Working paper

Fossil fuel subsidies in draft EU National Energy and Climate Plans

Shortcomings and final call for action

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Key messages

- European Union (EU) Member States are required to report on their fossil fuel subsidies and their plans to phase them out as part of their National Energy and Climate Plans (NECPs). But our analysis shows that none of the draft NECPs submitted provides a comprehensive overview of the country's fossil fuel subsidies nor a comprehensive plan to phase them out.
- While several countries reiterate their existing commitments to end fossil fuel subsidies, many do not discuss fossil fuel subsidies at all – or report on various subsidy measures but fail to recognise them as such. Some draft NECPs, such as those of Germany, Greece, Poland, Slovenia and the United Kingdom, even discuss the introduction of new fossil fuel subsidies without recognising that this is incompatible with subsidy phase-out commitments. Others still label various subsidy measures as 'low-carbon transition support'.
- Despite numerous international commitments to end them, and some limited progress on reform, all EU governments continue to provide high levels of subsidies to fossil fuels.
- According to European Commission recommendations, governments are required to significantly improve their reporting on fossil fuel subsidies, including plans to phase them out, in their final NECPs (due at the end of 2019). This report shows that EU governments have an opportunity to use a common definition, existing data sources and methodologies, and the NECP process to help turn longstanding subsidy phase-out commitments into action.

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Contents

Acknowledgements 3

List of tables 5

1 Introduction 6

1.1 The EU's commitment to phase out fossil fuel subsidies 6

1.2 The EU's Energy Union Governance framework for 2030 and fossil fuel subsidies 7

2 Overview: fossil fuel subsidy coverage in draft NECPs 9

3 Detailed findings: lack of information, inconsistencies and scope for improvement 12

3.1 The country's intention to end fossil fuel subsidies or to undertake wider green fiscal policy reform is reiterated 12

3.2 Some fossil fuel subsidies and steps to end them are discussed 12

3.3 Plans for wider green fiscal reforms are discussed 14

3.4 The draft NECP states that information on fossil fuel subsidies will follow in the final version 15

3.5 Some fossil fuel subsidies are discussed, but without concrete steps to end them 15

3.6 Fossil fuel subsidies are not discussed 16

3.7 Member State claims that no fossil fuel subsidies exist in the country 17

3.8 The introduction of new fossil fuel subsidies is discussed 18

4 Conclusions and recommendations 19

References 21

Annex 1 Estimates of fossil fuel subsidies in the draft NECPs and in other data sources 24

List of tables

Tables

Table 1 Coverage of fossil fuel subsidies in EU Member States National Energy and Climate Plans **11**

1 Introduction

1.1 The EU's commitment to phase out fossil fuel subsidies

To meet climate goals, the Paris Agreement calls for financial flows – private and public – to be made 'consistent with a pathway towards low greenhouse gas emissions and climate-resilient development' (UNFCCC, 2015, Article 2.1.c). Achieving this will entail governments phasing out subsidies to the production and consumption of fossil fuels.

According to the European Commission, the removal of fossil fuel subsidies is imperative for the EU and its Member States to fulfil their climate objectives and international commitments (European Commission, 2019a). It recognises that the clean energy transition 'may be hindered by unfair competition if [EU] Member States continue to provide fossil fuel subsidies', and that fossil fuel subsidies 'increase the risks of investing in stranded assets, which need to be replaced before the end of their lifetime' (European Commission, 2017a: 6). Fossil fuel subsidies undermine the effectiveness of carbon price signals and therefore their reform is essential for ensuring policy coherency when it comes to achieving climate goals (European Parliament, Directorate-General for Internal Politics, 2017).

Reforming subsidies to fossil fuels is not only necessary to meet climate goals, it is imperative for other reasons. Subsidies for the consumption of fossil fuel are often not well-targeted and disproportionately benefit the wealthy, who consume higher levels of fossil fuels. Ongoing subsidies for fossil fuel production distort the market, making clean energy and energy efficiency technologies relatively more expensive. They also lead to 'lock-in' of high-carbon investments, increasing the risk of 'stranded assets' (Gerasimchuk, Bassi et al., 2017; Worrall et al., 2018), and are damaging to public health due to fossil fuels being the leading source of air pollution (HEAL, 2018).

The European Commission has repeatedly called upon Member States to phase out environmentally harmful subsidies, including those for fossil fuels, by 2020 (European Commission, 2010, 2011, 2017a, 2019a; European Parliament and the Council, 2013). EU Member States have also committed to ending subsidies to hard coal mining by 2018 (Council of the European Union, 2010). The EU has committed to phasing out inefficient fossil fuel subsidies by 2025 through the G7 (G7, 2017) and reiterated its commitment to phasing out inefficient fossil fuel subsidies every year since 2009, through the G20 (G20, 2016). The EU–Singapore Free Trade Agreement includes the goal of 'progressively reducing subsidies for fossil fuels' (Council of the European Union, 2018). The Sustainable Development Goals (SDGs) also include the reform of fossil fuel consumption and production subsidies under SDG 12 on Sustainable Consumption and Production, and a methodology has been developed for tracking progress on this goal (UN, 2015; UNEP et al., 2019).[1]

1 The proposed definition, developed by the United Nations Environment Programme (UNEP), International Institute for Sustainable Development (IISD) and the Organisation for Economic Co-operation and Development (OECD), includes all fossil fuel subsidies, splitting them into four categories:
(1) Direct transfer of funds – payments made by governments to individual recipients.
(2) Induced transfers – energy prices regulated by government.
(3) Tax expenditure, other revenue foregone, and underpricing of goods and services – for example, tax reductions, allowances, rebates or credits.
(4) Risk transfers – direct involvement of a government in the fossil fuel industry, by taking on risks on behalf of parts of the industry.

Despite their longstanding commitments, EU Member States continue to provide subsidies to the production and consumption of oil, gas, coal and fossil fuel based electricity. In January 2019, the European Commission estimated fossil fuel subsidies provided by EU governments at €55 billion per year between 2014 and 2016, remaining roughly stable across sectors during this period, 'implying that EU and national policies might need to be reinforced to phase out such subsidies' (European Commission, 2019b: 10). Previous research published by the Overseas Development Institute (ODI) and Climate Action Network (CAN) Europe, which, in addition to what is captured in the European Commission report, includes support provided by public finance institutions and state-owned enterprises (SOEs), estimates total support to fossil fuels by 11 EU Member States and through the EU budget and EU public banks at €112 billion per year between 2014 and 2016 (Gençsü et al., 2017).

1.2 The EU's Energy Union Governance framework for 2030 and fossil fuel subsidies

To govern the EU's climate and energy policies and ensure the achievement of targets up to 2030, the EU has established a planning, monitoring and reporting system called the Energy Union Governance Regulation (European Parliament and the Council, 2018). Under this, Member States are obliged to submit National Energy and Climate Plans (NECPs). These are the main instruments the Governance Regulation employs to ensure Member States set out their targets and policies up to 2030, also with a view towards 2050, and are used to measure performance against these targets. Recognising the extent of fossil fuel subsidies and the ongoing challenges in removing them, the NECP framework requires Member States to report on their energy subsidies as well as their 'national policies, timelines and measures planned to phase out energy subsidies, in particular for fossil fuels' (European Parliament and the Council, 2018; European Council, 2018, Annex I, section 3.1.3).

The NECP process builds on several mechanisms put in place by the EU with the aim of encouraging transparency on fossil fuel subsidies and their removal. As outlined above, the EU has set 2020 as the deadline for their phase-out, has issued several reports mapping fossil fuel subsidies across EU Member States (e.g. Institute for European Environmental Policy, 2012; Oosterhuis et al., 2014; Trinomics, 2019) and has initiated policy processes to encourage subsidy removal, including by means of the European Semester (the cycle of economic and fiscal policy coordination within the EU).[2]

In addition, the EU has set emission limits for capacity payments (European Parliament and the Council, 2018), which remunerate back-up power plants or electricity market operators that can reduce or shift electricity demand, and the European Parliament has voted to exclude fossil fuel projects from the €320 billion EU Regional Development and Cohesion Funds (European Parliament, 2019). Alongside efforts by the European Commission, both the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD) have committed to end public finance for coal mining and coal-fired power as well as finance for oil exploration (EIB, 2013; EBRD, 2014; Bennett, 2018). In July 2019, the EIB released a draft of its new energy lending policy, which proposes to in general end all fossil fuel financing by the end of 2020 (EIB, 2019).

Most of the draft NECPs of the Member States were published in December 2018. The European Commission has analysed them and, in June 2019, published recommendations on how to improve each one. In its review, the European Commission states the following:

> While most draft NECPs have partially addressed the issue of energy subsidies, the final plans should systematically describe and quantify all types of such subsidies, from grants, support schemes, tax benefits to subsidies resulting from regulatory obligations, based on existing definitions used internationally.

2 Under the European Semester, country-specific recommendations were provided to advance the European 2020 strategy, including, until 2015, the removal of fossil fuel subsidies.

> […] It is important that all Member States indicate in the final NECPs their future efforts and the timelines to phase out fossil fuels subsidies while taking into account the impact these might have on vulnerable consumer groups. (European Commission, 2019c)

Our review of the information provided on fossil fuel subsidies in the draft NECPs confirms the European Commission's findings and highlights additional opportunities and pitfalls in government reporting on subsidies and subsidy phase-out efforts. This report aims to serve as a benchmark for the finalisation of NECPs due by the end of 2019.

Section 2 of the report sets out the overarching findings on the coverage of fossil fuel subsidies in draft NECPs and the extent to which Member States have started implementing their commitments for phasing out fossil fuel subsidies. Section 3 presents detailed findings on the different types of coverage of fossil fuel subsidies, including specific examples from individual countries, and suggestions for how the coverage can be improved. Section 4 concludes, and provides recommendations directed at the European Commission and Member States for improving the final NECPs. Only if the final NECPs are significantly improved will they contribute to turn longstanding fossil fuel subsidy phase-out promises into action.

2 Overview: fossil fuel subsidy coverage in draft NECPs

A review of the information provided on fossil fuel subsidies in the draft NECPs shows that the level of detail provided, if any, varies greatly. While some Member States reiterate commitments to end fossil fuel subsidies and describe concrete processes planned towards this goal, none of the draft NECPs provides a comprehensive overview of energy subsidies provided, including those to fossil fuels, nor do any of the draft NECPs give a comprehensive plan to completely end fossil fuel subsidies.

The discrepancy between government reporting on fossil fuel subsidies and phase-out efforts can be explained by, among other things, the use of different fossil fuel subsidy definitions and the lack of a unified and comprehensive definition in the reporting template. The reporting guidance from the EU states that 'When reporting, Member States may choose to base themselves on existing definitions for fossil fuel subsidies used internationally' (European Council, 2018: Annex 1). Some Member States (e.g. the Netherlands and the United Kingdom) have made use of this possibility to use a definition that allows them to conclude that no fossil fuel subsidies exist in their countries. Suggestions for a widely accepted definition to harmonise reporting and support the reform process are made in the final section of this report.

We have clustered the coverage of fossil fuel subsidies in the NECPs into eight categories (with some countries' NECPs belonging to multiple categories):

1. The country's intention to end fossil fuel subsidies or to undertake wider green fiscal policy reform is reiterated.
2. Some fossil fuel subsidies and steps to end them are discussed.
3. Plans for wider green fiscal policy reforms are discussed.
4. The draft NECP states that information on fossil fuel subsidies will be provided in the final version.
5. Some fossil fuel subsidies are discussed, but without concrete steps to end them.
6. Fossil fuel subsidies are not discussed (except for, in some cases, a simple reiteration of commitment to phase them out).
7. Member State claims that no fossil fuel subsidies exist in the country.
8. The introduction of new fossil fuel subsidies is discussed.

As none of the NECPs provides a comprehensive overview of fossil fuel subsidies or a comprehensive plan to completely phase them out, this was not included as a category. This is in contrast with the information on fossil fuel subsidies that is provided through other means in several countries or at EU level. Research commissioned by the European Commission shows that all EU Member States subsidise the use and/or production of fossil fuels to some extent (Trinomics, 2019). The European Commission itself estimates that fossil fuel subsidies in the EU have not decreased between 2008 and 2016 and are estimated at €55 billion,

remaining roughly stable across sectors (European Commission, 2019b). A few Member States have contributed to increased transparency on fossil fuel subsidies, including Germany, Italy and Sweden. Finland and France, which have all issued reports on national government support to fossil fuels (Gençsü et al., 2017; Ministry of the Environment, Energy and Sea (France) 2017; Naturvårdsverket, 2017; Ministry of Economic Affairs and Employment (Finland), 2014; Honkatukia, 2016). In addition, Germany and Italy have participated in a G20 peer review process in which G20 countries evaluate each other's fossil fuel subsidies and provide recommendations for reform (OECD, 2017; 2019). However, none of these countries reports fully through their NECPs on subsidies previously published in other outputs.

Overall, of 28 Member States, only nine reiterate their commitment to end fossil fuel subsidies in their draft NECPs and only six mention specific steps towards their removal. There are seven Member States that indicate that information (or additional information) on fossil fuel subsidies will follow in their final NECPs. There are a further 10 Member States that simply leave out the section on energy and fossil fuel subsidies altogether, or include it but leave it blank or do not include therein any discussion of fossil fuel subsidies. Wider green fiscal reforms are discussed by 14 Member States. Some discussion of fossil fuel subsidies is provided by eight countries, which then fail to provide any concrete steps for reform. There are six Member States that claim that no fossil fuel subsidies exist in their countries, even when research by the European Commission proves otherwise, and five Member States even discuss the introduction of new fossil fuel subsidies without clarifying how this affects their fossil fuel subsidy reform commitments (see Table 1). We also find that none of the NECPs cover reporting on their financing for fossil fuel subsidies at the international level. However, as long as countries continue to support the production and use of oil, gas and coal abroad with public finance or export credit support, this undermines the positive effects of the domestic phase-out efforts. Moreover, as the NECPs are submitted by Member States only, the NECP process does not provide an opportunity for subsidies provided through the EU's own budget and instruments to be captured. Alternatives could therefore be considered for reporting at EU-level through the European Commission's State of the Energy Union reporting.

Section 3 discusses each category separately, providing more details and examples of the information on fossil fuel subsidies that is included in or omitted from the draft NECPs. Annex 1 provides an overview for each Member State of the information provided on fossil fuel subsidies in the draft NECPs and compares this information with findings from previous studies.

Table 1 Coverage of fossil fuel subsidies in EU Member States' National Energy and Climate Plans

Country	The country's intention to end fossil fuel subsidies or to undertake green fiscal reform is reiterated	Some fossil fuel subsidies and steps to end them are discussed	Plans for wider green fiscal policy reforms are discussed	The draft NECP states that (additional) information on fossil fuel subsidies will be provided in the final version	Fossil fuel subsidies are discussed, but without concrete steps to end them	Fossil fuel subsidies are not discussed	Member State claims that no fossil fuel subsidies exist in the country	The introduction of new fossil fuel subsidies is discussed
AUSTRIA	X		X	X				
BELGIUM	X		X			X		
BULGARIA							X	
CROATIA						X		
CYPRUS			X			X		
CZECH REP				X				
DENMARK							X	
ESTONIA	X	X						
FINLAND			X			X		
FRANCE			X				X	
GERMANY	X	X	X					X
GREECE			X			X		X
HUNGARY							X	
IRELAND			X		X			
ITALY	X	X	X					
LATVIA		X		X				
LITHUANIA				X	X			
LUXEMBOURG	X		X			X		
MALTA				X				
NETHERLANDS					X		X	
POLAND					X	X		X
PORTUGAL			X			X		
ROMANIA	X				X			
SLOVAKIA				X	X			
SLOVENIA	X				X	X		X
SPAIN	X	X	X	X				
SWEDEN		X	X			X		
UK			X		X		X	X
Total	**9**	**6**	**14**	**7**	**8**	**10**	**6**	**5**

3 Detailed findings: lack of information, inconsistencies and scope for improvement

3.1 The country's intention to end fossil fuel subsidies or to undertake wider green fiscal policy reform is reiterated

Of 28 Member States, nine reiterate their commitment to end fossil fuel subsidies or to undertake wider green fiscal policy reforms (Austria, Belgium, Estonia, Germany, Italy, Luxemburg, Romania, Slovenia and Spain, see also Table 1). Some countries restate existing EU, G7 or G20 commitments, while others provide more specific national targets and plans. Some examples of the commitments reiterated in NECPs are:

- Austria's draft NECP states that a list of subsidies that run counter to climate and energy targets will be prepared by June 2019 and that this will be used as a starting point for abolishing counterproductive incentives and funding. At the time of writing (July 2019), the authors were unable to find such a list.
- Belgium's draft NECP leaves the section on 'national policies, timelines and measures planned to phase out energy subsidies, in particular for fossil fuels' blank. But elsewhere, Belgium highlights that it will develop a new environmentally friendly energy taxation scheme by 2021, and that each region is set to conduct a review of the future greening of fiscal taxes and the elimination of subsidies that are harmful to the climate.
- Estonia's draft NECP mentions the overall target of shifting from taxation of income to taxation of consumption, use of natural resources and pollution of the environment. This would also require Estonia to address subsidies to fossil fuels.
- Italy's draft NECP reiterates the country's commitment to eliminating inefficient subsidies for fossil fuels as part of the G20, and to do so by 2025 as part of the G7. It also mentions the European Commission roadmap to end fossil fuel subsidies across the EU by 2020. According to Italy, ending fossil fuel subsidies will be necessary to keep global warming below 1.5°C.
- Slovenia's draft NECP states that subsidies that encourage inefficient use of fossil fuels and those that are inconsistent with the objectives of reducing greenhouse gas (GHG) emissions will be gradually reduced.

3.2 Some fossil fuel subsidies and steps to end them are discussed

Of 28 Member States, six discuss some concrete steps to end fossil fuel subsidies (Estonia, Germany, Italy, Latvia, Spain and Sweden). These are often focused on specific subsidy measures rather than on reducing overall systemic support to fossil

fuels. Where there are broader commitments to end fossil fuel subsidies, or environmentally harmful subsidies, the reform process is often limited by priorities such as supporting economic competitiveness or protecting vulnerable groups. Some examples of countries that outline concrete steps for reform are:

- Germany's draft NECP discusses plans to end subsidies for hard coal (for which subsidy numbers are also provided), in accordance with EU regulation on the phase-out of hard coal subsidies.[3] While most subsidies have been terminated in line with this commitment, a number of other measures are set to continue until 2022. Germany explicitly addresses how subsidies are phased out in a way that supports a just transition for workers and communities involved, and continues to provide government support for them. In addition, Germany is evaluating energy tax exemptions for energy-intensive and manufacturing industries. However, it plans to maintain energy tax breaks for electricity generation, tax relief for agriculture and inland waterway transport, and compensation for raised electricity prices due to the EU Emissions Trading System (ETS), as these subsidies are believed to support Germany's competitiveness.
- In contrast to Germany's stance on economic competitiveness, Italy states that all fossil fuel subsidies are inefficient from both an economic and environmental point of view. However, it adds that some measures are important to protect vulnerable groups. Italy clarifies that it is assessing a proposal for a progressive, gradual reduction of environmentally harmful subsidies in the energy sector, with the revenue recovered to be invested in the energy transition and to compensate those impacted to increase acceptance. Italy highlights that having participated in the G20 peer review process,[4] and reported on fossil fuel subsidies in its 'catalogue of environmentally harmful and beneficial subsidies' (Ministry of Environment, Land & Sea (Italy), 2016), which suggests areas of intervention and reform, it can now develop tax reform proposals that shift the tax burden towards polluting activities. Italy lists 30 specific subsidies with a combined value of €3.2 billion in 2017 that have significant environmental impact and have been identified as requiring reform as a matter of priority, as well as 13 subsidies that either require further technical analysis or reform at Community or global level. Although Italy's rhetoric on fossil fuel subsidies, transparency and reform implementation means that its draft NECP goes much further than those of other Member States, no concrete reform plans are provided, even for the subsidies identified as requiring reform as a matter of priority.
- Slovenia's draft NECP highlights that its efforts to end subsidies that are inconsistent with climate objectives will be supplemented by incentives to increase fuel efficiency to preserve competitiveness and prevent fuel poverty. Slovenia warns that subsidies which counter climate objectives have increased in the transport sector in recent years, while subsidies directed at GHG emission reductions have decreased. It highlights that, within the framework of green budgetary reform, an in-depth analysis of incentives that do not contribute to environmental goals was performed. The study recommended gradually and reasonably reforming these incentives. Slovenia also highlights that continued environmentally harmful subsidies show that there are still gaps in coordination in the area of green economic growth. Though Slovenia identifies a number of reform opportunities, it does not provide an explicit list of its energy subsidies nor a plan for ending this support.

3 In 2010, the EU took a significant step toward ending hard coal mining subsidies by adopting a Council Decision that prescribes their phaseout by the end of 2018 (Council of the European Union, 2010).

4 The G20 has initiative a system of Peer Reviews, whereby governments are able to exchange their experiences, shifting support away from fossil fuels. Argentina, Canada, China, Germany, Indonesia, Italy, Mexico and the United States have either completed or are in the process of completing their peer reviews of fossil fuel subsidies (OECD, n.d.).

- Spain's draft NECP points to Spain's Agenda for Change which refers to the need to adapt the tax system for a 21st-century economy, including its 'new green taxation – alignment of taxation with environmental impact'. Spain refers to an in-depth study – to be led by the Ministry of Finance – which, where appropriate, will internalise environmental externalities and adopt tax measures to support the low-carbon transition. Spain also highlights several exemptions from its hydrocarbon tax and reduced tax rates for specific uses of fossil fuels, including, for example, the use of such fuels in agricultural vehicles. The total subsidy provided for different fuels is estimated at €5.9 billion based on data from the tax authority. While not discussed in its NECP, Spain's coal subsidies are currently under investigation for non-compliance with EU law (European Commission, 2017b).

The draft NECPs of the six countries that include some concrete steps to end fossil fuel subsidies can be further improved by making the phase-out plans comprehensive, and by including a set date and trajectory for ending all remaining fossil fuel subsidies.

3.3 Plans for wider green fiscal reforms are discussed

Of 28 Member States, 14 discuss plans for green fiscal reforms in their draft NECPs. Interestingly, many Member States do not explicitly discuss plans to end fossil fuel subsidies in this context, even though ending fossil fuel subsidies should form part of wider green fiscal reforms. Countries whose draft NECPs incorporate a discussion of wider green fiscal reforms include:

- Ireland, which mentions the introduction of a carbon tax in 2010, part of an environmental tax reform agenda based on the 'polluter pays' principle (whereby those who cause pollution should bear the costs of managing it to prevent damage to human health or the environment), that has been increasing ever since. While Ireland's draft NECP mentions a report on its environmental subsidies in 2018, which includes some to fossil fuels (CSO, 2018), and refers to a public consultation which saw some stakeholders call for a strategy to remove fossil fuel subsidies, it remains unclear whether and how Ireland plans to do this.
- Portugal also refers to its carbon tax levy, and highlights that the rate of this levy (10%) and the levy on coal used to produce electricity (also 10%) will increase gradually to 100% by 2022. Income generated through these levies will be used to support decarbonisation. Portugal's submission, however, does not address any measures that might work in the opposite direction by supporting the production and use of fossil fuels. The section requesting a description of energy subsidies is omitted in the draft, despite evidence of such subsidies (Gençsü et al., 2017).
- Relative to other countries, Sweden provides more detailed information on its efforts to reduce tax benefits to fossil fuels and to align the Swedish tax system with climate goals in support of its goal to become the world's first country to phase-out the use of fossil fuels. However, like Ireland and Portugal, it does not explicitly recognise existing tax benefits to fossil fuels as fossil fuel subsidies, nor does it, when it discusses its efforts to reform the tax system, recognise these efforts as fossil fuel subsidy phase out efforts – even though they can be seen as such. Sweden highlights, for example, that it has made efforts to reduce the reimbursement of the CO_2 tax on diesel use in machinery until 2015, but that payments were increased again between 2016 and 2018. It also mentions that it introduced a tax on commercial air travel in April 2018 and that it has chosen to use energy and CO_2 taxation above the minimum levels set out in the energy tax directive.

The finding that half of the EU Member States discuss their efforts on carbon pricing and other green fiscal reforms reflects a common tendency for governments to highlight their positive actions, while insufficiently addressing their ongoing support to fossil fuels. Green fiscal policy reform is crucial to achieve climate goals across the EU. However, for these reforms to succeed in aligning countries with a climate-compatible energy path, they need to comprise

plans to end fossil fuel subsidies. Member States are therefore advised to explicitly discuss fossil fuel subsidies and their plans to end them as part of broader fiscal reform.

3.4 The draft NECP states that information on fossil fuel subsidies will follow in the final version

Of 28 Member States, seven (Austria, Czech Republic, Latvia, Lithuania, Malta, Slovakia and Spain) write that (additional) information on energy subsidies, including fossil fuel subsidies, will be included in the final version of their NECPs. A number of these countries already include some information on fossil fuel subsidy measures, even if they are often not recognised as fossil fuel subsidies.

- The Czech Republic states that a more detailed description of energy subsidies, including those to fossil fuels, will be included in the final version of its NECP. However, it also states that there are no national policies, schedules and measures planned to gradually phase out energy subsidies beyond those mentioned elsewhere in the strategy documents. While other sections of the draft NECP do discuss renewable energy subsidies and highlight examples of fossil fuel subsidies (including tax reductions for the use of natural gas in transport and the use of liquefied petroleum gas (LPG)) no concrete plans are discussed to end these support measures for fossil fuels. Rather, the fossil fuel subsidies are labelled as transition support.
- Latvia mentions the elimination of two fossil fuel subsidies – the reduced excise duty rates that apply to fossil fuels mixed with biofuels and the energy consumption subsidies that were ended after the liberalisation of the electricity market. It writes that it will update the section on energy subsidies, including fossil fuel subsidies, in the final version of the plan.
- Lithuania writes that information on fossil fuel subsidies will follow in the final version of the plan. However, under a different section of its NECP, Lithuania refers to a 2014 study that mapped environmentally harmful subsidies. This identified 37 measures, amounting to 79% of the national budget subsidies and 22% of EU support subsidies. Lithuania mentions that the study proposed to review tax subsidy incentives, including those related to energy, with a view to gradually abandoning them. While Lithuania provides relatively detailed information (but no specific figures) for some of its fossil fuel subsidies, and highlights reform recommendations from a 2014 study, it does not clarify whether it has any plans to end these subsidies. Lithuania should clarify this in the final version of its NECP.
- Slovakia writes that the section on 'national policies, timelines and measures planned to phase out energy subsidies, in particular for fossil fuels', and the section that asks for a description of energy subsidies will be completed in its final NECP.

For the Member States that have not yet included information on fossil fuel subsidies in their draft NECPs, but have indicated that they will do so in their final NECPs, it is recommended they make use of pre-existing, country-specific research on the topic, including reports published by, among others, the European Commission, the Organisation for Economic Co-operation and Development (OECD) and ODI and CAN Europe (Trinomics, 2019; OECD, 2018; Gençsü et al., 2017).

3.5 Some fossil fuel subsidies are discussed, but without concrete steps to end them

Of 28 Member States, eight (Ireland, Lithuania, the Netherlands, Poland, Romania, Slovakia, Slovenia and the United Kingdom) discuss fossil fuel subsidies in their draft NECPs to some extent, but do not suggest concrete steps to end them:

- In the section that asks for a description of energy subsidies, Romania highlights two examples: aid to decrease energy poverty, including a social tariff for electricity that was in place until 1 January 2018 (208 million Romanian lei (RON) in 2015) and aid for heating and subsidies for heat, applying directly to the energy price (RON 900

million in 2015). In the section that asks for policies and measures to achieve low emission mobility, Romania points to the gradual phase-out of fossil fuel subsidies and to measures described in other sections of the NECP to achieve this. However, while other sections do discuss the use of fiscal measures to support low-carbon transition, they do not mention concrete plans to end fossil fuel subsidies. As discussed in the draft NECP submitted to the European Commission, one reviewer highlights the importance of including a commitment and a timeline to gradually eliminate fossil fuel subsidies and a plan to ensure that the freed resources are redirected to sustainable investments in the final NECP (comment by WWF in Hungary's NECP).

- Slovakia mentions one example of a fossil fuel subsidy: the Slovak Transmission System Operator (TSO) received €1 million in EU funding from the Connecting Europe Facility for a fossil gas pipeline (the Eastring gas pipeline) that will pass through Slovakia, Hungary, Romania and Bulgaria. While the NECP discusses that the Slovak Republic should consider abolishing the tax differential between petrol and diesel fuel (which would reduce fossil fuel subsidies), and that support for electricity generation from coal and lignite should be abolished, it does not clarify whether the country actually plans to undertake reform or how.

The countries that provide information on fossil fuel subsidies, but that do not provide any concrete plans to end them are advised to add concrete reform plans for the identified fossil fuel subsidies in their final NECPs, including a date by which they are planned to be phased out.

3.6 Fossil fuel subsidies are not discussed

Of 28 Member States, 10 (Belgium, Croatia, Cyprus, Finland, Greece, Luxembourg, Poland, Portugal, Slovenia and Sweden) either have not included a section on energy subsidies, have left the section that asks for 'national policies, timelines and measures planned to phase out energy subsidies, in particular for fossil fuels' blank, or simply have not included a discussion on fossil fuel subsidies in that section. However, this does not necessarily mean that these countries do not mention fossil fuel subsidies at all in their draft NECPs; some reiterate their commitment to end (some) subsidies to fossil fuels or they discuss fossil fuel subsidies without recognising them as such. Moreover, the lack of coverage of fossil fuel subsidies does not imply that they do not exist in these countries, as research commissioned by the European Commission shows that all EU Member States subsidise the use and/or production of fossil fuels to some extent (Trinomics, 2019). Examples of insufficient reporting on fossil fuel subsidies include:

- Luxembourg highlights that, according to the government's plans for 2018–2023, it aims to adjust taxation of petroleum products (fuels and heating oil) in accordance with Paris Agreement goals. It also highlights that it has set up an energy and climate fund which is financed through the fuel and motor vehicle tax. It mentions its continued support for a comprehensive EU strategy to end support to nuclear, coal, fracking and carbon capture and storage (CCS). While it reiterates its commitment to aligning fiscal measures with climate goals, including those of the EU, it does not provide any information on, nor any country-specific plans to phase out, fossil fuel subsidies.
- Slovenia, which similarly does not include a section on 'national policies, timelines and measures planned to end energy subsidies, particularly for fossil fuels', nor the section that asks for a description of energy subsidies in its draft NECP, even if it does reiterate its commitment to reduce fossil fuel subsidies in a different section (as discussed under section 3.1).

The countries that have not included any (explicit) information on fossil fuel subsidies can look to pre-existing, country-specific research into the topic published by, among others, the European Commission, the OECD and ODI and CAN Europe to improve their NECPs (see also Annex 1).

3.7 Member State claims that no fossil fuel subsidies exist in the country

Of 28 Member States, six (Bulgaria, Denmark, France, Hungary, the Netherlands and the United Kingdom) state or imply that no fossil fuel subsidies exist in their country, even though research commissioned by the European Commission shows that all EU Member States subsidise the use and/or production of fossil fuels to some extent (Trinomics, 2019).

- The Netherlands states that 'the Netherlands has no grants or subsidies for fossil fuels'. However, the European Commission estimates subsidies for fossil fuels in the Netherlands at €2.47 billion a year between 2014 and 2016, compared to €1.1 billion in subsidies for renewable energy (Trinomics, 2019). Analysis by ODI and CAN Europe (Gençsü et al., 2017) estimates the Netherlands' fossil fuel subsidies (including public finance and support from SOEs) at €7.6 billion per year between 2014 and 2016. In the section on energy prices and subsidies, the draft NECP discusses several reduced tax rates that apply to the use of fossil fuels. While the Netherlands recognises that these reduced tax rates or tax exemptions for the use of energy may lead to higher levels of fossil energy use, these support measures are not considered fossil fuel subsidies and, accordingly, the country concludes that it has none. Since the publication of its draft NECP, the Dutch government has started a process to identify a definition for a fossil fuel subsidy and to map its fossil fuel subsidies to be able to act on the topic. This suggests that the Netherlands will be able to significantly improve its final NECP on this topic.
- The UK's draft NECP states that the section on 'national policies, timelines and measures planned to phase out energy subsidies, in particular for fossil fuels subsidies' is not applicable to the UK. As with the Netherlands, data from the European Commission, the OECD, and ODI and CAN Europe suggests otherwise. The European Commission estimates UK fossil fuel subsidies at €11.87 billion a year between 2014 and 2016 compared to €7.76 billion in subsidies to renewable energy (Trinomics, 2019). ODI and CAN Europe estimate government support to fossil fuels in the UK at €14.6 billion a year between 2014 and 2016 (Gençsü et al., 2017). Despite its claim that the section on fossil fuel subsidies is not applicable to it, the UK's draft NECP is full of examples of fossil fuel subsidies. In other sections of the NECP the UK discusses that it has a strategy to maximise the economic recovery of petroleum from the UK Continental Shelf, that it has abolished the petroleum revenue tax, has cut the supplementary charge and that it supports seismic surveys to this end. The UK writes in its draft NECP that the tax benefits provided to oil and gas exploration (introduced in 2015 and 2016) have a combined value of £2.3 billion. The UK additionally highlights that it continues to support the development of the British shale gas industry, including £1.6 million in support to local decision-makers in dealing with shale planning applications over the next two years. Even though the UK does not recognise the support provided to the fossil fuel industry as subsidies, these tax benefits are a form of government support that runs counter to the UK's commitments to end fossil fuel subsidies and to meet its climate goals. Elsewhere in its NECP the UK writes that it will use all government tools available to support innovation in a low-carbon economy, including market design, taxation and regulation.

The countries that claim or imply that they have no fossil fuel subsidies are advised to reassess and correct this information in their final NECPs. The first internationally agreed methodology for reporting on fossil fuel subsidies developed by the United Nations Environment Programme (UNEP), OECD and International Institute for Sustainable Development (IISD) (UNEP et al., 2019) covers direct transfers, tax expenditures and price support. The OECD and the European Commission similarly look at these subsidy types and, according to their research, all EU Member States provide fossil fuel subsidies (OECD, 2018; European Commission, 2019e). Since the UNEP et al. (2019) definition and methodology will

be used to examine progress towards the SDGs, it will be difficult for EU Member States to continue to maintain that no fossil fuel subsidies exist in their countries. EU Member States still have an opportunity to correct their claim that no fossil fuel subsidies exist in their countries in their final NECPs. Another useful resource that governments can use is the IISD's *A guidebook to reviews of fossil fuel subsidies* (Gerasimchuk, Wooders et al., 2017).

3.8 The introduction of new fossil fuel subsidies is discussed

Of 28 Member States, five (Germany, Greece, Poland, Slovenia and the United Kingdom) discuss the introduction of new fossil fuel subsidies without recognising that this is incompatible with their commitments to end these subsidies. These include:

- Greece's draft NECP, which does not include the section on 'national policies, timelines and measures planned to phase out energy subsidies'. However, in other sections Greece mentions that it will introduce a subsidy aimed at replacing diesel boilers with fossil-gas-fired boilers (worth €15 million).
- Poland's draft NECP, which similarly does not include a section on energy subsidies. However, in other sections it discusses subsidies for underground fossil gas storage, a 6.7 billion Polish zloty (PLN) (€1.4 billion) fund for low-carbon transport, which will in part go to fossil liquefied natural gas (LNG) and compressed natural gas (CNG). It also discusses the potential use of EU funds for projects in the gas sector, including LNG infrastructure. Rather than listing these support measures as fossil fuel subsidies, Poland labels them as measures that are beneficial to the energy transition.
- Despite including several steps to remove or reduce fossil fuel subsidies, Germany's draft NECP also shows that the country plans to introduce new fossil fuel subsidies by using tax incentives (subsidies) to fund fossil gas as a fuel until 2026, even though Germany does not explicitly identify this support as a new fossil fuel subsidy.

Countries that discuss the introduction of new fossil fuel subsidies in their draft NECPs are advised to consider and clarify how this affects their commitments and efforts to end fossil fuel subsidies in their finalised NECPs.

4 Conclusions and recommendations

This analysis shows that significant improvements need to be made to the coverage of fossil fuel subsidies in the NECPs for these to be an effective tool for turning longstanding climate commitments into action. None of the draft NECPs provides a comprehensive overview of fossil fuel subsidies, nor a clear plan to phase them out. There are six Member States which claim that no fossil fuel subsidies exist in their countries, while data from the European Commission, the OECD, and ODI and CAN Europe shows otherwise. Of the draft NECPs, five discuss the introduction of new fossil fuel subsidies, without addressing how this affects their subsidy phase-out commitments.

As noted in the introduction, the NECPs are not only intended as a planning instrument but also as a tool to measure performance against climate targets and commitments. In their current form, the variation in the level of detail of fossil fuel subsidy information included, and the contradictory coverage whereby measures are listed but not recognised as subsidies, suggests that reporting and planning requirements in line with the European Commission's recommendations on fossil fuel subsidy phase-out are not being met.

Member States still have an opportunity to improve their draft NECPs over the next few months. The country-level recommendations published by the European Commission in June 2019 (European Commission, 2019d) help provide guidance on how this can be done. Our analysis supports and builds on those and, to help turn the NECPs into a truly effective tool for tracking progress towards fossil fuel subsidy phase-out, recommends that Member States and the European Commission:

1. **Use a comprehensive, unified and shared definition for reporting on fossil fuel subsidies which covers all significant financial flows.** Reporting should at least cover direct transfers, tax expenditures and price support. These support measures are also covered by the methodology developed by UNEP, OECD and IISD, based on the widely agreed World Trade Organization definition of a subsidy, that will be used to track country-level progress towards the SDGs and phase-out commitments. Although reporting on the transfer of risks to a government (such as public finance) is optional under this methodology – because of issues with data availability and complexity – EU governments are advised to include as far as possible this type of support alongside coverage of SOE investments in their reporting and phase-out plans. Aligning *all* financial flows with climate goals is crucial to achieving the Paris Agreement objectives. In order to further guide reporting efforts, the European Commission should provide an agreed definition as well as a reporting template, one which also requires Member States to include a phase-out date for each subsidy (by 2020 at the latest), based on available templates (see, for example, Gerasimchuk, Wooders et al., 2017).
2. **Cover international financial flows in their reporting efforts and phase-out plans.** When countries take steps to end fossil fuel subsidies at the national level, but at the same time continue to support the production and use of oil, gas and coal abroad with public finance or export credit support, this undermines the positive effects of the domestic phase-out efforts. Currently none of the Member States cover international fossil fuel support in their draft NECPs, so this should be improved.

3. **Make use of and list all existing resources to map energy subsidies, including those allocated to fossil fuels.** These include reports and databases published by the OECD (2018), the European Commission (2019e), and ODI and CAN Europe (Gençsü et al., 2017).
4. **Include plans to end fossil fuel subsidies as soon as possible and preferably by the end of 2020** to meet longstanding commitments to end environmentally harmful subsidies, including those to fossil fuels, by this date. Governments should also commit to continue monitoring and reporting on progress towards phasing out fossil fuel subsidies within the Energy Union Governance framework, as well as clarifying synergies with linked efforts such as carbon pricing and just energy transition.
5. **Include in the European Commission's State of the Energy Union reporting a mapping of the support to fossil fuels provided by the EU.** The EU budget, its financial instruments and EU public banks still provide significant support to fossil fuels, estimated at €4 billion a year (Gençsü et al., 2017). This support is not covered in the Energy Prices and Costs report published by the European Commission (Trinomics, 2019) and is not included as part of the reporting on fossil fuel subsidies in the NECPs.
6. **Ensure coordination with parallel fossil fuel subsidy phase-out processes**, including the EU process directed at ending environmentally harmful subsidies by 2020, the implementation of the Paris Agreement through the Nationally Determined Contributions, the SDGs, the G7, and the G20.

As discussed above, while transparency issues remain, our analysis shows that it is not a lack of fossil fuel subsidy data, phase-out commitments or available tools to guide reform processes that explain the limited action on fossil fuel subsidies by Member States and EU institutions.

The NECP process has the potential to help turn longstanding phase-out promises into action, but government reporting on subsidies and their phase-out plans needs to be much more aligned and comprehensive, and should allow governments and EU institutions to be held to account when it comes to turning their promises into action. By following the recommendations provided above and those provided by the European Commission, Member States can significantly improve their reporting on fossil fuel subsidies and phase-out plans in the final NECPs due by the end of 2019.

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Annex 1 Estimates of fossil fuel subsidies in the draft NECPs and in other data sources

AUSTRIA

Austria's draft NECP states that a list of subsidies that run counter to climate and energy targets will be prepared by June 2019 by the Federal Ministry of Finance (BMF) and will be considered for inclusion in the final NECP in the second half of 2019. Austria aims to use this list as a starting point for abolishing counterproductive subsidies. At the time of writing, the authors were unable to find the list of subsidies.

- The country's intention to end fossil fuel subsidies is reiterated.
- Plans for wider green fiscal policy reforms are discussed.
- Information on fossil fuel subsidies will be added to the finalised NECP.

Available fossil fuel subsidy estimates
European Commission (2019e): €1.23 billion (annual average 2014–2016)
OECD (2018): €689 million (annual average 2014–2016)
Note: The OECD numbers show an increase in support to fossil fuels between 2014 and 2017. This increase can be explained by an increase in support provided through energy tax refunds for energy-intensive industries as well as by an increase in energy tax exemption support to the use of kerosene in commercial aviation.

Renewable energy subsidy estimates
European Commission (2019e): €1.21 billion euros (annual average 2014–2016)

Source: https://www.bmnt.gv.at/umwelt/klimaschutz/nekp-entwurf.html

BELGIUM

Belgium's draft NECP leaves empty the section that asks for 'national policies, timelines and measures planned to phase out energy subsidies, in particular for fossil fuels'. Elsewhere in the draft NECP, Belgium does discuss a number of ways in which energy subsidies are used as a social protection measure. To support the energy transition, for example, subsidies are available to vulnerable

households so that they can make their homes more energy efficient. There is also support for the consumption of fossil fuels. The social heating fund, for example, is used to subsidise heating oil bills for low-income households, and a social tariff exists for electricity and natural gas. While fossil fuel subsidies are not explicitly discussed, the section on policies and measures for GHG emissions removal highlights the intention to develop a new environmentally friendly energy taxation scheme that will be developed jointly with the Federal and Regional Governments by 2021. It highlights that the new instruments will have to be consistent with any other tax reforms to maintain the international competitiveness of companies and provide for a policy that supports citizens. Each region is set to conduct a review of the future greening of (para)fiscal taxes and the elimination of subsidies that are harmful to the climate. The NECP also highlights that further feasibility studies are needed on a national carbon tax. Belgium will also advocate a change in value-added tax (VAT) on climate-friendly investments with the EU Commission.

- The country's intention to end fossil fuel subsidies is reiterated.
- Section on energy and fossil fuel subsidies left empty.
- Discusses plans for wider green fiscal policy reforms.

Available fossil fuel subsidy estimates
European Commission (2019e): €2.49 billion (annual average 2014–2016)
OECD (2018): €2.24 billion (annual average 2014–2016)
Climact (2019): €4 billion (annual average 2014–2016)
Note: The OECD numbers show an increase in support to fossil fuels between 2014 and 2017. This increase can be explained by an increase in support provided through fuel tax reductions for gas and diesel oil and by an increase in fuel tax rebates for taxi drivers and freight transport that use gas and diesel oil.

Renewable energy subsidy estimates
European Commission (2019e): €1.5 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/ec_courtesy_translation_be_necp.pdf

BULGARIA

In the sections of the draft NECP that ask for information on Bulgaria's fossil fuel subsidies, Bulgaria states that this information is 'not applicable', suggesting that energy subsidies, including those to fossil fuels, do not exist in the country. The draft NECP highlights that the country will consider financial incentives to promote alternative energies and that energy taxes to reduce final energy consumption could be introduced in the country.

- Member State claims that no fossil fuel subsidies exist in the country

Available fossil fuel subsidy estimates
European Commission (2019e): €0.19 billion (annual average 2014–2016)
Note: Since the Bulgarian government, the OECD, and ODI and CAN Europe as well as other research institutions have not published research into Bulgaria's fossil fuel subsidies, there is very limited transparency on fossil fuel subsidies.

Renewable energy subsidy estimates
European Commission (2019e): €0.44 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/ec_courtesy_translation_bg_necp.pdf

CROATIA

Croatia's draft NECP does not include a section on energy subsidies. As such, it does not provide any information on fossil fuel subsidies or on plans to phase them out. The NECP does highlight other fiscal measures, including CO_2 taxes. It also highlights that tax incentives will be introduced from 2021 to stimulate companies to introduce a certified energy management system.

- Section on energy and fossil fuel subsidies not included.

Available fossil fuel subsidy estimates
European Commission (2019e): €0.12 billion (annual average 2014–2016)
Note: Since the Croatian government, the OECD, ODI and CAN Europe as well as other research institutions have not published research into Croatia's fossil fuel subsidies, there is very limited transparency on fossil fuel subsidies in Croatia.

Renewable energy subsidy estimates
European Commission (2019e): €0.16 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/croatia_draftnecp_en.pdf

CYPRUS

Cyprus leaves empty the section that asks for 'national policies, timelines and measures planned to phase out energy subsidies, in particular for fossil fuels'. The NECP does extensively discuss subsidies to renewable energy technologies and provides estimates for these subsidies for several years (2008–2017). It also highlights that reduced tariffs are available for vulnerable consumers. The NECP also highlights that the government is examining a fiscally neutral green tax reform that ought to contribute to the transition – a gradual implementation of environmental taxes to sectors not part of the EU ETS, and at the same time a reduction of expenses related to, for example, labour costs. It highlights that this is expected to contribute to energy efficiency, to a reduction in emissions, to an increase in renewable energy sources, and to have positive effects on the economic performance of Cyprus.

- Section on energy and fossil fuel subsidies left empty.
- Discusses plans for wider green fiscal policy reforms.

Available fossil fuel subsidy estimates
European Commission (2019e): €0.1 billion (annual average 2014–2016)
Note: Since Cyprus' government, the OECD, ODI and CAN Europe as well as other research institutions have not published research into Cyprus' fossil fuel subsidies, there is very limited transparency on fossil fuel subsidies in Cyprus.

Renewable energy subsidy estimates
European Commission (2019e): €0.04 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/cyprus_draftnecp.pdf

CZECH REPUBLIC

Czech Republic's NECP states that a more detailed description of energy subsidies, including those to fossil fuels, is to be included in the final version of the NECP. It also states that there are no national policies, schedules or measures planned to gradually phase out energy subsidies, including those to fossil fuels, beyond the measures mentioned elsewhere in the strategy documents. No plans to end fossil fuel subsidies were found elsewhere in the strategy document. In other sections, however, the draft NECP does highlight a number of fossil fuel subsidies, without labelling them as such. These include tax exemptions and reduced tax rates, for example, for passenger vehicles weighing less than 12 tonnes using alternative fuels, the use of natural gas in transport, for biofuels and LPG. The draft NECP also discusses a number of preferential tax rates for renewable energy technologies.

- Information on fossil fuel subsidies to be added to the finalised NECP.

Available fossil fuel subsidy estimates
European Commission (2019e): €0.17 billion (annual average 2014–2016)
OECD (2018): €0.2 billion (annual average 2014–2016)
ODI/CAN (Gençsü et al., 2017): €1.17 billion (annual average 2014–2016)

Renewable energy subsidy estimates
European Commission (2019e): €1.64 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/ec_courtesy_translation_cz_necp_0.pdf

DENMARK

Denmark's draft NECP mentions its participation in the Friends of Fossil Fuel Subsidy Reform coalition. In the section that asks for timelines, policies and measures to phase out energy subsidies, including those to fossil fuels, Denmark states that it does not have a tradition of subsidising fossil fuels. Accordingly, it provides none of the information requested. The section that asks for a description of energy subsidies only discusses renewable energy subsidies and not fossil fuel subsidies. While Denmark, being part of the Friends of Fossil Fuel Subsidy Reform coalition, rhetorically supports fossil fuel subsidy reform, in its draft NECP the country suggests that it does not provide fossil fuel subsidies. Research by both the European Commission and the OECD, however, shows otherwise.

- Member State claims that no fossil fuel subsidies exist in the country.

Available fossil fuel subsidy estimates
European Commission (2019e): €0.36 billion (annual average 2014–2016)
OECD (2018): €0.40 billion (annual average 2014–2016)

Renewable energy subsidy estimates
European Commission (2019e): €0.98 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/denmark_draftnecp.pdf

ESTONIA

Estonia's draft NECP provides a non-exhaustive description of fossil fuel subsidies and values for several subsidy measures and plans to phase them out, or reasons not to phase them out. Estonia uses the OECD definition to identify fossil fuel subsidies. It highlights that the biggest energy subsidies go to the consumption of fossil fuels. Subsidies mentioned include support to vulnerable households and excise duty exemptions on solid fuel used by households. In addition, a table provides an overview of subsidies to legal entities including their value. These include, among others, excise duty exemptions for diesel used in inland fishing, lower excise duty for diesel and light heating oil used in agriculture, excise duty exemption for gas used for keeping the natural gas system operable, etc. Estonia is not planning to end the reduced excise duty for diesel fuels and light heating oil because it allegedly supports the competitiveness of agriculture, nor for electricity produced from peat or oil shale since, according to Estonia, it is not possible to build power plants operating on the efficient cogeneration mode due to limited heat demand.

Overall, Estonia plans to redirect taxes to shift the burden from taxation of income to taxation of consumption, use of natural resources and pollution of the environment. Estonia is considering ending the excise duty exemption by amending the Alcohol, Tobacco, Fuel and Electricity Excise Duty Act. Estonia also discusses the use of emission and natural resource charges, as stipulated in the Environmental Charges Act. Estonia's draft NECP also highlights that, in a public consultation on the NECP, environmental groups called for subsidies for oil energy production and peat to be eliminated and for the chapter on fossil fuel subsidies to provide more detail.

- The country's intention to end fossil fuel subsidies is reiterated.
- Fossil fuel subsidies are discussed, as well as some steps towards ending them.
- Plans for wider green fiscal policy reforms are discussed.

Available fossil fuel subsidy estimates
European Commission (2019e): €0.07 billion (annual average 2014–2016)
OECD (2018): €0.05 billion (annual average 2014–2016)

Renewable energy subsidy estimates
European Commission (2019e): €0.09 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/ec_courtesy_translation_ee_necp.pdf

FINLAND

Finland does not discuss fossil fuel subsidies or plans to phase them out in its NECP. It does, however, state that Finland taxes fossil fuels heavily, that the difference compared to countries outside the EU is considerable and that it uses energy taxation to mitigate climate change. It describes how taxation has shifted from being focused on liquid fuels to focusing on a CO_2 tax. It also discusses the use of energy taxation to promote renewable energy. At the same time, Finland highlights the importance of electricity tax reliefs and refunds for competitiveness of industries. The consumer price of electricity for households and industry is below the EU average.

- No discussion on fossil fuel subsidies in the draft NECP.
- Discusses (plans for) wider green fiscal policy reforms.

Available fossil fuel subsidy estimates
European Commission (2019e): €1.11 billion (annual average 2014–2016)
OECD (2018): €1.66 billion (annual average 2014–2016)

Renewable energy subsidy estimates
European Commission (2019e): €0.35 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/finland_draftnecp.pdf

FRANCE

While in its draft NECP France claims that no fossil fuel subsidies exist in the country, as the price of fossil fuels is increased through the use of a carbon tax, research by, among others, the European Commission and the OECD shows that fossil fuel subsidies in France are significant. The European Commission's estimates even suggest that support to fossil fuels remains higher than support provided to renewable energy. Other sections of the NECP do discuss fossil fuel subsidies, but do not provide any plans to phase them out.

At the same time, the draft NECP mentions that France aims for Paris to become the world capital for green finance and that France is the first country to demand that its investors publish information on the impact of their activities on the climate. Subsidies that are mentioned in other sections of the NECP include a €65 million subsidy for research and development (R&D) into fossil energy (7% of the total energy R&D budget). The NECP also discusses several preferential tax measures designed to support the energy transition (including for heat pumps).

- Claims that no fossil fuel subsidies exist in the country.
- Discusses (plans for) wider green fiscal policy reforms.

Available fossil fuel subsidy estimates
European Commission (2019e): €7.51 billion (annual average 2014–2016)
OECD (2018): €4.9 billion (annual average 2014–2016)
ODI/CAN (Gençsü et al., 2017): €12.2 billion (annual average 2014–2016)
Note: The OECD data suggests that between 2014 and 2016 France's fossil fuel subsidies increased significantly, from €4.3 billion in 2014 to €6.2 billion in 2017. This can be explained by an increase in support provided for most tax measures. The biggest increases in support are for the excise-tax exemption for fuel used in certain boats, the excise-tax refund for diesel used in road freight transport, and the reduced rate of excise tax for energy products for energy-intensive industries that are subject to the GHG emission allowance scheme.

Renewable energy subsidy estimates
European Commission (2019e): €6.08 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/france_draftnecp.pdf

GERMANY

In its draft NECP, Germany reiterates its commitment to end fossil fuel subsidies as part of the G20, mentions its participation in the G20 peer review process, its biannual subsidy reporting efforts, as well as its plans to end subsidies for hard coal, in accordance with EU regulations. The draft NECP provides estimates for hard coal subsidies, as well as a concrete timeline for their phase-out: subsidies that raise profits will be paid until 2018, follow-up measures continue until 2022 and payments to employees will cease by the end of 2027. Germany explicitly addresses how subsidies are phased out in a way that supports a just transition.

The NECP also discusses energy tax breaks for manufacturing and energy-intensive industries, and mentions that these are being evaluated in terms of efficiency and need. Energy tax exemptions for the use of energy to generate electricity and tax relief for agriculture, inland waterway transport, as well as

electricity-price compensation for the costs passed on into the electricity price from the EU ETS are also mentioned, but these are maintained as, according to the draft NECP, they support Germany's or the EU's competitiveness and are in line with EU (state aid) rules.

When it comes to measures intended to support the energy transition, Germany discusses the use of tax measures to promote renewable energy (cooperatives) and building renovation, but also to fund fossil gas as a fuel until 2026. According to the NECP, the federal government has shown interest in expanding natural-gas-powered mobility, especially through the use of biogas.

In all, while Germany provides significantly more detail on fossil fuel subsidies and concrete plans to end some of these, the information provided on Germany's fossil fuel subsidies and the phase-out plans are not comprehensive enough to ensure full phase-out by 2020 or by 2025 at the latest. Thanks to the German government's biannual reporting on subsidies, including those to fossil fuels, and to its participation in the G20 fossil fuel subsidy peer review process, Germany is relatively transparent on its fossil fuel subsidies compared to other Member States.

- Commitments to end fossil fuel subsidies are reiterated.
- Fossil fuel subsidies are discussed, as well as some steps to end them.
- Discusses plans for wider green fiscal policy reforms.
- Discusses the introduction of new fossil fuel subsidies.

Available fossil fuel subsidy estimates
European Commission (2019e): €9.56 billion (annual average 2014–2016)
OECD (2018): €4.82 billion (annual average 2014–2016)
ODI/CAN (Gençsü et al., 2017): €35.7 billion (annual average 2014–2016)

Renewable energy subsidy estimates
European Commission (2019e): €25.97 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/ger_draft_necp_eng.pdf

GREECE

Greece's draft NECP does not include a section that explicitly addresses fossil fuel subsidies or plans to phase these out. However, the draft NECP does discuss a number of fossil fuel subsidies – even if they are not recognised as such. The draft NECP mentions a subsidy of €15 million aimed at replacing diesel boilers with gas-fired boilers. The NECP also discusses schemes being considered to tackle energy poverty, possibly through state subsidies. If these support schemes promote the use of fossil fuels, these will lead to an increase in fossil fuel subsidies. Incentives to encourage the use of fossil gas are also discussed, including a deduction for interconnection charges and a competitive price for gas.

In addition, the NECP discusses several subsidies to promote renewable energy (including hydropower and retrofitting buildings, electric vehicles) as well as the use of tax measures to promote emission reductions in the transport sector in accordance with EU policy, encourage investments in energy efficiency, as well as alternative fuels in transport. While fiscal measures that will encourage renewable energy or promote the use of lower-carbon fuels are discussed, no fiscal measures are presented that will discourage the use or production of fossil fuels.

- Section on energy and fossil fuel subsidies not included.
- Discusses plans for wider green fiscal policy reforms.
- Discusses the introduction of new fossil fuel subsidies.

Available fossil fuel subsidy estimates (annual average 2014–2016)
European Commission (2019e): €0.71 billion
OECD (2018): €2.29 billion
ODI/CAN (Gençsü et al., 2017): €5.5 billion
Note: The OECD data suggests that fossil fuel subsidies have decreased in Greece between 2014 and 2017, down from €2.5 billion in 2014 to €1.5 billion in 2017. This reduction can be explained by an end to post-retirement benefits to Public Power Cooperation group pensioners, a significant reduction in support provided through excise-tax reductions for fuels used in agriculture, and a reduction in subsidies for petroleum-based small and off-grid power generators on remote islands using fuel oil.

Renewable energy subsidy estimates (annual average 2014–2016)
European Commission (2019e): €1.31 billion

Source: https://ec.europa.eu/energy/sites/ener/files/documents/ec_courtesy_translation_el_necp.pdf

HUNGARY

Hungary's draft NECP states that no fossil fuel consumption (it does not mention production) subsidies exist in Hungary. Data gathered by the European Commission, the OECD and ODI and CAN Europe, however, shows otherwise. Research by the European Commission even suggests that Hungary's support to fossil fuels is almost four times as high as support provided to renewable energy. While Hungary's draft NECP claims that no fossil fuel consumption subsidies exist in the country, it does discuss a number of renewable energy subsidies provided (feed-in tariffs, subsidies to renewable energy-based electricity generation, state aid for electric transport). Because of price regulation, household electricity prices are the third lowest in Europe, and industrial electricity prices are significantly lower still. According to Hungary these prices are kept low for competitiveness reasons. Similarly, gas prices are among the lowest in the EU and large industrial energy consumers face lower taxes and levies than medium-sized consumers.

- Member State claims that no fossil fuel subsidies exist in the country.

Available fossil fuel subsidy estimates
European Commission (2019e): €0.66 billion (annual average 2014–2016)
OECD (2018): €0.37 billion (annual average 2014–2016)
ODI/CAN (Gençsü et al., 2017): €0.38 billion (annual average 2014–2016)

Renewable energy subsidy estimates
European Commission (2019e): €0.17 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/ec_courtesy_translation_hu_necp.pdf

IRELAND

Ireland's draft NECP mentions that the Central Statistics Office published a report on Ireland's environmental subsidies in 2018, which also provides data on potentially environmentally damaging subsidies, including: a number of subsidies to fossil fuels, such as fuel tax rebates; a Public Service Obligation (PSO) levy for electricity generation from peat; support for the petroleum infrastructure group and a diesel rebate scheme. The total of these subsidies (including a subsidy for agricultural products) was estimated at €172 million in 2016. The draft NECP also highlights that in the public consultation on the NECP a number of stakeholders mentioned the need for a strategy for the removal of fossil fuel use and subsidies. Stakeholders also called for the elimination of subsidies to peat burning.

While not providing a comprehensive strategy for the reform of fossil fuel subsidies, Ireland's draft NECP does discuss some planned measures to improve the tax system to promote the energy transition. The NECP mentions that Ireland introduced a carbon tax in 2010 that has been increased since. The introduction of the carbon tax was part of an environmental tax reform agenda in line with the polluter pays principle. In addition, Ireland provides information on renewable energy subsidies (a support scheme for renewable heat, a proposed renewable electricity support scheme). While Ireland provides significantly more detail on fossil fuel subsidies provided in the country than other Member States, the information provided on Ireland's fossil fuel subsidies and the phase-out plans presented are not comprehensive.

- Provides specific information on fossil fuel subsidies.
- Discusses plans for wider green fiscal policy reforms.

Available fossil fuel subsidy estimates
European Commission (2019e): €1.23 billion (annual average 2014–2016)
OECD (2018): €0.8 billion (annual average 2014–2016)

Renewable energy subsidy estimates
European Commission (2019e): €0.12 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/ireland_draftnecp.pdf

ITALY

Italy's draft NECP reiterates its commitment, under the G20, to eliminate inefficient subsidies for fossil fuels and to do so by 2025 as part of the G7. It mentions the European Commission's roadmap to a resource-efficient EU that calls for an end to fossil fuel subsidies across the EU by 2020. As part of its rationale for ending fossil fuel subsidies, Italy highlights that this is necessary to keep global warming below 1.5°C and that from an economic and environmental point of view all fossil fuel subsidies are inefficient. While from a social point of view some subsidies are deemed important to protect vulnerable groups, Italy acknowledges that it is possible to use other economic instruments to help the most deprived without changing energy and natural resource prices.

Italy mentions its participation in the G20 peer review process to this end as well as its fossil fuel subsidy reporting efforts in its 'catalogue of environmentally harmful and environmentally beneficial subsidies' (Ministry of Environment, Land & Sea (Italy), 2016), which suggests areas of intervention and reform to free up resources for investments in sustainable development. The draft NECP provides an overview of the findings of this study, including the values for the different types of subsidies. It highlights that of the €30.7 billion in subsidies provided to energy, €16.9 billion is made up of fossil fuel subsidies (45 measures). It also lists 30 specific subsidy measures that have a significant environmental impact and are listed as 'need to be reformed as a matter of priority' in the table. Combined, these amounted to €3.2 billion in 2017. Next to that, Italy lists 10 subsidies that require further technical analysis, three that would require reform at EU or global level and 12 energy subsidies that are deemed favourable to the environment. Italy mentions that the catalogue published by the government provides a number of options for subsidy reform. Some fossil fuel subsidies are seen as easier to reform than others, some require agreement at EU level (VAT, free ETS allowance) or on a global level (fuel tax exemptions for aviation and shipping).

In order to move towards subsidy reform, Italy is assessing a proposal for a progressive, gradual reduction of environmentally harmful subsidies in the energy sector, with the reuse of recovered revenue in energy transition investments and to compensate those who benefit from the subsidies so as to increase acceptance of the reforms. Alternatively, the freed-up government revenue can be used

to invest in climate change projects, to reduce labour and capital income taxation or to reduce public debt. Italy highlights that, thanks to the identification of subsidies, it is now possible to develop tax reform proposals that shift the tax burden away from labour and polluting activities. Both Italy's rhetoric on fossil fuel subsidies and its transparency are much better than those of other EU Member States. Still, Italy has not yet presented a comprehensive plan (which is pending) nor specific steps to reform those fossil fuel subsidies that are listed as of urgent priority.

- Commitments to end fossil fuel subsidies are reiterated.
- Fossil fuel subsidies are discussed as well as some steps to end them.
- Discusses plans for wider green fiscal policy reforms.

Available fossil fuel subsidy estimates
European Commission (2019e): €6.64 billion (annual average 2014–2016)
OECD (2018): €12.78 billion (annual average 2014–2016)
ODI/CAN (Gençsü et al., 2017): €17.8 billion (annual average 2014–2016)

Renewable energy subsidy estimates
European Commission (2019e): €12.34 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/ec_courtesy_translation_it_necp.pdf

LATVIA

Latvia's draft NECP acknowledges that in addition to direct subsidies, according to information provided by the European Commission, measures such as tax credits, tax exemptions, grants, loans, capacity mechanisms are also regarded as subsidies. Latvia states that it will update information on the topic in the final version of the NECP.

In the draft NECP, Latvia highlights one effort to reduce energy subsidies in the country: a proposal was approved in 2017 to eliminate excise duty rates that apply to biofuels and fossil fuels mixed with biofuels. In a different section, Latvia discusses subsidies provided to vulnerable households that were introduced after subsidies to all energy consumers were ended after liberalisation of the electricity market, and which were provided in the form of a discount. While Latvia's draft NECP highlights this concrete step taken to reduce a fossil and biofuel subsidy, it does not provide any detailed information on other fossil fuel subsidies or plans to reform them, but it announced that more information will follow in its finalised NECP.

- Information on fossil fuel subsidies to follow in the final NECP.
- Fossil fuel subsidies are discussed as well as some steps to reform them.

Available fossil fuel subsidy estimates
European Commission (2019e): €0.19 billion (annual average 2014–2016)
OECD (2018): €0.25 billion (annual average 2014–2016)

Renewable energy subsidy estimates
European Commission (2019e): €0.14 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/ec_courtesy_translation_lv_necp.pdf

LITHUANIA

In the section that asks for 'national policies, timelines and measures planned to phase out fossil fuel subsidies', Lithuania writes that this information will follow in the final version of the NECP. However, right above this section, under 'policies and measures to achieve other national targets' Lithuania already refers to a 2014 study that mapped environmentally harmful subsidies, which identified 37 harmful subsidies, amounting to 79% of the national budget subsidies and 22% of EU support subsidies. Lithuania mentions that the study proposed a review of tax subsidy incentives, including those related to energy, and the possibility of gradually abandoning them. However, it does not clarify whether this has been adopted as policy.

Lithuania does include relatively detailed information on its energy subsidies in the section that asks for a description of energy subsidies. A table provides an overview of subsidies based on a country profile from the European Environmental Agency, which includes 10 fossil fuel subsidies, 10 renewable energy subsidies and two biofuel subsidies. Fossil fuel subsidies listed include an excise-tax exemption for fuels used in agriculture and fisheries, reduced VAT and excise rates for heating, excise-tax reductions for fuel oil that meets certain criteria, excise-tax reduction on coal used for business needs for licensed purchasers, excise-tax exemption on the use of natural gas in public transport, excise-tax exemption for the use of natural gas in electricity and heat, excise-tax exemption for the use of coal and oil in electricity and heat production, and an excise-tax exemption for home use of LPG. For none of these subsidies is Lithuania able to provide an estimate (stating 'no estimate available').

While Lithuania provides relatively detailed information (but no specific amounts) for some of its fossil fuel subsidies, and highlights recommendations from a study from 2014 on reforming fossil fuel subsidies in its NECP, the NECP is not clear on the country's reform intentions or plans, though more information is due to follow in Lithuania's final NECP.

- Information on fossil fuel subsidies to follow in the final NECP.
- Fossil fuel subsidies are discussed but no concrete steps to reform them.

Available fossil fuel subsidy estimates
European Commission (2019e): €0.09 billion (annual average 2014–2016)
OECD (2018): €0.28 billion (annual average 2014–2016)

Renewable energy subsidy estimates
European Commission (2019e): €0.12 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/lithuania_draftnecp_en.pdf

LUXEMBOURG

In its draft NECP Luxembourg does not provide any information on fossil fuel subsidies or on plans to phase them out. Luxembourg does, however, highlight that, in accordance with the coalition agreement for 2018–2023, it plans to adjust taxation of petroleum products (fuels and heating oil) in line with the goals of the Paris Agreement. It also highlights that it has set up an energy and climate fund which is financed through the fuel and motor vehicle tax. In addition, it highlights its continued support for a comprehensive EU strategy to end support to nuclear, coal, fracking and CCS. It also discusses several support measures for renewable energy (including for electric mobility and investments in more energy-efficient buildings). As such, Luxembourg highlights its commitment to (some) fossil fuel subsidy reform, but does not provide country-specific information or reform plans.

- Commitments to end fossil fuel subsidies are reiterated.
- Section on fossil fuel subsidies left empty or not included.
- Discusses plans for wider green fiscal policy reforms.

Available fossil fuel subsidy estimates
European Commission (2019e): €0.02 billion (annual average 2014–2016)
OECD (2018): €0.02 billion (annual average 2014–2016)

Renewable energy subsidy estimates
European Commission (2019e): €0.08 billion (annual average 2014–2016)

Source: https://mea.gouvernement.lu/dam-assets/actualites/2019/NECP-draft-LUX.pdf

MALTA

In the section that asks for 'national policies, timelines and measures planned to phase out fossil fuel subsidies', as well as in the section that asks for a description of energy subsidies, Malta mentions that, if applicable, these will be included in the final version of the NECP. Elsewhere in the plan Malta does point to a tax credit scheme for combined heat and power units (which use LPG), hybrid vehicles and motor vehicles with limited capacity. Only if Malta provides additional information on fossil fuel subsidies in its final NECP will it be possible to assess progress on subsidy phase-out in the country.

- Information on fossil fuel subsidies to follow in the final NECP.

Available fossil fuel subsidy estimates
European Commission (2019e): €0.01 billion (annual average 2014–2016)
Note: Since Malta's government, the OECD, ODI and CAN Europe as well as other research institutions have not published research into Malta's fossil fuel subsidies, there is very limited transparency on fossil fuel subsidies in Malta.

Renewable energy subsidy estimates
European Commission (2019e): €0.01 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/malta_draftnecp.pdf

NETHERLANDS

In its draft NECP, the Netherlands claims that it does not provide any fossil fuel subsidies. Research by the European Commission, the OECD, and ODI and CAN Europe shows otherwise. Furthermore, research by the European Commission shows that fossil fuel subsidies in the Netherlands dwarf the support provided to renewable energy technologies. Despite claiming that no fossil fuel subsidies exist in the country, there is a section that discusses the structure of energy prices and subsidies, which highlights: a number of reduced tax rates (e.g. natural gas used for heating in the horticulture sector or used as an input for electricity production); a refund scheme for energy taxes paid by religious and non-profit institutions; and exemptions from excise duty for coastal and inland waters and for the use of kerosene in international aviation.

When it comes to support to renewable energy, the Netherlands highlights a number of reduced tax rates or tax exemptions for self-generated or locally generated renewable energy. While the Netherlands recognises that the energy tax exemptions or reduced tax rates may lead to high levels of fossil energy consumption, it does not recognise these support measures as fossil fuel subsidies and therefore

concludes that it has none. As such it is difficult, based on the draft NECP, to assess progress on fossil fuel subsidy phase-out. Since the publication of its draft NECP, the Dutch government has started a process to define fossil fuel subsidy and to map its fossil fuel subsidies to facilitate action. This suggests that the Netherlands will be able to significantly improve its final NECP.

- Claims that no fossil fuel subsidies exist in the country.
- Fossil fuel subsidies are discussed but no concrete steps to reform them.

Available fossil fuel subsidy estimates
European Commission (2019e): €2.47 billion (annual average 2014–2016)
OECD (2018): €0.17 billion (annual average 2014–2016)
ODI/CAN (Gençsü et al., 2017): €7.6 billion (annual average 2014–2016)

Renewable energy subsidy estimates
European Commission (2019e): €1.1 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/netherlands_draftnecp_en.pdf.pdf

POLAND

Poland's draft NECP does not include the section on 'national policies, timelines and measures planned to phase out fossil fuel subsidies', nor does it include the section that asks for a description of energy subsidies. As such, Poland does not provide any specific information on its subsidies or plans to phase them out. In other sections of the draft NECP Poland does discuss subsidies for underground fossil gas storage, subsidies for thermal upgrading works to improve energy efficiency of poor households, a PLN 6.7 billion fund for low-carbon transport, which will in part go to fossil LNG and CNG, as well as to biofuels, EU funds for energy efficiency in fossil gas transmission, distribution and underground gas storage facilities, funding to support energy (electricity and fossil gas) security, the potential use of the EU budget's Connecting Europe Facility (CEF) grants for LNG infrastructure, and the potential use of EU funds as part of the multiannual financial framework (MFF) for 2021–2027 for projects in the gas sector. As such, while Poland's NECP does not provide any information on plans to end fossil fuel subsidies, it does highlight a number of support measures to fossil fuels as well as plans to introduce new ones (support for gas and LNG infrastructure among others) including the use of EU funds – suggesting that this supports the energy transition. The introduction of new fossil fuel subsidies is incompatible with Poland's commitment to end fossil fuel subsidies.

- Section on fossil fuel subsidies left empty or not included.
- Fossil fuel subsidies are discussed but no concrete steps to reform them.
- Discusses the introduction of new fossil fuel subsidies.

Available fossil fuel subsidy estimates
European Commission (2019e): €0.83 billion (annual average 2014–2016)
OECD (2018): €4.7 billion (annual average 2014–2016)
ODI/CAN (Gençsü et al., 2017): €5.2 billion (annual average 2014–2016)

Renewable energy subsidy estimates
European Commission (2019e): €1.14 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/ec_courtesy_translation_pl_necp_part_1.pdf

PORTUGAL

In the section that asks for 'national policies, timelines and measures planned to phase out fossil fuel subsidies' in its draft NECP, Portugal highlights the introduction of a 10% tax on coal used to produce electricity in addition to a 10% carbon tax levy. It highlights that the rates will increase gradually to 100% by 2022. Income generated through these levies will be used to support decarbonisation. The section that asks for a description of energy subsidies provided in Portugal is not included in the NECP. While Portugal provides information on plans to increase taxation of fossil fuels, it does not provide a comprehensive overview of subsidies provided to fossil fuels nor a comprehensive plan to phase them out.

- No discussion on fossil fuel subsidies in the draft NECP.
- Discusses plans for wider green fiscal policy reforms.

Available fossil fuel subsidy estimates
European Commission (2019e): €0.7 billion (annual average 2014–2016)
OECD (2018): €0.2 billion (annual average 2014–2016)

Renewable energy subsidy estimates
European Commission (2019e): €1.15 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/ec_courtesy_translation_pt_necp.pdf

ROMANIA

Romania's draft NECP provides some information on energy subsidies, including those to fossil fuels. In the section that asks for a description of energy subsidies Romania highlights two examples: aid to decrease energy poverty, including a social tariff for electricity that was in place until 1 January 2018 (RON 208 million in 2015) and aid for heating and subsidies for heat, applying directly to the energy price (RON 900 million in 2015).

In the section that asks for policies and measures to achieve low emission mobility, Romania points to the gradual phase-out of fossil fuel subsidies and to similar measures described in other sections of the NECP (on energy efficiency measures, economic investment policies, reduction of GHG). While other sections do discuss the use of economic incentives and pricing instruments (especially in the transport system) to support the low-carbon transition, they do not mention concrete plans to end fossil fuel subsidies. One of the reviewers of Romania's draft NECP (WWF) highlights that it is of utmost importance that a commitment and a timeline to gradually eliminate fossil fuel subsidies and ensure that freed resources are redirected towards sustainable investments is included in the plan.

- Commitments to end fossil fuel subsidies are reiterated.
- Fossil fuel subsidies are discussed but no concrete steps to reform them.

Available fossil fuel subsidy estimates
European Commission (2019e): €0.07 billion (annual average 2014–2016)
Note: Since Romania's government, the OECD, ODI and CAN Europe, or other research institutions have not published research into Romania's fossil fuel subsidies, there is very limited transparency on fossil fuel subsidies in the country.

Renewable energy subsidy estimates
European Commission (2019e): €0.01 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/romania_draftnecp_en.pdf

SLOVAKIA

In the section that asks for 'national policies, timelines and measures planned to phase out energy subsidies, in particular for fossil fuels', Slovakia writes that this information will be completed in the final version of the NECP. The same statement is provided in the section that asks for a description of energy subsidies, including for fossil fuels. One fossil fuel subsidy is already mentioned: the Slovak TSO received EU (CEF) funding for €1 million for a fossil gas pipeline (Eastring gas pipeline) that should pass through Slovakia, Hungary, Romania and Bulgaria. In other sections Slovakia does discuss the renewable and low-carbon subsidies provided, including a subsidy for family home insulation and for the installation of renewable energy sources, for renewable energy R&D, and plans to provide subsidies for electric cars and plug-in hybrids and charging stations.

In the section on taxation of energy products Slovakia highlights that the country has a relatively low income from environmental taxes and that the tax rate on energy is also low. There is therefore considerable scope for tax reform. It also discusses that Slovakia should consider abolishing the tax differential between petrol and diesel fuel, which would reduce fossil fuel subsidies, and should also increase taxation of car use by businesses. It also says that support for electricity generation from coal and lignite should be abolished. For none of these subsidy phase-out opportunities does Slovakia clarify whether it plans to undertake reforms, but this information might follow in the final NECP where more information on fossil fuel subsidies is due to be included.

- Information on fossil fuel subsidies to follow in the final NECP.
- Fossil fuel subsidies are discussed but no concrete steps to reform them.

Available fossil fuel subsidy estimates
European Commission (2019e): €0.26 billion (annual average 2014–2016)
OECD (2018): €0.21 billion (annual average 2014–2016)

Renewable energy subsidy estimates
European Commission (2019e): €0.44 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/ec_courtesy_translation_sk_necp.pdf

SLOVENIA

Slovenia does not include the section that explicitly asks for 'national policies, timelines and measures planned to phase out, in particular for fossil fuels' in its draft NECP, nor does it include a description of its energy subsidies. However, in a section on green economic growth Slovenia reiterates its commitment to reduce fossil fuel subsidies. It says that subsidies that encourage inefficient use of fossil fuels and that are inconsistent with the objectives of reducing GHG emissions will be gradually reduced. These efforts will be supplemented by incentives to increase efficiency in the use of fuels to preserve competitiveness and prevent fuel poverty.

In the section on transport, Slovenia also highlights the need to phase out subsidies for the use of fuel/reimbursement of excise duties in relation to the enforcement of new measures. When it comes to renewable energy subsidies, Slovenia highlights those that promote electricity generation from renewables and subsidies for the purchase of electric-powered vehicles. However, the NECP also highlights the possibility that hydrogen and LPG used as fuels, as well as CNG supply points, will receive subsidies. In addition, Slovenia warns that subsidies that oppose the objective of reducing GHG emissions have increased in the transport sector, while at the same time subsidies directed at GHG emission reduction have decreased.

It highlights that within the framework of green budgetary reform an in-depth analysis of incentives that do not contribute to environmental goals was performed. The study recommended the gradual and reasonable reform of these incentives. Slovenia also highlights that continued environmentally harmful subsidies show that there are still gaps in coordination in the area of green economic growth. Even though Slovenia identifies a number of reform opportunities, it does not provide comprehensive information on subsidies, nor does it provide specific plans to phase them out.

- Section on fossil fuel subsidies left empty or not included.
- Commitments to end fossil fuel subsidies are reiterated.
- Fossil fuel subsidies are discussed but no concrete steps to reform them.
- Discusses the introduction of new fossil fuel subsidies.

Available fossil fuel subsidy estimates
European Commission (2019e): €0.07 billion (annual average 2014–2016)
OECD (2018): €0.15 billion (annual average 2014–2016)

Renewable energy subsidy estimates
European Commission (2019e): €0.44 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/ec_courtesy_translation_si_necp.pdf

SPAIN

In the section on 'national policies, timelines and measures planned to phase out energy subsidies, in particular for fossil fuels' in its NECP, Spain points to its agenda for change which refers to the need to adapt the tax system to the economy of the 21st century, including through 'new green taxation – alignment of taxation with environmental impact'. Spain states that the Ministry of Finance will lead an in-depth study and, where appropriate, will internalise environmental externalities as well as adopt tax measures to support a low-carbon, climate-resilient economy.

In the section that asks for a description of energy subsidies, Spain mentions several exemptions from the hydrocarbon tax. In addition it highlights several reduced tax rates for specific uses of fossil fuels, including the use of fuels in agricultural vehicles. Spain also provides total subsidy estimates for the different fuels based on data provided by the tax authority. The total is estimated at approximately €5.9 billion. While not discussed in its NECP, Spain's coal subsidies are currently under investigation for non-compliance with EU law.

- More information on fossil fuel subsidies to follow in the final NECP.
- Commitments to end fossil fuel subsidies are reiterated.
- Fossil fuel subsidies are discussed and some plans to reform them.
- Discusses plans for wider green fiscal policy reforms.

Available fossil fuel subsidy estimates
European Commission (2019e): €5.23 billion (annual average 2014–2016)
OECD (2018): €2.16 billion (annual average 2014–2016)
ODI/CAN (Gençsü et al., 2017): €1.77 billion (annual average 2014–2016)

Renewable energy subsidy estimates
European Commission (2019e): €8.89 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/spain_draftnecp.pdf

SWEDEN

Sweden's draft NECP does not include the section that asks for 'national policies, timelines and measures planned to phase out energy subsidies, in particular for fossil fuels'. Nor does it include the section requesting a description of energy subsidies. While not mentioned in the draft NECP, Sweden has previously collected information on its fossil fuel subsidies for a government publication on environmentally harmful subsidies. Even though Sweden does not provide a list or estimate of fossil fuel subsidies, it does provide relatively detailed information on initiatives to reduce tax benefits (which are subsidies) to fossil fuels and to generally align the Swedish tax system with climate goals in its draft NECP.

In terms of energy taxation, Sweden highlights that it has chosen to tax energy and CO_2 (including energy tax on fuels and electricity) above the minimum rate set out in the EU energy taxation directive. Nevertheless, there are several exemptions to these taxes – including the CO_2 tax (because of 'leakage' risks, whereby high levels of taxation in one country may lead to higher emissions in other countries). Fuels used for electricity production are not subject to the energy or CO_2 taxes, though the electricity produced is. An exemption to the CO_2 tax applies to the manufacturing industry covered by EU ETS. The exemption previously extended also to the agriculture, forestry and aquaculture sectors, but these benefits were abolished in January 2018.

The NECP sets out a series of energy-related tax measures applied in Sweden. Both an energy and a CO_2 tax are levied on petrol, diesel, natural gas, blended biofuels in the transport sector, and fuels used in heating – a reform of 1 July 2019 brought in tax changes for petrol and diesel along with an emission reduction obligation on petrol and diesel suppliers (and large consumers). There are two forms of vehicle taxation, one based on carbon and one based on weight. The agriculture, forestry and aquaculture sectors continue to benefit from a reduced energy tax on heating fuels. CO_2 tax breaks on these sectors were due for removal, but have been extended. Sweden also introduced a tax on air travel on 1 April 2018, aimed at commercial flights and paid by passengers travelling from Swedish airports.

Overall, the draft NECP presents the Swedish government's aim to make Sweden one of the world's first fossil-free countries, mobilising society as a whole. To this end the government has launched the fossil-free Sweden initiative, incorporating both broad-based and closely targeted measures.

All told, the Swedish government has committed SEK 300 million annually between 2018 and 2040 for the industrial leap – alongside EU funding to support the low-carbon transition.

- Section on fossil fuel subsidies left empty or not included.
- Fossil fuel subsidies are discussed and some concrete plans to reform them.
- Discusses plans for wider green fiscal policy reforms.

Available fossil fuel subsidy estimates
European Commission (2019e): €1.02 billion (annual average 2014–2016)
OECD (2018): €1.91 billion (annual average 2014–2016)
ODI/CAN (Gençsü et al., 2017): €1.99 billion (annual average 2014–2016)

Renewable energy subsidy estimates
European Commission (2019e): €0.61 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/sweden_draftnecp.pdf

UNITED KINGDOM

In the section on 'national policies, timelines and measures planned to phase out energy subsidies, in particular for fossil fuels' in its NECP, the UK writes that this is not applicable to the UK. In the section on the description of energy subsidies, including for fossil fuels, the UK points solely to other sections for a description of support schemes for renewables. This suggests that the UK is of the opinion that it does not provide any fossil fuel subsidies.

Analysis by the European Commission, OECD and ODI and CAN Europe shows otherwise, with estimates for these subsidies amounting to up to £14.57 billion (€18.99 billion) per year (2014-2016 average, based on conversion rates at the time). Research by the European Commission suggests that fossil fuel subsidies in the UK continue to dwarf support to renewable energy technologies.

Elsewhere in its draft NECP, the UK writes that it has a strategy to maximise the economic recovery of petroleum from the UK Continental Shelf and lists several subsidies that have been introduced to this end. For example, the UK has abolished the petroleum revenue tax, has cut the supplementary charge, and supports seismic surveys to find more oil and gas in the UK Continental Shelf. In addition, the UK writes that operators can transfer part of their tax history when assets change hands to facilitate the transfer of late-life oil and gas assets. This allows new investors to benefit from tax relief measures when assets are decommissioned. These tax benefits to oil and gas exploration and production (introduced in 2015 and 20106, with a combined value of £2.3 billion according to the draft NECP) amount to fossil fuel production subsidies that run counter to the UK's commitment to end these and also run counter to the UK's climate goals.

In addition, the draft NECP highlights that the UK continues to support the development of the British shale gas industry, including £1.6 million to support local decision-makers in dealing with shale planning applications over the next two years. The UK also discusses that it received grant funding from the EU's CEF for gas transmission projects in the UK as well as for electricity transmission projects. By contrast, elsewhere in the draft NECP the UK writes that it will use all government tools available to support innovation in a low-carbon economy, including market design, taxation and regulation. The UK highlights examples of support measures to lower-emission vehicles, plug-in vehicles, a lower company car tax and lower rates for vehicle excise duty for these modes of transport, and support for electric vehicle (EV) infrastructure. The UK highlights the carbon price support rate (a minimum carbon price that applies to support the EU ETS), but also says that this does not apply to energy generators in Northern Ireland, which provides a benefit for these operators. Other subsidies that are highlighted include subsidies to biomass generators, funding for energy efficiency, renewable obligations, feed-in tariffs and support for efficient homes (including funding provided by the EU), and funding for research and innovation in the power sector. The UK expects to invest £2.5 billion in R&D for the low-carbon transition between 2015 and 2021.

As well as the fossil fuel production subsidies discussed above, the draft NECP also discusses the introduction of new subsidies to fossil fuels, including an £11.3 million fund for alternatively fuelled (using fossil gas and diesel and gas) heavy goods vehicles. A number of subsidies provided through the Business, Energy and Industrial Strategy Energy Innovation Programme are highlighted, but some of these also support the continued use of fossil-fuel-based energy or infrastructure. The programme includes subsidies for research into hydrogen gas for heating (£25 million) and a £100 million fund for CCS. Unlike many other Member States, the UK does discuss international funding in its draft NECPs, but while the UK's contributions to international green finance (£5.8 billion) are highlighted, the international support for oil and gas developments worldwide provided by the UK remains unaddressed.

- Claims that no fossil fuel subsidies exist in the country.
- Fossil fuel subsidies are discussed but no concrete steps to reform them.
- Discusses the introduction of new fossil fuel subsidies.
- Discusses plans for wider green fiscal reforms.

Available fossil fuel subsidy estimates
European Commission (2019e): €11.87 billion (annual average 2014–2016)
OECD (2018): €15.48 billion (annual average 2014–2016)
ODI/CAN (Gençsü et al., 2017): €18.99 billion (annual average 2014–2016)

Renewable energy subsidy estimates
European Commission (2019e): €7.76 billion (annual average 2014–2016)

Source: https://ec.europa.eu/energy/sites/ener/files/documents/unitedkingdom_draftnecp.pdf

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