

Fossil fuel subsidies and the new EU Climate and Energy Governance Mechanism

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PHASING OUT FOSSIL FUEL SUBSIDIES IS ESSENTIAL FOR DECARBONISING EU ENERGY SYSTEMS

Providing the right price signals is essential part of the policy mix that is needed to achieve Europe's climate policy goals. Phasing out fossil fuel subsidies in the EU is an important part of aligning energy prices with the EU's climate and energy goals. Depending on how they are measured, combined fossil fuel subsidies in the EU range from 39 to over €200 billion per annum (European Commission, 2014). They therefore constitute a significant source of incoherence between the EU's climate mitigation and fiscal policies for energy.

THE REMOVAL OF FOSSIL FUEL SUBSIDIES HAS LARGELY STALLED IN EUROPE

However, there has recently been mixed progress in addressing fossil fuel subsidies in Europe. For instance, under the Europe 2020 Strategy, Member States had committed to begin developing plans for phasing out fossil fuel subsidies by 2020. Progress on implementing these plans was supposed to be monitored under the European Semester. However, the decision was taken to remove the focus on energy and fossil fuel subsidies from the European Semester in 2015. As yet, no new system for governing the phase-out of fossil fuel subsidies has been advanced, leaving the question of fossil fuel subsidy reform in limbo.

THE ENERGY UNION'S "NEW GOVERNANCE MECHANISM" CAN PUT IT BACK ON THE AGENDA

The advent of the EU's Energy Union project creates an opportunity for putting the phase-out of fossil fuel subsidies back on track in Europe. This could be done by including requirements for national goal setting on specific kinds of fossil fuel subsidies in a dedicated sub-section of the *National Climate and Energy Plans*. Progress on implementation should also be tracked through the *biennial reporting process* focusing on implementation of national plans. The door to reinserting specific climate and energy issues into the European Semester should not be closed either. In some instances there may be a need to bring finance ministers into the discussion on implementation of fiscal policy for climate and energy.

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INTRODUCTION

Providing the right price signals is an essential part of the policy mix that is needed to achieve Europe's climate policy goals. To be sure, price signals alone cannot address all barriers to decarbonisation. Non-price barriers such as infrastructure and technological path-dependency, split-incentives or non-optimising behaviour of energy users, and challenges related to the financial risks of capital intensive technologies call for other policy tools. Nevertheless, in market economies such as Europe's, prices remain one of the main vectors by which production and consumption choices about energy and GHG-intensive resources are made. They are therefore crucial for putting the EU on track to achieve its goal of an 80-95% reduction of GHG emissions by 2050.

Phasing out fossil fuel subsidies (FFS) in the EU is an important part of aligning energy prices with the EU's climate and energy goals. Depending on how they are measured, combined FFS in the EU range from 39 to over €200 billion per annum (European Commission, 2014). They therefore constitute a significant source of incoherence between the EU's climate mitigation and fiscal policies for energy.

However, there has recently been mixed progress in addressing FFS in Europe. For instance, under the Europe 2020 Strategy, Member States had committed to begin developing plans for phasing out FFS by 2020. Progress on implementing these plans were to be monitored under the European Semester. However, with the advent of the Energy Union, the decision was taken to remove the focus on energy and FFS from the European Semester in 2015. As yet, no new system for governing the phase-out of FFS has been advanced, leaving the question of fossil fuel subsidy reform in limbo.

The purpose of this paper is therefore to explore whether and how fossil fuel subsidy reform could be dealt with under the new governance mechanism that the EU is establishing to ensure that the goals of the Energy Union project are achieved. Specifically, this paper aims to:

- Highlight the importance of FF subsidy reform to the EU's climate and energy goals.
- Give an overview of current EU governance tools for phasing out FFS and identify potential gaps for the post-2020 period.
- Explore opportunities presented by the EU's post-2020 C&E governance mechanism for improving EU oversight of FFS and accelerating their phase-out.
- Explore practical questions relating to the definition of and data on FFS and what indicators could be tracked by the EU to monitor progress.

1. FOSSIL FUEL SUBSIDIES IN THE EUROPEAN UNION TODAY

1.1. Defining fossil fuel subsidies

Generally speaking, a subsidy is any form of payment or economic benefit that is granted by a government to an economic undertaking in order to promote an activity that may not otherwise be economically viable and which is deemed in the public interest. However, estimating the level of FFS in Europe depends on which specific economic benefits one includes in the calculation. There are three main methods that are used, each of which has their strengths and weaknesses. These are:

- *The "pre-tax price gap" method:* This approach compares the level of pre-tax energy prices faced by end-users to a reference price that reflects an

estimate of the full cost of supply, usually based on international reference prices for fossil fuels, minus relevant transport and distribution costs. The price gap is then multiplied by domestic consumption levels of the energy source to estimate the total subsidy amount.

- *The “after-tax price gap” method:* This approach is like the price gap method except that it also includes reference tax levels to account for environmental externalities, such as CO₂, local pollution and health costs, in the reference price that is used to calculate the price gap.
- *The “inventory” method:* This approach looks at the set of government expenditures instead of prices. It sums total government budget outlays (direct payments) and total ‘tax expenditures’ (indirect payments, such as tax credits) to energy producers and consumers to arrive a figure for total subsidies.

Each of these approaches has its own strengths and weaknesses. For instance, the pre-tax method shows how end user prices differ from a competitive market benchmark. However, it does not capture subsidies that are not reflected in end-user energy prices (such as tax reductions, which can be a large share of subsidies). The after-tax price gap method shows the effect of a failure to fully price environmental externalities and consequently estimates tend to be higher than the other two methods. However, it is highly dependent on assumptions about the appropriate level of externality pricing for different countries and fuels. The inventory method gives a price picture of actual fiscal outlays to support fossil fuel production and consumption. However, not all governments give detailed breakdowns of tax expenditures and therefore tax benchmarks must be used to calculate indirect subsidy levels. Subsidy estimates may therefore be higher or lower depending on the benchmarks used.

1.2. Fossil fuel subsidies in Europe

In Europe, the most detailed studies of FFS have made use of the inventory method. The most recent study, conducted by the European Commission in 2014, and based on 2010 and 2011 data, used the recommended tax rates in the EU’s Energy Taxation Directive as a benchmark. This methodology found that FFS totalled €39 billion in the EU28 (in 2011 Euros). It found that *direct* payments to fossil fuel producers and consumers were around €6 billion. Large items in this category consisted of direct support to energy users (€1 billion), which were mainly made up of tax

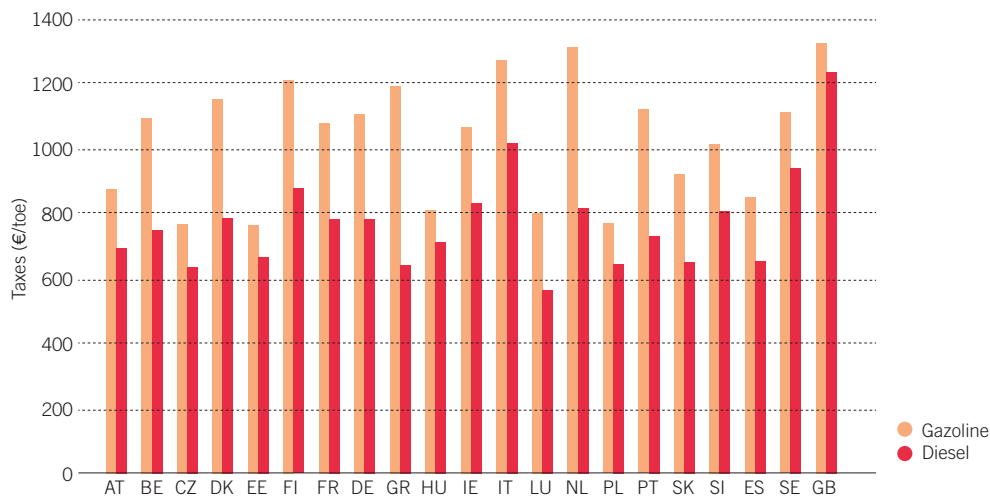
reimbursements to energy intensive industries and fuel allowance policies to consumers. In addition 5 billion in direct payments was given to energy producers. This included items such as support for coal mining in Germany, Poland, and Spain, Italian support schemes for cogeneration using fossil fuels, and other support for gas infrastructure.

In addition, tax deductions included 5 billion in specific exceptions from VAT rates which were not broadly applied to other products. These exceptions were focused in a couple of Member States. On the other hand, almost all member states were found to provide significant reductions in excise tax rates (especially for diesel in the transport sector), ranging from 100 million to several billions of Euros by Member States and summing to 28 billion in reductions in excise taxes at EU level. The majority (€33 billion) of FFS in the EU was therefore found to consist of tax deductions targeted specifically to energy, especially for excise taxes.

1.3. Differences in energy taxes between Member States and ‘like’ fuels

The above described estimation from the Commission study (2014) used an excise tax benchmark defined in terms of the recommended minimum tax rates in the EU’s Energy Taxation Directive. A tax level below this minimum is recorded as a subsidy. However, it also provided an alternative estimate based on the *highest applied excise tax rate* among all Member States for the fuel and sector in question. A tax rate below this level is recorded as a subsidy. Indeed, Member States apply quite different tax rates on energy, not only between member states for the same fuel but also *between* fuels that compete in the same sector. This is particularly true for gasoline and diesel (Figure 1), where many EU countries tax diesel significantly less stringently than diesel, despite its higher share of consumption for transportation. Lower tax rates on diesel compared to gasoline are thus a common source of implicit FFS in Europe, according to this methodology.

The approach of benchmarking tax rates to ‘best in class’ described above is also imperfect. There may be good reasons why poorer Member States would decide lower tax rates, in absolute terms, on energy sources, but which may turn out to be equal as a share of per capita income, etc. On the other hand, in the EU context, there are at least two specific problems that need addressing where a focus on differential tax rates on energy appear pertinent. Firstly, EU Member States tax diesel and gasoline at very different rates (Figure 1), although

Figure 1. Tax rates on gasoline vs diesel in selected EU countries

Source: IDDRI based on Enerdata (2015).

these fuels compete in the same market. This may raise concerns of an overdependence on diesel technology. A second issue relates to industrial competitiveness, where differential tax rates on energy used by energy intensive industries within the internal market may raise concerns.

1.4. Subsidies defined in terms of undertaxed externalities

By way of comparison, the after tax price gap approach conducted by the IMF in 2015 (and using 2013 data) finds that the EU under-prices energy by a total of \$295 billion once environmental externalities are taken into account (in 2013 dollars). This approach shows that, despite some outliers, the median EU country under-prices after tax energy by around 1.3% of GDP and around \$490 USD/capita, once environmental externalities are taken into account.

It is worth noting that the median EU country already has energy taxes in place worth 1.9% of GDP. Thus, the IMF calculations suggest that the median EU country tends to under-tax environmental externalities by roughly 68% (see Figure 1). The source of this under-taxation appears to stem mainly from insufficient pricing of CO₂ externalities, from foregone energy tax consumption revenue due to fuel tax exemptions or reduced rates, and from local pollution externalities (especially from diesel and coal).

Figure 2 also suggests that, roughly speaking, if the typical EU Member State ensured that fossil fuel energy externalities were priced appropriately, then energy tax rates would be between 2.5 and 5% of GDP (albeit with some exceptions in

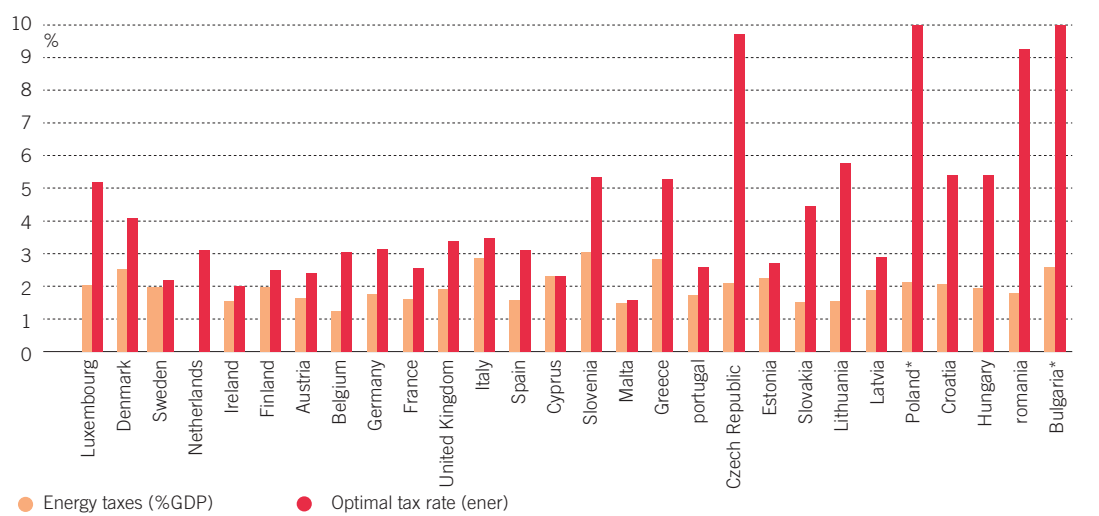
countries with lower per capita GDP). This would therefore be a possible indicator that there were no FFS in the EU. (Note that the interpretation of the results for very low income countries must be interpreted with some caution.)¹

1.5. The impact of fossil fuel subsidies in Europe

Depending on how they are defined and estimated, Europe's FFS highlight different types of problems for the EU's climate policy goals. If FFS are defined as under the inventory approach as reflecting actual budgetary transfers by governments to energy producers and consumers, then they highlight examples of policy incoherence. It makes no sense for the EU to be introducing carbon pricing, subsidising loans for energy efficiency improvements, or subsidising low carbon technologies like renewable energy or electrification of transport, if they are simultaneously undermining these incentives by subsidising fossil fuels themselves. The above measures therefore show that, while the EU's pre-tax FFS are perhaps not as egregious as those of some other countries, the EU still has significant room to improve policy

1. Note that higher after-tax price gaps are inversely correlated with GDP/capita levels. This is partly due to differences in environmental taxation levels, but it is also due to differences in environmental performance of the energy using assets in lower income countries as well as the fact that common externality prices were used by the IMF and these were not adjusted to account for different levels of GDP or purchasing power parity—thus lower income countries are found to have levels of externality pricing that are “too low”.

Figure 2. Current energy tax level and implied subsidy using the after tax price gap approach (EU28)



Source: IDDRI, based on IMF and Eurostat data.

*Poland's and Bulgaria's optimal tax rates under the IMF methodology are above 10% of GDP

effectiveness and cut back on budgetary waste from FFS.

Alternatively, if Europe's FFS are defined using the after tax price gap approach then they can be interpreted as sending a different policy message. Namely, they highlight the extent to which the EU's energy and environmental taxation regime is inconsistent with the goals of the EU's low-carbon transition (and environmentally sound fiscal policy more generally). This measure is, of course, imperfect, since it includes all environmental externalities and the "right" pricing of these externalities is a theoretical abstraction to some extent. Nevertheless, this indicator gives a meaningful indication of the extent to which incentives created by fiscal policy to shift away from fossil fuels are low or high compared to one useful set of economic criteria. By this measure, the above data shows that the EU is still a long way from having a sufficiently incentivising fiscal policy regime to reduce fossil fuel consumption in line with climate goals. The challenge remains in terms of defining the appropriate indicator: either in terms of externality pricing or the 'right' level of energy taxation (if it is not the minimum defined in the EU Energy Tax Directive, what should it be?).

This discussion suggests that, ideally, the EU should be monitoring both approaches to measuring FFS, as each can tell a useful part of the story about the adequacy and coherence of fiscal policies to climate goals. This issue is taken up in the next section, which looks at the existing governance arrangements in the EU for monitoring and phasing out FFS.

2. EU GOVERNANCE OF FOSSIL FUEL SUBSIDIES TODAY: AT A CROSSROADS

From a governance perspective, some might be tempted to argue that FFS are not a legitimate area of European competency. Subsidies and taxes are, after all, instances of fiscal policy, and the details of fiscal policy is generally acknowledged as an area of jealously guarded national competence by EU Member States. However, in practice, FFS overlap with a number of areas of long-established EU competency, such as state aid decisions in relation to coal mines, value added taxation on consumption, environmental policy, trade agreements, the internal market, and the Stability and Growth Pact relating to national fiscal policy. The EU therefore has a number of existing tools that it has deployed to varying degrees to monitor and coordinate Member State action on the main economic vectors of FFS. A brief survey of recent experience with these tools will be helpful to identify what gaps in the EU's governance system for phasing out FFS after 2020.

2.1. State aid for unprofitable coal mines

Under Council Decision 2010/787/EU, Member States agreed to prohibit the allocation of continued subsidies (which were allowed for under former Regulation 1407/2002) to uncompetitive coal mines and established conditions for the phase-out these subsidies. With the justification of easing the social impacts of their closure,

the Decision stated that Member States can only provide aid to uncompetitive coal mines until 2018 and only under certain conditions (such as that they must be closed by 2018 and have a dedicated closure plan). The Decision effectively means that mines currently receiving operating subsidies should be closed by 2018.

However, in practice, there has been strong political opposition to closure of uncompetitive mines in both Spain and Poland, and it is possible that the end of 2018 deadline may be extended. Recent experience in countries such as Poland or even discussions around the phase-out of coal-fired power plant in Germany, also make it very conceivable that additional mines that are currently not subject to a phase-out plan will need to be closed after 2018 and that the same arguments for subsidisation (managing social impacts) with need to be addressed beyond 2018.² Thus continued monitoring of the implementation of national mining closure plans and related fiscal policies are likely to be needed beyond 2020.

2.2. Harmonisation of energy taxation (Energy Taxation Directive)

However, as noted in the preceding section, direct subsidies to fossil fuel production such as coal mining, while significant, still represent only a small piece of the total EU fossil fuel subsidy pie. The majority of subsidies under the inventory method is composed of reductions in excess and VAT taxation; while the majority of post-tax subsidies came from inefficient pricing of environmental externalities. In principle, these forms of subsidies are treated under the EU's Energy Taxation Directive and the European Semester, although this has changed in the case of the latter recently.

Under the EU's Energy Taxation Directive (EU, 2003), the EU has sought to harmonise energy taxation rules by setting common rules for which fuels should be taxed, and setting minimum rates for taxation. However, the Directive, which has not been successfully revised since 2003, contains a number of weaknesses. Minimum tax levels have not been adjusted since 2003, which means that inflation has reduced their real value. These levels are also based on the volume of fuel rather than energy or CO₂ content, which means that the most CO₂ intensive fuels are often taxed less than

renewables (for instance, diesel is taxed less than biodiesel and coal is the least taxed fuel among all fuels).³

An ambitious attempt to address these weaknesses via a reform this Directive in 2011 ultimately proved unsuccessful due to strong opposition from Central and Eastern European Member States. The lack of an alternative reform proposal means that the EU currently has no coordinated strategy for creating more coherent taxation of energy and CO₂ in sectors not covered by its emissions trading scheme. As these sectors account for 55% of gross European CO₂ emissions (EEA, 2014), this represents a significant gap in the set of fiscal incentives that the EU needs to create to drive its energy transition.

2.3. Environmentally harmful subsidies under the 7th EAP and the European Semester

Another important policy lever that the EU has pursued in order to remove FFS and better align fiscal policy with energy and climate objectives has been via the European Semester. In 2010, the Europe 2020 Strategy for Smart Sustainable and Inclusive Growth called for the phasing out of environmental harmful subsidies, building on the conclusions of the G20 in 2009 to phase out FFS by 2020. This led to the 7th Environmental Action Program (EAP) of the EU of 2013, which set the phasing out of environmentally harmful subsidies as a priority objective and called on Member States to develop plans for their phase-out by 2020 (EU, 2013a). This process began by focusing explicitly on FFS, with were defined using the inventory method described above. Thus, they did not include an evaluation of inadequate pricing of environmental externalities.

Progress in implementing these phase-out plans were to be monitored under the European Semester, with Member States required to report on specific policies in their annual National Reform Programs. The Commission thus began to use the Annual Growth Survey to highlight progress and identify further scope for action (EU, 2013b) and using dedicated indicators to track progress under Alert Mechanism Report. Under this process, some Member States, such as Belgium and France, began to make include reforms to FFS (e.g. by reducing tax rate exemptions on fossil fuels) in the National Reform Programs.

However, the inclusion of FFS within the framework of the European Semester proved a politically

2. Since the 2010 Council Decision, Polish coal mining has suffered from further falls in coal prices. It has thus more recently approached the EU to request state aid approval for a restructuring of its 4 major coal mining companies.

3. http://europa.eu/rapid/press-release_MEMO-11-238_en.htm?locale=en

contentious issue with Member States. A desire to reduce the scope of country-specific recommendations in the Semester to a maximum of 5 key issues, plus the decision to create a dedicated EU governance mechanism for the goals of the European Energy Union in February 2015, has led to the removal of energy-related issues, including FFS and taxation, from the European Semester in 2015. This means that there is currently no dedicated mechanism at the EU level for tracking the implementation of the goals of the 7th EAP and reviewing the adequacy of energy taxation more generally.

2.4. Other EU policy tools to limit fossil fuel subsidies

The above examples are the main policy tools that the EU has pursued to date to phase out FFS. However, some additional but more limited tools also exist. These include:

- The State Aid Guidelines for Environment and Energy of 2014, which provided some limitations on the extent to which energy industries could receive exemptions from environmental taxation (European Commission, 2014a).⁴
- The EU's revised Regional Aid Guidelines of 2014, which strengthen the conditions under which aid can be granted to companies investing into economically and socially disadvantaged regions and thus make it more difficult for aid to fossil fuels producing projects to be given (European Commission, 2014b).
- The EU's 2014 State Aid Guidelines for Important Projects of Common European Interest, which require that such projects, which are eligible for EU funding on advantageous terms in the pursuit of important EU goals, "must respect the principle of phasing out environmentally harmful subsidies" (European Commission, 2014c).
- The recently proposed revision of the EU Emissions Trading Scheme Directive, which seeks to place stricter rules on the use of auctioning revenues in the new Member States for power plant modernisation (European Commission, 2015).
- Various statistical and analytical reports on energy market prices and taxes, including quarterly gas and electricity market reports, reports on retail electricity and gas prices, and a one off report on energy prices and costs in Europe, including an assessment of taxes and levies (European Commission, 2014).

4. Note, however, this issue is not a clear-cut case of limiting environmentally harmful subsidies, since competitiveness concerns may sometimes need to be addressed to gain political support for raising the overall level of environmental taxation.

However, these tools are limited in their scope and normativity, are likely to have limited impact in reducing *existing* subsidies and are unable by themselves to drive an economy-wide phase-out of FFS in Member States.

2.5. Conclusion

Taken as whole, the discussion in this section suggests that there is currently a major gap in EU energy policy on the issue of fossil fuel subsidy reform. In particular, in the wake of the removal of energy from the European Semester, there is now no dedicated process to track the extent of FFS, nor to ensure that Member States phase them out. This situation is inconsistent with the EU's stated decarbonisation and energy efficiency dimensions⁵ under the Energy Union. It also stands at odds with the objective of increasing European energy and climate policy coherence, which is at the heart of the Energy Union project. In the wake of the decision to remove FFS from the European Semester process and the failure of the revision of the Energy Taxation Directive, the EU is therefore in need of an alternative process for tracking and ensuring the phase-out of FFS by the Member States.

3. ENERGY UNION GOVERNANCE: AN OPPORTUNITY FOR DEDICATED ATTENTION TO FOSSIL FUEL SUBSIDIES?

3.1. The EU's new Energy Union governance mechanism

One possible alternative to the European Semester to governing FFS in the EU from 2018 onwards is the new governance mechanism that is being set up as part of the new Energy Union project. As noted above, a core goal of the Energy Union is to provide for a more coherent and comprehensive approach to European energy and climate policy.

The goal of this new governance mechanism is to do three things. Firstly, it seeks to strike a new balance in EU climate and energy policy between "top-down" and "bottom-up" approaches to European climate and energy policy. Secondly, it seeks to develop a more integrated system of planning,

5. The Energy Union has five dimensions: energy efficiency and moderation of demand, decarbonisation, energy security, completing the internal energy market, and innovation and competitiveness.

Figure 3. Overview of key elements of the new governance mechanism

Process	Who	2016	2017	2018	2019	2020	2021	2022	2023
UNFCCC	UNFCCC			Stocktake of NDCs		New NDCs submitted			Stocktake of NDCs
EU NECPs	MS	NECPs for 2020-2030 developed		NECPs Finalised		Revision of ambition for NDC???			Scheduled review of NECPs
	Regions/ Stakeholders		Regional Stakeh/r Consultation NECPs						
	Commission		Reviews NECPs / recommendations						
Monitoring implementation	MS				Policy reforms if needed	Biennial Reporting	Policy reforms if needed	Biennial Reporting	Policy reforms if needed
	Commission	SotEU Indicators	SotEU Indicators	SotEU Indicators	SotEU Indicators	SotEU Detailed Review	SotEU Indicators	SotEU Detailed Review	SotEU Indicators
	Commission to MS		Recommendations	Recommendations	Recommendations	Detailed Recommendations	Recommendations	Detailed Recommendations	Recommendations
	MS Commission Parliament	Dialogue on policy agenda	Dialogue on policy agenda	Dialogue on policy agenda	Dialogue on policy agenda	Dialogue on policy agenda	Dialogue on policy agenda	Dialogue on policy agenda	Dialogue on policy agenda

reporting, dialogue and policy-making for governing increasingly interrelated challenges. Thirdly, the new governance system seeks to establish a process that can give more political attention to energy and climate policy, both at the EU and national level. This is a response in part to concerns that follow up on the implementation of EU policy goals is sometimes lacking (Client Earth, 2014) due to the absence of a dedicated process.

To implement this new governance mechanism, the Commission has proposed a number of new dedicated governance tools. One of these tools will be new *National Climate and Energy Plans*, which are intended to describe Member States climate and energy strategies out to 2030 for all five dimensions of the Energy Union. These plans are to be prepared by 2018 in dialogue with the Commission and regional partners and will be reviewed every 5 years.

Member States will have the implementation of their plans tracked in two ways. Firstly, the Commission has proposed a set of *key indicators* that will be collected by the Commission and monitored annually. These indicators are intended to reflect progress on the 2030 Framework targets in particular, but also on all five dimensions of the Energy Union. Their role will be to signal when the

EU and/or specific Member States are off track in terms of implementing the core goals of the Energy Union and some related sub-objectives. In some cases, where deviations from intended trajectories towards these goals as outlined in national plans is significant, the indicators could also be used to trigger a deeper review of a Member States' underlying policies.

The indicators will in turn be used to feed into an annual assessment of progress and room for improvement under the *State of the Energy Union Communication*, the first of which was released in November 2015 (European Commission, 2015). The State of the Energy Union's role will be not only to provide an overview of general progress towards EU goals, but also to set and motivate the EU policy agenda for the coming year.

The second way in which the implementation of the plans will be tracked is via a biennial reporting cycle. The Commission will use this cycle to ensure that policies and measures are being implemented as required by *EU sectoral legislation* (such as for Energy Efficiency, Transport, Renewable Energy, Electricity Markets, etc.) and also to double check that Member States policies place them on track to achieving their 2030 and potentially longer-term goals. The Commission will have the option to

provide *recommendations* to Member States should the biennial review reveal deficiencies in the implementation of either binding sectoral legislation or that a Member State is off track with respect to its targets.

To a significant extent, the non-legislative aspects of this governance mechanism have been modelled on the European Semester itself. There are, for instance, some similarities between the State of the Energy Union Communication and the Annual Growth Survey under the Semester; between the Alert Mechanism Report and the role of key indicators; and between the national climate and energy plans and the National Reform Programs. The Commission has indicated that it would like to create a dedicated process for dialoguing with Member States on an annual basis on the progress of the Energy Union in order to build the policy agenda with Member States (and probably also the Parliament). However, it has not yet been defined what this process would look like.

Figure 3 provides an overview of what different parts of the process might look like, based on current knowledge of the Commission's proposal.

3.2. An opportunity to improve governance of EU fiscal policy for the energy transition?

Including the issue of FFS within the EU's new Energy Union governance mechanism has a couple of advantages. Firstly, an important purpose of the Climate and Energy Plans is to highlight inconsistencies and promote greater coherence between various climate and energy policies by bringing them to light in a common strategy. In this sense, this a process well suited to interrogating the acceptability and legitimacy of current FFS in Europe.

Secondly, as noted above, fossil fuel subsidy reform is currently given little attention in European climate governance discussions. A potential strength of the new Energy Union governance mechanism is that, by creating an annual process for assessing the state of the EU energy transition via the State of the Energy Union, and stocktake of policy frameworks, it creates the political space to shed light on missing parts of energy and climate governance picture.

Thirdly, it is expected that the NECP process will also call on Member States to detail their key policies and measures to implement their national climate and energy strategies. This allows for a broader approach to the governance question, focusing on the adequacy of fiscal policies more generally for supporting the low carbon transition, rather than the narrower terminology of FFS.

At the same time, the movement of the treatment of FFS and related fiscal policy incentives out of the European Semester also comes with risks. In particular, one may ask whether eliminating FFS requires the dedicated attention of finance ministers that comes with the process of scrutiny under the European Semester. Further, the Commission faces a significant political challenge in setting up the new governance mechanism for the Energy Union in the present political climate. This could also mean that its appetite for include politically sensitive policy details in the new governance mechanism may be limited, at least in the short term. This may call for some “porosity” between the new Energy Union governance process and the European Semester to ensure that FFS do not “slip between the cracks” of both mechanisms.

4. INCLUDING FOSSIL FUEL SUBSIDIES IN THE NEW ENERGY UNION GOVERNANCE MECHANISM: ISSUES AND OPTIONS

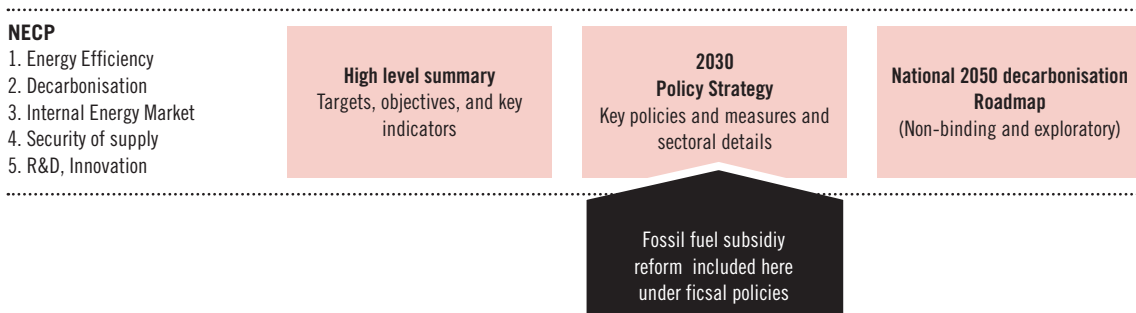
4.1. Where should fossil fuel subsidies be included in the new governance mechanism?

As noted above there are several different pieces to the new Energy Union governance mechanism. This raises the question of where exactly the issue of FFS should be treated. For instance, should they be tracked only by the “key indicators”, included in the planning template, or reported on via the biennial reporting mechanism, or all of the above?

We would suggest that FFS should be included in a dedicated sub-section of the *National Climate and Energy Plans* with progress on implementation tracked via both the key indicators and the *biennial reporting process*. However, we would not include it directly as a key indicator in the governance mechanism.

Removing FFS and reforming energy taxation are effectively the *policy means* to achieve specific goals (decarbonisation, energy efficiency) under the Energy Union. Thus, it makes sense to treat them as such. Following the design of the national planning template as currently being contemplated by the Commission, a discussion of the role of fiscal policy is required in the chapter of the plans dedicated to describing the “policies and measures” that will be used to implement the Energy Union goals. After all, fiscal policies are essential to achieving national targets and objectives cost effectively. In this context, it is reasonable to ask Member States to include a brief discussion of the

Figure 4. Where would fossil fuel subsidies go in the NECPs?



status and contribution of the removal of FFS to achieving their targets.

The annual review of key indicators which track the progress towards achieving core goals of the Energy Union also enables the negative impacts of fossil fuels subsidies to be identified and addressed indirectly, but from a position that fits comfortably within the mandate of the new governance mechanism. For instance, if Member States are failing to achieve their goals as reflected by the key indicators (say the share of renewable energy target), then this would be a reasonable basis for the Commission to make a further investigation into why.

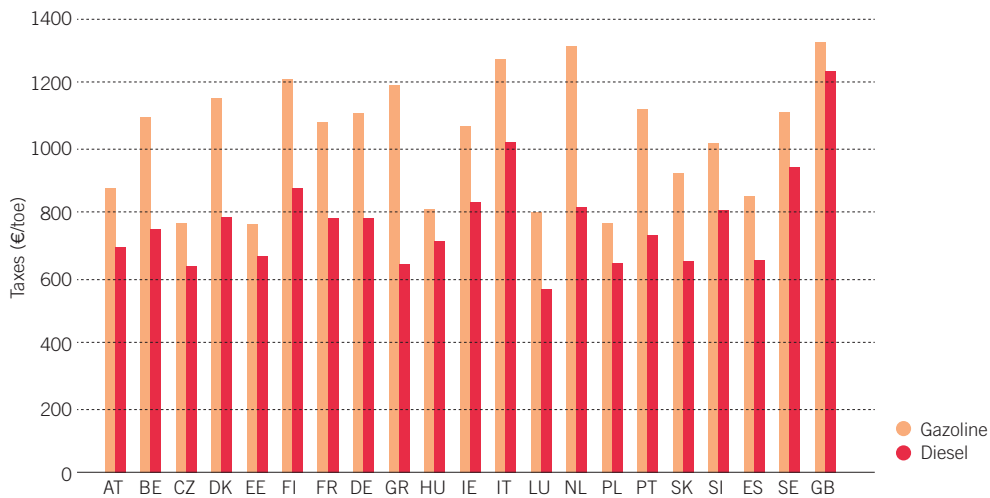
If this reveals that FFS are contributing to this failure (e.g. by preventing the retirement of coal-fired power plants), then the Commission would have a reasonable grounds for asking Member States to take further policy measures to tackle this issue as it relates specifically to their decarbonisation strategy.

Further, the biennial reporting process is the process by which Member States should report (in detail) on their progress in implementing their national plans, *the specific policies they contain and their impact on medium to longer-term projections of key indicators*. This is therefore the appropriate

Figure 5. Places where fossil fuel subsidies could be treated in the Energy Union governance mechanism

Process	Who	2016	2017	2018	2019	2020	2021	2022	2023
UNFCCC	UNFCCC			Stocktake of NDCs		New NDCs submitted			Stocktake of NDCs
		EU NECPs	MS	NECPs for 2020-2030 developed		NECPs Finalised	Revision of ambition for NDC???		
Regions/ Stakeholders			Regional Stakeholder Consultation NECPs	REGIONAL INITIATIVES PURSUE COOPERATION					
Commission			Reviews NECPs / recommendations						
Monitoring implementation	MS				Policy reforms if needed	Biennial Reporting	Policy reforms if needed	Biennial Reporting	Policy reforms if needed
	Commission	SotEU Indicators	SotEU Indicators	SotEU Indicators	SotEU Indicators	SotEU Detailed Review	SotEU Indicators	SotEU Detailed Review	SotEU Indicators
	Commission to MS		Recommendations	Recommendations	Recommendations	Detailed Recommendations	Recommendations	Detailed Recommendations	Recommendations
	MS Commission Parliament	Dialogue on policy agenda	Dialogue on policy agenda	Dialogue on policy agenda	Dialogue on policy agenda	Dialogue on policy agenda	Dialogue on policy agenda	Dialogue on policy agenda	Dialogue on policy agenda

Figure 6. Ratio of diesel to motor gasoline taxes in EU Member States 2015



Source: IDDRI, based on data from Enerdata.

point for asking Member States to describe progress made on the relevant fiscal policy aspects of their strategies to implement their NECPs (and by extension fossil fuel subsidy reform). If Member States were found to be unable to achieve their medium-term targets due to the presence of FFS, or if the proposed policies in the NECPs were not being implemented as intended with potentially detrimental consequences for the achievement of the EU’s Energy Union goals, then Commission could use its biennial review of implementation to address this. This could come either in the form of country specific recommendations or by feeding the issue into its State of the Union Communication and policy agenda for the coming year.

Although it is tempting to do so, we would suggest that FFS are not included in the set of “key indicators” for tracking progress on the Energy Union. This is because there is a risk of overwhelming the “key indicators” part of the governance mechanism. The purpose of the key indicators should be to help Member States to set targets for specific, high level outcomes for *the transformation of the energy system and economy* and to track progress towards these high level outcomes. Given the already significant number of these outcomes that need to be defined and tracked (i.e. for all 5 dimensions of the Energy Union), the indicators part of the governance mechanism already risks being overburdened. Experience with the European Semester and the Europe 2020 Strategy itself suggests that an excessive number of goals can lead to a watering down of the level of attention given to each. Figure 5 once again summarises the governance process and highlights with red circles the points at which FFS could potentially be relevant to the process.

First, in the definition of the national plans themselves. Second, in annual review of the indicators, state of the energy union, country recommendations and policy agenda setting process. Thirdly, in the biennial review of the implementation of the policies and measures in the plans and the related recommendations that could flow from those.

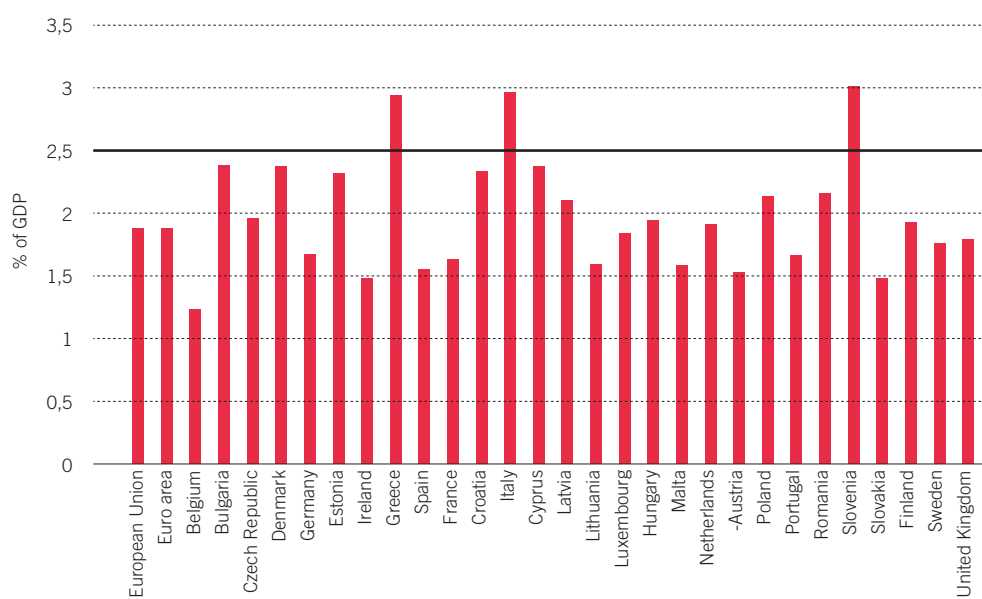
4.2. How should fossil fuel subsidies be measured and reported?

If FFS are to be included as a necessary requirement of the NECPs (and biennial reports), then what should these requirements look like in the respective templates?

As discussed in Section 1, there are different ways of defining FFS, each of which effectively measures different things (direct subsidies, direct and indirect fiscal transfers, pricing of externalities) and each of which with its own strengths and weaknesses. Each of these three issues is also relevant to Europe’s collective effort to decarbonise its economy. We would suggest including one high level measure of total FFS relating to each of three methodologies, together with one complementary measure capturing the level of CO₂ taxation throughout the energy system. Thus, the planning and reporting template in the new governance mechanism could ask Member States to provide information on the current status of and proposed reforms to:

- Direct subsidies to fossil fuel production and consumption.
- Indirect subsidies stemming from exemptions and tax rate differentials between substitutable fuels in the transport sector.

Figure 7. Energy taxes as a share of GDP in EU



Source: IDDRI, based on Eurostat data.

- Energy tax revenues as a share of GDP.
- CO₂ taxation / CO₂ emissions from energy use.

In practice, the first measure would largely capture policies relating to the EU's requirement to phase out subsidies to uncompetitive coal mines and some oil and gas extractive activities.

The second measure would capture exemptions from excise and VAT of fossil fuels, relating in particular to exemptions for diesel in the transport sector. This is not a complete measure of all of the different kinds of indirect FFS that can occur under this measure—for instance, indirect subsidies to energy intensive industry are ignored. However, as argued above, full rate exemptions in the transport sector is quantitatively the most important form of current subsidies. Moreover, a more specific measure, focusing just on transport, has other advantages, both in terms of transparency and ease of calculation for reporting, and in terms of avoiding some of the methodological pitfalls of having to define EU and economy-wide benchmarks for broader measures of indirect subsidies (For instance, normatively it is not clear that different Member States should apply common energy tax rates across fuels and sectors).

Practically speaking, this measure could be based on a simple comparison of their own domestic tax rates on diesel vs gasoline (Figure 6). A higher ratio would indicate a better equalisation of tax rates. It would also ask Member States to cite other examples of exemptions that have

an implied cost of more than a given de minimis threshold.

The third measure would then capture an overall picture of the extent to which Member States are pricing energy externalities in a way that is consistent with decarbonisation, energy efficiency and an overall greening of the tax base. It would measure the share of energy taxation in GDP. The IMF study cited earlier suggested that most Member States in the EU should generally pay at least 2.5% of energy taxes in GDP if they were pricing energy consistently with the cost of fossil fuel externalities, higher in some cases. However, most Member States are currently well under this level (Figure 7).

This 2.5% is of course an imperfect measure, since it depends on where the incidence of the tax falls in practice and some Member States have results outside this range. However, as a very simple rule of thumb for the minimum requirements for the adequacy of energy taxation, it is nevertheless a potentially informative benchmark. Furthermore, this measure would be complementary to other measures such as relative fuel tax rates, since it captures the *level* of overall energy taxation, rather than simply the relative tax rates. It would also help to capture the impacts of falls in fossil fuel prices on the adequacy of energy taxation levels. For instance, the 60-70% declines in gas and oil prices in 2014/2015 have significantly impacted not only final consumer prices for fossil fuels, encouraging their continued use; they have also reduced tax revenue from these sources. A measure

of energy taxation as a share of GDP would capture this phenomenon, allowing for it to be called it to the attention of policy makers.

Nevertheless, it remains true that the level of energy taxation may be more or less adequate for driving the price-related parts of the low-carbon transition depending on the incidence of where that taxation falls. To correct for this blind-spot, we therefore suggest a fourth and final measure of the level of CO₂ emissions taxation. This would capture the average CO₂ price on all fossil fuel use throughout the economy. Once again, this would be a relatively simple measure for Member States to calculate, being just the total taxation paid on CO₂ emissions from energy divided by the total emissions in tonnes of CO₂ from energy in the economy.

These four measures, their policy relevance, and the sources of the relevant data are captured in Table 1.

Table 1. Four key measures of the status of fiscal policy in Europe as it relates to fossil fuels

Measure	Policy relevant information captured	Data source
Direct subsidies to fossil fuel production or consumption	Direct payments to fossil fuel energy production and use (especially otherwise non-competitive energy production assets).	National data as used for Commission methodology under European Semester (7 th EAP)
Relative tax rates of main substitutable fuels (diesel and gasoline) for transport.	Tax advantages granted to one of the main fuels used for road transportation.	Eurostat / Enerdata
Energy tax revenues as a share of GDP	Extent to which falls in fossil fuel prices are compensated by rises in tax rates to maintain fuel switching incentives. Extent to which externalities of energy use are captured by tax system.	Eurostat
Average CO ₂ tax rate per unit of CO ₂ from fossil fuels	Extent to which one of the main externalities from fossil fuel use is being priced consistently with needs for low-carbon transition.	EU Monitoring Mechanism Regulation (ETS revenues, energy emissions proxies), National fiscal authorities,

Source: IDDRI.

4.3. What level of detail should be provided about fossil fuel subsidy phase-out policies?

The new National Climate and Energy Plans should describe Member States’ policy objectives

as well as their national strategies for implementing those objectives. A key part of any strategy for decarbonisation must involve fiscal policy incentives. Member States should therefore be asked explicitly within the framework of a binding template for their plans to explain: “*how fiscal policies, including taxation and the removal of subsidies for fossil fuels, will contribute to their decarbonisation objectives*”.

Since every Member States situation will differ to some extent, Member States will need to be left some flexibility in answering this question. However, to ensure that the answers nevertheless cover the essential issues as highlighted above, the template could ask Member States to detail *the present status and expected evolution of fiscal policies, as captured by each of the above 4 measures*. This would include as a minimum a quantitative indication of the direction and magnitude of changes, the timeframe, as well as a qualitative description of the kinds of specific taxes or subsidies that would be removed or reduced.

In short, there needs to be sufficient detail to ensure that the strategy is credible and coherent and that it provides sufficient transparency for Member States to be held accountable by other stakeholders. Indeed, creating accountability to stakeholders and to the EU via cycles of bottom up policy commitments and delivery is to a large extent the basis of the new EU governance mechanism. Transparent and comparable information on strategies for phasing out FFS is therefore essential.

4.4. Ensuring progress is made

The new governance mechanism for energy and climate should not be a punitive mechanism. Past experience with international agreements for climate suggest that punitive and burden sharing based approaches do not necessarily yield sufficiently ambitious and cooperative outcomes.

However, it is also important that the process be credible, and thus that it is perceived that there is a high likelihood that Member States will honour their commitments. This can be achieved, in part, by increasing the transparency of the NECP and reporting process to national and EU stakeholders, as this puts pressure on Member States not to deviate too far from their commitments. Hence the value of a template with detail on FFS. It can also be achieved by establishing an annual/biennial EU level process for tracking, summarising and making recommendations based on the progress of the EU on the different dimensions of the Energy Union. The annual State of the Energy Union report has begun that process, although it remains incomplete.

In practice, any such process would also need to have a role for the Commission to regularly review and make recommendations on the *progress on the set of key commitments* that Member States make, or on the fulfilment of *key parts of their strategies* that underpin the content of the plans. Any significant and persistent deviation in either of these categories should be brought to light by this process. Doing so, would allow for FFS to be addressed in the Commission's recommendations either indirectly (via their interference with the achievement of key commitments in the NECPs) or directly (via a persistent deviation with a national plan which detailed their phase-out). The combination of these two possibilities should be sufficient to give adequate attention to FFS as a relevant part of decarbonisation governance.

Finally, since FFS remain essentially a fiscal issue, it may be necessary in some instances to reinsert the issue into the European Semester. It is possible that in some specific cases this may be necessary to garner sufficient attention from finance ministers to the need for fuel tax reform. We would therefore suggest that some "permeability" between the European Semester and the new climate and energy governance mechanism be left in place, especially in cases where fiscal policy barriers must be lifted to achieve energy policy outcomes.

5. CONCLUSION

There is currently a major gap in EU energy policy on the issue of fossil fuel subsidy reform. In particular, in the wake of the removal of energy from the European Semester, there is no dedicated process to track the extent of FFS, nor to ensure that Member States phase them out. This situation is inconsistent with the EU's stated decarbonisation and energy efficiency dimensions under the Energy Union.

The EU is therefore in need of an alternative process for tracking and ensuring the phase-out of FFS by the Member States. The new Energy Union governance mechanism presents an opportunity for creating this alternative.

This could be done by including requirements for reporting on specific kinds of FFS within a dedicated sub-section of the *National Climate and Energy Plans* on policies and measures. Progress on implementation should also be tracked through the *biennial reporting process* focusing on implementation of national plans. It should be seen as a means to achieving the EU's goals rather than treated appropriately. The door to reinserting specific climate and energy issues into the European Semester should not be closed either, given that in some instances there may be a need to bring finance ministers into the discussion on implementation of fiscal policy for climate and energy.

Regardless of how they are defined, FFS are a potentially important barrier to the EU achieving its medium- and longer-term climate and energy goals. It is important that the EU gives itself the means to address this issue. ■

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Fossil fuel subsidies and the new EU Climate and Energy Governance Mechanism

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