PAVE THE WAY FOR INCREASED CLIMATE AMBITION

Opportunities and Gaps in the final National Energy and Climate Plans

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INTRODUCTION

National Climate and Energy Plans must pave the way for increasing the EU's climate ambition

Under the Governance Regulation, all Member States must prepare their National Energy and Climate Plans (NECPs) to describe, in an integrated manner, their climate and energy objectives, targets, policies and measures for the period from 2021 to 2030.

This report presents an assessment of 15 final NECPs that were submitted to the Commission before 1st May 2020. It provides a comparison between the draft and the final NECPs and outlines gaps and opportunities identified by national NGOs, highlighting where improvements can still be made. The briefing includes general recommendations per sector and country factsheets with key issues to improve so that the NECPs pave the way for climate and energy policies and targets that are compatible with the Paris Agreement.

The NECPs are required to deliver a minimum ambition level that is set by the EU's climate and energy legislation. 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 current energy targets of at least 32% renewable energy and 32.5% energy efficiency by 2030.

Today, Member States, the Commission and the European Parliament acknowledge that the current level of climate ambition is not enough to limit the global temperature increase to 1.5˚C.

Therefore, the EU's 2030 climate target will now be updated and enhanced. In September 2020, the European Commission will issue its impact assessment regarding the increase of the 2030 climate target to 50-55% emissions reductions compared to 1990. However, to do its fair share under the Paris Agreement, the EU must increase its 2030 climate target to at least 65% and reach climate neutrality by 2040 [1].

In this regard, National Climate and Energy Plans have the potential to prepare the ground for increased climate ambition in Europe in order to achieve the 1.5˚C objective of the Paris Agreement through tangible actions, strong climate and energy targets, as well as robust policies and measures.

This analysis shows that the improvements made in the NECPs are not enough to catalyse the required energy transition and pave the way for a climate neutral economy. NECPs will need to continuously improve, starting with closing the gaps and building on the opportunities identified in this report. In this regard, the European Commission needs to follow up on its assessment of the draft NECPs and update its recommendations to Member States, especially those that were not addressed in the final plans. This is especially valid for the recommendations related to the increase of the energy contributions and the lack of detail regarding the policies and measures needed to, at least, deliver the climate and energy targets.

[1] UN Environment in its latest Emissions Gap Report calls for global annual emission reductions of 7.6% in order to reach the 1.5˚C target. Applying this 7.6% reduction would require the EU to increase its 2030 target from at least 40% to at least 65% greenhouse gas emissions reductions compared to 1990.

National Climate and Energy Plans must pave the way for increasing the EU's climate ambition

In addition, the Commission should ensure clear and proper reporting for the next steps of the process. These should cover reporting on the progress of implementation and improvements made to the level of ambition of the NECPs, including on how the different recommendations have been integrated.

Furthermore, if after assessing all the final plans, the gap towards the current 2030 energy targets remains, the Commission needs to propose additional measures, including national binding targets. This should be combined with the upward revision of the energy targets which will be needed to accompany the increase of the climate target. This will also require the revision of the Energy Efficiency and Renewable Energy Directives and other relevant legislation. Targeted action to accelerate the rate and depth of buildings renovations is needed, while ensuring that the infrastructure planning and funding is aligned with the 1.5˚C objective of the Paris Agreement, through the revision of the Trans-European Networks - Energy (TEN-E) Regulation.

The upcoming EU Budget and in particular the EU Regional Development Funds spending plans (Operational Programmes) for 2021-2027 (to be prepared by the Member States in 2020) also offer a range of opportunities to both increase the climate ambition and the implementation of the measures foreseen in the NECPs.

The widespread human suffering of the COVID19 health crisis, with its associated social isolation and economic disruption, have also caused an unplanned yet significant short-term reduction in greenhouse gas emissions. However, the environmental benefits of an economic lock-down remain temporary, where a true structural change in economic pattern is necessary. With the EU facing a recession of historic proportions [2], recovery investments to be made in the next years become crucial to tackle both the climate and economic crises. In particular, it is vital that the economic recovery measures are designed and implemented in ways that avoid going back to "business as usual" in terms of greenhouse gas emissions. Instead, rapid, deep and lasting decarbonisation of all sectors of the economy must begin as soon as possible. Member States should ensure that the COVID19 response and a fast start on more ambitious NECP measures convert the unexpected sudden drop in emissions in early 2020 into the sustained, year-on-year reductions that the EU must make between now and 2030.

[2]https://ec.europa.eu/commission/presscorner/detail/en/ip_20_799

ANALYSIS AND RECOMMENDATIONS

INCREASE THE CLIMATE AMBITION

In their final NECPs, only a few Member States, such as Denmark, Greece, Slovakia, Slovenia and Spain, increased their reduction targets. However, many of them did not reach the levels required to achieve the 1.5˚C target set in the Paris Agreement. Czechia presented higher emission reduction projections but did not update their targets. Other countries assessed in this report, namely Austria, Belgium, Romania, Croatia and Hungary, submitted the same unambitious non-ETS targets as in their draft NECPs.

The current level of EU climate ambition is not in line with its commitment under the Paris Agreement to limit global temperature rise to 1.5˚C. The EU needs to quickly increase its 2030 climate target from at least 40% to at least 65% emission reductions and needs to commit to achieving net-zero greenhouse gas emissions by 2040. Member States therefore need to readjust and substantially increase their national 2030 emission reduction commitments by reflecting this increase in ambition in their final NECPs. In this regard, Denmark, which set an economy wide emission reduction target of 70% by 2030, and is preparing an updated NECP with higher targets and stronger policies and measures, should be an example for all Member States.

Under EU legislation, the EU's current economy wide 40% emission reduction target consists of sector contributions covered by its Emissions Trading System (ETS), mainly the energy and industry sectors. It also consists of the other remaining sectors (agriculture, transport, buildings, waste) not covered by the EU carbon market and subject to specific Member State level targets laid down in the Effort Sharing Regulation/Climate Action Regulation (ESR/ CAR/ non-ETS). In their NECPs, Member States have the opportunity to announce ambitious economy-wide national targets for emission cuts or indicate that they intend to go beyond the minimum ambition levels they need to achieve in their non-ETS sectors.

Denmark provides a good example for all EU Member States showing that going beyond the EU's low climate target level is possible. In Denmark, a Climate Law was agreed in December 2019, which included a 70% economy-wide target for emission reductions by 2030, compared to 1990 levels, along with the requisite for the country to be in line with the Paris Agreement goals. Policies and measures to achieve the increased climate target will be outlined in the upcoming Climate Action Plans, which will be negotiated during 2020, and the "final NECP" will be updated once these Climate Action Plans have been agreed.

To meet its 70% emissions reduction target, Denmark will need all sectors to deliver significant reductions. With the 70% target, it is assumed that Denmark will have to reduce its emissions in the non-ETS sectors by at least 50%.

In a similar spirit, some Member States have increased their emission reduction targets, but not yet to levels that are consistent with the ambition required by the Paris Agreement. Slovakia, for instance, has increased its non-ETS emission reduction target from 12% to 20%. Similarly, Slovenia has established an increased economy-wide national target of 36% greenhouse gas emission reduction and a non-ETS greenhouse gas emission reduction target of 20%, which is higher than its national target under the Effort Sharing Regulation. Spain continues to have a higher level of ambition for emission reductions in the non-ETS sectors (39%) compared to levels required by EU law (26%) and has increased its economy wide emission reduction target from 20% to 23% from the draft to final NECP. However, this overall ambition level remains too low for it to be a sufficient contribution to the 1.5˚C goal of the Paris Agreement [3].

[3] Spanish NECP may appear to be amongst the most ambitious in the EU, with some 2030 sectoral objectives well above the EU minimum objectives. However, this is because Spain greatly exceeded 1990 levels, so considerable sectoral effort is now needed to reduce emissions by 23% by 2030. This is still well below the insufficient existing EU overall objective of -40%.

INCREASE THE CLIMATE AMBITION

Greece's overall 2030 greenhouse gas emissions reduction, based on updated projections, has increased since the draft version to 42% (compared to 1990 levels). According to the Greek NECP, a reduction of 36% by 2030 (compared to 2005 levels) is expected for the non-ETS sectors, but more clarity on the correct 2005 baseline is needed to back the projected emission reductions [4].

Czechia has not increased its targets, but are showing higher emission reduction projections for 2030 in the non-ETS sectors compared to the draft NECPs. The Czech NECP shows a possible 18.1% decrease in non-ETS emissions by 2030, but once again more clarity on the 2005 baseline is needed [5]. Despite having improved from the draft version, the targets for greenhouse gas emission reductions can still be improved in the Czech NECP.

Most countries, including Austria, Belgium, Romania, Croatia and Hungary have not improved their non-ETS targets since the draft version, despite having already unambitious targets. Austria still fails to identify how it will achieve its binding target for its non-ETS sectors. Since the draft version of its NECP, an impact assessment has been published, still showing that Austria does not yet have the necessary policies in place to achieve its national target. This indicates that more measures are needed. Moreover, the minimum target for Austria in the non-ETS sectors requires a reduction of 36% compared to 2005 but, according to climate scientists in Austria, a minimum target of 50% is necessary to achieve the Paris Agreement's long-term climate objective [6].

Belgium fails to move beyond the 35% emission cuts in its non-ETS sectors by 2030 as set in the Effort Sharing Regulation. For Belgium to do its fair share to achieve the 1.5˚C temperature limit, it should establish a reduction of greenhouse gas emissions of approximately 55% by 2030 [7]. For Romania, the non-ETS sector target has not been improved and is still low in ambition, yet, some measures to achieve this target have been explained in a more detailed way in its final NECP.

Although the Croatian and Hungarian non-ETS targets remain unchanged, their emission reduction projections go beyond their non-ETS targets. It shows these countries should set much higher targets to put them on track towards carbon neutrality by 2040 or to comply with the Paris Agreement.

The Governance Regulation also obliges Member States to ensure coherence between their 2030 planning and their long-term strategies. At the December 2019 European Council, all Member States agreed to reach climate neutrality by 2050 at the latest, with Poland requesting further time to evaluate the implementation of this target at national level. It is imperative for all Member States to adopt long-term targets in line with the Paris Agreement objectives and increase their intermediate greenhouse gas emissions reduction targets, so that these are on a consistent trajectory in view of achieving the 1.5˚C target.

[4] Based on the ESD 2005 baseline numbers, the expected 42 MtCO2e in 2030 would mean only a 32.9% decrease for non-ETS emissions in Greece.

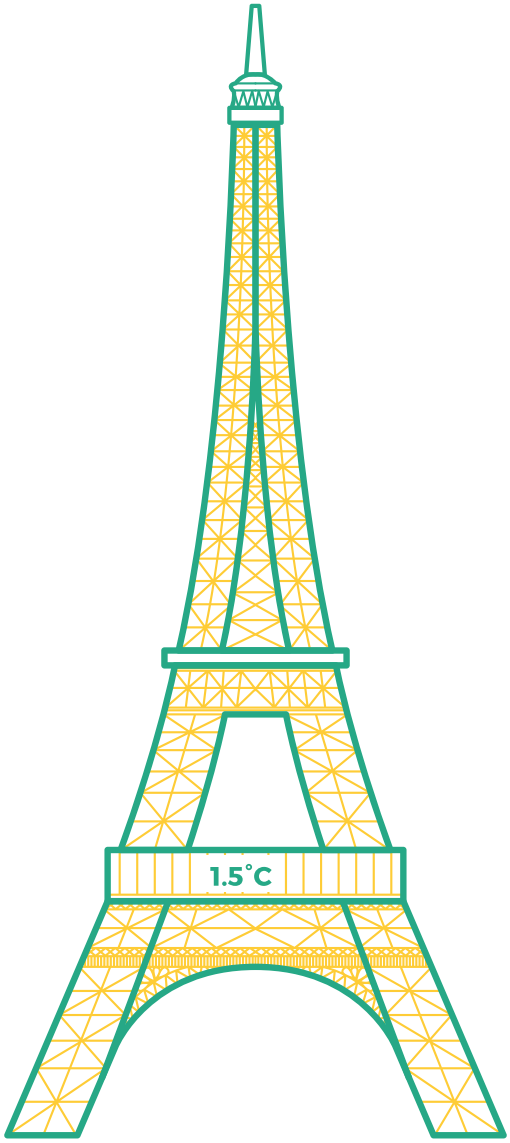
[5]Based on the ESD 2005 baseline numbers, the expected 52.83 MtCO2e in 2030 would mean only a 14.4% decrease for non-ETS emissions in Czechia.

[6]https://ccca.ac.at/wissenstransfer/uninetz-sdg-13/referenz-nationaler-klima-und-energieplan-ref-nekp

[7]National NGOs are calling on Belgium to increase its 2030 climate target to 55% emission reduction to reach climate neutrality by 2050 as agreed in the European Council in December 2019.

INCREASE THE CLIMATE AMBITION

The Danish example should inspire the EU to also increase the level of ambition of its economy-wide 2030 climate target to comply with its international commitment under the Paris Agreement. A more ambitious EU 2030 climate target needs to be followed by an adjustment of EU climate legislation, particularly the ETS Directive and the ESR. Other legislation, at EU and national level, needs to be significantly improved and be consistent with the increased climate target. For instance, the Common Agriculture Policy should support real emission reductions in the agricultural sector, and the EU's internal market policy needs to allow national governments (such as the Danish one) to ban the sale of internal combustion cars. This means that contributing to the EU's emission reduction obligations under the Paris Agreement needs to be a central objective in all sectoral EU policies.



ACCELERATE THE DEPLOYMENT OF RENEWABLE ENERGY

Compared to the draft NECPs, Austria, France, Czechia, Greece, Hungary, Latvia, Poland and Romania have increased their contribution to the 2030 EU renewable energy target in their final NECPs. However, from these countries, Czechia, Hungary, Poland and Romania are still below the recommendations issued by the European Commission and many of the renewable energy contributions are not ambitious enough to be in line with the Paris Agreement objectives.

Of the Member States that increased their contributions, only Greece went beyond the recommendations issued by the European Commission in its final NECP. In countries such as Croatia and Estonia, although the share of renewable energy foreseen in 2030 already went beyond the recommendations issued by the European Commission in the draft NECPs, the contributions could have been even higher as the NECP still leaves room to increase. There are also Member States that remain below the recommendations such as Slovenia, Romania, Poland, Hungary and Czechia, although there is potential for further deployment of renewables.

Concerns still remain about the policies and measures taken up in the plans. For instance, the Czech NECP remains vague, with regard to energy storage, by lacking clear goals, benchmarks and investment scenarios. In the Greek NECP, the ambition regarding new energy storage capacity is also low and mostly includes construction post 2025.

In terms of technologies, there are concerns that potential for wind and/or solar remains untapped for Czechia, Hungary, Slovenia and France. In addition to this, in some countries such as Greece and Spain, spatial planning that clarifies where new capacity can be installed while respecting nature conservation, is still lacking and this might increase public resistance and hinder the further deployment of renewables.

In several countries such as Czechia, Denmark, Estonia, Hungary and Romania, there are concerns about the unsustainable supply of biomass and/or the lack of specific measures to ensure sustainability for biomass supply and use in the energy sector. In some of these countries, there is a lack of good data, or a lack of proper analysis of the impacts. In countries such as Estonia, biomass for heating could be reduced if the development of heat pumps is moved forward.

Even though the role of prosumers and energy communities is indicated in some of the plans, its potential is not fully developed in all Member States. Measures foreseen in the Czech NECP lack specific targets and benchmarks. In Hungary, Latvia, Portugal, Poland, Spain and Slovenia, the NECP opens up the opportunity for an increase in community projects and/or prosumers in the upcoming years.

Another opportunity in the Croatian, Greek and Spanish NECPs is the development of energy infrastructure capacity that will enable an increase in the share of renewables. This includes 'hybridisation' (e.g. solar and wind) and 'repowering' to combine and upgrade on existing sites, but further actions are needed and permitting requirements must be clarified.

Annex I presents an overview of the 2030 national renewable energy contributions in the draft and final NECPs, and the recommendations issued by the European Comission.

AIM FOR HIGHER AMBITION ON ENERGY EFFICIENCY

Based on the available information, when put together, the countries that have submitted NECPs so far have slightly increased their level of ambition [8]. This will most likely not be sufficient to close the gap. Germany was one of the two countries which did not submit any national energy efficiency contribution in its draft NECP [9]. Six months after the deadline, Germany has still to provide information about its energy efficiency contribution as its final NECP is still missing [10].

When the national contributions are examined individually, the picture is diverse. There are countries which have made noticeable changes to their contributions and others that go backwards compared to their draft NECPs. On the good side, from the countries analysed in this report, Greece for example, changed its primary national energy contribution bringing the projected 2030 energy consumption both below the 2017 levels and its 2020 target [11]. This was not the case in the draft NECP. The same goes for the final energy contribution but to a lesser extent. Slovenia also brought its primary energy consumption for 2030 below both the 2017 levels and its 2020 target, while a contribution in terms of final energy is now presented in the final NECP, which was not included in the draft. Romania also improved its contribution to the EU 2030 energy efficiency target, although it is still projected that its final energy consumption will be higher than its 2017 levels.

Countries such as Portugal, Austria, Latvia and Slovakia present a range for their contribution which creates a challenge for calculating the potential gap towards the 2030 target. For Portugal, the lower level of the range for the primary energy contribution presented in the final NECP improves on the contribution in the draft, while the upper level of this range is less ambitious than the draft one. Both ends of the range for the final energy contribution are an improvement compared to the draft NECP. The 2030 final energy consumption is now foreseen to be both below the 2017 level and the national 2020 target.

Latvia and Slovakia also present improvements to their contributions, although Slovakia's contributions are still very much lacking.

The contributions of Estonia and Czechia are more or less the same as in their drafts. This is also the case for Poland, France and Spain in terms of primary energy and for Denmark and Hungary in terms of final energy. For some of these countries, there are differences upwards or downwards but they are marginal.

[8]It is estimated that the aggregated level of ambition of the countries that have submitted their final NECPs has improved by 0.9 to 1.8% for primary energy and by 2.4% to 2.7% for final energy as compared to the draft contributions included in the June 2019 analysis of the Commission.

[9]Based on the Commission's methodology for the calculation of the gap from the draft NECPs, this could mean achieving an overall EU level of ambition for energy efficiency between 27.3% and 30.9% in primary energy and 28.4% to 31.9% for final energy instead of the 32.5% target. These calculations do not take into account the UK. However, this can only provide an indication. As already mentioned, the results of the calculations very much depend on the contributions of Germany. Therefore it unfortunately is not possible at this time to indicate the actual extent of the gap. In its analysis, the Commission had to assume a range for Germany's draft contribution in order to calculate the overall gap towards the EU energy efficiency target which was also used in this report. The draft contributions for Ireland and Luxembourg as indicated in the Commission's June 2019 analysis were also taken into account here. The methodology used by the Commission to estimate the gap towards the 2030 energy efficiency target in June 2019, as well as the values for the national contributions taken into account for this analysis can be found here: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019SC0212&from=EN

[10]Germany was among the only two countries (together with the UK) that did not submit any national energy efficiency contribution for 2030 within their draft NECPs. This made the estimate of the gap of the draft contributions very challenging. Germany's submitted draft plan included only an indicative reference to a 30% reduction of gross inland consumption from 2008, which was said to be in line with the national goal of halving energy demand by 2050, based on a linear trajectory. There has been no indication regarding final energy.

[11]The Commission assessed the energy efficiency contributions in the draft NECPs comparing them to both the national 2020 targets and the 2017 statistical data. The methodology used by the Commission to assess the energy efficiency contributions in the draft NECPs can be found here: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019SC0212&from=EN

AIM FOR HIGHER AMBITION ON ENERGY EFFICIENCY

Croatia's energy efficiency contributions as presented in the final NECP are those taken into account in the Commission's assessment of the draft NECPs [12]. These above mentioned countries, except for Spain, are among those that have received recommendations from the Commission to either review or increase one or both of their contributions [13]. Spain and Poland have also slightly improved their final energy contributions. Bulgaria and Denmark have only slightly improved their primary energy contribution compared to the draft NECP, which in any case remains pretty weak. Bulgaria's foreseen primary energy consumption for 2030 is still above its 2020 target. Denmark and Hungary are among the countries where the foreseen energy consumption for 2030 both in terms of primary and final energy is still above both their national 2020 target and their 2017 levels.

Special attention should be given to Belgium which is the only country that has presented weaker energy efficiency contributions both in terms of primary and final energy compared to the draft plan. Hungary presents a primary energy contribution with a lower ambition than the one used in the Commission's assessment, which is however still close to the value presented in its draft NECP. As for Bulgaria, in its final NECP, it includes a national energy efficiency contribution in terms of final energy that has a lower level of ambition than the one previously presented.

Annex II presents an overview of the 2030 national energy efficiency contributions in terms of primary and final energy. This shows the different stages of the development of the NECPs (in the draft NECPs, in the Commission's assessment of the draft NECPs and most importantly in the final NECPs).

[12] The Commission's analysis did not necessarily include the same values for the national contributions as the draft NECPs submitted. For example Croatia presented a primary energy contribution of 8.8Mtoe in the draft NECP, while the Commission, for the calculation of the gap, considered a primary energy contribution of 8.23Mtoe, which is the same as the one included by Croatia in the final NECP. However, those presented in this analysis were those considered in the assessment of the gap to achieving the EU 2030 energy efficiency target. According to the Commission, the draft contributions may also have been adjusted after additional information was provided by Member States.

[13]All the countries that received recommendations on the national energy efficiency contributions can be found on the Commission's website: https://ec.europa.eu/energy/topics/energy-strategy/national-energy-climate-plans_en

END FOSSIL FUEL SUBSIDIES

In their NECPs, Member States are required to report on their fossil fuel subsidies and their plans to phase these out. However, the final NECPs assessed in this report have seen hardly any progress on measures to reduce and phase out fossil fuel subsidies in the final NECPs. Only one country, Spain, has made some very limited progress, while at least seven countries still do not have measures against fossil fuel subsidies. This is despite four of them recognising the issue (Austria, France, Slovenia and Belgium). Three countries do not even recognise the issue (Poland, Hungary and Greece).

Fossil fuel subsidies undermine the effectiveness of carbon price signals and therefore their reform is essential for ensuring policy coherence when it comes to achieving climate goals. They distort the market, making clean energy and energy efficiency technologies relatively more expensive. They also lead to a 'lock-in' of high-carbon investments, increasing the risk of 'stranded assets'. Even though it is crucial to shift financial flows away from fossil fuel subsidies as they hinder the path to a green energy transition, this task has been poorly accomplished by Member States in the final NECPs.

The Spanish NECP lists four types of fossil fuel subsidies in its Annex A: reduced VAT, other tax benefits and incentives, capacity payments, and subsidies for cleaner technology in coal plants. But only in the latter case does it explain clearly how the subsidy is being phased out, and much will depend on long-awaited tax reforms.

Many Member States such as Austria, France and Slovenia, despite having recognised fossil fuel subsidies in their final NECP's, still generally lack measures to phase them out. For Austria, the phase-out of fossil fuel subsidies was already mentioned in the draft version and is more prominently elaborated in the final NECP, despite still lacking clear measures. The final NECP includes the "option" of phasing out these subsidies and quantifies the measure as leading to 2 MtCO2 avoided per year. This would be essential, as without removing environmentally harmful subsidies it will be far more difficult to achieve greenhouse gas emissions reduction targets. For Slovenia, although fossil fuel subsidies are now reported in the final NECP, subsidies for fossil gas are not seen as harmful. The same goes for France, which finally recognised that fossil fuel subsidies exist, but fails to recognise the full list.

Estimating the amount of savings that could be made by eliminating these subsidies could also be an opportunity to create a possible source of funding for NECP measures.

Others like Greece and Hungary fail to recognise fossil fuel subsidies. The Hungarian NECP even mentions supporting the development of national fossil fuel resources, for instance price support for national shale gas extraction or treating national lignite as a strategic reserve. These hidden fossil fuel subsidies clearly hinder the energy transition. For Greece, despite the European Commission's recommendations, and the suggestions made during the consultation process both within the NECP committee and the public consultation, a phase out plan for all fossil fuel subsidies is still missing in the final NECP.

For some countries, the situation is even worse as they are considering continuing to subsidise fossil fuels. For Poland, not only is there no plan to reduce fossil fuel subsidies, but also the NECP states that the coal industry will continue to be subsidised, with projections indicating a share of coal of over 50% in electricity production in 2050. The coal industry is already subsidised in Poland each year by several indirect means that cannot be controlled by the EU public support abatement mechanism.

For Denmark, the €2 billion investment in the Baltic Pipe (planned offshore fossil gas pipeline), of which Denmark accounts for €0.84 billion, is a continuation of subsidising fossil fuel companies. This support is based on the unrealistic assumption that the Baltic Pipe will be used at a 90% capacity rate for the entire period from 2022-2052, showing that this project goes in the opposite direction to the EU's decarbonisation plans.

PHASE OUT COAL

In their initial drafts, a number of countries had already put forward much needed coal phase out goals in the power sector by 2030 at the latest. Of the twelve coal countries, five (Greece, Hungary, Portugal, Slovakia and Spain[14]) have agreed on 2030 as the deadline for coal use while Portugal even advanced its coal phase out date to 2023. The following seven Member States however plan to burn coal beyond 2030: Bulgaria, Czechia, Germany, Romania, Poland, Croatia, and Slovenia.

Although Greece's final NECP includes the decision to shut down existing lignite coal plants by 2023 and fully phase out lignite by 2028, the electricity that was supposed to be produced by lignite in 2030 is substituted mostly by fossil gas and to a much lower extent by renewables and energy storage. Therefore, the final NECP includes a big increase in fossil gas capacity compared to the draft proposal. Out of the 9.1 TWh of lignite based electricity that will be phased out, 8 TWh will be replaced by fossil gas.

Czechia is losing its potential to drive an ambitious clean energy transformation by not setting a coal phase out date. The Czech coal phase out date will be proposed in September 2020 by the government-established Coal Commission.

Romania has also missed the opportunity to announce a coal phase out date in its final NECP. Romania plans to keep almost 2 GW of installed coal capacity at least until 2030 and to use natural gas to a considerable extent as "a transition fuel" to a decarbonised energy industry, which creates the risk of locking in gas infrastructure.

For Croatia, the final NECP does not envisage measures to reduce the use of coal by 2030, although the country's energy strategy does not include electricity generation from coal power plants after 2035. These two plans have to be harmonised, taking into account measures for a coal phase out, which should be referenced in the NECP even if it is intended to phase out coal only after 2030.

Slovenia foresees the use of coal for electricity production until 2050 and considers investments in carbon capture and storage (CCS) technology. The use of gas for combined heat and power production is also expected to increase. It foresees the gradual phasing-out of domestic and imported coal for energy purposes with a view to reducing it by at least 30% by 2030. Instead of setting a clear deadline for closing coal-fired power plants well before 2030 in line with its international commitments under the Paris Agreement, Slovenia will make a decision regarding phasing out coal only in 2021.

The Spanish NECP expects that nine of the coal-fired power stations in operation in 2019 will have closed by 2021, and all of them by 2030, based on a forecast carbon price by then of €35 per t CO2-eq. However, it also means that Spanish coal plants complying with EU emissions regulations by 2020 (around 4.53 GW) could continue to operate until 2030.

OIL SHALE IN ESTONIA

Although not among the countries dependent on coal, a specific case that deserves attention is Estonia, which is the only European country to produce and use oil shale as its main energy source. The NECP mentions that there is no plan of phasing out indirect subsidies for oil shale.

Ending indirect fossil fuel subsidies for oil shale would be a fundamental measure to phase out fossil fuels in Estonia, which would otherwise risk locking-in Estonia to fossil fuel dependency for decades while blocking a development path towards climate neutrality.

[14] Spain has not put this in legislation, but states in its NECP that it expects the market to force this decision as coal will no longer be used in the electricity mix by 2030.

CLOSE THE GAPS IN POLICIES AND MEASURES

Although many countries have improved the amount and detail of measures presented for each target since their draft versions, there is still potential to improve in most cases, since the measures presented either lack clarity or a quantification of their impact on emission reductions.

For Croatia, a major improvement was made in the research and development sector where new and more detailed measures were added and harmonised with measures from national science, education and technology policy documents. The final Estonian NECP includes new measures for wind energy development. Additional measures were added to reduce greenhouse gas emissions from peat soils, but these are not sufficient to tackle the problem of emissions from peatlands. The NECP also projects that the Land Use, Land Use Change and Forestry (LULUCF) sector will become a greenhouse gas emitting sector from 2034 (mainly due to the decrease of old forests). It is crucial for Estonia to develop additional policies and measures to ensure that the LULUCF sector continues sequestering carbon, instead of emitting, as otherwise the country will not be able to achieve its climate neutrality objective [15].

For Czechia, the main improvements since the draft version include a more detailed assessment of the economic, social and environmental impacts of the proposed policies and measures, alongside an explicit mention of an intention to develop community energy.

Spain's NECP has followed the Commission recommendations to provide further detail on policies and measures to achieve the objectives for renewables, energy efficiency, energy security, regional energy market cooperation, energy poverty, 'prosumerism' and R&D funding.

However, it is still unclear how much the NECP is supported by the major regional and municipal authorities, who are essential to planning and delivering NECP objectives, measures and costs across a broad range of relevant policies. Doubts also remain about proposed tax reforms, and whether Spanish programming and co-financing of EU funds will be sufficiently agile and well-designed to make measures attractive for consumers and businesses and other interested parties, as well for private investors.

Other Member States still lack concrete or detailed measures on how the targets will be met. For Austria, the final NECP does not determine measures to achieve even the weak non-ETS target. The plan was elaborated by a transitional government, and concrete measures will need to be further elaborated in order to meet and exceed the national target required by EU law. For Belgium, there are inconsistencies between the measures put forward at the Regional and the Federal level, making it very difficult to implement the mentioned targets. In the Romanian NECP, any of the measures and actions proposed throughout the plan do not have deadlines for implementation and their contribution to the achievement of the objectives is not clear.

[15] https://www.sei.org/publications/reaching-climate-neutrality-in-estonia-brief/#climate-neutrality-possible-and-likely-profitable

CLOSE THE GAPS IN POLICIES AND MEASURES

Regarding energy poverty measures, Hungary, Portugal, Slovenia and Spain have yet to address this issue properly, given that it is an important topic for these countries. The final Hungarian NECP did improve compared to the draft, however concrete targets for energy poverty still need to be set, and the definition of people living in energy poverty has to be widened. The Portuguese final NECP has improved considerably from the draft version both in the amount and the structure of policies and measures, despite missing quantification. As for Slovenia, the final NECP includes some new policies and measures, mostly in the transport sector and on fossil fuel subsidies. Although it now recognises energy poverty as an important energy topic, its definition, targets and measures are still missing. The Spanish NECP has made progress on addressing energy poverty. Previously, it was hampered by various reasons including the economic crisis and an unstable national political situation.

Portugal and Hungary see opportunities to improve energy efficiency in the buildings sector. Hungary even specifies in the final NECP that a business model with energy service companies (ESCOs) would be a critical measure to reduce energy consumption in the residential sector and achieve the overall energy efficiency targets.

Some Member States show a worrying lack of ambition in the transport sector. Taking action here is fundamental to increasing the countries' energy efficiency, reducing greenhouse gas emissions and fossil fuel imports and improving air quality. Yet in several NECPs, the willingness to act in this sector is limited. For instance, Denmark is one of the countries where taxes on new cars have been reduced which resulted in a 7.4% increase of emissions per km in 2019 (113gCO2/km) compared to the 2017 average (105gCO2/km)[16].

In the Croatian NECP, the measures to shift to electric vehicles are not strong enough for an effective contribution to increasing the country's energy efficiency. In the Greek, Hungarian and Slovenian NECPs, there is an increase in energy consumption in the transport sector. In the Latvian NECP, the ambition to transform the mobility system in the near- and mid-term is low, and the overall focus on low-carbon public transportation and zero-emission vehicles is flawed by the promotion of compressed natural gas (CNG) as a more affordable alternative. Spanish NGOs have been highly critical of the delay until 2040 of the phaseout of fossil fuels in road transport.

[16] https://www.dst.dk/da/Statistik/nyt/NytHtml?cid=28711

COUNTRY ASSESSMENTS

AUSTRIA

The Austrian NECP fails to meet the minimum EU targets for Member States, and does not identify the necessary measures to achieve the objectives of the Paris Agreement. It was prepared by the last government, which was an "expert government" that was put in charge after the national elections until a new government was established. In the current NECP, there is no reduction of final energy consumption by 2030 set out. If Austria keeps following this path, energy demand will be too high and cannot be met with the sustainable renewable energy resources available. It is therefore up to the new Austrian government to increase the level of ambition in emission reductions in the non-ETS sectors, energy efficiency and share of renewables.

COMPARISON BETWEEN DRAFT AND FINAL NECP:

There were no major improvements in the Austrian NECPs compared to the draft one. However, some minor improvements have been included: an impact assessment has been published, showing that Austria cannot achieve the EU minimum goals with the existing plans, and some options to fill the gap were presented.

OPPORTUNITIES

Phase-out of environmentally harmful subsidies A phase-out of fossil fuel subsidies is mentioned more prominently in the final NECP. However, clearer detailed decisions and plans are needed. Environmentally harmful subsidies in Austria amount to around €4.7 billion, a large amount for a small country. The final NECP includes the "option" of phasing out these subsidies and quantifies the measure with 2 Mt CO2 avoided per year. This analysis indicates that without removing environmentally harmful subsidies it will be much more difficult to achieve higher emission reductions and ensure a just and fair transition to a low carbon economy with other measures alone.

Environmental tax reform or emissions trading system included as "options" National studies suggest that without an environmental tax reform, climate targets in the medium and long run cannot be met. Even though no decision has yet been taken, such measures have been emphasised, signaling these could be used to bridge the remaining gap [17].

GAPS

Non-ETS target is not ambitious enough The minimum target for Austria in the non-ETS sectors requires a reduction of 36% compared to 2005 levels, however climate scientists in Austria see a minimum target of 50% as necessary to achieve the Paris Agreement goal [18]. The proposed measures are only expected to achieve 27% emission reductions in non-ETS sectors, thus falling short of Austria's target under the Effort Sharing Regulation and certainly its required ambition to achieve the 1.5˚C objective of the Paris Agreement.

Lack of politically agreed measures As the whole plan was elaborated by a transitional government, concrete measures are still missing and will need to be elaborated by the new government in order to bridge the gap between the NECP and the EU's very soon to be increased 2030 climate target.

Financial means to fulfil targets are not there yet The plan needs concrete financial means and a political agreement to increase funds for green investments. However, a recent study revealed that in 2020 alone, around €520 million will be needed in order to implement the NECP. However, this budget is not there yet [19].

[17] https://www.umweltbundesamt.at/aktuell/publikationen/publikationssuche/publikationsdetail/?pub_id=2250
[18] https://ccca.ac.at/wissenstransfer/uninetz-sdg-13/referenz-nationaler-klima-und-energieplan-ref-nekp
[19] https://www.ots.at/presseaussendung/OTS_20200306_OTS0002/global-2000-anfrage-bestaetigt-schwere-maengel-an-oesterreichischem-klimaplan

BELGIUM

Measures included in the final NECP are in reality only an extension of already existing measures, so the plan indicates an inability to innovate. A coherent and all-encompassing plan must be adopted to achieve a decarbonised, sustainable and just society, which will require transformational changes both related to the economy and overall lifestyles. The NECP presents a compilation of individual measures, developed in silo as a prolongation of those already existing. A good example of the lack of coordination between regions regarding policies and measures is road infrastructure development. The Flemish region plans to expand the highway accessing Brussels, while the Brussels Region is looking to reduce the use of cars.

Unfortunately, there is no prioritisation of measures with the aim to reduce emissions and a clear definition of the benefits such measures would have in the long-term on jobs, reduction of fossil fuel consumption etc is missing. The lack of long-term measures put forward shows little ambition for meeting the Paris Agreement goals. The Belgian NECP fails to be a control panel for defining the future and for tracking whether the country is still on the right pathway to achieve climate neutrality by 2050 at the latest.

COMPARISON BETWEEN DRAFT AND FINAL NECP:

Belgium is the only country that has presented weaker energy efficiency contributions both in terms of primary and final energy compared to the draft plan. Moreover, the share of renewable energy has slightly reduced from 18% to 17,5%, mostly due to a lower integration of advanced biofuel.

OPPORTUNITIES

Highlighting the role of railways Railways need to become the structural axis of mobility systems, this will be facilitated by reinforced investments. The proposals made in the final NECP are most welcome in this area. However some improvements could be made to these proposals in terms of their implementation and timeline. For example, the budget that will be allocated to the different elements of their development, such as maintenance of the already existing infrastructure or enabling the transportation of bikes, should be clarified.

GAPS

Low level of climate ambition Belgium fails to go beyond its non-ETS target of only 35% greenhouse gas emission reductions by 2030 (compared to 2005 levels) which was presented in the draft NECP. For the country to do its fair share to limit the global temperature rise to 1,5˚C, it needs to step up its climate ambition and aim for an emissions reduction target of 55% by 2030. It should also close the gap between its current policies and measures and the long term goal of the Paris Agreement. This results in a need for more integration between the national long term strategies and the NECPs.

Decreased ambition in renewable energy and energy efficiency contributions The national renewable energy contribution that has been put forward by Belgium in the final NECP is set at 17.5% in 2030, which is a reduction of 0.5% compared to the draft NECP. A target at European level between 30 and 35% would translate as a national level contribution of between 22.5% and 27.5%. In other words, far more than the contribution included in the NECP. The energy efficiency contributions are now less ambitious than those presented in the draft NECP. The Energy Efficiency Directive and Renewable Energy Directive clearly indicate that the European objectives can only be revised upwards in the future. This should transpire into an evaluation mechanism within the final NECP for both national contributions, which for the moment is non-existent.

BELGIUM

GAPS

Return to the use of destructive biofuels The final NECP provides for an unprecedented return to the use of biofuels, going from 5.5% in 2017 to a goal of 10.5% by 2030, compared to 14% in draft NECP. This would be divided into 7% coming from food commodities and the other 3.5% being advanced biofuels. There should be a consistency between such targets and Belgium's commitments to fighting climate change, sustainable development and respect of human rights. Indeed the biofuels coming from food commodities need to be eliminated as of 2021 and advanced biofuels should be used with precaution and realism.

Lack of coordination between regions for adequate climate governance The different Federal and Regional governments do not have a common long term vision for achieving climate goals. The division of competence between Federal and Regional governments complexifies coordination on a topic as transversal as the climate. The NECP stays vague as to how this will be improved. The adoption of a national Climate Law would enshrine Belgium's medium and long term climate objectives (involving a decarbonisation date well before 2050) and guarantee cooperation between Federal and Regional levels. Another measure would be to guarantee the transparency of all institutions when it comes to coordination of climate policies, making available agendas, documents and notes of meetings, as is required under the Aarhus Regulation.

Implement an environmental tax reform Despite calls from the OECD and the EU Commission, Belgium still has one of the lowest environmental taxation rates in the EU. Despite this low rate, Belgium's plan to introduce carbon pricing or to reform its company car scheme remains highly hypothetical in its NECP.

CROATIA

Climate and energy targets in the Croatian NECP have not been improved. The final NECP includes a 7% reduction in greenhouse gas emissions for the non-ETS sectors as set by EU law and a 36.4% of renewable energy share in final energy consumption. The level of energy consumption foreseen in the final NECP for 2030 amounts to 8.23 Mtoe of primary energy and 6.85 Mtoe of final energy. These contributions are the same as those taken into account in the Commission's assessment of the draft NECPs in order to estimate the overall gap towards the EU 2030 target in June 2019. Even though Croatia's non-ETS target remains unchanged, it is important to note that the country's emission reduction projections go beyond their non-ETS targets. This shows that Croatia can set much higher targets to achieve the Paris Agreement goals.

One of the reasons for the current low ambition is the low level of investment in these areas in the past. In the public consultation process, some main concerns raised about the NECP were that it does not include how the measures will be implemented and it does not include the sources and amount of financing needed. In the NECP, it is clear that the government is planning to possibly fund almost half of the envisaged measures from the European Structural and Investment Fund (ESIF). However, and this is an additional reason for concern, in the previous programming period a lot of indicators for energy and climate objectives were not fulfilled. Moreover, funds initially allocated to climate goals were reallocated at the end of 2019 to business competitiveness.

COMPARISON BETWEEN DRAFT AND FINAL NECP:

Compared to the draft version, the level of ambition of the climate and energy targets remains the same. However, the overall quality of the text has improved and the measures are described in more detail. A link to the "Long-Term Strategy to Encourage Investments in the Renovation of the National Building Stock of the Republic of Croatia by 2050" was made. Besides, a major improvement was made in the Research & Development (R&D) section where new and more detailed measures were added and harmonised with the R&D measures from national science, education and technology documents.

OPPORTUNITIES

Making the link between renewable energy deployment and related infrastructure The final NECP foresees a sufficient capacity of electricity interconnectors to increase the share of variable renewables and highlights the necessity to analyse the impact of climate change on the adequacy of the power system. The final NECP expects contributions from solar PV systems and considers the promotion of more self-supply on the islands (both for citizens and larger projects) to use renewable energy and establish energy communities (that were not mentioned in the draft NECP). This will solve the problem of increased electricity consumption during the summer months. It will also reduce the pressure on the energy transmission system, and at the same time it will create pilot projects that can then be applied to other parts of the country. However, concrete actions and financial plans are missing.

CROATIA

GAPS

Insufficient climate ambition and uncertainty over the financial measures to implement the targets The ambition for the total greenhouse gas emission reduction in the NECP comes from the National Energy Development Strategy. The level of ambition for reducing total greenhouse gas emissions by 2030 is 35.4% compared to 1990, while the emission reduction under the reference scenario in the Energy Development Strategy is 32.8%. Therefore, the climate ambition of the NECP comes down to only 2.6 percentage points compared to business as usual. Low ambition in greenhouse gas reduction is especially visible in the non-ETS sectors. Although emission reductions are projected to be 12.7-18.5% compared to 2005 levels in 2030, Croatia still refers to the 7% reduction target set by the EU. The final NECP does still lack a specific time frame and financial needs as well as the sources of financing.

Low ambition on energy efficiency and renewable energy There was no increase in energy efficiency objectives, as requested by the Commission. Additionally, the promotion of energy efficient vehicles in road transport has not been elaborated. In the current programming period, the government invested the majority of funds in the renovation of public buildings. It claimed that citizens were having troubles with project documentation preparation which was listed as one of the main reasons for low take-up of funds for energy efficiency measures. Despite this, the final NECP does not envisage additional measures for citizens nor does it plan to have more ambitious national energy efficiency contributions. The share of renewable energy for 2030 is set at 36.4%, while under existing measures it would reach 35.7% (according to the reference scenario in the Energy Strategy). The difference between the national contribution put forward to achieve the EU renewable energy target for 2030 and what would have happened anyway is therefore less than one percentage point.

Low ambition in the transport sector By 2030, the measures envisaged for the transport sector are insufficient in view of the emissions reduction needed. The NECP predicts that by 2030, Croatia will have a 3.5% share of electric and hybrid vehicles. If the country intends to achieve a 65% share of electric and hybrid road vehicles by 2050 as suggested by the ambitious scenario in Energy Development Strategy for Croatia, the NECP should outline how adequate infrastructures and incentives will be developed. Also, regarding air, maritime and river transport, measures are often omitted with the justification that these will be covered by future action plans.

No coal phase out The NECP does not envisage measures to reduce coal electricity generation by 2030 however, in the Energy Strategy, the use of coal power plants is not foreseen after 2035. A coal phase out as well as measures for a just transition should be included in the NECP.

CZECHIA

The Czech NECP is not ambitious enough in terms of decarbonisation goals and renewable energy shares to be in line with the Paris Agreement goals and on a trajectory towards climate neutrality well before 2050. The national renewable energy contribution has increased to 22% of gross final consumption in the final NECP. However, the plan still relies heavily on biomass to cover the increase in renewable energy. This, in Czech conditions, squanders opportunities for rapid solar and wind power development and will prove unsustainable in the long run.

Moreover, the NECP does not outline a plan for a coal phase out leaving Czechia among the few Member States which, according to their NECPs, will continue to mine and burn coal beyond 2030. There is also a lack of concrete policies and measures both in terms of support for community energy and storage of electric energy, which are essential for the energy transition.

COMPARISON BETWEEN DRAFT AND FINAL NECP:

The final NECP has undergone some improvements compared to the draft version. It currently envisages an increase in renewable energy of 22% as opposed to 20.8% in the draft and includes a commitment to create a regulatory framework on energy communities. In addition, it includes a more detailed impact assessment of the economic, social and environmental impacts of the proposed policies and measures. Despite these individual improvements, the climate ambition and share of renewable energy can still be improved to comply with the long term objectives of the Paris Agreement.

OPPORTUNITIES

Reference to the possibility of increasing the renewable energy contribution The NECP includes the possibility of increasing the share of renewable energy and specifically the target for solar and wind power, albeit slightly. If the overall renewable energy contribution was set at 24.4% instead of the current 22%, Czechia could have at least 1975 MW of newly installed wind capacity and 5192 MW of newly installed photovoltaic capacity. As it stands now, there would only be 600 MW of new wind capacity and 1893 MW of new photovoltaic capacity by 2030. Increasing the renewable energy target would provide a signal to the market that the government will be consistently supporting these two renewable sources over the next 10 years. This would hopefully spur their development after years of stagnation and a volatile regulatory and support framework.

New climate financing mechanisms The final NECP summarises various financing instruments available in the upcoming years, especially the new EU tools such as the Modernisation Fund, Innovation Fund and Just Transition Fund, including the foreseen EU budget. Even though the government is at the same time cutting back on a full allocation of the national ETS revenues for climate-relevant projects, the mentioned financial instruments still provide an opportunity to implement the NECP and overshoot the climate and energy targets. The available money is unprecedented and if used well, may really trigger fundamental transition in various sectors of the economy and energy in particular.

Setting the stage for the deployment of community energy projects Concrete measures are lacking in this area, which only foresees the development and adoption of a regulatory framework and support schemes. Nevertheless, this creates a modest opportunity for advocacy activities to promote these sorts of projects and also for investigating how it could help in meeting the national targets, including through the use of new financial tools such as the Modernisation Fund and the Just Transition Mechanism.

CZECHIA

GAPS

Low targets for solar and wind energy The plan envisages a massive development of biomass for power generation and heating, which will raise problems relating to the sustainability of its sourcing. By focusing mostly on biomass development, the plan leaves the potential of solar and wind power untapped. The targets for both these renewable sources are still roughly three times lower than they could be according to the Chamber of Renewable Energy's cautious scenario.

Community energy still only envisioned Community energy remains undeveloped on conceptual, regulatory and practical levels. Measures foreseen by the NECP lack specific targets, benchmarks and a guiding legislative framework. Local players, including municipalities, are not informed and/or motivated by the government on how to set up Renewable Energy Communities.

Energy storage lacks a clear regulatory and investment pathway Development of energy storage lacks clear goals and a clear regulatory and investment pathway, not specifying any technology that shall be implemented. In practice, market battery-based accumulation is made impossible due to the lack of a regulatory framework.

No coal phase out date By not setting a coal phase out date, the Czech NECP is losing its potential to be the driver of an ambitious low-carbon transformation. Furthermore, as the NECP will likely be used as a benchmark for the assessment of projects funded from the Just Transition Fund, it is setting the bar very low and this might mean that the projects financed from this fund in the country will not be the most ambitious ones.

Underperforming in energy efficiency Czechia is consistently underperforming when it comes to energy efficiency and the NECP is not bold enough in this area to significantly improve the situation. The final NECP elaborates on the energy savings obligation to save 0.8% of consumed energy every year during the 10-year period as required by the EED but this will require additional measures to be fulfilled. Furthermore, the plan does not outline any new fiscal incentives (e.g. a carbon tax) that would encourage investment into measures that increase energy efficiency.

DENMARK

Denmark's general elections of 2019 resulted in a new government and a very broad parliamentary support for an economy-wide 70% greenhouse gas emission reduction target for 2030 which is significantly higher than the EU-target required of Denmark. A Climate Law was negotiated in December 2019, which included the 70% target along with the requisite for the country to be in line with the Paris Agreement goals. How this target will be reached will be outlined in the upcoming Climate Action Plans. For this reason, attention in Denmark has been on the Climate Law and on the Climate Action Plans, rather than on the NECP-process. Once the new Climate Action Plans will be agreed, the Danish NECP (and also the national Long Term Strategy - nLTS) will be updated to match the Climate Action Plans goals.

COMPARISON BETWEEN DRAFT AND FINAL NECP:

The greenhouse gas emission reduction target of 70% is a major improvement from the draft version. The draft was merely aiming to meet the Danish commitment to reduce emissions in the non-ETS sectors by 39%. With the 70% economy wide target, it is expected that Denmark will reduce its emissions in the non-ETS sectors by at least 50% by 2030, compared to 2005 levels.

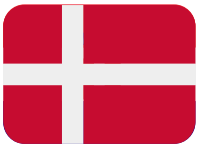
OPPORTUNITIES

Strengthen green calculation models Part of the political understanding referenced in the NECP is to strengthen the green calculation models by updating the Ministry of Finance's calculation models, minimising the risk of stranded assets/fossil-lock-in and enabling a market-driven clean energy transition. A revised calculation model would have to include crucial elements e.g. a sufficiently high carbon price, lower discount-rates and (specifically for investments in oil and gas infrastructure and production) using oil price projections compatible with the Paris agreement. Similar adjustments should be made to EUs modelling tools (Primes).

Climate financing The country is exploring steps to create innovative climate finance that doesn't come from the state budget: the "Denmark's Green Future Fund". With the Finance Bill for 2021, the government established a fund that will manage €3.3 billion. The objective of the fund is to contribute to a green transition both in the country and globally. The interesting thing is that the money will not come from the state budget. Rather, the state budget only covers the approximate cost of hedging the state financial risks of the fund. Exploring various forms of innovative finance is essential to make adequate and predictable climate finance available globally. The detailed investment parameters of the fund will be decided during 2020.

GAPS

Goals and projections in the NECP do not yet match the new 70% target Many of the initiatives both in the draft and the final NECP only aim to deliver Denmark's share of meeting the EU's insufficient 2030 targets. Consequently, most of the values in the NECP will have to be updated when the Climate Action Plans have been decided. Among the goals that need tightening: increasing the share of renewable energy beyond 55%, further increases in Denmark's non-ETS greenhouse gas emissions reductions target for 2030 beyond 39% and a phase out of coal in electricity production way before 2030.



DENMARK

GAPS

Denmark contributes too little to the EU's energy efficiency target Denmark only slightly changed its national energy efficiency contribution to the current EU 2030 energy efficiency target in terms of primary energy. The contribution in terms of final energy remains the same compared to the draft NECP. This is despite the Commission's recommendation to substantially increase both. Furthermore, this area will need continued monitoring, since in 2017 the parliament abolished the Public Service Obligation (PSO), a surcharge on electricity use that was both an incentive for efficient use of power and a source of revenue to pay for energy savings and clean energy transition. Similarly, taxation on new cars has been reduced. As a consequence, the average efficiency of new cars in 2019 declined and emissions were 7.3% higher than the 2017 average.

No early or effective public participation The Danish government did not give the public an effective opportunity to participate, since they only had five working days for people to read and comment on the 324-page final NECP document. A similar situation has also happened with the Climate Action Plans, where there has been no process for an early and effective involvement of the public or civil society. This is in stark contrast with business stakeholders, who were given ample opportunity to provide input directly to the government via the government's climate partnerships.

Phase out fossil fuel subsidies EU supported stranded assets worth €2 billion for the Baltic Pipe, where Denmark's share of the investment is €0.84 billion, will increase the risk of fossil fuel lock-in in both Poland and Denmark. This investment is the continuation of subsidising fossil fuel companies, doing very little for Europe's total energy security, in a project where the costs and risks are borne by all taxpayers. Also, this support has the unrealistic assumption that Baltic Pipe will be used at 90% capacity for the entire period 2022-2052, showing that this project goes against plans for the decarbonisation of the EU.

Use of biomass Denmark is one of the EU's largest consumers of biomass for energy per capita. Imported biomass accounts for 45% of the total biomass use. According to its NECP, Denmark has no real plans for ways to phase out biomass. The NECP refers to Denmark's Energy and Climate Outlook 2019 and mentions that the use of bioenergy will continue to grow until 2020-2025. After that the consumption is expected to decrease slightly. In the context of Denmark having no means to assess how the harvesting of imported biomass depletes forests, LULUCF sinks and biodiversity in the exporting country, this is an extremely dangerous situation and must be addressed in the upcoming Danish NECP revision.

ESTONIA

There needs to be more ambition in the Estonian NECP to reach the EU's soon to be increased 2030 climate target as well as to achieve climate neutrality well before 2050. The major issues in the NECP are the lack of a phase out of oil shale and the lack of improvement in forestry. The activities foreseen in both these sectors go against reaching the climate goals. The NECP mentions the Just Transition but at the same time indicates contradictory plans for building a new oil plant and refinery and no reference is made to phasing out indirect subsidies for oil shale. There are no clear sustainability criteria planned for the production of forestry biomass and current clear-cutting rates will rapidly deplete old forests. This will lead to the LULUCF sector soon becoming a greenhouse gas emitter. According to projections, Estonia could achieve 12.7% emission reductions in the non-ETS sectors by 2030, almost reaching its 13% target under the Effort Sharing Regulation.

COMPARISON BETWEEN DRAFT AND FINAL NECP:

The final NECP has improved from the draft version mainly on renewable energy contributions and measures. These include an increase in the share of renewables in the electricity sector from 30% to 40%, mostly wind and solar power, which increase from 10% to 25%. In addition, new measures for wind energy development are included. However, the share of renewables in the heating sector decreased from 80% to 63%. Additional measures were added to reduce greenhouse gas emissions from peat soils by supporting grasslands and to some extent wet agriculture on peatlands (paludiculture) , but these are not sufficient to tackle the problem of emissions from peatlands. More importantly, the final NECP mentions that Estonia supports the EU's objective to reach climate neutrality by 2050, although measures to achieve the climate neutrality objective are not included in the current NECP, nor has it been considered in the national Long Term Strategy.

OPPORTUNITIES

Increase the ambition for renewable energy There is potential to raise the renewable energy contribution by increasing the heating target up to 80% again, as it was in the draft NECP. There is potential due to new energy solutions mentioned in the final NECP for the heating sector, such as heat pumps. Moreover, the new measures for wind energy can unlock the potential of renewable energy even more. There is also potential for both solar and prosumers which has been only briefly described in the NECP.

I**ncrease the non-ETS greenhouse gas emission reduction and energy targets to meet climate neutrality goals** The NECP mentions that Estonia supports climate neutrality by 2050 in the EU, but there is no mention of increasing the EU's 2030 climate target or Estonia's non-ETS share and therefore for achieving climate neutrality at national level. There is also no clear reference to a plan with the purpose of updating the current long term strategy and the energy development plan. There is an opportunity to update both these development plans and also the information in the NECP.

Elaborate climate-neutrality roadmaps for every sector The NECP includes planned roadmaps and socio-economic impact assessments on how to reach climate-neutral electricity production. However, environmental impacts should also be covered by this assessment. A roadmap for electricity production is important since it's a sector with high impact on greenhouse gas emissions. However, this roadmap should also include every other sector, thus making a roadmap for a climate-neutral economy.

New heating technologies to replace biomass Although there are projections in the NECP which state that biomass use in the energy sector will stay stable, it also states that the use of biomass is set to rise in the coming years. This should be corrected in the next NECP. In the NECP there is new information on heat pumps as a promising future technology for heating cities. If this development is moved forward with the necessary steps, it can start replacing biomass and the use of biomass use can be reduced for heating.

ESTONIA

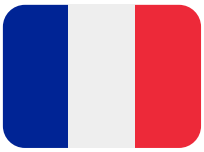
GAPS

Indirect fossil fuel subsidies for oil shale Ending indirect fossil fuel subsidies for oil shale is fundamental to the phasing out of fossil fuels in Estonia. Currently these subsidies make it possible to keep producing oil with very low oil prices and even investing into new oil shale plants and a pre-refinery. There is some background information and acknowledgment of Just Transition as a topic, however there are no concrete goals, such as a date for oil shale phase out, or measures in the NECP. Instead, a new oil plant from oil shale and a pre-refinery are mentioned as possibilities. In the NECP update, there should be concrete Just Transition goals and measures. Moreover, plans for new oil shale plants have to be cancelled as these goals are contradictory.

No sustainability criteria for biomass Recommendations from the European Commission stated the need for clear measures to ensure the sustainable use of biomass in the energy sector. However, this has not been addressed properly in the final NECP. There is a need for more measures supporting the use of forests as carbon sinks and at the same time removing measures from the NECP which counteract climate goals, like supporting the clearcutting of forests. Sustainability criteria for biomass should also be added.

The LULUCF sector should be a carbon sink and not an emitter Projections show that the LULUCF sector in Estonia will start to become a greenhouse gas emitter from 2034 (mainly due to decrease of old forests). The NECP should be updated to include measures to ensure that forests are sequestering carbon, instead of emitting. Moreover, in the Estonian NECP, there are no plans to tackle emissions related to peat mining and peat use for horticulture and energy. Existing legislation allows peat mining to increase almost three-fold which would also increase emissions. Measures like continuous cover forestry and avoidance of further drainage of peat soils should be added to avoid or decrease emissions. Otherwise, it could jeopardise Estonia's long term climate neutrality objective.

Public participation should have taken place earlier and been more comprehensive There was a very limited time-frame for public participation in the first draft, as it was reasoned that the NECP was mostly based on existing strategic documents and no real effective changes were possible. In the second draft, there was both more time and more options to give input. Nevertheless, there was still no room for substantive discussions in matters that had already been adopted through these outdated strategic documents. The NECP should not only rely on existing policy documents but also be used as an opportunity to open up discussions on climate action.



FRANCE

In its NECP, France has simply reaffirmed an economy-wide greenhouse gas emission reduction target of 40% by 2030. Given that France is among the countries who advocate for an increase of the EU's 2030 climate target to 55%, it is disappointing that the country is not leading by example by setting a much higher national climate target [20].

The plan also lacks robustness since it clearly specifies that France will not achieve the current 2030 climate target "if no additional measures than the ones indicated in the NECP are implemented", in particular concerning the reduction of final energy consumption. This has been exacerbated by the freeze in the increase of the carbon tax decided in November 2018. Therefore, the government should urgently work on taking new measures, in line with the recommendations of the French High Council for Climate Change and the proposals of the Citizen Assembly on Climate change in order to, not only reach 40% emissions reduction by 2030 but to be on the trajectory towards a much higher climate target.

COMPARISON BETWEEN DRAFT AND FINAL NECP:

The final NECP takes into account most of the recommendations of the European Commission on the draft version, but in a very minimalistic way. For instance, France admits to having fossil fuel subsidies, but the published list is narrow and it excludes a certain number of climate harmful tax cuts and exemptions. France raised its renewable energy contribution from 32% to 33% of its energy mix in 2030, far below the significant renewable potential available in France. This new level of contribution (33%) does not reflect a really reinforced ambition, while the obstacles to the deployment of renewable energies remain in place.

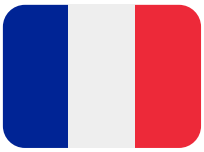
The planned offshore wind power capacities allocated through calls for tenders have been increased: from 2024, 1 GW/year will be allocated, which is better than the 500 MW in the draft version, which means 1 GW per year will be operational by 2028, taking into account the implementation deadlines of the projects. However, the increase of offshore wind development targets, which remain insufficient in view of the French potential, only partially compensate for the reduction of ambition in the development of onshore wind energy and roof solar photovoltaics. Regarding transport, buildings or industry, the final NECP does not provide clear improvements on the gaps between objectives, means and financing. In a nutshell, despite the slight improvements, the final NECP misses the opportunity to boost the energy transition in France in all sectors.

OPPORTUNITIES

Acknowledgement that additional measures are needed The French NECP is transparent on the fact that the current measures in place do not achieve the target and that additional measures are needed. The outcome of the Citizen Assembly on climate change will be a unique opportunity for the government to take the much-needed measures to fill the gap, in particular in the two sectors where the emissions gap is the most important: buildings and transport.

Reference on climate financing The French NECP provides a clear picture of the investment needs in order to reach the targets: "the need for additional annual investments for the energy transition is estimated between €25 billion and €40 billion for the next three carbon budgets".

[20] In addition, while France has exceeded its carbon budgets since 2015 (mainly due to emissions in transports and buildings), the French National Energy-Climate Plan (NECP) proposes an increase in the carbon budgets initially planned until 2026, thus emitting more greenhouse gas emissions in the first years of the period, potentially making it more difficult to reach - 40 % of GHG emissions by 2030.



FRANCE

GAPS

Missing opportunities in the energy renovation of buildings The final NECP reinforces the objectives in terms of the energy renovation of buildings with 370,000 equivalent "complete" renovations on average compared to the 300,000 given in draft NECP. However, the objective in the final NECP does not meet the goal of carrying out 500,000 deep renovations per year. This is the level which would be required to achieve the objective of reducing the energy consumption in the buildings sector by 2030. Beyond this gap, the quality of the renovations is called into question as small renovation works are favoured to the detriment of deep renovations. The French Government should support deep renovations, for example through the set-up of a one-stop-shop public service. This would help both eradicate energy poverty, which currently affects 5 million households, and increase energy efficiency.

Insufficient measures to support low-emission transport Although the objective of complete decarbonisation of transport by 2050 has been enshrined for the first time in the Mobility Law in December 2019, the NECP does not present sufficient short-term measures to achieve this goal. No concrete measures to reduce new vehicles' emissions, especially by penalising the heaviest and most polluting vehicles, have been taken. The NECP does not include measures to reduce transport demand. On the contrary, it forecasts a 26% increase in passenger traffic for all modes combined. On modal shift, the NECP forecasts a shift from 3 to 12% of the modal share of the bicycle by 2030, but budgetary and regulatory means remain insufficient to achieve this goal. Likewise, the incentive nature of the sustainable mobility package, which enables employees to travel by car-sharing or by bicycle, is not enough to bring about a large-scale change in behaviour. Finally, regarding the transport of goods, measures in favor of shifting from road to rail are also insufficient. If the decrease of €2cts/l in the fossil fuel subsidy for diesel for road transport of goods is to be welcomed, it is not part of any trajectory of the gradual phase-out of all fossil fuel subsidies in this sector.

Lack of environmental consideration for the development of renewable energies The NECP favours large projects such as ground-mounted solar photovoltaic parks instead of solar on roofs or large anaerobic digestion projects to the detriment of more environmentally-friendly and more virtuous territorial projects. Thus, an adequate development framework for all sources of renewable energy is needed to ensure a sustainable and balanced development.

Narrow list of fossil fuel subsidies France recognises fossil fuel subsidies in its final NECP which in total adds up to €4.77 billion. Nevertheless, this list is narrow, excluding a certain number of climate harmful tax cuts and exemptions. For example the difference in energy taxation between diesel and gasoline (€3.5 billion), the absence of taxation of kerosene (€7.2 billion), the state guaranteed export credits that are financing fossil fuel-related projects (€1.5 billion) are not considered as fossil fuel subsidies. In total, French NGOs estimate that about €20 billion is spent on fossil fuel subsidies every year [21]. The first step for greening a budget is to have full transparency and an overall objective for ending all environmentally harmful subsidies in 2025.

Push towards decarbonised electricity instead of more energy efficiency and the reduction of primary energy consumption France is lagging behind its objectives in terms of reduction of its primary energy consumption and its NECP is lacking measures to fill the gap. Moreover, the NECP presents a strong push towards decarbonised electricity (including nuclear energy) to the detriment of energy efficiency, through several reforms: reduction of the primary energy conversion coefficient consumption and the carbon intensity factor, shift of the energy performance certificate to final energy (which could be contrary to the European directive regarding primary energy), etc.

[21] http://www.caneurope.org/docman/fossil-fuel-subsidies-1/3173-france-brief-phase-out-2020-monitoring-europe-s-fossil-fuel-subsidies-pdf/file

GREECE

The Greek NECP enshrines the welcomed decision to shut down existing lignite coal plants by 2023 and fully phase out lignite by 2028, including a detailed retirement timetable as was requested by NGOs. It also includes more ambitious 2030 projections regarding greenhouse gas emission reductions in the non-ETS sectors, renewables and energy savings. However, the electricity that was supposed to be produced by lignite in 2030 is now substituted mostly by fossil gas and to a much lower extent by renewables and energy savings. Moreover, combined with the lack of a sufficient spatial plan for renewables, Greece risks failing to meet the 2030 renewable energy objective. Instead, it could see a massive increase in the share of fossil gas in the electricity mix. Finally, the plan presented in the NECP for the lignite regions will not address the huge challenge of shifting the local economies in a sustainable direction.

COMPARISON BETWEEN DRAFT AND FINAL NECP:

The final NECP has been improved compared to the draft, particularly on the total phase out of lignite, now scheduled for 2028, compared to the draft NECP where the objective was to have 9.1 TWh and a 16.5% share of lignite in the electricity mix in 2030. The economy-wide 2030 greenhouse gas emission reduction target has improved from 31.5% to 42%, compared to 1990 levels. The increased ambition is mostly coming from the ETS sectors (increased reduction from 63% to 75% compared to 2005 levels), with a more modest improvement of the non-ETS target (increased reduction from 31.5% to 36%). However, the ambition level in the transport sector is even lower compared to the draft NECP. A notable improvement was also observed in the objectives related to renewables: the share of renewables in gross final energy consumption has increased from 31% to at least 35% by 2030. In addition, the share of renewables in gross electricity consumption has increased from 56% to the range of 61- 64% in the final NECP. More moderate is the improvement in the energy efficiency target between the two drafts.

OPPORTUNITIES

The decision for a full lignite phase-out The phase-out of lignite offers the opportunity for more ambition in the deployment of renewables, as well as in energy storage. However, unfortunately the government chose to promote new fossil gas capacity instead with only a very moderate increase in renewables compared to the draft proposal. Moreover, the ambition regarding new energy storage capacity is also low and mostly includes construction post 2025.

The interconnection of the islands with the mainland The speeding up of the interconnection offers the opportunity of utilising the untapped renewable energy potential in the islands, covering their needs as well as exporting electricity to the mainland, and the subsequent phase-out of oil-fired plants. Currently, the renewable energy potential of the islands is wasted, as more than 80% of the electricity comes from oil-fired plants.

The design and implementation of a Just Transition for the lignite regions Due to the lignite phase-out decision, the regions of Western Macedonia and Megalopoli, whose economies have been largely dependent on the lignite mining and burning activities, have the unique opportunity to drastically shift towards a fully sustainable direction. To accomplish this challenging task, it is necessary to develop a coherent plan with the participation of the local communities as well as steady and sufficient funding. The plan presented in the NECP to tackle the huge challenge of transforming economies, is not convincing enough.

GREECE

GAPS

No plan to phase out fossil fuel subsidies Although the European Commission recommended a phase out plan for all fossil fuel subsidies, and it was also proposed in the consultation process both within the NECP committee as well as in the public consultation, such a plan was not included in the final Greek NECP.

Insufficient energy storage capacity goal The capacity goal for storage is insufficient; only a small additional energy storage capacity is planned for by 2030, the majority of which is intended to be installed after 2025. As a result, the capacity gap stemming from the phase out of lignite plants is to be covered by fossil gas instead of a hybrid combination of renewables and energy storage facilities.

Unambitious objectives for greenhouse gas reductions in the transport sector There is an increase in the final energy consumption in the transport sector relative to 2020, which results in the transport sector becoming the most significant polluter by 2030 with emissions of 17.2 Mt CO2eq. This is a deterioration compared to the draft proposal which had lower energy consumption in the sector as well as lower greenhouse gas emissions (15.7 Mt CO2eq).

Increase in the fossil gas capacity The final NECP includes a big increase in fossil gas capacity: 1.8 GW more than the 2030 fossil gas capacity in the draft proposal. This is also accompanied by a significant increase in the share of fossil gas in the electricity mix, which, according to the final NECP, will be responsible for 32% of electricity production, a drastic increase from the 18.5% in the draft proposal. This increase translates to approximately 8 additional TWh from fossil gas compared to the draft proposal (an 80% increase). In essence, out of the 9.1 TWh that will be lost from lignite due to the phase out decision, 8 will come from fossil gas instead of renewables and storage.

Lack of an updated spatial plan for renewables A spatial plan for renewables, sufficient for the protection of Greece's rich biodiversity, would clarify where renewables and especially wind farms would be installed. Resistance to new wind power is escalating both in local communities as well as environmental groups. Without setting clear rules on where the additional renewable capacity should be installed, Greece is bound to fail in its effort to increase its share of renewables from 29% today to 61% in 2030, which will in turn result in the skyrocketing of the share of fossil gas in the electricity mix.

HUNGARY

The final NECP could encourage Hungary to accelerate the energy transition, but not swiftly enough and not on the scale needed as it does not contain enough ambition or incentives to put the country on track towards carbon neutrality well before 2050 or to comply with the Paris Agreement. In light of the Commission proposal to increase the 2030 greenhouse gas emission reduction target to 50-55%, Hungary's 40% nation-wide emission reduction target is not a sufficient contribution. Without greater ambition, the trajectory after 2030 to reduce emissions towards climate neutrality will be significantly steeper and costly[22]. The final NECP addresses some key energy transition issues, but the planned policies and measures are often not ambitious enough or address the needs only partially.

COMPARISON BETWEEN DRAFT AND FINAL NECP:

The final Hungarian NECP did improve compared to the draft, as the draft did not address many required topics. The final Hungarian NECP contains concrete policies and measures in its Annex 1, some of these measures are already finished (eg. railway development). The final NECP overall is well detailed but is not fully consistent or coherent with the other strategic documents that were published at the same time i.e. with the National Energy Strategy and with the draft national Long Term Strategy (mid January 2020). For example, there are differences in the preferred scenario, in the greenhouse gas emission cuts by 2040 and in the projected growth of built-in solar PV capacities.

The ambition of the 2030 energy contributions has improved very little compared to the draft. The 21% instead of 20% renewable energy contribution relies even more on biomass. The energy efficiency contribution of 785 PJ = 18.75 Mtoe for final energy consumption remained the same in the final NECP, even if it was considered "very low" by both the European Commission and national stakeholders. The 40% greenhouse gas emission reduction by 2030 target is not very ambitious either, as emissions are already at -33% today. The emissions trajectory in the final NECP is even less steep between 2030-2040 than before 2030, leaving the majority of the mitigation efforts to reach carbon neutrality for between 2040 and 2050.

OPPORTUNITIES

Regional decarbonisation strategy and action plan The final NECP aims to prepare a regional decarbonisation strategy and action plan, and to help the 100,000 lignite-heating households to switch to cleaner heating. To ensure a just transition, the strategy focuses on: monitoring labour market developments associated with energy transition and reversing negative trends; helping to improve the employment prospects and competitiveness of the green economy sectors; providing support for the further training and retraining of vulnerable workers; promoting equal opportunities for women and vulnerable social groups and regions.

Fighting energy poverty The final NECP mentions energy poverty. However, concrete targets need to be set, and the definition of people living in energy poverty has to be widened. To reduce energy poverty, Hungary should address aspects such as: the modernisation of buildings and heating systems for low-income households, targeted financial support and conditions for a fair distribution of the social firewood program, debt management and promotion of utility reconnection (with energy companies involved).

Community energy references and pilot projects in the energy strategy In the NECP and its Annexes the government aims to support "energy communities" as independent aggregators or collective self-consumption units, to encourage local production and consumption of renewables, especially electricity. The Annex 1 and the Energy Strategy also lists pilot project calls that were published mid-March 2020 on energy communities, municipal heating systems and a regulatory sandbox. The pilot project is an opportunity to test the proposed measures.

[22]It should be noted that the greenhouse gas emissions of Hungary are still well below EU averages, in terms of volume, per capita figures and carbon intensity.

HUNGARY

OPPORTUNITIES

Planning ESCO-type financing scheme and a national energy efficiency obligation scheme by energy companies/ESCOs The NECP explains that residential energy renovations will be carried out on a market basis, with the planned energy efficiency obligation scheme. Although this is an opportunity, the list of energy supplier, provider and distributor companies that are required to take part in the obligation scheme has to be clarified. These companies would naturally aim for financing the 'lowest hanging fruit' energy efficiency measures under this scheme. Thus, complex energy renovations of single houses (even if this has the biggest efficiency potential) are unlikely to be attractive for the companies at first. The scheme's rules should prioritise and incentivise those measures. Other relevant measures in the final NECP that could be seen as opportunities: strengthening the ESCO system and financing, enhancing furnace replacement and expanding the National Network of Energetics so that it can provide investment advice to the public.

GAPS

Keeping fossil fuel subsidies alive There is still no mention of the phasing out of fossil fuel subsidies, rather the NECP elaborates on supporting the development of national fossil fuel resources like price support for national (shale) gas extraction or treating national lignite as a strategic reserve etc. These hidden fossil fuel subsidies clearly hinder the energy transition.

Biomass measures for electricity/heating are not fully explained The NECP regards biomass as an important factor in both electricity and heating flexibility, but a sustainability analysis of the biomass sources is missing from the NECP. The presented increase in biomass demand is not converted back to biomass volume, and there is no link to the poorly developed supply side analysis. Even currently, half of the biomass demand can not be covered by supply side statistics. Also, in most scenarios the NECP does not count on wind energy, although it could have a role in balancing photovoltaics.

Public participation was not complete Hungarian NGOs have been closely following the process of the NECP since spring 2018, sending in joint position papers, inputs to the responsible ministry and initiating meetings. The final NECP was published and submitted in mid-January 2020, but neither NGOs nor the public had the opportunity to see or comment on any revised versions after the first draft, nor its strategic environment assessment before the final submission. A questionnaire communicated by the government, as "a requirement of Brussels", was completed by 200,000 citizens who were given just a week's notice in November 2019, showing a demand from the public, not only from expert stakeholders.

Low energy efficiency ambition remained It is not clear how the few proposed measures can achieve the national energy efficiency contribution, especially considering that most references to the relevant or planned EU funds were removed from the final NECP. Energy efficiency for the residential sector was targeted through multiple measures in the draft NECP, including financial incentives (energy renovation for single houses), which are not present in the final NECP. The measures mentioned in the final NECP will not be able to fully tap into the energy efficiency potential in the residential sector.

Weak transport emission mitigation objectives and measures This sector has a planned growth in emissions. The development of the railway system and track-based public transport was only in the draft NECP. Transport policies listed in the Annex 1 of the NECP are not up-to-date, and would need a thorough redesign. All policies aiming at developing electrification should be coherent and complementary to the development of an electric freight programme and micro mobility. Current policies including tax reduction on any kind of company vehicles are rather harmful.

LATVIA

Latvia's NECP proposes modest but implementable objectives and measures accompanying the growing climate ambition declared by the government. The overall support for long-term climate neutrality is clear, yet the practical steps indicated for the next decade may lack coherent society-wide effects, demand large administrative resources and face economic obstacles.

COMPARISON BETWEEN DRAFT AND FINAL NECP:

Latvia's final NECP demonstrates progress as a result of consultations with the Commission, public participation, scientific inputs and ministerial collaboration. The economy-wide greenhouse gas emission reduction target has been increased from 55% to 65%, as well as the renewable energy contribution from 45% to 50%. There has been an updated integration of modelling data, based on collaboration with research institutions. The list of measures has been extended, with suggestions included from public consultations.

OPPORTUNITIES

The legal framework and support mechanisms for energy communities will be established There are no formal energy communities in Latvia. The NECP recognises that the involvement of society in the energy transformation has been rather low. There is also an intent to establish a renewable energy and energy efficiency fund to support community projects. The NECP, which supports demonstration projects and more active uptake of renewables on a household/neighbourhood scale, represents a good opportunity to include energy communities as new legal entities in the EU funds programming process.

New stakeholder dialogues founded The process of drafting the NECP was more participatory than for other policy documents. With the Commission and civil society calling for a broader public involvement, the Ministry of Economy did organise several events and consultations, as well as intersectoral discussions. The National Energy and Climate Council was founded by the government, and the representatives of stakeholder organisations met at least once with the Cabinet of Ministers before the NECP was approved. The drafting of the NECP has brought different (and sometimes contesting) points of view closer: the economic players have become more vocal about climate neutrality, whereas the environmentalists have increased awareness about the costs and benefits of energy transition. This offers an opportunity to "institutionalise" the participatory process in the implementation of the NECP.

More progressive planning for wind energy envisioned Currently, more than 80% of renewable energy in Latvia comes from the combustion of woody biomass. Wind generates less than 1% of electricity. The NECP states that up to 1100 MW of wind energy will be installed until 2030, and will focus on improving planning regulations, allocation of designated state-owned forest areas for wind park development and offshore projects in the Baltic Sea. In addition to spatial planning, the NECP mentions the elaboration of guidelines for community involvement and sharing benefits. Recent cases have shown high levels of mobilisation against wind parks among the population, thus the steps promised by the NECP are needed to reach the renewable energy targets and diversify the energy mix.

Air pollution problems meet climate goals In Latvia, individual (biomass-based) heating and transport systems need a substantial upgrade to improve the urban air quality. In 2019, the National Air Pollution Control programme was developed, and the measures proposed were aligned with the NECP. Connections to district heating or non-emission renewable energy use will be stimulated in towns and cities with public funding and regulation. Improvements in public transport, low-carbon mobility and vehicle replacement will contribute to lowering traffic pollution. Both are designed to reduce PM2.5 pollution.

LATVIA

GAPS

Decarbonisation needs to be presented more as an opportunity for the economy, the society and the environment The Latvian government and parliament are reluctant to better integrate climate change into all relevant policy areas, thus the political ambition lacks coherence as long as it does not demonstrate the costs and benefits for action and inaction to different stakeholders. Hence, the measures in the NECP will not be enough to mobilise large public spending and private investments for low-carbon transition. The NECP prioritises the 'polluter pays' principle and raising consumer awareness. However, cost constraints will hinder further reductions of greenhouse gas emissions in agriculture, transportation and forestry.

No fossil phase-out plans for transport Whereas transport has been recognised as the most pressing sector for greenhouse gas emission reductions, there is little confidence that the present system will be transformed in a sustainable way without low carbon mobility strategy and measures. Currently, the cars are old, the roads need huge investments, the share of public transportation is decreasing. In addition, there is massive public resistance to raising taxes for fuels and individual vehicles. Instead of setting specific fossil phase-out plans beyond 2030 and adopting a less restrictive but rather complimentary low-carbon mobility (urban planning and new shared transport modes), the NECP proposes uptake of a large number (30,000) of gas vehicles (biomethane Compressed Natural Gas (CNG) and biomethane).

POLAND

The Polish final NECP is still not ambitious enough regarding greenhouse gas emission reductions, renewable energy contribution and improvement of energy efficiency, and is therefore not in line with the Paris Agreement objectives. The greenhouse gas emission reduction trajectory only leads to a 50% reduction by 2050 compared to 1990. During the European Council meeting in June 2020, Poland is expected to join the rest of the EU by committing to reach climate neutrality by 2050. Therefore, it is crucial for Poland to step up its 2030 climate target to avoid a steeper and costly emissions decrease between 2030 and 2050.

Currently, the goals for 2030 in terms of the share of renewable energy are only to reach 23% if additional funds are received. With regard to improving energy efficiency, it is only a 23% contribution. The NECP lacks a plan for the withdrawal from the mining and use of hard coal and lignite, which is planned to be used even after 2050. The energy transformation towards decentralised community energy with a very significant share of renewable energy along with energy storage, helping buildings to become self-sufficient in energy use and boosting local energy security, is extremely weak.

COMPARISON BETWEEN DRAFT AND FINAL NECP:

The final NECP has undergone some improvements compared to the draft version, whilst remaining unambitious. It proposes an increase in the share of renewable energy to 23% up from 21% in the draft NECP, conditional on receiving additional financial support. When comparing the 2030 greenhouse gas emission reduction target between the draft and the final NECP, an improvement of 8% is noted. In the final NECP, the share of coal consumption for electricity production fell from 58% to 56.7%. In the final version of the NECP a chapter on "support measures in the field of energy, including subsidies - domestic and non-national measures" is introduced. The draft NECP was subject to extensive consultations, but not the final NECP.

OPPORTUNITIES

Renewable energy deployment by citizens and energy communities The NECP foresees a massive deployment of renewable energy in residential buildings as well as community investments. There are existing programs to stimulate this and they should be extended in line with the NECP.

Commitment for renovation of housing stock There is extensive action towards renovation of the housing stock, but this is so far not enough. The NECP proposed this action over a longer period, which will help stimulate further renovations. There is also a plan to use external funding for that purpose.

Commitment towards electromobility (e-mobility) in transport The NECP is widely committed to e-mobility over a range of transport sectors: car, public transport, even inland navigation. This can be used to accelerate the development of sustainable transport.

POLAND

GAPS

No coal phase out date There is no commitment to phase out coal in the NECP.

No plan to phase out fossil fuel subsidies Moreover, the NECP states that the coal industry will continue to be subsidised, with projections indicating a share of coal of over 50% in electricity production post 2050. In Poland, direct and indirect subsidies for mining and coal-fired power generation in the period 2013-2018 reached about €1.2 billion annually[23].

Needs to still improve targets and measures The greenhouse gas emission reduction targets are slightly higher than in the draft version. However the wording regarding the increase of the target also changed to suggest a less strict commitment to achieving them. There is still a wide margin to improve both the targets and the measures to achieve the long term objective of the Paris Agreement. Besides, the discussion on the greenhouse gas emissions reduction focuses mainly on energy and the use of coal. However, the transition in other sectors such as transport, where emissions have been rising rapidly for years, as well as construction and buildings, must be taken seriously and accelerated. Agriculture should also become a priority for the country, as both direct and indirect emissions are significant.

Room for improvement in the renewable energy contribution The renewable energy contribution which was set at 21% in the draft NECP and currently updated to 21-23 % renewable energy in gross final energy consumption. However, it is still not enough and, according to the independent analysis of Polish think tanks WISE-Europa and Forum Energii carried out in 2018, it is possible for Poland to increase the share of renewable energy to a range of 34-40% by 2030[24].

Improve energy efficiency The NECP does not recognise that a significant boost in energy efficiency can bring important reductions in greenhouse gas emissions. The objective of improving energy efficiency by 23% described in NECP contrasts with the economically feasible possibility of reaching 35% and the technically feasible possibility of 50% (according to independent analysis by the Polish National Energy Conservation Agency from 2008) [25].

[23] M. Stoczkiewicz, A. Śniegocki (red.), Subsydia: Motor czy hamulec polskiej transformacji energetycznej? Analiza pomocy publicznej dla elektroenergetyki w Polsce, ClientEarth 2019

[24] Polish energy sector 2050 | 4 scenarios. Energy Forum 2017: https://forum-energii.eu/en/analizy/polska-energetyka-2050-4-scenariuszeWiseEuropa. Warszawa 2019:http://wise-europa.eu/wp-content/uploads/2019/03/Nowe_otwarcie_Polska_zeroemisyjna.pdf

[25]Analiza możliwych rozwiązań w zakresie efektywności energetycznej mających na celu sukcesywne zmniejszanie wzrostu zużycia energii wraz ze wzrostem gospodarczym". Ekspertyza Krajowej Agencji Poszanowania Energii S.A. na zlecenie Ministerstwa Gospodarki, Warszawa, 2008.

PORTUGAL

The final NECP is in line with the Long Term Strategy's goal to reach carbon neutrality by 2050, and the Portuguese government recognises that this first decade is the most important period to act in order to achieve the goals of the Paris Agreement. The NECP mentions the non-ETS greenhouse gas emission reduction target for Portugal, which is a 17% reduction compared to 2005 levels. However, the NECP focuses on the national economy-wide target of a 45%-55% reduction by 2030 compared to 1990 levels, which is in line with the long-term strategy, and carbon neutrality by 2050. This economy-wide target represents a 40% emission reduction in the non-ETS sectors, which results in an overachievement of the Portuguese contribution to the EU target. This economy-wide target assumes however that the LULUCF commitment will also be met, which is uncertain, since Portugal is one of the most vulnerable countries in Europe to climate change and forest fires have become an increasing challenge in the country. The national contribution for renewable energy is also higher than the level indicated by the European Commission needed to achieve the current EU 2030 renewable target, and this is also expected to be met. Despite these high ambitions, the goals for energy efficiency are modest, and it is not clear how the reductions will be achieved with the measures specified. Energy poverty is only recently being recognised as an area where action is needed in Portugal, but it is still being studied and concrete measures will only be decided after that study is concluded.

COMPARISON BETWEEN DRAFT AND FINAL NECP:

The final NECP has undergone some improvements since the draft version, mainly in the number and structure of policies and measures, and the sources of financing to achieve the targets. The coal phase out, which was envisioned 'before 2030' in the draft version, is now planned for 2023. However, regarding energy efficiency, the goals are still modest, despite an improvement in the target for final energy consumption. There is still a major gap in energy efficiency, given that it was the main area emphasised in the Commission's recommendations and there is no improvement from the draft version in the target for primary energy consumption. This is an area where Portugal is consistently underperforming.

OPPORTUNITIES

Improving energy efficiency in the buildings sector There is still significant scope to improve energy efficiency in the buildings sector and this is acknowledged in the NECP, although the measures are not fully fleshed out. This sector has been slow on improvements, due to failures in the measures put into place. For instance, the last measure for home improvements required taking out bank loans with high interest rates, which did not incentivise renovations. In social housing, where the municipalities are the owners, insulation and changing windows would be a cost efficient measure, since economies of scale can reduce costs.

Addressing energy poverty Acknowledging energy poverty in Portugal was a first step in the right direction. Now it requires priority action, since people are seriously affected by energy poverty. This opportunity is linked with improving energy efficiency in buildings. It is necessary to promote measures accessible for people with low incomes, who need to have better insulated homes, allowing for minimum comfort and health conditions, with parallel savings for the healthcare system.

Decentralised electricity production Solar PV energy in cities and other places is an opportunity at the moment, since the legislation in Portugal now also allows for energy communities. This has been clearly identified as an opportunity in its NECP. The opportunities in recent years seem to have been more for big PV projects far away from consumption sites and on land that isn't occupied. This can change with a robust legal framework and minimum prices for the electricity sold to the grid, making small projects viable for individual or SME investments.

PORTUGAL

OPPORTUNITIES

Investment in railroad at the national, Iberian and European level The final NECP foresees measures to improve the frequency and quality of railroad passenger transportation and to promote the installation of multipurpose sleeper trains. It is essential to prioritise these measures as in the last couple of years, there has been increasing disinvestment in railroad transportation. These measures would present an opportunity to create a viable connection to Madrid and the rest of Europe, with a more viable time of travel.

Reimplementation of the indigenous tree species It is an important step that the final NECP recognises the fight against the devastating forest fires, caused by climate change, as an important measure to protect and improve carbon sinks. However, the NECP also includes a measure to "promote productivity and improve the economic value of forest systems". How these measures will be implemented plays a crucial role in increasing the adaptation capacity of Portuguese forests and not prioritising short term profit over long term adaptation measures. Most of the indigenous Portuguese forest is not profitable in the short term for land owners, and that is why other species have been adopted. Effective incentives have to be given to land owners to support them to shift to autochthonous species that are more fire resistant.

GAPS

Low ambition for energy efficiency In the final NECP, the energy efficiency contributions are now established as a range. An improvement is noted on the final energy consumption target from 17.7 Mtoe in the draft version to 14.4-14.9 Mtoe. However, for primary energy consumption, the upper level of the range established in the final NECP is higher than in the draft version, rising from 20.2 Mtoe in the draft to 15.6-21.5 Mtoe in the final version. The Commission's recommendations on energy efficiency for the draft NECP can still be applied to the final version. The methodology used for setting the energy efficiency contributions needs to be revisited and there should also be more clarity on the underlying assumptions for the scenarios.

Specifying measures to monitor progress The NECP mentions that Portugal will take advantage of existing monitoring structures at national level, adapting them to the new and more integrated approach between energy and climate policies. More details specifying this approach should be provided. It is also important to determine if new responsible indicators will be needed, and how the monitoring tools will be accessible to the public.

ROMANIA

Romania's final NECP lacks ambition and it is still unclear how policies and measures set out in the document will contribute to the achievement of the national objectives. Moreover, Romania plans to keep almost 2 GW of coal capacity until 2030 and to use natural gas to a considerable extent as a transition fuel. In its current state, Romania's final NECP ignores the country's enormous potential for a green energy transition. Despite minor improvements in the field of energy savings and renewable energy, these are still distant from the European Commission's recommendations, and their potential remains largely untapped.

COMPARISON BETWEEN DRAFT AND FINAL NECP:

Although there have been some improvements compared to the draft version, the final version of the Romanian NECP is still low in ambition and the measures and actions outlined to reach the energy transition objectives still lack clarity. The 2030 greenhouse gas emission reduction target has not increased since the draft, both for the ETS and non-ETS sectors. Romania expects a 43.9% decrease in greenhouse gas emissions by 2030 compared to 2005. Minor target improvements have been made, albeit from low starting points: on energy savings from 37.5% to 41.5% and on renewables from 27.9% to 30.7%.

OPPORTUNITIES

Development of a support mechanism for renewable energy The elaboration of a support mechanism called Contracts for Difference (CfD) is envisioned to support the achievement of the renewable energy contribution and provide stability to the producers' incomes. This measure was foreseen also in the draft version and still lacks an implementation deadline. In 2019, a legislative initiative for the use of CfDs allowed, among the potential beneficiary projects, proposals for the construction of new nuclear units or of capacities for electricity production based on fossil fuels equipped with carbon capture/usage equipment. This measure should instead be intended only for renewable energy capacities.

Long-term electricity sale contracts with final customers (Power Purchase Agreements) These agreements can be concluded between project developers/producers of electricity from renewable energy and the final consumer, allowing a direct negotiation between parties and a higher certainty of investment recovery. Unfortunately, the measure proposed in the final NECP does not include an implementation calendar.

GAPS

Lack of concrete timelines and implementation calendars Many of the measures and actions proposed throughout the NECP do not have deadlines for implementation and are not detailed in such a way that their contribution to the achievement of the objectives is clearly understood.

No announcement of a coal phase out No coal phase out plan was envisaged in the final version of the NECP. Moreover, the installed coal capacity will be almost 2 GW in 2030 and the installed fossil gas capacity will be approximately 3 GW. Fossil gas is planned to be used as a transition fuel which will only jeopardise Romania's decarbonisation path.

ROMANIA

GAPS

Lack of official data regarding biomass There is a lack of official data regarding the available biomass resources at national level. In its recommendations on the draft NECP, the European Commission asked for "details on the specific measures to ensure sustainability for biomass supply and use in the energy sector" given its contribution to the heating and cooling sector. Due to a vague legislative framework and the limited availability of data, the final NECP does not provide the necessary clarifications over the use and the supply of biomass. Lack of official data and clarity regarding the legislative framework was one of the arguments used to explain why the overall renewable energy contribution for 2030 was so unambitious (30.7%) despite the potential of other sources such as solar and wind.

Prosumers and their integration into the energy system Encouraging the development of prosumers together with the development of electricity networks and smart meters is a great step towards increasing the share of electricity produced from renewable sources. Unfortunately, the final NECP doesn't propose concrete measures and solutions to unblock the current situation regarding domestic prosumers at national level. Although the financing programme was unblocked after many procedural and administrative issues, there is an urgent need for a concrete proposal on how to accelerate the development of prosumers, given that this programme started a while ago and little improvement has been registered so far.

SLOVENIA

The Slovenian NECP sets the non-ETS greenhouse gas emission reduction target to 20%, which is higher than the one agreed at the EU level, and the national energy efficiency contribution to 35%. It also includes some new policies and measures, most notably in the field of transport and fossil fuel subsidies. It proposes an insufficient 27% renewable energy share in 2030, since the projected contribution represents only a 2% increase in the next 10 years. This would mean a halt in the deployment of renewable energy. In brief, the proposed level of ambition still falls short of the Paris Agreement requirements.

In addition, the NECP foresees the use of coal for electricity production until 2050 and considers investments in carbon capture and storage technology. The use of gas for combined heat and power production is also expected to increase. The proposed overall level of ambition in the NECP still falls short of the Paris Agreement requirements.

COMPARISON BETWEEN DRAFT AND FINAL NECP:

Compared to the draft NECP which did not have an overall emissions reduction target, the final NECP sets a newly established economy-wide national target of 36% greenhouse gas emission reductions. The target for the non-ETS sectors has been raised from 15% to at least 20% and there has also been some improvement regarding fossil fuel subsidies. The target for energy efficiency has also been increased from 32.5% to 35%. It includes some new policies and measures, notably on transport and fossil fuel subsidies. Despite the improvements in the transport sector, the target for greenhouse gas emission reductions is still very low.

OPPORTUNITIES

End fossil fuel subsidies for gas Although fossil fuel subsidies are now published in the final NECP, subsidies for fossil gas are not seen as harmful. Better measures should be developed to estimate the savings that could be made by eliminating these subsidies. Proposals should then be made on how to use savings as this could be a possible source of funding for NECP measures.

Establish a legislative framework for energy communities One of main goals for renewable energies in the NECP is to establish a stimulating legislative framework for the faster development of energy communities by 2021. Recognition of energy communities in the national energy and climate plan opens up the opportunity for a drastic increase in community projects in the upcoming years.

Development of railway infrastructure One of the measures the NECP states is the provision of additional resources for faster and more intensive development of railway infrastructure, preferably before the expansion of the motorway capacity. Given that it is a clear priority to provide additional resources for the development of railway infrastructure, a concrete measure on how different financial instruments should be used for this purpose should have been included in the NECP.

SLOVENIA

GAPS

No coal phase out The final NECP foresees a gradual phase out of domestic and imported coal for energy purposes with a view to reducing it by at least 30% by 2030. However, it foresees the use of coal for electricity production until 2050. It mentions that a decision regarding phase out of coal use in Slovenia will be made according to the principles of a fair transition only by 2021. As a strategic plan, the NECP should set clear deadlines for closing coal-fired power plants before 2030.

Low ambition for the renewable energy contribution The renewable energy share of 27% is still low, representing a halt in the development of renewables in the next decade compared to the previous one. This was already the case in the draft NECP, with the Commission recommending an increase in the share of renewables to 37%. Slovenia is also one of the EU Member States with the lowest levels of wind, solar and geothermal energy. There is potential to increase the renewable energy share from 27% to at least 30% by 2030, as mentioned in the draft NECP. The draft stated that, with the successful implementation of all planned policies and measures by 2030, a 29.7% share of renewables could be reached. To achieve the unambitious 27% target, an even smaller capacity increase of than 2% will actually be needed. Greater energy efficiency will reduce energy consumption and the need for energy production through renewables. This analysis opens the opportunity to aim for a higher contribution of renewables than anticipated in the final NECP.

Low greenhouse gas emission reductions in the industry sector Given the projected reduction in energy consumption (and emissions) in households, the objectives set for industry are insufficient, inadequate and unacceptable. This imbalance is also unfair as the burden of climate change mitigation is almost entirely on households. Despite highlighting the significant impact the high energy intensity of industry has on energy consumption and emissions, the NECP does not envisage specific actions in this sector to decarbonise and reduce energy consumption. Despite the high potential for improvements through the transition to a circular economy, it predicts even further growth of production in industries with high levels of consumption of raw materials.

Increase of greenhouse gas emissions in the transport sector The projected 12% increase in greenhouse gas emissions in the transport sector is not only insufficient but unacceptable. High energy consumption in this sector, which accounts for a large share of greenhouse gas emissions, also makes it impossible to achieve the national energy efficiency objectives. It is therefore crucial to limit the increased growth in the number of cars per capita, in which Slovenia is above the EU average [26]. Raising transport emissions will also make it difficult to achieve long-term goals.

Targets and measures for energy poverty The NECP recognises energy poverty as an important energy topic. However it only plans to specify the definition, targets, measures and the action plan at a later stage. The NECP should already include both targets and measures.

[26] https://ec.europa.eu/eurostat/web/products-eurostat-news/-/WDN-20180702-1

SPAIN

Spain's NECP proposes an economy-wide 2030 emission reduction target of 23% compared to 1990 levels and net zero by 2050. This is a significant improvement in the country's climate policy compared to the past decades. Although the document is on the right path, Spain's proposed contribution is not enough to do its fair share to limit global temperature increase to 1.5˚C, as committed in the Paris Agreement. A much stronger economy-wide climate target is needed, with earlier dates for the closure of nuclear and coal plants, and the phasing out of the use of fossil fuels in road transport so that rapid emission reductions are not delayed. The NECP does raise the objective for renewable energy, aiming to increase the presence of renewables in final energy use to 42% (from 26% in the base scenario).

However, the power system should aim to be 100% renewable by 2030 and be more energy efficient. Stronger guarantees are needed on the coordination of local authorities, public participation and for public finance and taxation regimes that would make the proposed measures attractive for all. Care must also be taken to ensure that transformative measures begin to reduce emissions in the land sector, safeguard and restore natural carbon sinks, and drive rapid renewable energy development without compromising nature and water objectives.

COMPARISON BETWEEN DRAFT AND FINAL NECP:

The Spanish 'final' NECP [27], still in its Strategic Environmental Assessment public consultation process at the time of writing this report, has changed little in overall ambition and proposals. The overall economy-wide emissions reduction target has increased from 20% to 23% from the draft to the final NECP. Financial and emissions data have been updated and additional information has been added, partly in response to European Commission recommendations. Some of the recently added information and measures include: confirmation that the NECP proposals will maintain electricity grid stability, further details on energy efficiency and new information on adaptation needs. These are in line with the draft adaptation plan 2021-2030 which was published for consultation in May 2020.

OPPORTUNITIES

Push forward renewable 'prosumerism' energy communities and the change to zero emission mobility Spain should bring forward a consensus-based 'prosumerism' strategy, with a clear objective matched with incentives, positive outreach campaigns and more cooperation from electricity distributors and municipalities to stimulate widespread uptake of 'prosumerism' and energy communities. Similarly, better incentives and funding could drive a clean mobility revolution through: improved urban and regional transport planning, the promotion of low emission zones and zero-carbon passenger and goods transport, the creation of more space in cities for public transport, pedestrians, cyclists and nature, and promoting carsharing, teleworking and smart grids.

Link climate and energy objectives to a strong well-being, social justice and a Just Transition agenda Measures on energy efficiency, energy poverty, low emission zones, zero-emission vehicles, green taxation and a Just Transition all have the potential to generate wide public support for Spain's NECP. They can also offer opportunities for those individuals, households and communities most disadvantaged by air pollution, poor housing conditions and low incomes. The Just Transition Strategy, the National Strategy against Energy Poverty 2019-2024 and the intended National Prosumer Strategy can succeed if clearly focused and adequately financed, with close involvement of affected communities, local authorities and other stakeholders.

[27] At the time of writing this report, Spain's NECP had been published on the European Commission's website, without having been approved. After the first draft Spanish NECP consultation in early 2019, a second consultation began in February 2020 to accompany the Strategic Environmental Assessment of the NECP. The end of this second NECP consultation period was postponed to coincide with the end of the 'state of alarm' restrictions imposed as a result of the COVID pandemic.

SPAIN

OPPORTUNITIES

Increase national energy security by reducing the import of fossil fuels while boosting efficiency in energy use, domestic renewable technologies and energy sources Complying with the existing NECP objectives would reduce Spain's energy dependency ratio from 74% to 61%, and annual fossil fuel imports from 98,648 to 65,084 ktoe between 2017 and 2030. These benefits would be greater still with more ambitious decarbonisation objectives. As long as Just Transition principles are applied and respected, job losses associated with lower fossil fuel use could be more than offset by new employment, as well as other benefits (e.g. improved air quality).

Maximise benefits provided by nature-based solutions in adaptation and mitigation strategies The crucial need to reduce emissions in rural land-use sectors (agriculture and forestry) is recognised in the NECP. However, further climate and associated benefits (for nature, water and rural communities) could be achieved with more ambitious objectives and measures, if carried out within a Just Transition framework. Conserving carbon-rich ecosystems, in part by meeting objectives for protected areas and protected species, could better protect and restore natural carbon storage functions. At the same time, they could contribute to adaptation objectives, such as those in the draft National Adaptation Plan 2021-2030.

Reuse existing electricity infrastructure, with innovation/renewal of existing facilities, to facilitate domestic renewable energy production The closure of nuclear and coal power stations and coal mines offers opportunities to reuse existing electricity grid infrastructure in renewable energy installations, where renewable energy resources and grid connection capacity are suitable. The Just Transition funds could be used to establish new research facilities for testing renewable technologies. In addition, repowering existing renewable energy installations and technology hybridisation (e.g. solar with wind) would allow better use of the available renewable resources and connection capacity, if environmental considerations are respected.

GAPS

The national emission reduction targets for Spain (23% reduction by 2030 compared to 1990 levels; net zero by 2050) are far too low This is because, as a very 'late starter', Spain's emissions are still above 1990 levels [28]. The overall 2030 greenhouse gas reduction target for Spain (23% reduction compared to 1990) is not science-based and is only a little over half of the already insufficient overall EU ambition of at least a 40% reduction. Based on the latest available science, Spanish NGOs demand a minimum 55% reduction by 2030 and net zero by 2040 to meet the 1.5˚C objective of the Paris Agreement [29].

The phase out of fossil fuel and nuclear power is far too slow, and hampers rapid renewable energy penetration In the current NECP, coal could remain in the electricity mix until 2030 and nuclear energy until 2035 (in both cases NGOs call for a 2025 phase out), with little clarity on gas plant closures. Further measures are required: electricity market and price structure reform, accelerating storage and other grid improvements including greater decentralisation, improved design of renewable capacity auctions, encouraging consumers to switch to 100% renewables contracts and 'prosumerism', and a possible national carbon price floor.

[28] Spain's rapid, unsustainable economic growth after joining the EU in 1986 led to a 54% increase in GHG emissions from 1990-2007, dropping since then to +16% above 1990 (official data for 2018) and possibly falling further to +9% in 2019 (unofficial estimate from Observatorio de la Sostenibilidad en España).
[29]Based on general approaches to 2030 objectives in the IPCC 1.5°C report, the UNEP Emissions Gap Report 2019 and Nature Climate Change (Robiou DuPont et al, 2017); and specific results for Spain in http://paris-equity-check.org/

SPAIN

GAPS

NECP preparation has been delayed, with insufficient government-led debate between sectors and uncertain commitment from sub-national governments The Spanish NECP was submitted three months late, the current version does not address important issues raised in consultation responses and a new multilevel stakeholder dialogue is still awaited. There is no clear overall commitment from regional and municipal governments to NECP implementation, yet they have vital delivery roles in policies for renewable energy planning, energy efficiency, transport and traffic, urban planning, air quality, waste, agriculture, forestry, nature, taxation, economic development and the programming of EU funds.

The massive switch to renewable energy needs further measures to ensure that nature and water objectives are met, and that natural carbon sinks are protected and restored Spain's NECP needs to ensure that the essential acceleration in the advance of renewable energy and in the electrification of energy does not pose risks for nature and water objectives. Natural sinks are crucial for a net-zero objective but highly vulnerable to human pressures. Stronger guarantees are needed to ensure that parallel developments in (e.g.) regional renewable energy planning, nature planning, forestry planning and river basin planning, are well-integrated with the NECP.

Deeper analysis is needed for further climate mitigation in other sectors, e.g. intensive crop and livestock production The NECP does not analyse the possible climate benefits of reducing overall meat and dairy production and consumption, including emissions associated with cheap imported feed. There is a need to question the continued dependence in certain areas on intensive crop production techniques involving heavy use of industrial fertilizers, excessive irrigation which damages wetland carbon sinks and leaving soil bare for long periods of the year (for example, alternative models would use less water, boost soil carbon and reduce soil erosion).

METHODOLOGY OF THE ANALYSIS

The report includes analysis on key issues related to climate ambition including improvements on climate and energy targets, improvements on policies and measures, developments regarding coal phase out commitments and improvements related to fossil fuel subsidies.

The information and data used in this assessment report is taken from the final NECPs that are publicly accessible on the European Commission's website [30]. In addition, this report includes European NGOs' assessment of opportunities and gaps in the final NECPs and comparisons between the draft and final documents to highlight improvements made and some of the issues that still need to be addressed.

Civil society organisations used a qualitative tool that includes a set of questions and background information which intends to help national stakeholders in their efforts to perform their own analysis of the final NECPs, including a comparison with the draft NECPs. This qualitative tool developed under the Unify project. [31]

[30]https://ec.europa.eu/energy/topics/energy-strategy/national-energy-climate-plans_en
[31] Please see the methodology here: https://unify.caneurope.org/wp-content/uploads/sites/2/2020/03/qualitative-tool-to-assess-final-national-energy-and-climate-plans_website-version-1.pdf

ANNEXES

Annex I : Overview of the 2030 national renewable energy contributions in the draft and final NECPs

	Contribution in Draft NECP (in %)	Contribution in Final NECP (in %)	Comparison contribution in draft vs final NECP	EC recommendation (in %)	Contribution in final NECP compared to EC recommendation
AT	45 - 50	46-50	increased	46	On benchmark (at the lower end)
BE	18.3	17.5	decreased	25	below
CZ	20.8	22	increased	23	below
DK	55	55	same	46	above
EE	42	42	same	37	above
EL	31-32	35	increased	31	above
ES	42	42	same	32	above
FR	32	33	increased	33	On benchmark
HR	36.4	36.4	same	32	above
HU	20	21	increased	23	below
LV	45	50	increased	50	On benchmark
PL	21	21-23	increased	25	below
PT	47	47	same	42	above
RO	27.9	30.7	increased	34	below
SI	27	27	same	37	below

Annex II -A : Overview of the 2030 national energy efficiency contributions in terms of primary energy in the draft NECPs, the Commission's assessment and the final NECPs [32]

	2017 energy consumption data (Mtoe)	2020 national targets (Mtoe)	2030 national contributions in draft NECPs (Mtoe)	2030 draft national contributions in the EC assessment (Mtoe)	EC assessment of draft national contributions (Mtoe)	2030 national contributions in the final NEPCs (Mtoe)
AT	32.5	31.5	28 - 30	30	modest	28.7-30.8
BE	49.1	43.7	39.00	39	modest	42.70
BG	18.3	16.9	17.67	17.7	low	17.47
CZ	40.1	44.3	41.25	41.3	low	41.44
DK	17.7	16.9	18.63	18.6	very low	18.33
DE	298.3	276.6				
EE	5.6	6.5	5.49	5.5	low	5.49
IE	14.4	13.9	15.9 (lowest level of all scenarios)	15.9	very low	
EL	23.1	24.7	24.7	25	very low	21.00
ES	125.6	122.6	98.2	98.2	sufficient	98.50
FR	239.5	226.6	205.05	201.8	modest	202.20
HR	8.3	10.7	8.78	8.2	low	8.23
IT	148.9	158.0	132	125	sufficient	125.10
CY	2.5	2.2	2.6	2.6	very low	2.40
LV	4.5	5.4	4.33	4.3	low	3.94 – 4.06
LT	6.2	6.5		10.2	very low	5.46
LU	4.3	4.5		3.5	sufficient	
HU	24.5	24.1	30	27	very low	30.66
MT	0.8	0.8	1.16	1.2	very low	1.05
NL	64.5	60.7	46.57	46.6	sufficient	46.57
PL	99.1	96.4	91.32	90.9	modest	91.30
PT	22.8	22.5	20.2	20.2	modest	15.6 - 21.5
RO	32.4	43.0	36.7	36.7	very low	32.30
SI	6.6	7.1	7.05	7.1	very low	6.36
SK	16.1	16.4	16.16	16.2	low	15.7-16.15
FI	31.7	35.9	36.11	36.1	very low	34.82
SE	46.1	43.4	41.44	42.5	modest	39.64
UK	177.0	177.6				

[32] Values for 2017 data, 2020 national targets and draft contributions in the COM analysis have been copied from Tables 3 and 4 included in the Commission's assessment: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019SC0212&from=EN

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.

Regarding the draft NECPs, Lithuania referred 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. Romania and Slovenia did not present a level for final energy consumption, while Luxembourg did not present a level for primary energy consumption in 2030. Germany included only an indicative reference to a 30% reduction of gross inland consumption from 2008, which was said to be in line with the national goal of halving energy demand by 2050, based on a linear trajectory. There was no indication regarding final energy. Finally, Hungary's final energy consumption in 2030 was estimated from a graph. The Commission's assessment of the draft NECPs does not present any values only for Germany on both its draft contributions and for Slovenia for its draft final energy contribution.

Annex II -B : Overview of the 2030 national energy efficiency contributions in terms of final energy in the draft NECPs, the Commission's assessment and the final NECPs [33]

	2017 energy consumption data (Mtoe)	2020 national targets (Mtoe)	2030 national contributions in draft NECPs (Mtoe)	2030 draft national contributions in the EC assessment (Mtoe)	EC assessment of draft national contributions (Mtoe)	2030 national contributions in the final NEPCs (Mtoe)
AT	28.4	25.1	24 - 25	25.0	modest	25.6 - 23.9
BE	36	32.5	33.1	33.1	low	35.20
BG	9.9	8.6	9.17	8.7	low	10.32
CZ	25.5	25.3	23.65	23.7	modest	23.60
DK	14.6	14.7	15.76	15.8	very low	15.78
DE	218.7	194.3				
EE	2.9	2.8	2.75	2.7	low	2.74
IE	11.8	11.7	13.04 (lowest level of all scenarios)	13.0	very low	
EL	16.8	18.4	18.1	18.1	very low	16.50
ES	84.2	87.2	74.4	74.4	sufficient	73.60
FR	148.9	138.1	117.6	124.9	sufficient	120.90
HR	6.9	7.0	6.85	6.9	low	6.85
IT	115.2	124.0	103.8	103.8	sufficient	103.80
CY	1.9	1.9	2.2	2.2	very low	2.00
LV	4.0	4.5	3.57	3.6	modest	3.46 – 3.56
LT	5.3	4.3		8.0	very low	4.52
LU	4.2	4.2	3.06	3.3	sufficient	
HU	18.5	14.4	18.6	18.6	very low	18.75
MT	0.6	0.6	0.86	0.9	very low	0.79
NL	50.3	52.2	44.52	44.5	modest	43.87
PL	71.0	71.6	66.19	66.2	modest	65.51
PT	16.6	17.4	17.7	17.7	very low	14.4 – 14.9
RO	23.2	30.3		27.5	very low	25.70
SI	4.9	5.1				4.72
SK	11.1	9.2	10.78	10.8	low	10.27 - 10.44
FI	25.2	26.7	26.23	26.2	very low	24.90
SE	32.6	30.3	31.3	32.3	low	29.15

[33] Values for 2017 data, 2020 national targets and draft contributions in the COM analysis have been copied from Tables 3 and 4 included in the Commission's assessment: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019SC0212&from=EN

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