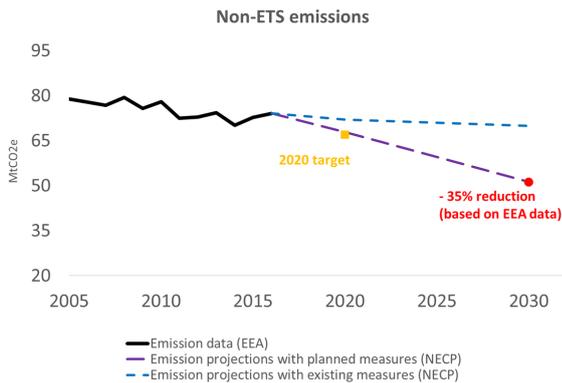
Present strategy on eliminating harmful subsidies

The Climate Strategy Mission 2030 includes a commitment to "eliminate counterproductive incentives and subsidies", but according to the draft NECP, a list of environmentally-harmful subsidies is only to be drawn up by June 2019. This falls short of the action needed since such information is already available (e.g. a study of the Austrian Institute of Economic Research published in February 2016).



Belgium

According to the draft National Energy and Climate Plan (NECP), the measures proposed will be sufficient to achieve the 35% greenhouse gas emission reduction target for sectors such as transport, buildings, waste and agriculture (non-ETS sectors) by 2030 compared to 2005 levels, as required by EU law. However, this will prove a challenging shift from business as usual, as projections based on existing measures indicate a reduction of merely around 11% by 2030. Belgium also sets a renewable energy contribution of 18.3% in 2030. Currently Belgium is not on track to achieve its 2020 renewables target which is 13%. The level of energy consumption foreseen for 2030 in the draft plan amounts to 39 Mtoe of primary energy and 33.1 Mtoe of final energy. For final energy, this means an increase of energy consumption compared to the 2020 energy efficiency target.



KEY ISSUES AND RECOMMENDATIONS

Set a coherent path of action across the country

Coherence is lacking between the draft plans of the regions and that of the federal government. There is no clear strategy on how these plans will work together to set Belgium on the right track for 2050.

Boost action on renewables and energy efficiency

It is of utmost importance to have more ambitious clean energy goals. For example, the measures presented in the draft plan will rather slow down the pace of the deployment of renewables instead of speeding it up. These goals have to be accompanied by stronger policies (e.g. better spatial planning for onshore wind with more citizen participation, certainty on the profitability of solar panels and a more proactive approach on the phasing out of fossil fuels for heating).

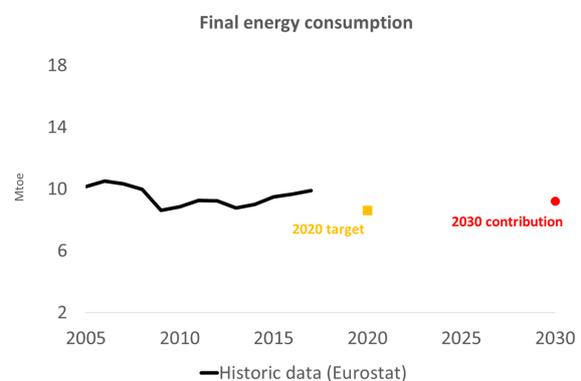
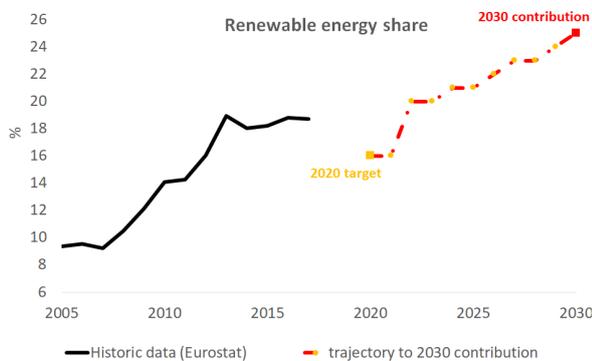
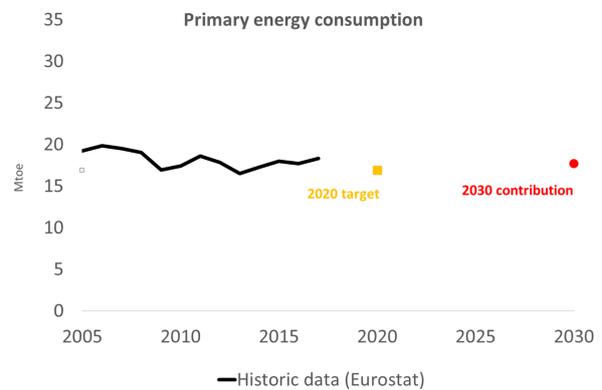
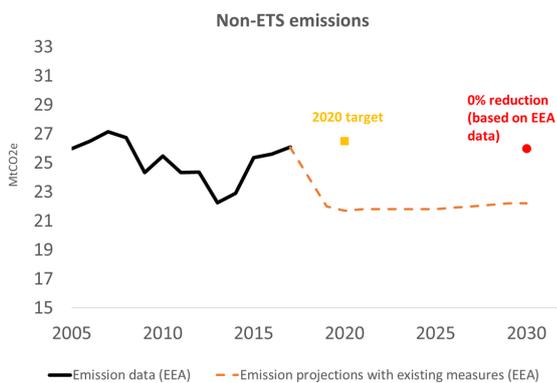
Plan for a real mobility shift

Referring to low-carbon cars by 2030 and relying on a very high share of biofuels will not lead to the real mobility shift that is needed. The plan needs to set a target of 100% zero-emission vehicles by 2030.



Bulgaria

Bulgaria has an overall greenhouse gas emission reduction target of 0% by 2030 compared to 2005 for sectors such as transport, buildings, waste and agriculture (non-ETS sectors). Already overshooting its 2020 target, it is expected that Bulgaria will also overachieve its 2030 non-ETS target. Based on projections provided by the European Environment Agency (the emissions data provided in draft NECP is incomplete), with existing measures alone, emission reductions of around 14% will be reached by 2030 compared to 2005. According to the draft National Energy and Climate Plan (NECP), Bulgaria sets a renewable energy contribution of 25% in 2030, starting in 2020-2021 with a share of 16%. This starting point is, however, lower than what the country already achieved in 2017 (18.7%). The level of primary energy consumption is estimated at 17.7 Mtoe, while the plan foresees a level of final energy consumption of around 9.2 Mtoe for 2030. This is slightly lower than the current levels of consumption and an increase compared to the 2020 energy efficiency target.



KEY ISSUES AND RECOMMENDATIONS

Start discussions for phasing out coal

The draft NECP highlights the importance of coal as a strategic energy resource. It even elaborates that existing coal capacities will be available for electricity production for the next 60 years. The country needs to pledge for a coal phase out in the foreseeable future, otherwise the coal regions will have no time to reform and adapt.

Empower citizens to produce their own energy

Bulgaria disregards the important role of prosumers and energy cooperatives in the energy transition, deeming the issue as not relevant in the national draft NECP.

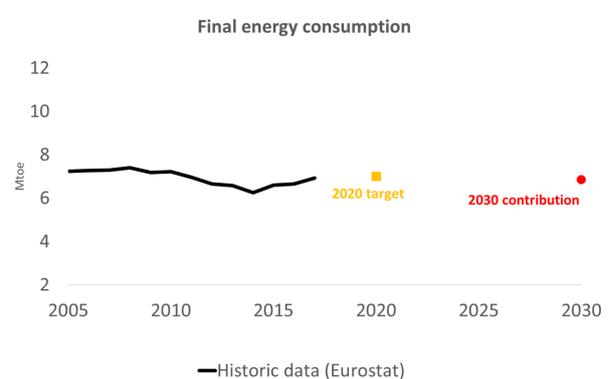
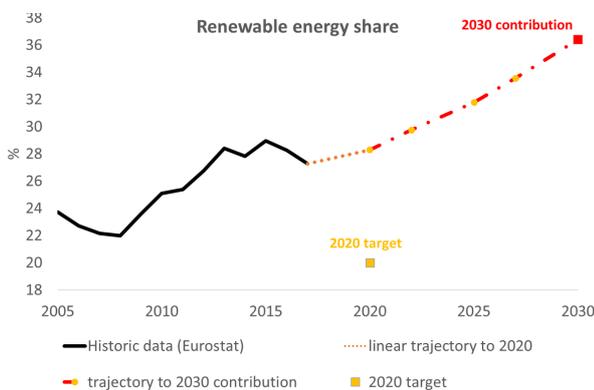
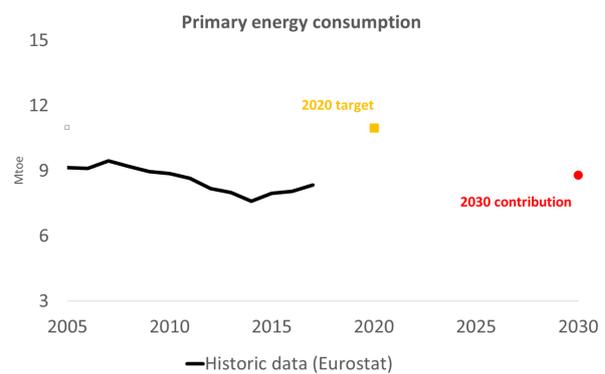
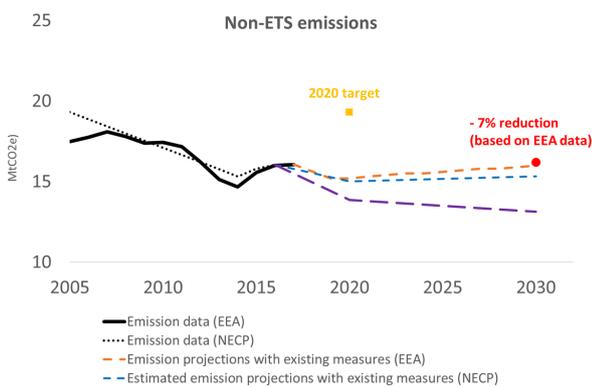
Embrace the potential of renewables

Instead of giving a boost to renewable energy production, the country is choosing a dead end path by setting large scale plans for fossil gas use in households as well as waste incineration and biomass cofiring in old power plants.



Croatia

Croatia has an overall greenhouse gas emission target of 7% by 2030 for sectors such as transport, buildings, waste and agriculture (non-ETS sectors) compared to 2005. Projections in the draft National Energy and Climate Plan (NECP) indicate that Croatia will reach emission reductions of 20.6% compared to 2005 with existing measures, while a reduction of 32% is expected under the projections with proposed measures. The information included in the NECPs deviates considerably from the European Environment Agency's (EEA) data, but both suggest that Croatia will achieve the required emissions reductions with existing measures only. Croatia sets a renewable energy contribution of 36.4% in 2030, starting with a share of 28.3% in 2020, which is however lower than what the country already achieved in 2015. The level of energy consumption foreseen in the draft plan for 2030 amounts to 8.8Mtoe of primary energy and 6.8 Mtoe of final energy. For primary energy, this means a slight increase of consumption compared to today.



KEY ISSUES AND RECOMMENDATIONS

Demonstrate the credibility of measures

The measures in the draft NECP are just descriptive. The impact of measures should be clearly defined and quantified to show their contribution in delivering the 2030 targets.

Estimate investment needs and financing

Investment needs and means of financing should be presented for all measures, as they are currently missing.

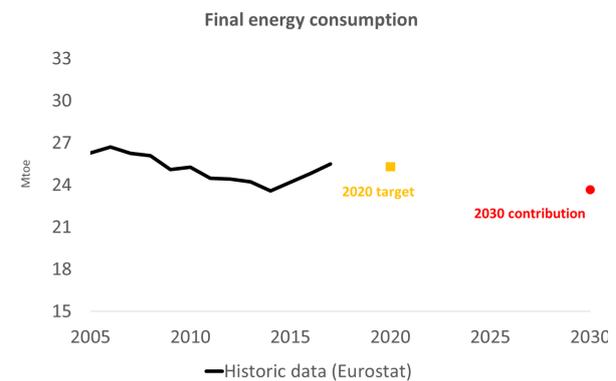
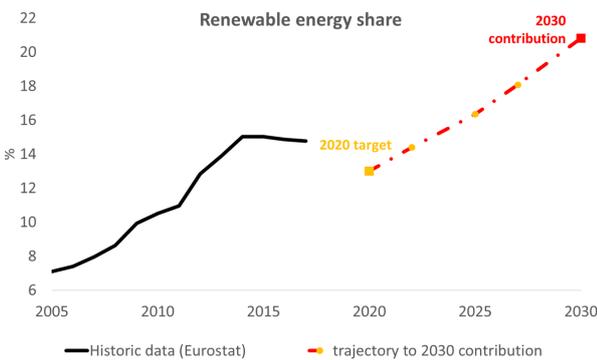
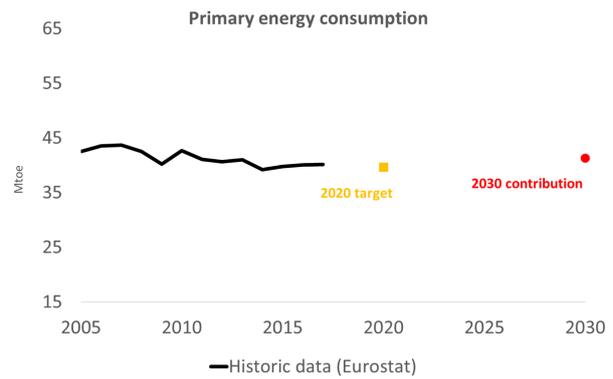
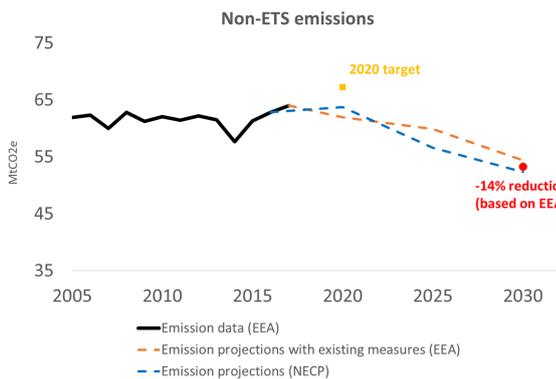
Ensure public participation

Unlike the process followed for the draft plan, it is important to establish a participative process for preparing the final one with the involvement of stakeholders, which will increase the chances for successful implementation.



Czechia

Czechia has a greenhouse gas emission reduction target of 14% by 2030 compared to 2005 in sectors such as transport, buildings, waste and agriculture (non-ETS sectors), as required by EU law. According to the draft National Energy and Climate Plan (NECP), overall emissions will be reduced by around 22% compared to 2005 under projections both with existing and planned policies. In the non-ETS sectors, Czechia expects to achieve emission reductions of around 14.9% by 2030, but it is not specified whether this is under projections with existing or planned policies. Czechia sets a renewable energy contribution in 2030 of 20.8%, starting in 2020 with a share of 13%, which is the country's 2020 target. This is lower than what the country already achieved in 2017 (14.8%). The level of energy consumption foreseen for 2030 amounts to 41.2 Mtoe of primary energy and 23.6 Mtoe of final energy. This means an increase of primary energy consumption compared to today.



KEY ISSUES AND RECOMMENDATIONS

Phase out coal

A future-proof NECP needs to include a course of action for a coal phase out but the draft plan does not provide any information that would point towards such a direction. This is also relevant for receiving potential funding through the Regions in Transition Platform. In addition the draft NECP does not contain information on any form of Just Transition.

Support more renewables

A higher target is needed to help the development of renewable energy. The share of electricity coming from renewable energy in particular is lower than estimates provided by the renewables sector and inconsistent even with the country's State Energy Policy which foresees a higher share compared to that included in the draft.

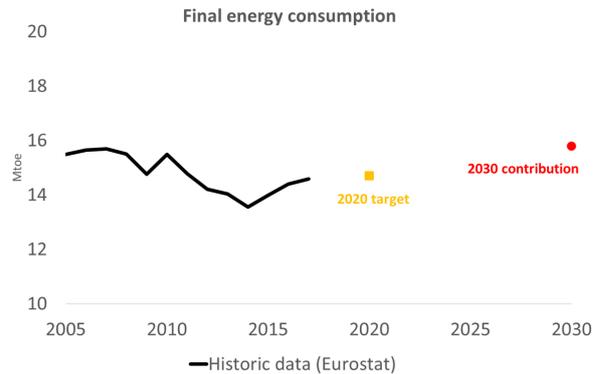
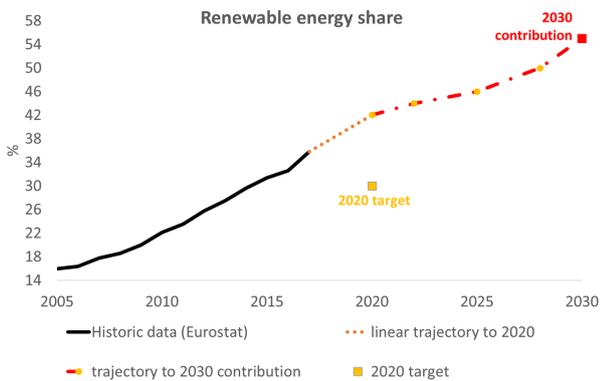
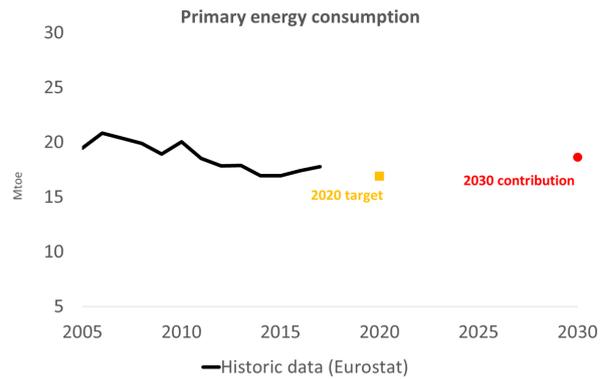
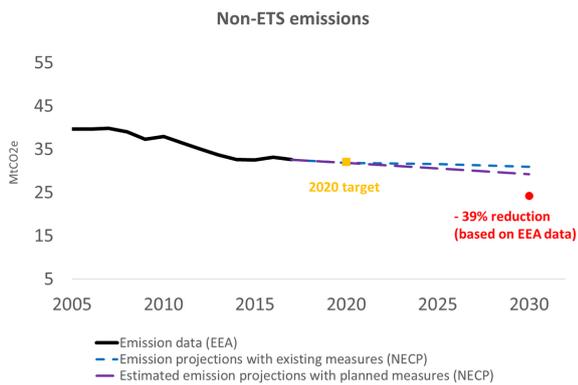
Acknowledge the role of energy communities in the transition

The draft plan does not include any provisions for setting enabling conditions for community energy despite the important role they can play in the energy transition.



Denmark

Denmark has a target of net zero emissions by 2050 at the latest. For sectors such as transport, buildings, waste and agriculture (non-ETS sectors), Denmark aims to reduce its greenhouse gas emissions by 39% compared to 2005 by 2030, which is the minimum that the EU law requires. The draft National Energy and Climate Plan (NECP) indicates that with existing measures only around 22% of emission reductions will be achieved compared to 2005 in these sectors. A preliminary impact assessment of planned measures indicates that even with these further foreseen measures, non-ETS emissions will only be reduced by 26.4%. Denmark sets a renewable energy contribution of 55% in 2030. The starting point in 2020 is 42% which is higher than the country's 2020 target (30%). The level of energy consumption foreseen for 2030 amounts to 18.6 Mtoe of primary energy and 15.8 Mtoe of final energy. This is an increase compared to today and the 2020 energy efficiency target.



KEY ISSUES AND RECOMMENDATIONS

Invest in real emission reductions, not in loopholes

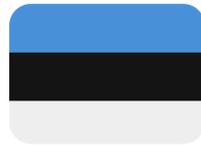
The emission reductions rate between 2020 and 2030 will be a quarter of what has been achieved in the last 10 years. The majority of emission reductions expected by 2030 in the non-ETS sectors, which are anyway not enough to deliver what is required, will be achieved through a massive use of loopholes (using LULUCF credits and annulment of ETS credits)

Substantiate the sales ban on diesel and petrol cars

There is a clear goal for a ban on sales of diesel and petrol cars by 2030. However, tax reductions for combustion engine cars the last few years led to a rapid growth of the Danish car fleet. The higher price gap with electric cars made the purchase of fossil cars more attractive. Incentives should move to the opposite direction.

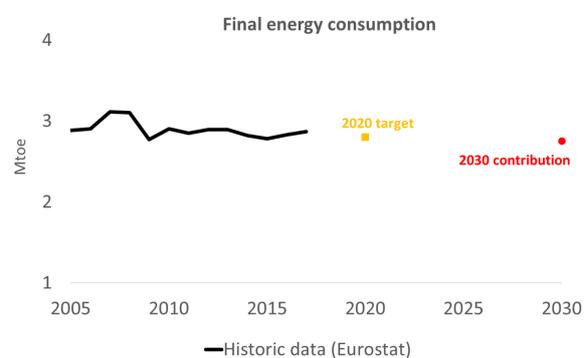
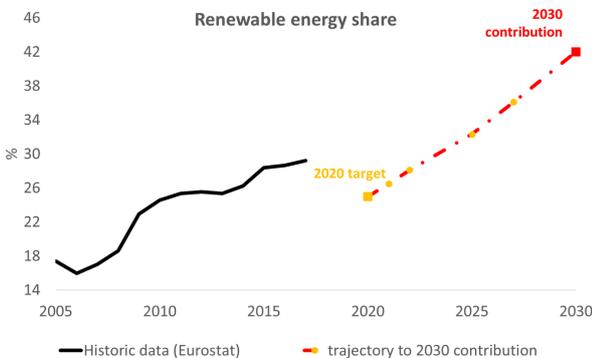
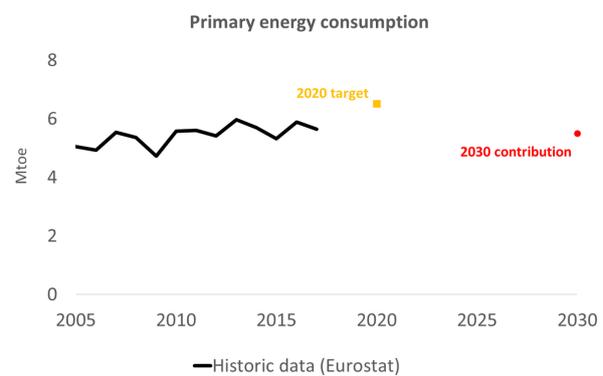
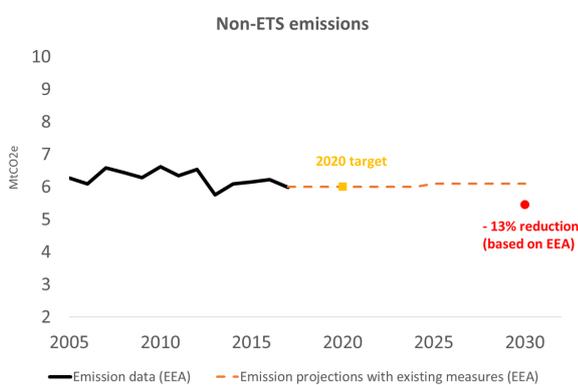
Reduce reliance on biomass

Ambition in increasing renewables like offshore wind is positive. However, biomass still takes up a much too high share of Danish renewables. Biomass use per capita is already more than double the EU average and will be triple by 2022. Concern about biomass negatively affecting forest carbon sinks is growing.



Estonia

Estonia's 2030 target for sectors such as transport, buildings, waste and agriculture (non-ETS sectors) is a 13% greenhouse gas emission reduction compared to 2005, as required by the EU law. The draft National Energy and Climate Plan (NECP) does not clearly present projections for emission reductions in the non-ETS sectors as a whole. Based on projections of the European Environment Agency (EEA), under existing measures Estonia is on track to achieve its 2020 non-ETS target, but will achieve only 2.2% emission reductions by 2030. The draft NECP is linked to outdated policy documents such as the "General Principles of Climate Policy until 2050" and the "Energy Development Plan until 2030", which foresee only 80% greenhouse gas emission reductions by 2050. The renewable energy contribution is set at 42% in 2030, starting in 2020 with a share of 25% which is the country's 2020 target. This is lower than what was already achieved in 2017 (29.2%). The draft plan refers to a 10% lower primary energy consumption than in 2012, which is about 5.5 Mtoe in 2030. A level for final energy consumption, which is estimated at around 2.7 Mtoe, is also mentioned. This is slightly below today's energy consumption.



KEY ISSUES AND RECOMMENDATIONS

Commit to stronger targets backed up by adequate measures

No new measures are foreseen compared to old strategy documents based on an 80% greenhouse gas emission reduction target by 2050. According to analysis from the Stockholm Environmental Institute, measures similar to those included in the draft NECP are not sufficient to reach even the 2030 goals.

Exit oil-shale by 2030 at the latest

Estonia has one of the largest fossil fuels share in its primary energy supply and is the world's largest user of oil shale. However, the draft NECP does not include an end date nor transition measures to exit oil shale.

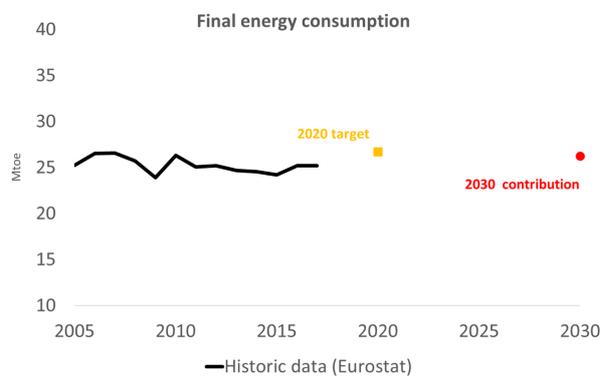
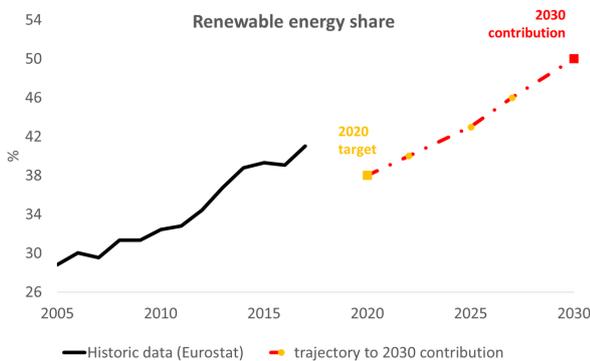
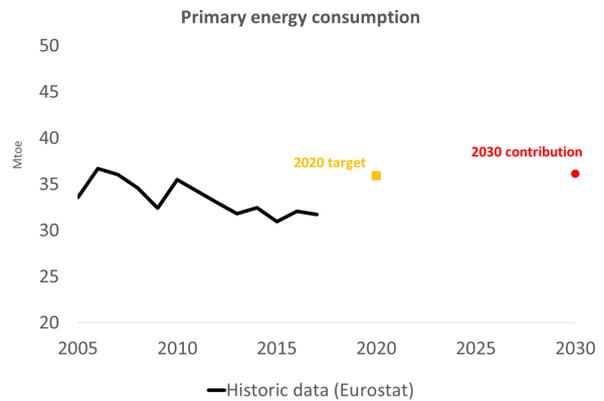
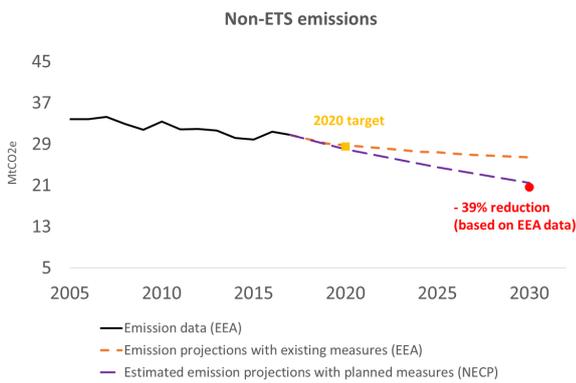
Support the development of renewable energy

The draft NECP relies heavily on unsustainable biomass use without a full analysis of environmental impacts. New offshore and onshore wind farms offer great potential to replace fossil fuels like oil shale, but measures to support their development, while minimising environmental impact, are missing.



Finland

Finland has already set a target of net zero emissions by 2045. Finland's greenhouse gas emission reduction target in sectors such as transport, buildings, waste and agriculture (non-ETS sectors) is a 39% reduction by 2030, compared to 2005, as required by EU law. According to the draft National Energy and Climate Plan (NECP), this corresponds to a level of emissions of 20.6 MtCO₂e in 2030. Proposed measures are expected to reduce economy-wide emissions to 40 MtCO₂e and around 21-22 MtCO₂e in the non-ETS sectors by 2030, although the data is not so clearly presented. The renewable energy contribution is set at 50% in 2030, starting in 2020 with a share of 38%, which is the same as the country's 2020 target but lower than what was achieved in 2017 (41%). The draft NECP includes a level of consumption in 2030, which amounts to 36.1 Mtoe of primary energy and 26.2 Mtoe of final energy. This is an increase of consumption compared to today and a similar level of consumption to that corresponding to the 2020 energy efficiency target.



KEY ISSUES AND RECOMMENDATIONS

Reduce reliance on forest biomass

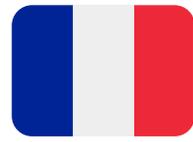
It is expected that the amount of forest chips in heat and electricity production will be 1.5 times the current level by 2030. Also for transport, demand for biomass will increase. The projected use of biomass exceeds sustainable sources of supply and threatens the forest carbon sink.

Ban peat energy

The Finnish Parliament has decided to ban coal for energy use by 2030. The next step is to ban energy peat in the same time frame. Burning peat causes even higher emissions than burning coal and also increases emissions in the land, land use and forestry sector.

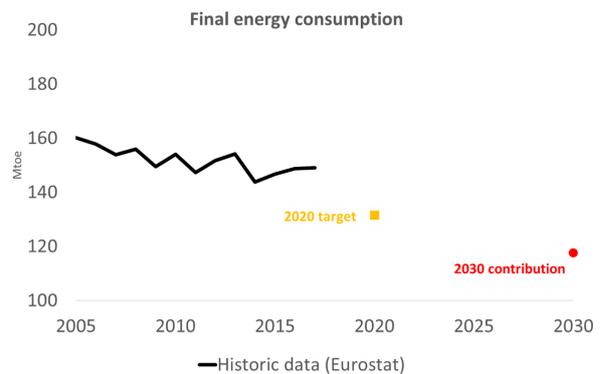
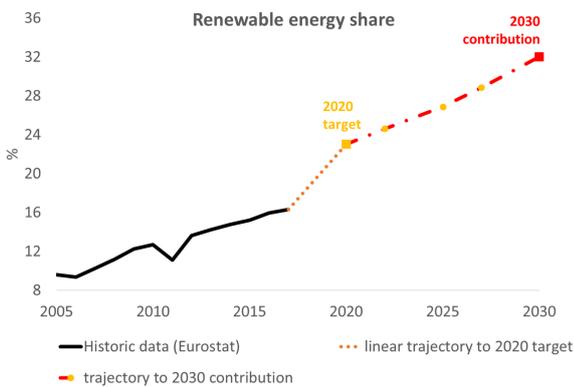
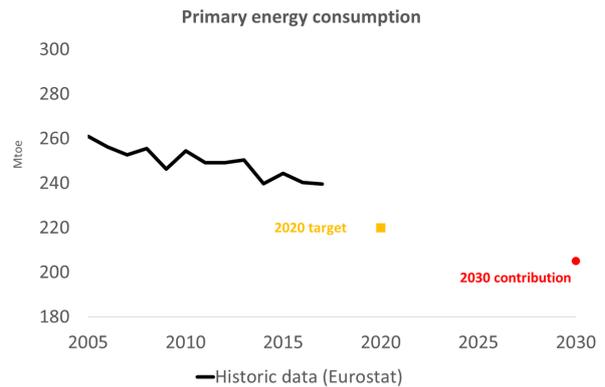
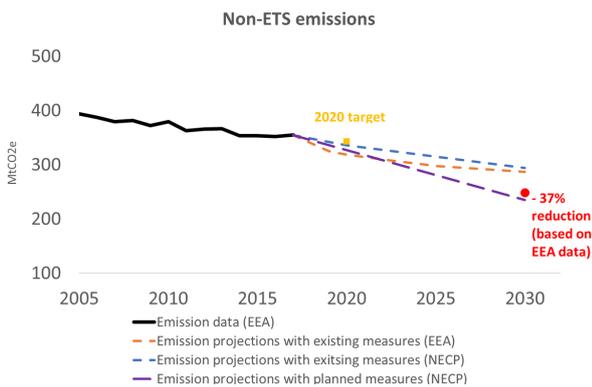
Eliminate harmful subsidies and promote renewables

Annual harmful subsidies in Finland amount to over 3 billion euros. A major reform is needed to cut subsidies to fossil and wasteful energy use. The saved resources could be used to promote energy savings, wind power development and sustainable district heating such as large scale heat pumps nationwide.



France

The draft National Energy and Climate Plan (NECP) includes the aim to reach net-zero emissions by 2050. In sectors such as transport, buildings, waste and agriculture (non-ETS sectors), France plans to reduce its greenhouse gas emissions by 41%, a bit more than what the EU law requires, which is a 37% reduction by 2030 compared to 2005. Under projections with existing measures, France expects to reduce its emissions to 294 MtCO_{2e} by 2030, a reduction of about 25% compared to 2005. The renewable energy contribution is set at 32% for 2030, starting in 2020 with a 23% share which is the same as the country's 2020 target. The level of energy consumption foreseen for 2030 amounts to 205 Mtoe of primary energy and 117.6 Mtoe of final energy. However, within the overview of the EU targets at the beginning of the document, it is indicated that the renewable energy share could reach 34% of the final energy consumption in 2030, while primary consumption could be reduced to 202.9Mtoe after the implementation of the national climate and energy strategy.



KEY ISSUES AND RECOMMENDATIONS

Plan for more energy savings, in particular for buildings

Measures in the NECP are too vague. Studies such as the "Transition 2030, 2050" describe measures to achieve the targets, but these are missing from the draft plan. Furthermore, given that transport emissions have increased by 72% compared to 1990, a ban of diesel and benzin fueled cars is needed at the latest by 2030 at the latest.

No harm to the Energy Union by increasing electricity exports, engage in the energy transition

By postponing the reduction of the nuclear share to 50% of the energy mix from 2025 to 2035, France delays its energy transition and threatens the competitiveness of renewables for the rest of the EU. This is mainly due to the resulting increase of electricity exports which will contribute to the oversupply of energy. Also, some renewable energy sources such as offshore wind energy receive limited attention in the draft plan despite their significant potential.

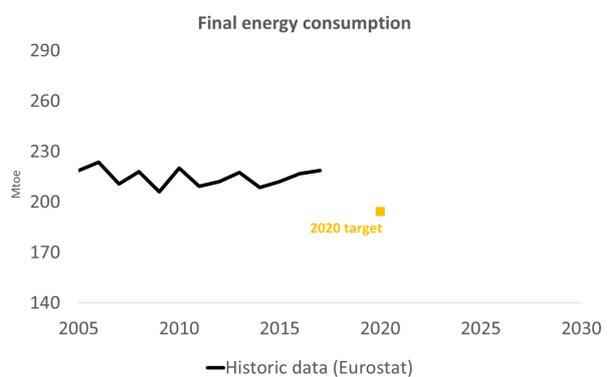
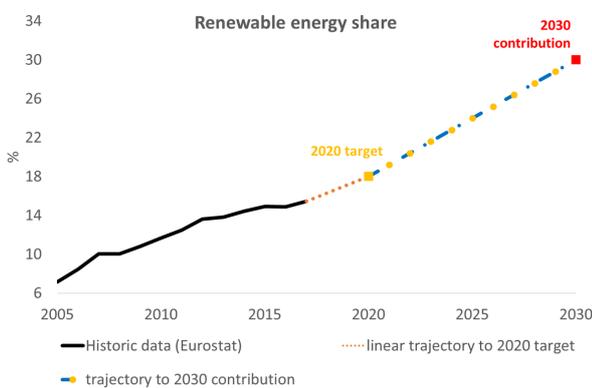
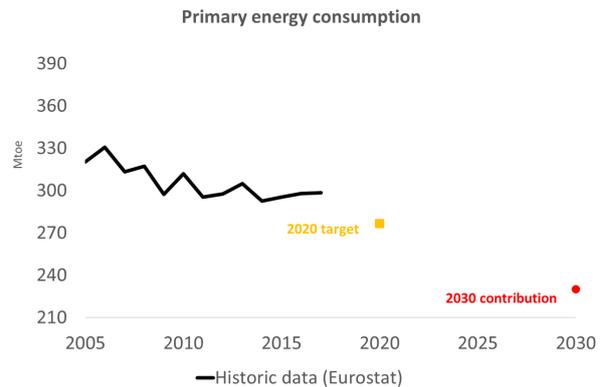
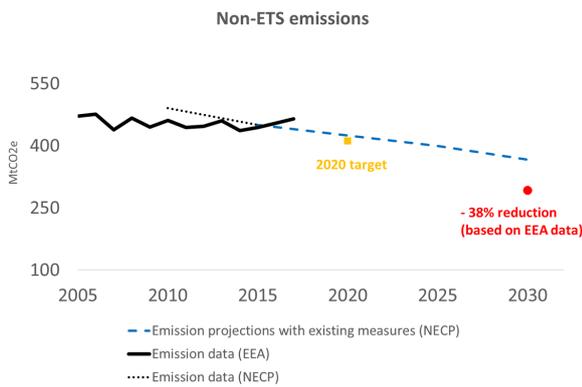
Take clear measures to curb emissions in the transport sector

The plan is missing bold action on limiting the growth of mobility demand, although the need to do so is acknowledged. There is no clear reduction of the number of vehicles and energy efficiency and low emission targets are not specified after 2020. The use of biofuels is considerable without committing to a phase-out of first generation biofuels.



Germany

Germany plans to reduce its greenhouse gas emissions in sectors such as transport, buildings, waste and agriculture (non-ETS sectors) by 38% compared to 2005 by 2030, as required by the EU law. The draft National Energy and Climate Plan (NECP) still lacks a detailed impact assessment of proposed measures on non-ETS emissions. Existing measures are expected to reduce emissions by 25.5% compared to 2010 by 2030, but there is no information provided for the emission reductions compared to 2005. Based on European Environment Agency (EEA) projections, with existing measures alone, Germany is expected to reduce its non-ETS emissions by only 21.1% compared to 2005. The renewable energy contribution is set at 30% for 2030, starting with a share of 18% in 2020, which is the same as the country's 2020 target. The draft plan refers to a primary energy consumption level of 230 Mtoe in 2030, linked to the long-term target of 50% reduction of primary energy consumption by 2050. However, the plan does not provide a clear indication of final energy consumption.



KEY ISSUES AND RECOMMENDATIONS

Resume a climate leadership role

The NECP needs to include ambitious, Paris-compatible, binding targets in order to resume Germany's climate leadership role. These targets have to be underpinned by adequate measures.

Describe the shift to a fully renewable energy system

The NECP has to describe how Germany will speed up its transition from a fossil-based to a renewable energy system. The progressive reduction of coal electricity must be accelerated and clearly specified (by law), while the goal for the renewables share in electricity consumption should be firmly set at 65%, as it is already agreed in the Coalition Treaty.

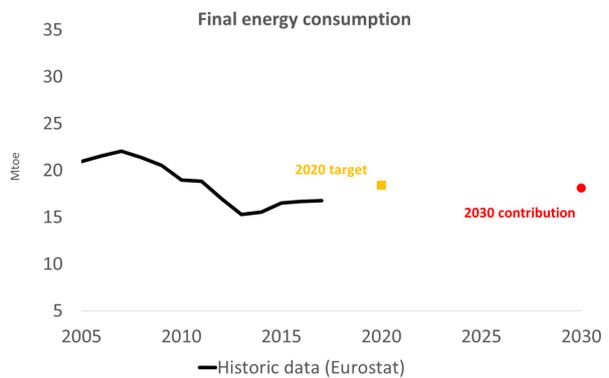
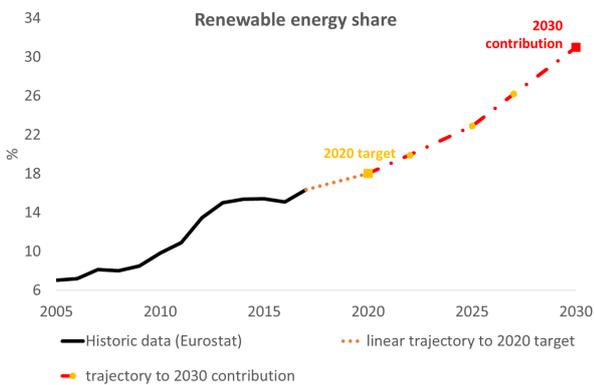
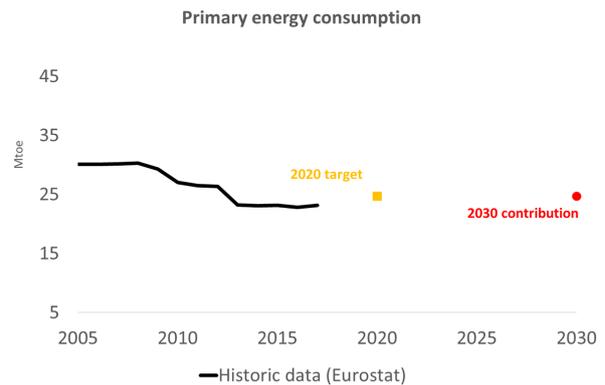
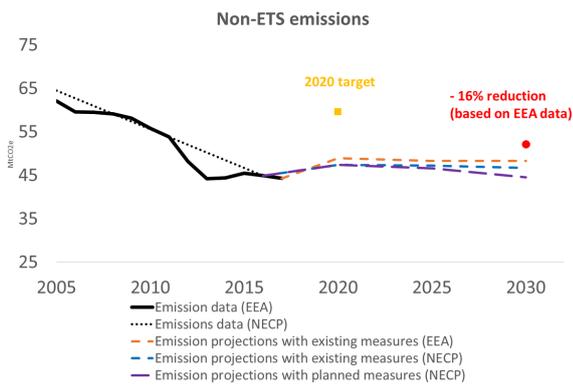
Set a clear goal and additional measures for energy efficiency

The draft plan mostly includes energy efficiency measures that are already in place. As the 2020 energy efficiency goal is at risk of not being reached, it is clear that these will not be sufficient for the 2030 targets. The only new measure that is mentioned is tax incentives for building renovations, for which however there is no clear plan nor a timeline for its implementation.



Greece

For sectors such as transport, buildings, waste and agriculture (non-ETS sectors), the Greek draft National Energy and Climate Plan (NECP) states what is required under the EU law, which is a 16% emission reduction compared to 2005, as the target for 2030. According to the draft NECP, Greece will reduce its non-ETS emissions by 31% compared to 2005 with proposed measures. However, emission reductions of 27% compared to 2005 are already expected by 2020, a reduction largely linked to the deep recession of the economy. Greece sets a renewable energy contribution of 31% in 2030, starting in 2020 with a share that is the same as the country's 2020 target (18%). The level of energy consumption that is foreseen for 2030 amounts to 24.7 Mtoe of primary energy and 18.1 Mtoe of final energy. This practically means a similar level of consumption as the 2020 energy efficiency target and an increase compared to today.



KEY ISSUES AND RECOMMENDATIONS

Phase out coal

Coal reliance undermines the energy transition. Greece plans on keeping a 17% share of lignite in 2030. This is unsustainable from a climate perspective and also means higher energy prices for consumers.

Ensure the credibility of measures

The draft NECP describes the measures planned but considering the history of delays in implementation, a clear explanation of the contribution of each measure to meet the targets together with an implementation timeframe is needed.

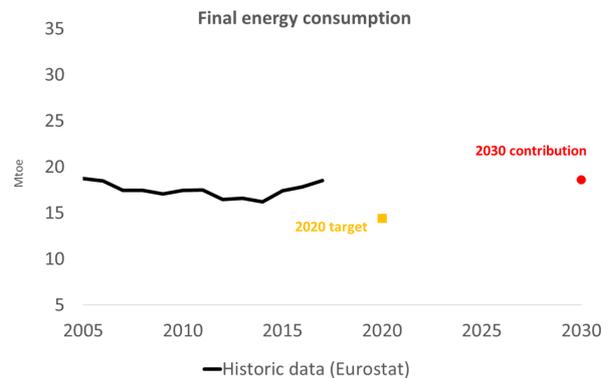
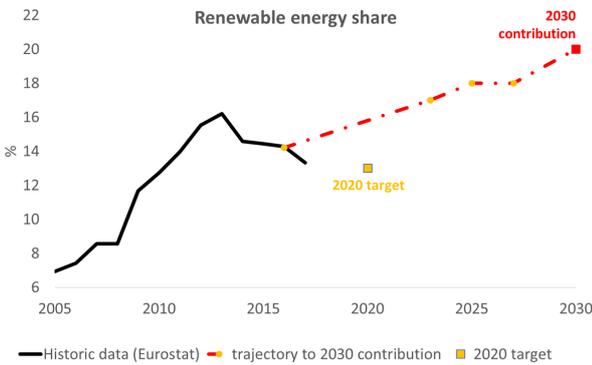
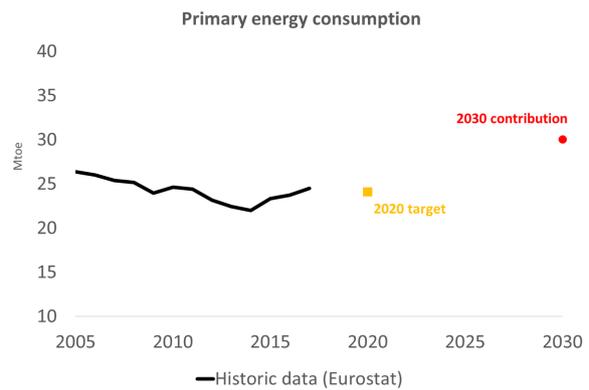
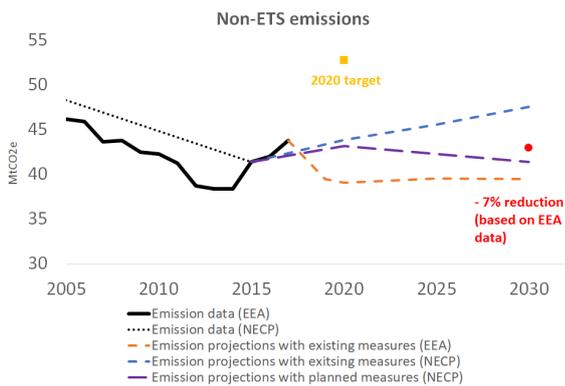
Avoid fossil fuel lock-in

Final consumption of fossil gas in the residential sector is expected to increase considerably, with its market share in total consumption increasing from 8% in 2016 to 18% in 2030. Gas use is promoted through tax-incentives, despite the EU's commitment to end fossil fuel subsidies. Overall, there are more than €4.2 billion worth of planned investments in fossil gas that are expected to lock the Greek economy into use of imported fossil fuels for many decades.



Hungary

Hungary has an overall greenhouse gas emission target of 7% in 2030 for sectors such as transport, buildings, waste and agriculture (non-ETS sectors) compared to 2005. According to the draft National Energy and Climate Plan (NECP), Hungary will need additional efforts to achieve its 2030 greenhouse gas emission target in these sectors. Based on projections with existing measures, Hungary expects to reduce its emissions in the non-ETS sectors by only 1.6% compared to 2005, while proposed measures are expected to deliver over 14% of emission reductions. The renewable energy contribution is set at 20% for 2030, starting with a share of 14.2% in 2016 which is lower than what the country achieved in 2012 - 2016. Hungary has already surpassed its 2020 target (13%) but since 2014, the renewables share has been decreasing. The level of energy consumption foreseen for 2030 amounts to 30Mtoe of primary energy and around 18.6Mtoe of final energy. This is an increase compared to the 2020 energy efficiency target and an increase compared to today, mainly for the primary energy consumption.



KEY ISSUES AND RECOMMENDATIONS

Clarify the solar energy strategy

The development of solar energy is a key element of the draft NECP, but there are no details on how it will be integrated in the inflexible energy system, which relies heavily on nuclear energy.

Review biomass use for heating and cooling

Around 60% of the current renewable energy share consists of residential firewood. The draft NECP continues to heavily rely on solid biomass use for heating and cooling. It is estimated that only half of the projected amount of biomass included in the draft NECP is available and options to substantially increase this amount are limited.

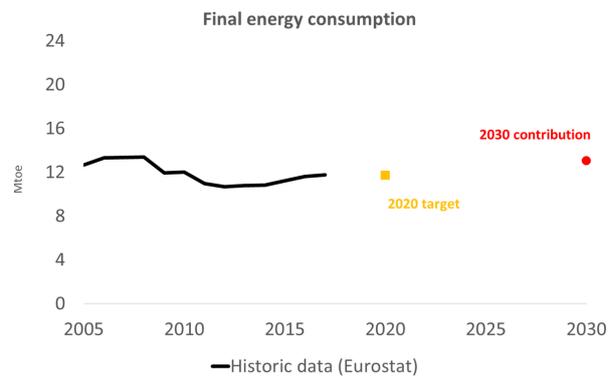
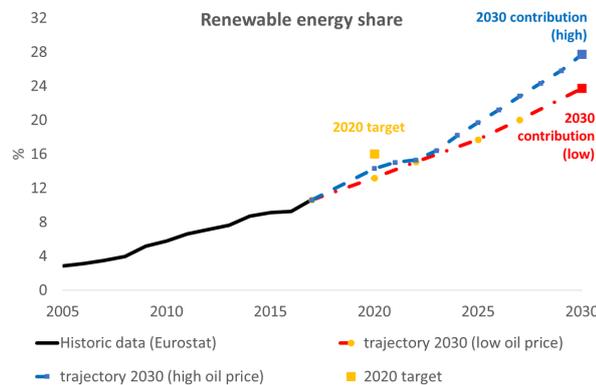
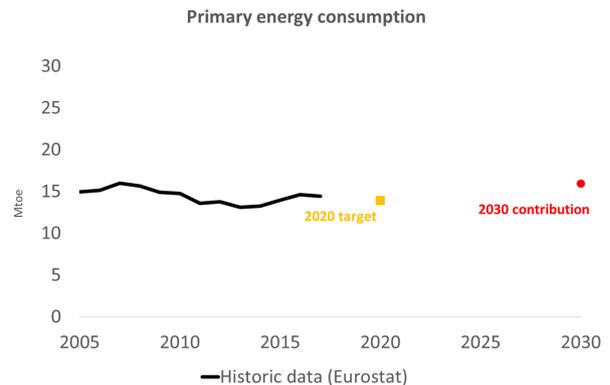
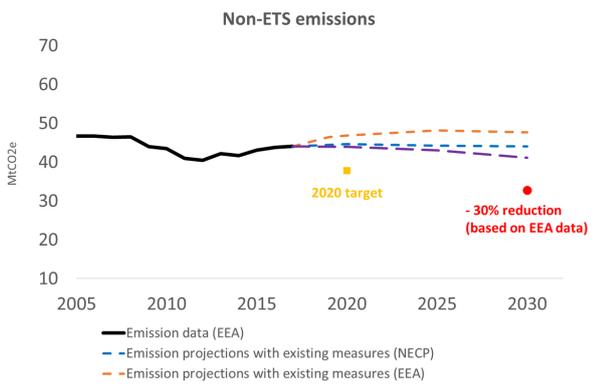
Ensure rights of prosumers and energy communities

The draft NECP does not give any details on lifting the barriers that prevent citizens from generating their own energy and participating in renewable energy communities.



Ireland

Ireland is way off track with its greenhouse gas emission reductions in sectors such as transport, buildings, waste and agriculture (non-ETS) both for 2020 and 2030. Ireland's non-ETS target is a 30% emission reduction by 2030 compared to 2005. According to the draft National Energy and Climate Plan (NECP), this corresponds to a cumulative 2030 non-ETS target of 380.2MtCO₂e. All four different scenarios with existing and planned measures included in the draft plan project Ireland missing that cumulative target by 42 to 94 MtCO₂e. Ireland presents a renewable energy contribution of 23.7-27.7 % in 2030, with a share of 13.2-14.3 % in 2020, which is lower than the country's 2020 target (16%). The draft plan also includes a range of indicative levels of consumption for the different scenarios. The one with the lowest level of energy consumption foresees 15.9 Mtoe for primary energy and 13.04 Mtoe for final energy in 2030. This is an increase of energy consumption compared to today and the 2020 energy efficiency target.



KEY ISSUES AND RECOMMENDATIONS

Ensure accountability in line with the Paris Agreement

The NECP should include two five-year carbon budgets, which state the total GHG emissions Ireland will emit during the NECP period 2021-2030. It should also include ex-ante Climate Impact Assessments of all laws & policies quantifying their emissions impact and finally a revision of the long-term 2050 objective.

Integrate the Citizens' Recommendations

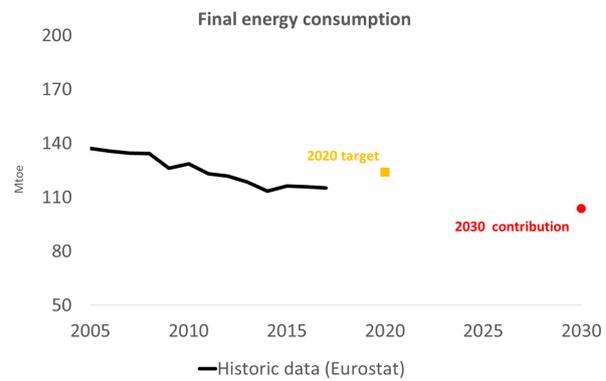
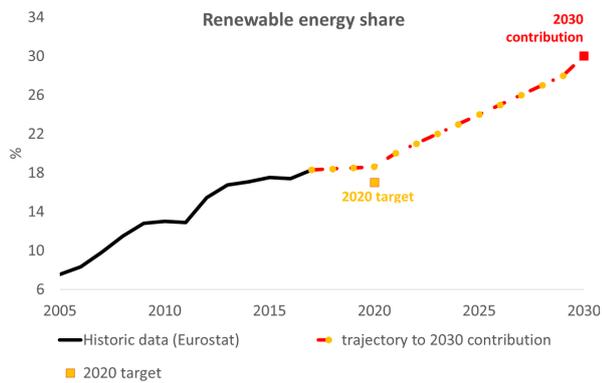
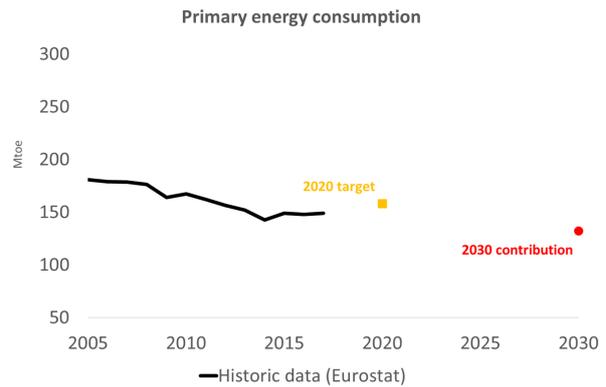
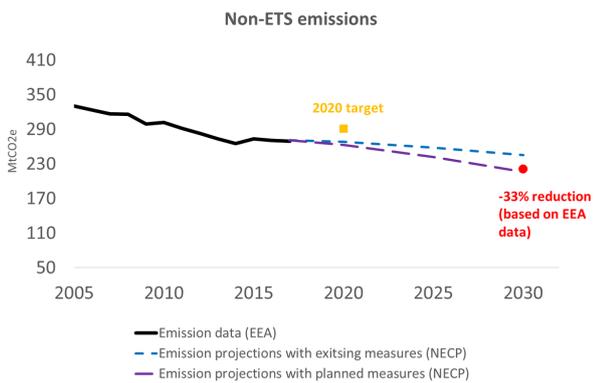
The Citizens' Assembly (2017) made 13 recommendations on tangible and immediate climate policy measures. The NECP should detail how these recommendations will be formally integrated into the final Plan.

Align policy to close the existing emissions gap

The NECP needs to provide a comprehensive and coherent policy framework, comprising new detailed measures that set Ireland on a clear pathway to meeting its 2030 and longer-term climate obligations. This should include an immediate shift away from fossil fuel extraction & exploration (incl. the development of gas infrastructure).



Italy has a greenhouse gas emission reduction target for sectors such as transport, buildings, waste and agriculture (non-ETS sectors) of 33% compared to 2005 by 2030. Projections of the National Environment Agency (ISPRA) included in the draft National Energy and Climate Plan (NECP) indicate that based on existing measures, Italy will reduce its emissions in these sectors by only around 26% by 2030. However, the draft NECP also claims that Italy will be able to achieve 34.6% emission reductions compared to 2005, if all proposed policies and measures are implemented. Italy sets a renewable energy contribution of 30% for 2030, starting with a share of 18.6% in 2020, which is higher than the country's 2020 target (17%). The level of energy consumption foreseen for 2030 amounts to 132Mtoe of primary energy and 103.8Mtoe of final energy.



KEY ISSUES AND RECOMMENDATIONS

Plan for more renewables

The 2030 renewable energy target is lower than the overall objective envisaged by the revised Renewable Energy Directive for the EU, although Italy supported a 35% target during the negotiations of the legislation. Furthermore, the tools and timeframes to speed up renewables uptake need to be defined in detail as markets require stability.

Ensure the credibility of measures

Monitoring the implementation and effectiveness of current measures is still a challenge, especially in the building sector. As such, a thorough analysis on lessons learned from the implementation of measures already in place is needed to improve the proposed measures and to ensure that the targets are delivered.

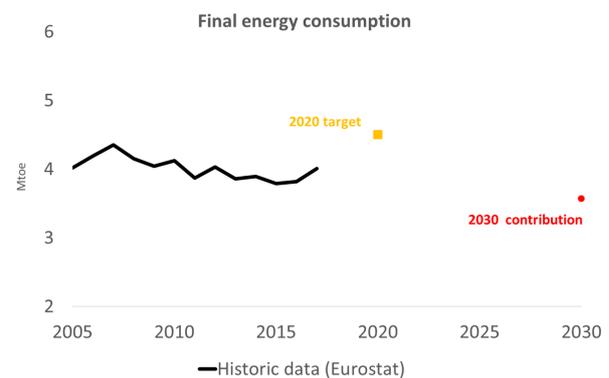
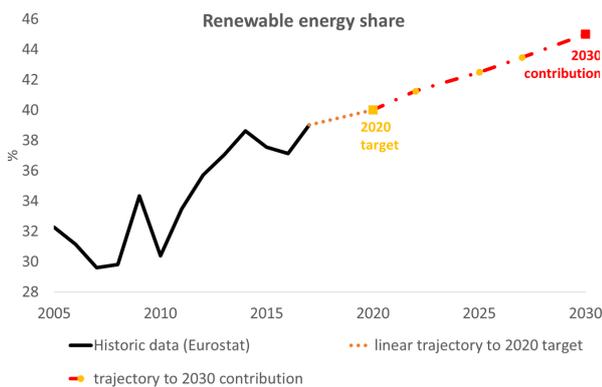
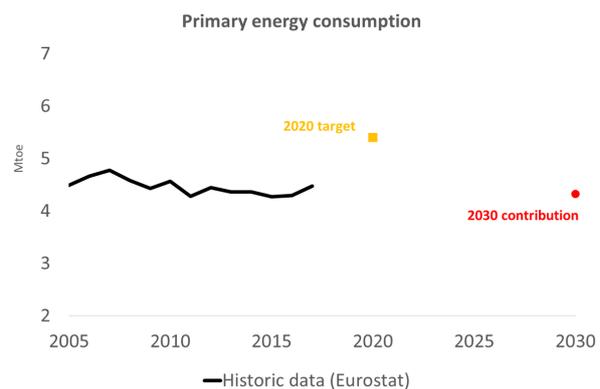
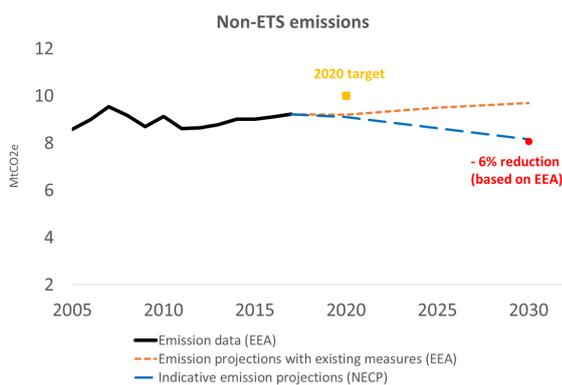
Avoid stranded assets of energy infrastructure

The important commitment of coal phase-out is planned mainly through its replacement with fossil gas instead of tapping into the significant potential of renewables and energy efficiency. This causes a risk of fossil fuel lock-in effects in the long-term.



Latvia

Latvia is planning to reduce its greenhouse gas emissions in sectors such as transport, buildings, waste and agriculture (non-ETS sectors) by 6% in 2030 compared to 2005, as required by the EU law. According to the draft National Energy and Climate Plan (NECP), with existing measures Latvia expects to achieve emission reductions of 5.1% compared to 2005 by 2030, while there is no information about the emission reductions in the non-ETS sectors as a whole under projections based on planned measures. The renewable energy contribution is set at 45% in 2030, starting with a share in 2020 which is the same as the country's 2020 target (40%). The level of energy consumption foreseen for 2030 in the draft NECP amounts to 4.3 Mtoe of primary energy and 3.6 Mtoe of final energy. This is a lower level of energy consumption compared to today and the 2020 energy efficiency target.



KEY ISSUES AND RECOMMENDATIONS

Set path for the systematic deployment of renewables

Even though the proportion of renewable energy in Latvia is relatively high in comparison to other EU countries, this is largely due to past developments. Transparent and systematic policy support is not yet in place.

Avoid fossil gas lock-in

The draft NECP relies significantly on tapping into the potential of non fossil gas but at the same time does not include a definite goal to phase out fossil gas or an analysis for its potential and what this means for investments in terms of infrastructure.

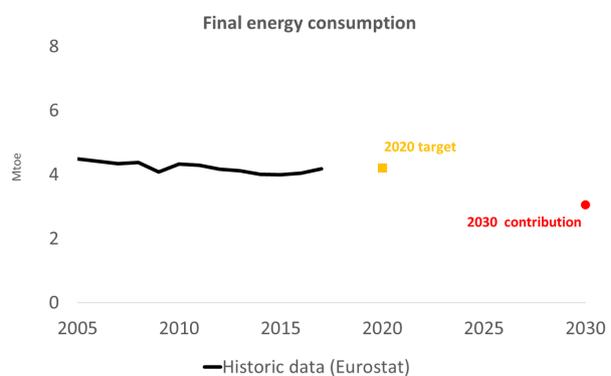
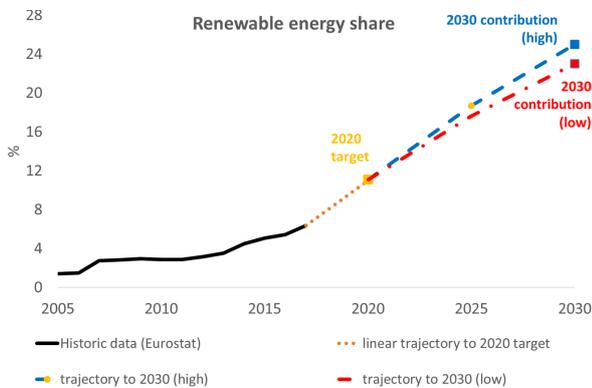
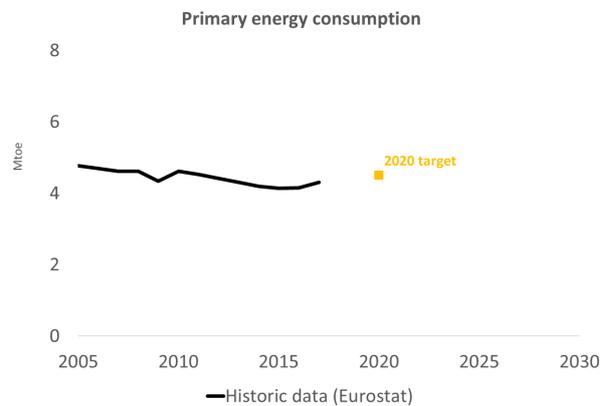
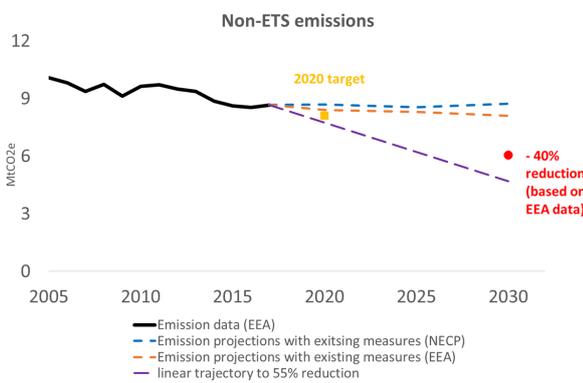
Make underlying calculations and data more accessible

Models, scenarios and calculations developed to form the basis for describing the energy system and estimating the impact of measures should become publicly available to ensure transparency and allow further input from stakeholders.



Luxembourg

Luxembourg is among the few countries which have set a higher national 2030 target for greenhouse gas emission reductions in sectors such as transport, buildings, waste and agriculture (non-ETS sectors) than what is required by EU legislation. Instead of aiming for 40% emission reductions in these sectors, Luxembourg intends to reduce its emissions by 50-55% by 2030 compared to 2005. However, the impact assessment of proposed measures is still missing from its draft National Energy and Climate Plan (NECP) and existing measures are only expected to deliver a 16.2% reduction by 2030. The renewable energy contribution is set at 23-25% in 2030, starting in 2020 from a share of 11.1%, which is almost equal to the country's 2020 target. The draft National Energy and Climate Plan (NECP) considers a range for the reduction in final energy. The most ambitious reduction will lead to a level of final energy consumption of 3.06 Mtoe in 2030. This is a decrease compared to today and the 2020 energy efficiency target. The plan does not include an overall level of consumption for primary energy.



KEY ISSUES AND RECOMMENDATIONS

Design robust policies and measures

The draft NECP lacks concrete measures and instruments that still need to be developed.

Make the background information publicly available

The studies and all the underlying assumptions and data used in the development of the NECP need to become publicly available.

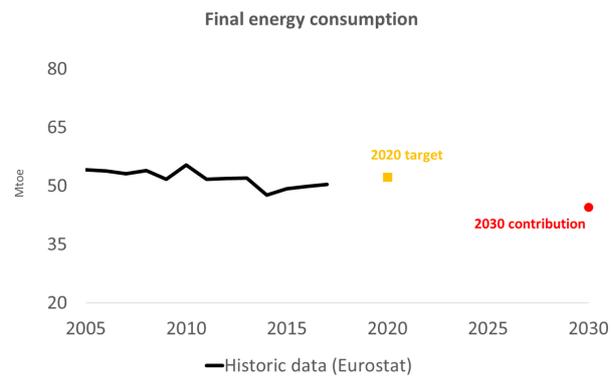
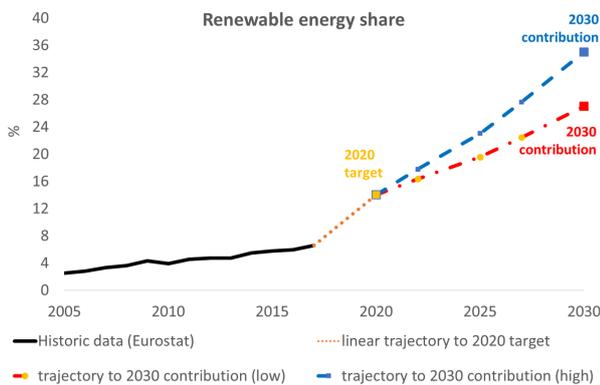
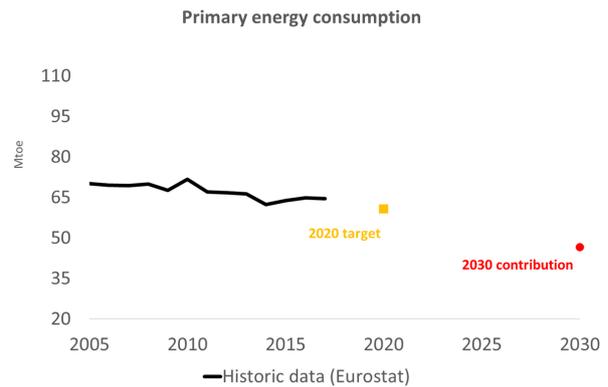
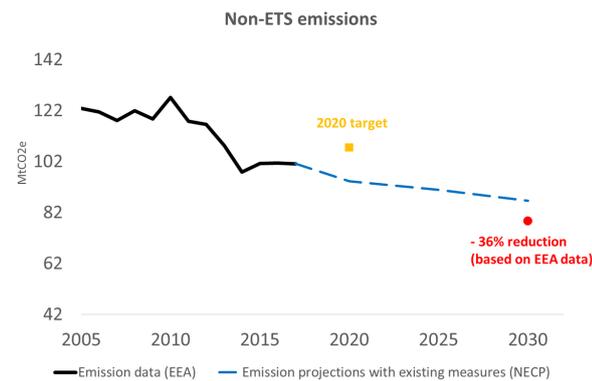
Ensure that the final plan is delivered on time

The draft plan was submitted after the deadline of 31 December 2018. It is important to accelerate the preparation of the final plan to allow for timely submission at the end of 2019.



The Netherlands

The Netherlands has proposed an economy-wide greenhouse gas reduction target of 49% by 2030 compared to 1990 levels. Yet the impact assessment included in the draft national Energy and Climate Plan (NECP) and its effects on sectors such as transport, buildings, waste and agriculture (non-ETS sectors) for proposed measures is still missing important details. Existing measures are expected to achieve a level of emissions of 86.5 MtO₂e in 2030, reaching a reduction of around 29% compared to 2005, falling short of its 36% binding target for non-ETS sectors. The renewable energy contribution is set at 27% to 35% in 2030. The level of energy consumption foreseen for 2030 in the draft NECP amounts to 46.57 Mtoe of primary energy and 44.52 Mtoe of final energy. This is a lower level of consumption compared to today and the 2020 energy efficiency target.



KEY ISSUES AND RECOMMENDATIONS

Avoid heavy reliance on biomass

The draft NECP depends far too much on unsustainable levels of biomass. If other countries follow the Dutch example, the European Union would require a dangerously and inappropriately large share of the world's biomass supply.

Propose additional measures to close the emissions gap

On 25 February 2019, it was announced that the 2020 target is at risk of not being met, leaving a greenhouse gas emission gap of 9Mtons. This means that additional measures will be needed to ensure that climate and energy targets for both 2020 and 2030 are met.

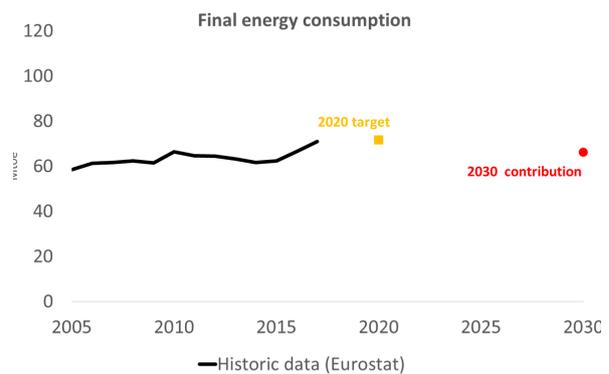
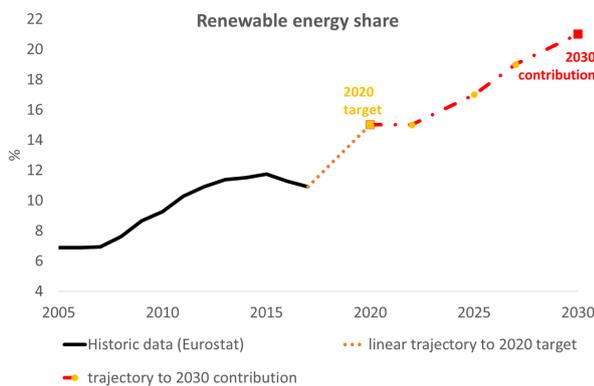
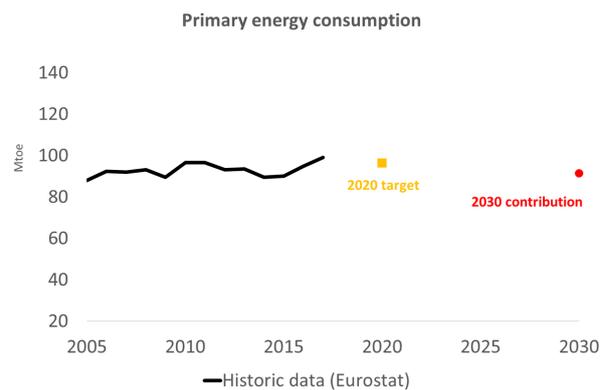
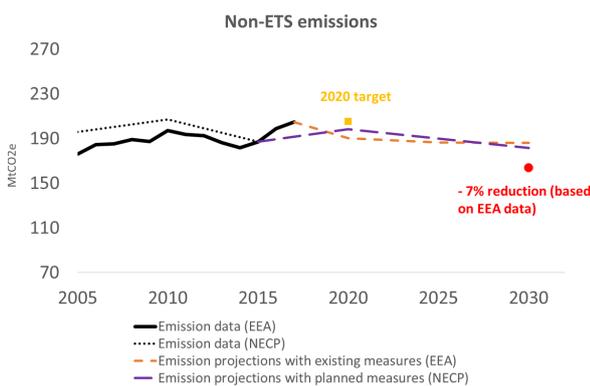
Foster real transition in the industry sector

The industry sector needs to contribute appropriately to the emission reduction targets. The recently announced tax for CO₂eq emissions for industry on top of the European Trading Scheme (ETS) needs to be elaborated. Together with more focus and support for innovative technologies this should be part of the final NECP.



Poland

According to the draft National Energy and Climate Plan (NECP), Poland plans to reduce its greenhouse gas emissions in sectors such as transport, buildings, waste and agriculture (non-ETS sectors) by 7% by 2030 compared to 2005, as required by EU law. Based on projections with planned measures, emissions will reach a level of 181.6 MtCO₂e by 2030, representing a 7.2% reduction compared to 2005. However, as the 2005 emission levels in the draft NECP are significantly higher than those provided by the European Environment Agency (EEA) for the same year, it is difficult to assess whether the required emission reductions will be achieved by 2030. Based on EEA data, a 7% emission reduction compared to 2005 would lead to an indicative level of emissions of around 164 MtCO₂e by 2030. The renewable energy contribution is set at 21% in 2030. In 2022, the renewables share is expected to be 15%, the same as their 2020 target (15%). The level of energy consumption for 2030 is estimated at 91.33 Mtoe of primary energy and 66.18 Mtoe of final energy.



KEY ISSUES AND RECOMMENDATIONS

Retreat from reliance on coal and introduce plans for a Just Transition

Coal retains a central place in the energy mix. The coal share in electricity generation is set to fall from 77% currently to around 60% in 2030 but the coal capacity is still expected to remain largely unchanged. The draft plan does not mention 'Just Transition' at all and argues that a transformation of the coal sector will be difficult due to lack of EU support. This ignores the EU funds that Poland already receives to accelerate the clean energy transition as well as potential funding under the Coal Regions in Transition Platform.

Embrace the potential for renewable energy

The development of renewable energy is hindered by different barriers such as unfavourable rules on energy co-operatives and an effective ban on onshore wind energy. The draft plan does not contain any indication of action to address these barriers.

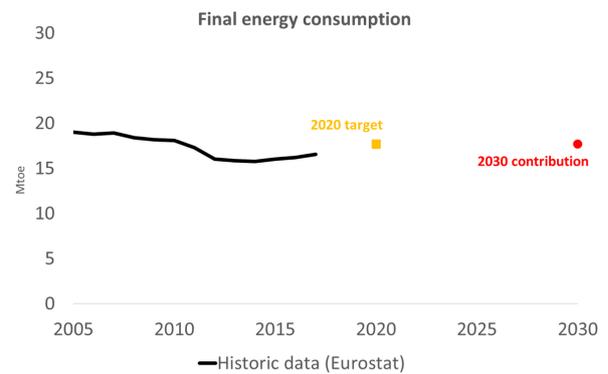
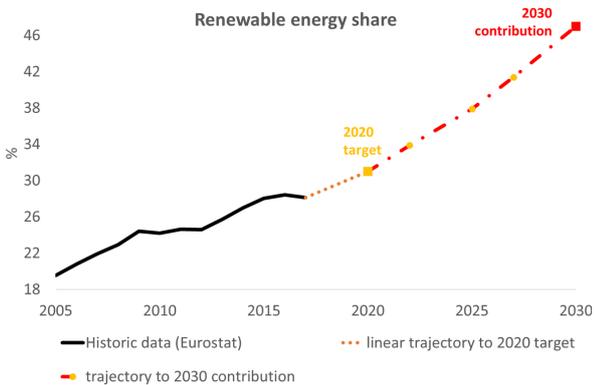
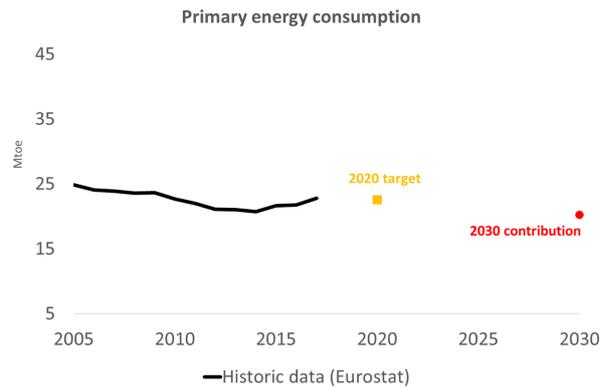
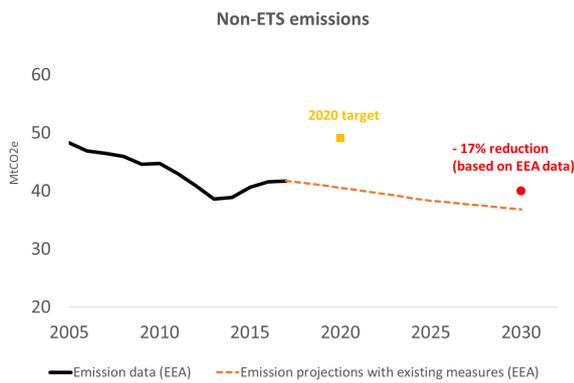
Reconsider the role of nuclear power

The draft NECP shows the opening of the first nuclear power plant in 2033. Not only does this not contribute to the 2030 targets, but it also faces a great risk of delays and cost overruns that would not justify this investment, compared to renewable energy alternatives.



Portugal

Portugal aims to achieve carbon neutrality by 2050. For sectors such as transport, buildings, waste and agriculture (non-ETS sectors), Portugal has a binding target of 17% greenhouse gas emission reduction by 2030 compared to 2005, thus reducing emissions to a level of 40 MtCO₂e. Their draft National Energy and Climate Plan (NECP) assumes that overall emissions will be reduced to 41 MtCO₂e with existing measures and to 37.8 MtCO₂e with proposed measures, but does not clarify which is the specific level of emissions that corresponds to the non-ETS sectors as a whole. Portugal sets a renewable energy contribution of 47% in 2030, starting with a share of 31% in 2020, which is the same as the country's 2020 target. The level of energy consumption foreseen for 2030 amounts to 20.2 Mtoe of primary energy and 17.7 Mtoe of final energy. For final energy, this means a similar level of consumption as the 2020 energy efficiency target and an increase compared to today.



KEY ISSUES AND RECOMMENDATIONS

Elaborate on measures for the transport sector

Transport corresponds to 25% of national emissions but measures in the draft NECP lack detail and quantification. There is an emphasis on road transport electrification but it is not clarified how barriers to uptake of electric cars are to be addressed. Other carbon intensive modes of transport, such as aviation and shipping are also not addressed.

Elaborate on measures for the buildings sector

Several measures such as the "efficient house" program were envisaged for the building sector, aligned with the existing National Energy Efficiency Plan but they are proving to be insufficient to reduce energy consumption. Specific measures need to be described in detail and quantified to understand why there will be better results for 2030.

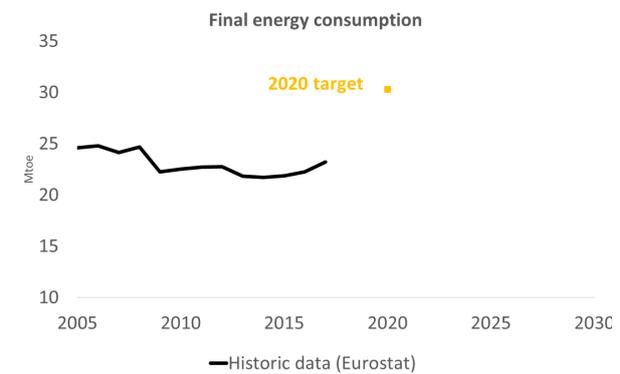
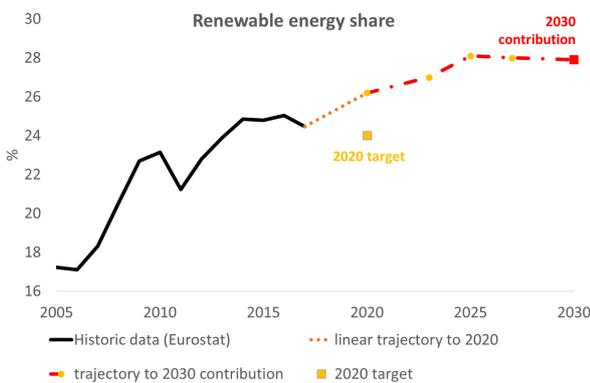
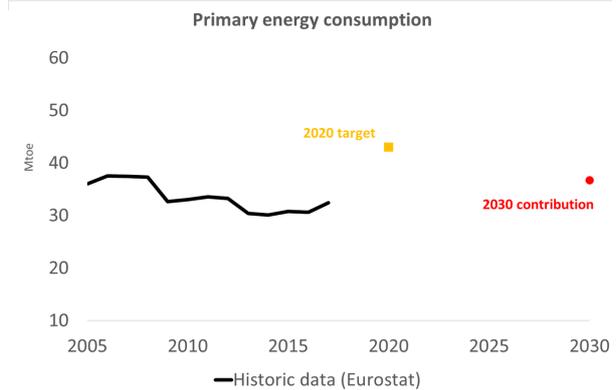
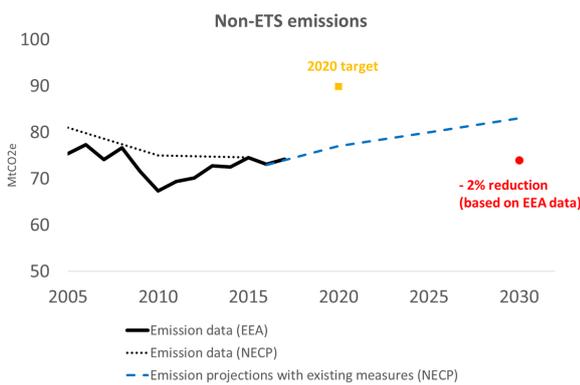
Address energy poverty

Portugal is one of the EU countries most affected by energy poverty. The NECP should assess the challenge and set measures to improve thermal comfort and reduce energy bills to help those affected by energy poverty, particularly in low income households.



Romania

Until 2030 Romania needs to reduce its emissions from sectors such as transport, buildings, waste and agriculture (non-ETS sectors) by merely 2% compared to 2005, which is around only 2 MtCO_{2e} lower than today's levels. Yet Romania indicates in its draft National Energy and Climate Plan (NECP) that with existing measures, emissions from non-ETS sectors are expected to increase by 3% compared to 2005 by 2030, while its impact assessment for proposed measures remains incomplete. Romania sets a renewable energy contribution of 27.9% in 2030. This level of ambition is not building on developments already taking place, as Romania has already surpassed its 2020 target of 24% in 2014 and is expected to have a renewable share of 26.2 % by 2020. The level of primary energy consumption foreseen is 36.7 Mtoe in 2030, while the draft NECP does not indicate a final energy consumption level. This is an increase of primary energy consumption compared to today.



KEY ISSUES AND RECOMMENDATIONS

Phase out coal

In order to meet the climate objectives, coal must be phased out from energy generation and subsidies for coal-related activities must end. However, the draft plan projections reveal that for 2030 there will still be 3.2 GW of installed capacity, slightly decreasing from 3.7 GW in 2020.

Demonstrate the credibility of measures

The draft NECP needs to explain in detail how the measures will deliver the targets and what means of investments will be used to finance them.

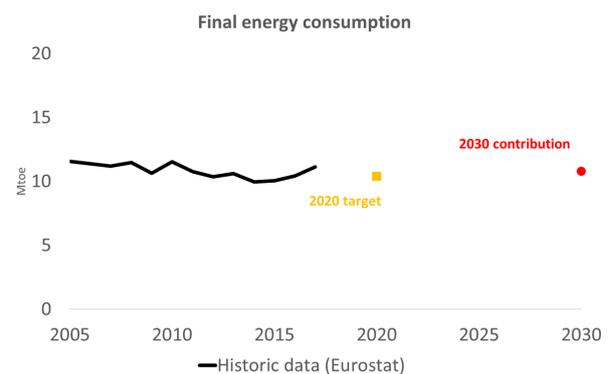
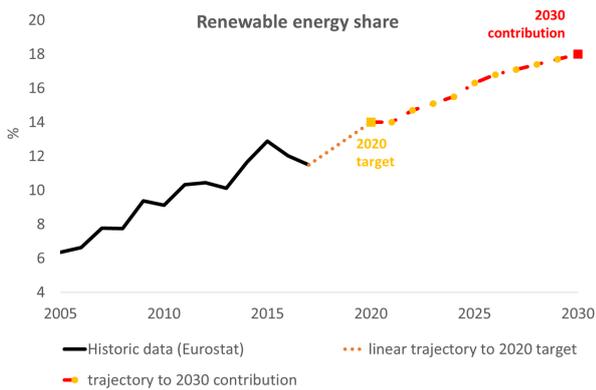
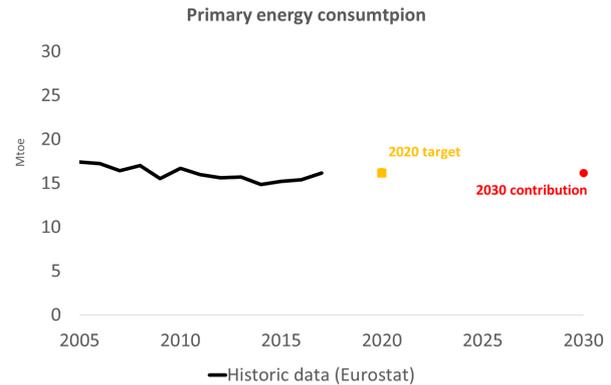
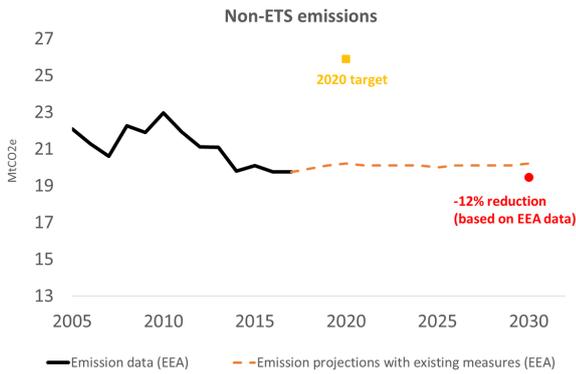
Reduce air pollution from large combustion plants

The draft NECP does not provide for the internalisation of the heat costs of air pollutants. In addition it does not explain how the EU's stricter limits on large combustion plants for several air pollutants emissions (so-called LCP BREF) of 2017 will be implemented.



Slovakia

Slovakia's emissions reduction target for sectors such as transport, buildings, waste and agriculture (non-ETS sectors) is 12% below 2005 levels by 2030, as required by EU legislation. The draft National Energy and Climate Plan (NECP) currently does not detail the impact of proposed measures on emissions of non-ETS sectors as a whole, but indicates that Slovakia will reduce its economy-wide emissions to around 38 MtCO₂e by 2030. Slovakia sets a renewable contribution of 18% in 2030, starting with a share of 14% in 2020-2021 which is the same as their 2020 target. A level of energy consumption that amounts to 16.2 Mtoe of primary energy and 10.8 Mtoe of final energy is foreseen for 2030. This is a similar level of consumption as today.



KEY ISSUES AND RECOMMENDATIONS

Re-evaluate nuclear and fossil gas dependency

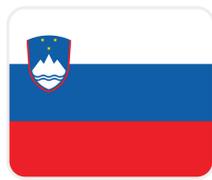
While the renewable energy target for 2030 is set at only 18%, Slovakia imports 100% of its nuclear fuel and 98% of its fossil gas. It has the highest gas import dependency from Russia in the EU. Nuclear is a high risk centralised source, while prioritising fossil gas infrastructure will lead to lock-in effects.

Elaborate on coal phase out

The draft NECP does not elaborate on phasing out of coal, although the Slovak government has already approved an end of subsidies for electricity produced from domestic coal in 2018, which is not reflected in the draft NECP. The NECP should foresee coal phase out by 2025 at the latest and appropriate Just Transition measures.

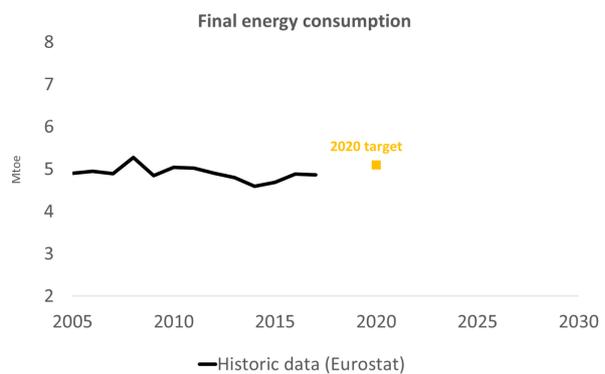
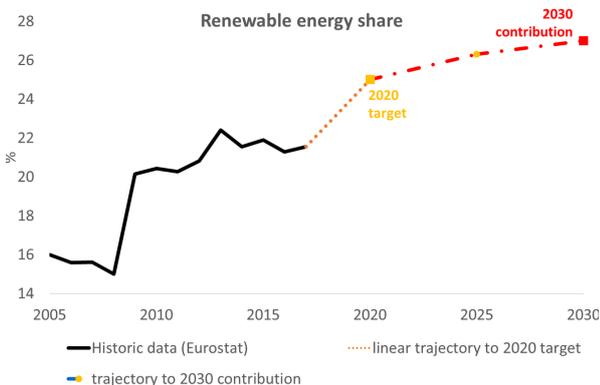
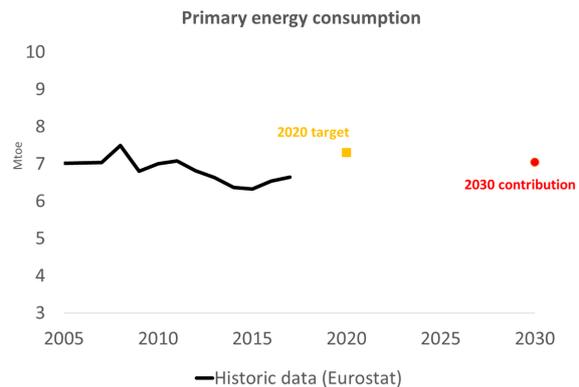
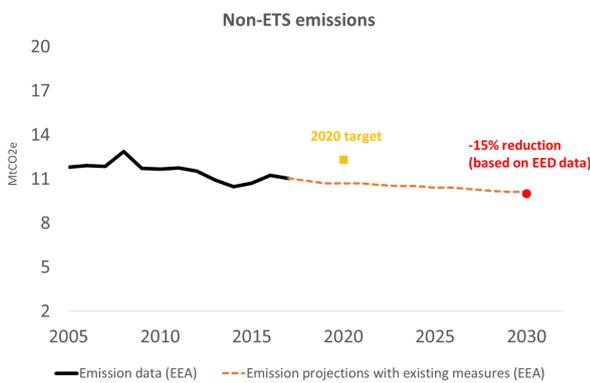
Address energy poverty

Although energy poverty is mentioned as a priority, the issue is not much elaborated. The NECP should include an assessment of this issue and present the measures that will be used to address it.



Slovenia

The draft National Energy and Climate Plan (NECP) merely states the binding target of 15% emission reduction in 2030 compared to 2005 for sectors such as transport, buildings, waste and agriculture (non-ETS sectors) and does not yet include an impact assessment section for proposed measures. According to projections provided by the European Environment Agency (EEA), under existing measures alone, Slovenia will overachieve its 2020 non-ETS target and is expected to achieve 14.5% emission reductions by 2030 compared to 2005 with existing measures. Slovenia sets a renewable energy contribution of 27% in 2030, starting in 2020 with a share of 25% which is the same as the country's 2020 target. The draft NECP refers to a level of primary energy consumption that amounts to 7.05 Mtoe in 2030 but does not indicate a level of consumption for final energy.



KEY ISSUES AND RECOMMENDATIONS

Set a goal for energy savings

Energy intensity in Slovenia is still above the EU average, so without a clear goal for energy savings and consistent policies, the vast potential of energy savings will remain untapped.

Ensure forward looking planning

The draft NECP only lists existing measures that have already been proving insufficient for achieving the 2020 targets. No phase out of coal in electricity is foreseen and fossil fuel subsidies are not addressed.

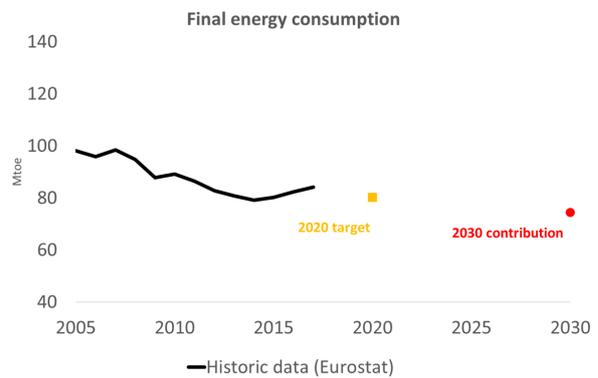
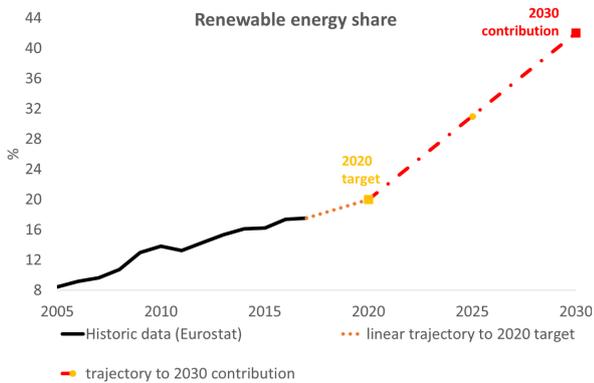
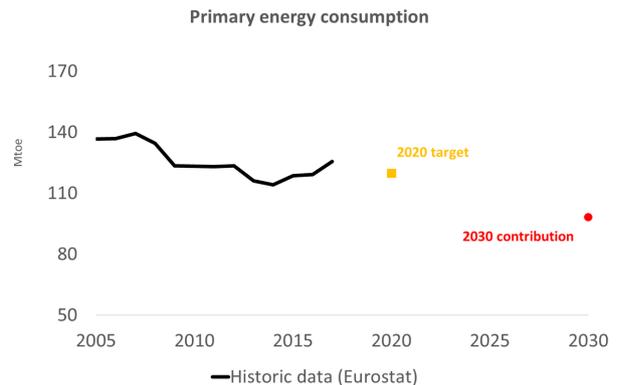
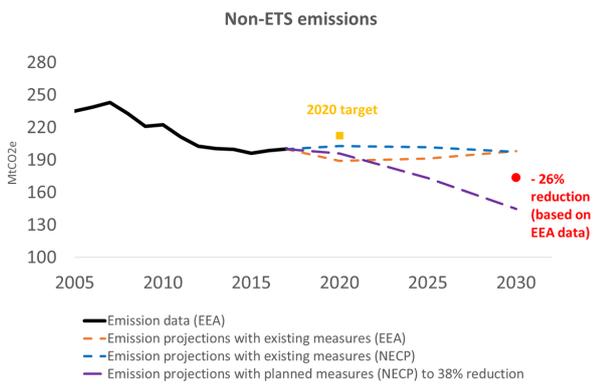
Define the role of energy communities in energy policy

In order to tackle the potential of energy communities in energy transition, the NECP should define their role, set targets and outline the necessary policies and measures.



Spain

Spain has set a higher target for greenhouse gas emission reductions in sectors such as agriculture, buildings, waste and transport (non-ETS sectors) than its binding target under EU law but this is still linked to an overall emission reduction of only 20% compared to 1990 levels by 2030. According to the draft National Energy and Climate Plan (NECP), proposed measures will reduce emissions in the non-ETS sectors to a level of 144.7 MtCO₂e in 2030, implying a challenging departure from business as usual. Projections based on existing measures indicate reaching a level of emissions of only 197.4 MtCO₂e or a 15% emission reduction by 2030. The renewable energy contribution target is 42% in 2030, starting in 2020 with a share of 20% which is the same as the country's 2020 target. The draft NECP includes a level of consumption in 2030 which amounts to 98.2 Mtoe of primary energy and 74.4 Mtoe of final energy. This is a lower level of consumption compared to today and to the 2020 energy efficiency target.



KEY ISSUES AND RECOMMENDATIONS

Deliver more emission reductions in all sectors

The 20% greenhouse gas emission reduction by 2030 is not enough to achieve net zero emissions by 2040. More ambition is needed in all sectors including transport, agriculture, forestry and industry. Scenarios with overall emission reductions of 40% to 60% vs.1990 should be explored and an objective towards the top of this range should be proposed.

Put a date on coal phase out

The draft NECP must include a coal phase out date, with all coal plants to close by 2025 at the latest. In this context, the 'Just Transition Strategy' must be used to abandon coal as quickly as possible.

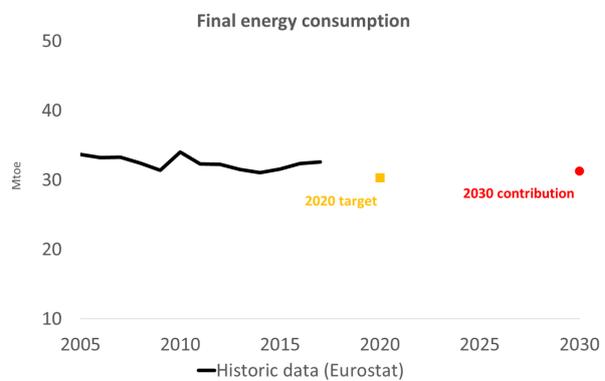
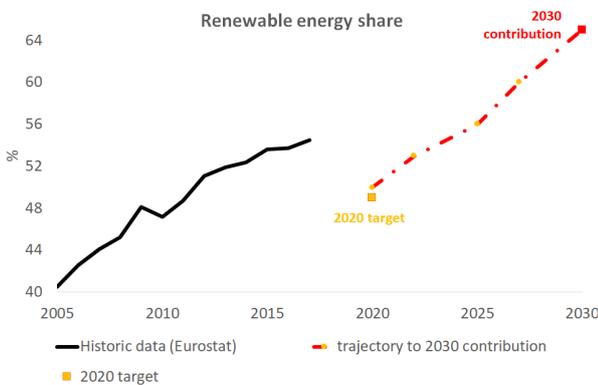
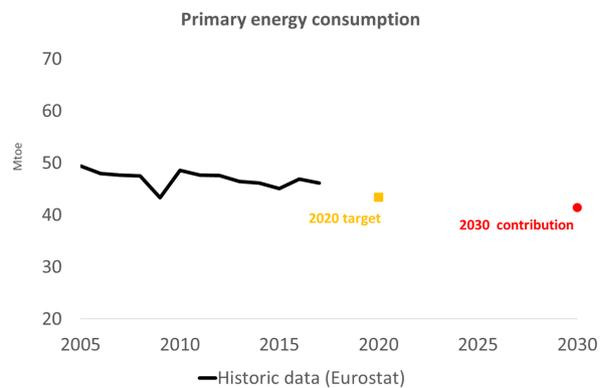
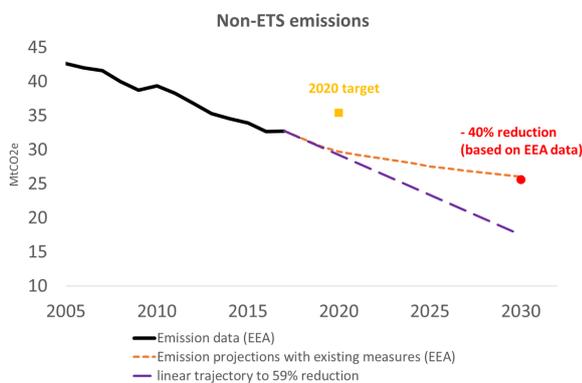
Apply the new law for renewable 'prosumers'

The NECP should set targets for applying the new 'prosumer' law, with financial packages and awareness campaigns to encourage citizens, communities, businesses and public bodies to produce and consume their own renewable energy and benefit from surplus production.



Sweden

Sweden has set a long term climate target (net-zero emissions by 2045). For sectors such as transport, buildings, waste and agriculture (non-ETS sectors), Sweden aims at achieving 50-59% greenhouse gas emission reductions by 2030 compared to 2005, although its binding target is a 40% reduction. However, the draft National Energy and Climate Plan (NECP) does not include an impact assessment to verify how Sweden is ensuring this target will be met. Based on projections of the European Environment Agency (EEA), under existing measures, Sweden is expected to achieve around 39% emission reductions in non-ETS sectors by 2030 compared to 2005. The renewable energy contribution is set at 65% in 2030, starting in 2020 with a share of 50%, which is higher than the country's 2020 target (49%) but lower than what they have achieved in 2017 (54.5%). The draft plan indicates a level of energy consumption for 2030, which amounts to 41.4 Mtoe of primary energy and 31.3 Mtoe of final energy. However, as for 2020, Sweden has opted for an energy intensity target that allows energy consumption to fluctuate depending on GDP growth. The final energy consumption for 2030 is higher than the level of consumption of the energy efficiency target for 2020.



KEY ISSUES AND RECOMMENDATIONS

Assess the gap for the long term target

According to the Swedish Environmental Protection Agency, the current rate of emission reductions falls short of achieving the long term climate target. The final NECP should include an analysis of that gap and show how this will be closed.

Go for more energy savings with a clear goal

Sweden has the 10th highest electricity consumption per capita in the world, so there is potential to reduce the consumption. The relative energy efficiency targets make the contribution to the EU targets challenging.

Inform and act on fossil fuels subsidies

There is no information on fossil fuel subsidies. The Swedish Nature Conservation Society estimates that fossil fuel subsidies of at least 2.8 billion EUR of subsidies are currently in place in Sweden.

NOTES

This analysis is based on information and data included in the draft NECPs that are publicly accessible on the European Commission's website at: <https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/governance-energy-union/national-energy-climate-plans>. The analysis was concluded by the end of March. Any developments after that date have not been taken into account;

Factsheets for Lithuania, Malta, Cyprus and the UK were not developed due to lack of capacity.

Information from the Trends and Projections report 2018 as well as the latest datasets by the European Environmental Agency (EEA) have been used for this analysis. Estimates for the non-ETS emission reductions in 2030 are based on the 2005 reference values from these EEA datasets.

The Governance Regulation states that each parameter/variable of the analytical part shall be reported in a period covering the years 2005-2040 (2005 - 2050 where appropriate). The following countries do not report their 2005 reference levels for non-ETS greenhouse gas emissions: Germany, Ireland, Slovenia and Sweden. The following countries report 2005 reference levels for non-ETS greenhouse gas emissions but these deviate significantly from the data of the European Environment Agency (EEA): Croatia, Greece, Hungary, Poland, Romania. Croatia, Germany, Greece, Hungary, Poland, Romania also provide some other historic data on non-ETS emissions that substantially deviate from the latest trends and projections data of the European Environment Agency (EEA). In the non-ETS emissions graphs, where the EEA and NECP emission data and emissions data do not deviate much, only the EEA historic data are presented.

This analysis does not assess Member States' planned use of loopholes and flexibilities to achieve their 2030 non-ETS emissions target. The Climate Action Regulation allows Member States to use accounting tricks and loopholes to help them achieve their target on paper rather than through real emission cuts only. These flexibilities include offsetting from land use, land use change and forestry activities, one-off use of permits from the EU Emissions Trading System, a 'safety reserve' giving certain Member States the option of using pre-2020 surplus to achieve their 2030 targets and a further flexibility for lower income Member States.

The EU energy efficiency target of at least 32.5% is translated to a level of energy consumption of 1273 Mtoe of primary energy and 956 Mtoe of final energy.

Primary energy consumption measures the total energy demand. It covers consumption of the energy sector itself, losses during transformation and distribution of energy, and the final consumption by end users. It excludes non-energy uses. Final energy consumption is the total energy consumed by end users, such as industry, transport, households, services and agriculture. It is the energy which reaches the final consumer's door and excludes that which is used by the energy sector itself.

https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Category:Energy_glossary

Not all countries present their energy consumption in megatonnes of oil equivalent (Mtoe), which is the unit of energy used for the EU energy efficiency target. In the case of Member States that have presented their energy consumption in a different unit, this has been converted in Mtoe for comparison reasons. This is the case for Czechia, Estonia, Ireland, the Netherlands, Slovenia and Sweden.

Lithuania refers to a primary and final energy intensity 1.5 times lower than in 2018 but it was not possible to estimate the corresponding energy consumption to use in the calculations for the overall energy savings to be achieved in 2030. Germany, Romania and Slovenia do not present a level for final energy consumption in their NECPs, while Luxembourg does not present a level for primary energy consumption in 2030. The UK did not present an energy consumption level for either primary or final energy consumption in 2030. As Ireland and Austria include a range of different levels of energy consumption in their NECPs, the lowest levels of energy consumption in 2030 have been taken into account in the calculations. Finally, Bulgaria and Poland do not clearly present a level of primary energy consumption. Poland refers to % energy savings compared to the EU reference scenario (PRIMES 2007) against which the EU energy efficiency target is compared to and therefore a level of primary consumption can be estimated. Bulgaria does the same but does not refer to PRIMES 2007. In order to estimate the foreseen primary energy consumption of Bulgaria in 2030, PRIMES 2007 was assumed as the baseline. Finally, Hungary's final energy consumption in 2030 has been estimated from a graph in the draft NECP.

The current levels of energy consumption or shares of renewable energy refer to the most recent data of Eurostat, which is for the year 2017. The Member States' 2020 energy efficiency targets are those presented in the European Commission's website last accessed at the end of March.

The most recent EU business as usual projections for energy consumption are referring to projections under PRIMES 2016. For more information on the 2030 national energy efficiency contributions and their comparison to PRIMES 2016 projections, please see the briefing "Energy efficiency. State of Energy Efficiency in National Energy and Climate Plans" by the Coalition for Energy Savings, here: http://energycoalition.eu/sites/default/files/20190402_TheCoalitionForEnergySavings_State_Energy_Efficiency.pdf.

Estonia sets its renewable energy contribution at 42% in 2030. However, the draft NECP also indicates that if flexible collaboration mechanisms with other EU Member States are launched successfully, it could be possible to increase the share of electricity from renewable energy sources in Estonia's final electricity consumption to 50%. In its draft NECP, Luxembourg is referring to the use of cooperation mechanisms and statistical transfers for its renewable energy share.

For those Member States that didn't stipulate clear intermediary values for the renewable energy share within the 2020-2030 trajectory (Belgium, Croatia, France and the Netherlands), values were being calculated according to article 4 (a)(2) of the Governance Regulation (in 2022, a reference point of at least 18% of the total increase in the share of energy from renewable sources between that Member State's 2020 target and its 2030 contribution; in 2025, a reference point of at least 43% of the total increase in the share of energy from renewable sources between that Member State's 2020 target and its 2030 contribution; in 2027, a reference point of at least 65% of the total increase in the share of energy from renewable sources between that Member State's 2020 target and its 2030 contribution).

Croatia includes two different trajectories for its renewable energy share between 2020 and 2030. Both trajectories lead to a 2030 contribution of 36.4% in 2030.

In the NECP of Ireland, under NECP scenario 4 (with additional measures, low oil price) there are two different references for the 2030 renewable energy share. In this analysis, 23.7% has been used in the graph to show the trajectory of the renewable energy contribution.



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