National Energy and Climate Plans Tracker

MAIN COUNTRY TAKEAWAYS

October 2021





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Monitoring National Energy and Climate Plans

Despite new climate pledges and commitments in 2020 worldwide - including the EU's new climate target of at least 55% net emissions reduction by 2030 science shows that we are still heading towards a temperature rise of 2.5-2.7°C by the end of this century [1]. To avoid devastating impacts of the climate crisis and do its fair and science-based share under the Paris Agreement to reach the 1.5°C goal, the EU must reduce its emissions by at least 65% by 2030 and achieve net-zero emissions by 2040 [2].

The new legislative proposals from the European Commission to implement the EU's new 2030 climate target - the so-called "Fit for 55 Package" - can pave the way for further increasing the EU's climate ambition and aligning its climate and energy policies with its international commitment under the Paris Agreement.

A higher 2030 climate target and revised climate and energy legislation would mean that the National Energy and Climate Plans (NECPs) become ever more important in the design, implementation and monitoring of national targets, policies and measures to match a Paris Agreement compatible ambition level.

According to the Governance Regulation, adopted in 2018, Member States need to prepare their National Energy and Climate Plans to describe, in an integrated manner, their climate and energy objectives, targets, policies and measures for the period from 2021 to 2030. The current NECPs overall reflect (or should have reflected [3]) the previous EU target of 40% greenhouse gas emissions reduction by 2030, and their level of climate ambition is inevitably obsolete.

As Member States will inevitably need to adjust their levels of ambition to the new EU targets and legislation, they should use this opportunity to ensure that national climate and energy targets, objectives, policies and measures in the NECPs are not just in line with the new EU targets, but go beyond them, thereby bringing the EU's emission reduction trajectory closer to its Paris Agreement commitments.

While some of the Member States have already started the groundwork for the revision of NECPs, it remains crucial to monitor their current state of play which gives a clear indication on the ambition potential, opportunities and gaps of current plans.



^[1] The UNEP Emissions Gap Report (2020) and the UNFCCC NDC Synthesis Report predict that current international emission reduction commitments equate to a temperature rise of 2.5-2.6°C by the end of this century. https://wedocs.unep.org/bitstream/handle/20.500.11822/34438/EGR20ESE.pdf and https://unfccc.int/process-and-meetings/theparis-agreement/nationally-determinedcontributions-ndcs/nationally-determined-contributions-ndcs/ndc-synthesis-report [2] Please see CAN Europe's positions : https://caneurope.org/can-europe-position-on-long-termtargets/ and https://caneurope.org/can-europe-calls-for-an-increase-of-the-eu-s-2030-climate-targetto-at-least-65/

^[3] PAVE THE WAY FOR INCREASED CLIMATE AMBITION Opportunities and Gaps in the final National Energy and Climate Plans, https://caneurope.org/content/uploads/2020/05/Opportunitiesand-Gaps-in-final-NECPs.pdf

The "NECP tracker", developed by the LIFE Unify consortium and first launched in Spring 2021, provides an assessment of where Member States stand in the implementation of targets and trajectories from their current NECPs. It does so by comparing the most recently released data for greenhouse gas emissions from 2019 - with the trajectories outlined by Member States in their NECPs.

At present, the NECP tracker tool covers 13 EU countries - Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, France, Germany, Hungary, Poland, Portugal, Slovenia, Spain. For each of these countries, it looks into overall and sectoral greenhouse gas emissions reduction pathways and some energy transition indicators. The methodology of the tool, sources of data and how these indicators are chosen are explained in the "Guidelines on how to use the NECP Tracker["] document.

This briefing summarises the main outcomes of the update of the NECP Tracker tool, conducted by project partners in September 2021. In particular, its 13 country assessments outline the most relevant trends in greenhouse gas emissions and energy transition trajectories, compare them to NECPs objectives and contextualize them within specific national situations.

While differences exist across the countries covered by the tool, it is still possible to draw a few common outcomes.

These findings confirm that Member States' current trajectories of greenhouse gas emissions reduction and energy transition are not in line with their international commitment under the Paris Agreement.

On the other hand, the NECP tracker also finds that, on some occasions, Member States are overperforming compared to their NECP objectives. For example, the outcome of this update shows that some Member States are doing better in sectoral targets for greenhouse gas emissions than their own NECP projections. In Portugal, emissions are reducing faster than NECP projections in the buildings, energy and waste sectors, the same goes for Spain for the buildings and energy sectors. In Estonia, the share of renewable energy in gross final energy consumption is also highly underestimated.

ambitious sectoral emission reduction and energy targets in future updates of their NECPs.

In addition, the preparatory work for the NECP tracker has also brought to light some discrepancies between data retrieved from national sources and EU sources; in the case of Hungary, unclarity emerged even within different annexes to the NECP. As it clearly stands out from the NECP tracker, clear targets for sectoral emission or energy transition indicators are also sometimes absent or incomplete. In the Bulgarian NECP, for example, there are no sectoral emission targets; instead, in the Estonian NECP only the 2030 target for final energy consumption is indicated, while the pathway towards it remains unclear.

In the future, the European Commission should therefore ensure a better standardization of data collected at the national level, as well as suggest a more detailed and homogeneous approach for drafting NECP targets. This would make it easier for stakeholders to monitor the implementation of the National Energy and Climate Plans and support Member States to align their trajectories, policies and measures with the Paris Agreement.

The tool therefore indicates that Member States can set much more

BULGARIA

In 2019, Bulgarian net greenhouse gas emissions were around 46 Mt CO2-eq. By setting a 2030 target of 47.553 Mt CO2-eq, Bulgaria is actually planning to increase its emissions in its NECP. In addition, the Bulgarian NECP foresees a decrease in the capacity of carbon sinks from -9.97 Mt CO2-eq to -8.6 Mt CO2-eq by 2030. This is a clear alarm bell, which shows that Bulgaria's plans are not good enough to address the climate crisis.

The NECP is quite unambitious compared to Bulgaria's potential. The 2030 final energy consumption target set in the Plan, for instance, is higher than the levels of final energy consumption of the last 20 years. This is despite constant energy efficiency improvements in the industry sector. In addition, from 1990 to 2019 Bulgaria significantly expanded its renewable energy sources (in gross final energy consumption) from 1.91% to 21.56%. The current target for 2030 (27.09%) is therefore very low, especially given that the price of renewables is already significantly lower than 1990s and 2000s and that it will continue to decrease in the future, as production costs decrease and EU policies are strengthened.

While preparing the NECP tracker, Bulgarian NGOs also detected the lack of reliable data for sectoral emissions targets in the NECP.

Only two sectoral targets were given in Annex 1 of the NECP (for the industry and buildings sector). However, further research and cross-checking has highlighted significant divergences with data available at the EU level (EEA, Eurostat), and the targets were consequently not included in the tracker.

In order to implement the new EU climate and energy targets and further align its climate action with the Paris Agreement, the Bulgarian government must initiate and complete a deep revision of the NECP. It is also crucial to assure that national data is correct, complete, transparent and available to all stakeholders. It will be helpful for the Bulgarian government to establish a permanent multilevel dialogue, as indicated in the Governance Regulation, to properly analyze and suggest relevant steps to reach higher targets.

Finally, the development of renewables must be significantly intensified to assure the country will not get into an energy crisis.

CROATIA

In Croatia, the total greenhouse gas emissions, excluding sinks, are overall in line with the trajectory set by the Croatian NECP, amounted to 18.05 Mt CO2e in 2019. This is a 27.5% reduction in emissions compared to 1990 levels. The two critical sectors remain transport and waste, where emissions have been increasing since 1990. Total sinks from the LULUCF sector were estimated at 5.56 Mt CO2e (30.8 % of total greenhouse gas emissions), but this sink is expected to decrease in the future.

Final energy consumption in 2019 was 6.911 Mtoe, which is slightly above the target set by the NECP for 2020, which is 6.857 Mtoe. As regards the share of renewable energy sources in its final energy consumption, Croatia is on track with its NECP targets, primarily due to the high biomass consumption for heating in the household sector and high share of large hydropower plants in electricity production. In 2019, the renewables share of the total electricity generation was 20.7%, excluding large hydropower plants. The share of wind in renewables was 55.7%, while solar, despite its potential, contributed only 3.1%.





LULUCF sector - greenhouse gas emissions and removals

In 2019



Agriculture

In 2019

3 -20.8%

Waste

In 2019

CYPRUS

The initial draft of Cyprus' NECP was not even in line with its national target of 24% reduction in emissions, as foreseen under the previous Effort Sharing Regulation to reach the EU's previous 2030 climate target. Following the outcry of civil society organisations and other stakeholders, an updated NECP was submitted in 2020 by the government. However, the Cypriot NECP still falls short to implement its national target, not to mention that it needs a serious revision to be aligned with the EU's new climate and energy targets.

The NECP lists a number of specific measures to be implemented up to 2030. It also manages to set out clear goals for many sectors, including transport, the most polluting one among the non-ETS sectors (49% of all emissions), due to the lack of infrastructure for public transport, and the widespread use of cars as the only means of transportation.

However, the Plan relies immensely on the introduction of natural gas in Cyprus' energy system. The fact that Cyprus sees fossil gas as a transition fuel is clearly reflected in its NECP. Moreover, the Plan does not explore ways of ensuring its energy security through renewable energy storage systems, hampering the possibility of deployment of more renewables. The monopoly of the Electricity Authority of Cyprus is perceived to be, by many members of society, one of the main reasons for slow renewables deployment on the island. Opening the market to other electricity providers will contribute to eliminating this barrier.

CZECHIA

In 2019, net and gross greenhouse gas emissions have continued to increase in Czechia. While emissions from buildings and agriculture have slightly decreased, emissions from transport and waste management have significantly increased. Thus, Czechia will most likely fail to achieve its 2020 target for the Effort Sharing sectors of transport and waste, even though this target meant the country could increase its emissions by 9% compared to 2005.

This is important to note in light of the Fit for 55 package released in July 2021 which, if approved in its current form, will set a new, stricter target for Czechia's Effort Sharing sectors for 2030 - raising the previous target of 14% to 26% under the new legislation. Czechia will therefore have to speed up its low-carbon transition. It should continue with the positive trend of building insulation, but more policies and incentives are needed to start tackling emissions from the transport sector.

Furthermore, after many years of stagnation, the deployment of renewables should soon be unlocked, as the national Parliament has passed a law allowing the support for wind and solar power plants. In this context, how Czechia will use the vast amounts of EU funding that will be made available in the upcoming budget period will also be crucial.



DENMARK

In 2019, Denmark committed to a strong, economy-wide legally binding climate target for 2030: 70% emissions reductions.

In 2020, the 70% target is starting to turn into actual policy, as the Danish government has made sectoral reduction agreements on various sectors, including energy, industry, waste and transport. These sectoral agreements are projected to deliver a third of the reductions needed to reach the 70% target in 2030. Although the 2020 agreements only deliver a third of what the 70%-target requires, the new policy projections used in this update already surpass the unambitious targets set in the 2019 Danish NECP.

Despite visible improvements to Denmark's emission reduction target and policies, projections (35 MtCO2e in 2030) remain significantly higher than the linear net emission reduction target calculation which is 23 MtCO2e that is required to meet the 70% reduction target. This update only includes data projections for agreements reached before 1 January 2021. In October 2021, the Danish parliament agreed to set a reduction target for Agriculture, including LULUCF, of 55-65% reduction in 2030 compared to 1990. The contribution (6-8MT reduction) of the new agriculture agreement will therefore be included in the next update.

The major takeaway is that it is high time for Denmark to set **sector specific reduction targets** for all sectors. The Danish parliament has reached agreements for several sectoral targets but has failed to set specific emission targets for other sectors (with the exception of the new 55-65% target for agriculture). The absence of sectoral targets still makes it unclear how Denmark intends to reach its economy-wide emission reduction target. In this uncertainty, various sectors of the Danish economy continue to push for exemptions from contributing to their fair share of reductions. To curb this "free-rider" problem, the Danish government therefore needs to set sub-targets across all sectors to be aligned with the Danish 70 % target in 2030.

ESTONIA

Gross greenhouse gas emissions in Estonia have decreased by 64% compared to 1990, totaling 14,7 Mt CO2 in 2019. It is a remarkable change and shows that the target of 11.6 Mt CO2 set for 2030 is easily achievable and can be further strengthened.

A large share of total emissions originates from the energy sector. On a positive note, significant decreases in emissions in 2019 are also from the same sector, indicating that Estonia is close to achieving its sectoral target of 6.6 Mt by 2030. As these set targets are not enough to keep up with revised EU ambition and be "Fit for 1.5° C", Estonia must increase its sectoral emission reduction targets.

The target of 19% set for the share of energy from renewable sources (in gross final energy consumption) is low and already achieved, mostly due to the use of unsustainable biomass as a "renewable" source.

All in all Estonia seems to be on track, but with missing annual projections, strong targets and low ambition, the NECP is rather insufficient and does not describe pathways to climate neutrality in a precise way.

FRANCE

In 2019, France decreased its gross greenhouse gas emissions compared to the year before, but only by 1% in net emissions. A decrease in emissions reductions may be encouraging but it is not enough to comply with its current NECP targets.

With regard to sectoral emissions (excluding LULUCF), France has reached its 2019 targets and is emitting fewer greenhouse gas than its target. It should be noted that the objectives should be revised upwards when the NECP is revised.

In addition, several sectors fail to meet the trajectories and remain in the red, such as transport, industry and waste. The buildings, agriculture and energy conversion sectors have a larger decrease than foreseen by the revised NECP.

One of the key objectives that has not been reached is the share of energy from renewable sources in gross final consumption of energy. France was supposed to achieve a 19.8% share but it was only 17.2% in 2019. Given this trend, the compulsory 2020 objective of 23% will not be reached.



+26.9%LULUCF sector - greenhouse gas emissions and removals In 2019 ₿. -2.3% Agriculture In 2019 23 +9.2%

Waste

In 2019

GERMANY

Gross emissions reductions in Germany since 1990 have been too slow. This is reflected in the different sectors: the agricultural sector has not shown any significant decline in emissions for the last twenty years and the buildings sector's emissions reductions are too slow. In addition, transport and industry sectors have seen some increases in emissions during the last two decades. These sectors did not have specific targets to reduce emissions until the Federal Climate Law of 2019.

In April 2021, in a landmark climate case launched by German youth and civil society organisations, the Federal Constitutional Court (Karlsruhe) stated that the government must be more ambitious in mitigating climate change to protect citizens' human rights. The Court declared some articles of the Federal Climate Law of December 2019 as unconstitutional, and urged the government and parliament to act more intensively and to immediately revise the law. Due to this court decision, the former government coalition of conservatives and social-democrats hurried to announce a climate neutrality target for 2045, thus bringing the original target forward by five years. In the revised national Climate Law, the government aims to reduce gross greenhouse gas emissions by at least 65% by 2030 (instead of 55%, the target as of 2019) and to introduce a new reduction target of 88% by 2040.

Although the recently announced goals are more ambitious than the previous ones, there is still a lack of concrete measures to achieve them. It also remains to be seen how the revised Federal Climate Law will feed into the next NECP revision.



HUNGARY

The Hungarian NECP was adopted by the Government in January 2020 and has remained unchanged since. In June 2020, Hungary committed to reaching climate neutrality by 2050 in a national "climate law" (adopted by the Parliament). Meanwhile, the national long-term strategy (nLTS) has also been adopted by the Government in September 2021, to reflect the latest development of EU climate policy and to adjust its targets. The nLTS therefore rightly notes that, "the objectives of the nLTS should be taken into account when updating the National Energy and Climate Plan, the Climate Change Action Plans and all relevant sectoral strategies [4]".

Against this background, it is astonishing that the NECP only targets a 40% greenhouse gas emission decrease by 2030 (compared to 1990 levels), while emissions were already at -39% in 2013. Emissions in the transport sector are even expected (and allowed) to increase. The trajectory between 2030-2040 is even less steep than up to 2030, leaving the majority of the mitigation efforts to reach carbon neutrality between 2040 and 2050.

Regarding the target for **energy efficiency**, the total final energy consumption by 2030 according to the Early Action scenario in the nLTS would be much lower (net 709 PJ, gross 734 PJ) than the NECP target for the same date (785 PJ). This is still far from the 32.5% EU energy efficiency target, though. In addition, the nLTS' Early Action scenario targets 27% by 2030 as the share of renewable **energy** sources in gross final energy consumption, whereas the NECP aims at 21%.

To achieve higher RES targets, Hungary needs a smaller final energy demand, a large increase in wind energy capacity (minimum 2 GW), in addition to a minimum of 6.5 GW of solar capacity, and the use of geothermal energy in district heating.

However, these targets are still insufficient to make Hungary "Fit for 1.5°C". The NECP should be revised to be in line with the higher ambition of the national long-term strategy and even go beyond that in order to comply with the Paris Agreement objectives.

Hungary should therefore focus on reducing its total national energy demand and phase out all fossil fuels and its subsidies as early as possible (eq. reducing energy use via short supply chains, teleworking, deep renovation etc.). The additional 7.6 million tCO2e of emission reductions per year that are required to reach the 40% greenhouse gas target as a first step, could be met almost entirely by phasing out coal firing at the Mátra Power Plant. Furthermore, Hungary should gradually phase out nuclear energy from its energy mix and exploit a wider scale of renewables in small-scale, decentralised manner, with a higher (specified) share of citizen-owned energy communities. Hungary should introduce a comprehensive building refurbishment programme to exploit its massive energy saving potential, with a special focus on the residential sector. Hungary should finally maximise its financial resources for energy transition and climate neutrality and ensure that all EU funds are used in a climate-friendly manner.

POLAND

Poland has substantially reduced its emissions since 1990, but the downward trend stopped in 2001. Reasons can be found in the development of two sectors. Firstly, the transport sector, which grew over twofold in the last 20 years, as a result of rapid growth in car ownership fuelled by the development of the road network and massive import of old cars to the country. Secondly, land use sector LULUCF substantially reduced its ability to remove CO2 emissions during the same period. Polish land use policy is very inefficient in stopping urban sprawl and it also allows for the use of significant quantities of wood in the energy sector, an activity it pretends to be renewable. Only the waste sector managed to reduce emissions all the way to 2019, but it is the one with a lower share in overall emissions. Energy, agriculture and industry did not reduce emissions at all in the period 2000-2019.

Unfortunately, the policy prospects are not promising at all. Poland does not have a national Long Term Strategy for reduction of emissions to 2050, therefore it produced a National Energy Policy up to 2040, which falls very short in ambition on climate issues. The emission target for 2040 is set for -30% in comparison to current levels (-43% in comparison to 1990 levels) which is way below what is needed to stay below 1.5°C. This is because Poland does not pay much attention to the transition in the energy sector and is currently developing only its photovoltaic potential, while wind and biogas have been stopped since early 2016. Also energy efficiency is not at the backbone of the energy policy, while Poland has a possibility to use it widely.





PORTUGAL

In Portugal, total greenhouse gas emissions seem to be on track as well as net emissions, despite the great variability of land use emissions in Portugal. Forests can act as a sink or an emitter in years with a greater extension of forest fires, as was the case in 2017. In an important note, forest management is especially important in Portugal to assure that the country meets its targets.

Regarding renewable energy, both on its contribution in the final consumption of energy and its share in the electricity sector, the country seems to be on track to meet its targets. This shows that Portugal has the potential to go well beyond its NECP energy objectives.

Despite the positive evolution globally, some sectors are not meeting its targets, such as agriculture and industry. In addition, the transport sector and the final energy consumption indicator highlighted in the NECP tracker are also on a negative pathway of growing emissions and consumption respectively.





LULUCF sector - greenhouse gas emissions and removals

In 2019



Agriculture

In 2019

23 -19.0%

Waste

In 2019

SLOVENIA

Currently, the Slovenian Ministry of Infrastructure is preparing a NECP implementation report which should be presented to the public in the beginning of next year. Although the adopted increase of the EU climate target will require numerous adjustments and significant increase in targets, the process hasn't started yet. Furthermore, unambitious NECP targets have been uncritically used as short-term goals of the Slovenian nLTS.

It is positive that Slovenian transport sector emissions have started to fall and the target for 2019 has been achieved, and it is also positive that they will continue to fall under current NECP projections, reaching 4,96MtCO2e by 2030. However this is clearly still too much, as it remains 55% higher compared to 1990 levels. Data from the NECP tool also shows that emissions in the Industry sector (only the non-ETS part) are still rising and are almost 30% higher compared to the target for 2019. Both share of renewable energy sources (RES) in gross final consumption of the energy and electricity sector are rising, but are still far from 2019 targets.

In order to update Slovenia's climate targets in line with the new EU target of 55% and to achieve greater coherence between short-term and long-term targets, Slovenia needs to significantly strengthen its 2030 targets and measures. There is still huge potential in the transport sector that can be achieved through significant increase of public passenger transport and additional measures and investments in railway infrastructure. In addition, immediate action is needed in the field of renewables, where studies[5] show the exceptional potential of solar energy in particular.



[5] https://www.podnebnapot2050.si/wp-content/uploads/2020/06/Deliverable C 1 1-Part-5B-

SPAIN

The Spanish National Energy and Climate Plan, submitted to the European Commission in January 2020, has not been updated in response to the new EU ambition in the 'Fit For 55' Package. The national Climate Change and Energy Transition Law, passed in April 2021, allows Spanish Ministers to increase the ambition of climate and energy objectives at any time. This is clearly feasible as Spain has already started to prepare and launch policies and measures to boost the energy transition, such as for green hydrogen, offshore wind, energy storage or prosumerism, and an auction of 3,3 GW of new wind and photovoltaic renewable electricity capacity in September 2021.

In addition, thanks especially to the extra resources available in Spain's approved Recovery and Resilience Plan (RRP) the Spanish government provides important funding for NECP measures, with over 39% of the total dedicated to the ecological transition, including climate and biodiversity action. This includes support for the energy refurbishment of buildings, the establishment of lowemission zones in cities with more than 50,000 inhabitants, the promotion of "prosumerism" and renewable energy communities, and scrapping fossil-fuel vehicles to replace them with electric equivalents.

Greenhouse gas emissions fell by 5.6% in Spain in 2019 compared to 2018, to 314.5 Mt CO2-eq (total gross emissions), still 8.4% above 1990 levels although 28.9% lower than in 2005. This positive result is despite the fact that 2019 was a dry year, with a decrease in hydroelectric production of -27.6% compared to 2018, and, with GDP growth of 2%, showing a decoupling of emissions from economic activity.

All sectors reduced their emissions, except transport and agriculture. The transport sector continues to emit the most, with 29% of the total. Emissions from ETS sectors fell by 14.2% in 2019 compared to the previous year and ESR emissions fell by 0.9%. Overall final energy consumption fell by 0.7% in 2019, with renewable energy sources generating 18.4% of the total and 36.9% of electricity consumption.

Spain has a great opportunity to deliver on a green and just recovery after the Covid-19 pandemic. It has all the necessary instruments to accelerate the green transition towards climate neutrality well before 2050. In particular, the massive investments planned in the Spanish Recovery and Resilience Plan should help to reach some NECP targets much sooner than 2030 and hence increase ambition for 2030. Further action is needed to address uncertainties provoked by high electricity and gas prices and protests at the wave of large new wind and solar installations in rural areas, and to increase the climate ambition of Spain's Strategic Plan for Agriculture.



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