

Norway's implementation of the EU climate and energy package

Europeanization or cherry-picking?

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Abstract

Although not an EU member state, Norway has been part of the EU's internal market since 1994 through the EEA Agreement. As a result, Norway has implemented EU climate and energy legislation. While not bound by the headline climate and energy targets for 2020, Norway has had to implement the EEA-relevant legal acts stemming from the EU's climate and energy package. The package was based on synergy effects and side-payments that were challenging to reproduce in Norway, whose situation differed radically from an EU concerned about import dependency and low shares of renewable energy. Norwegian implementation varied across the different package components. This report enquires into the causes behind the mixed implementation performance, and analyses the long-term impact of the package on Norwegian climate and energy policy.

Key Words

Norway, EU, climate policy, energy policy, EU climate and energy package, implementation

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Contents

Acknowledgement	v
Contents	vi
List of figures and tables	vii
1 Introduction	1
2 Conceptual framework	3
2.1 Implementation performance	3
2.2 Explaining implementation performance	5
3 Norwegian climate and energy policies up to 2007	12
3.1 Hydro-powered industries and petroleum export	12
3.2 Energy policy for economic growth, cost-efficiency for the climate	13
4 Negotiating the package	15
4.1 A Norwegian climate compromise	17
4.2 Norwegian participation in EU negotiations	18
5 Norwegian implementation of the package	20
5.1 Implementation through the EEA Agreement	20
5.2 ETS: Timely implementation despite hurdles and previous delays	21
5.3 RES: Target reduction, and joint implementation with Sweden	26
5.4 CCS: A forerunner falling behind	32
5.5 FQD: Early-mover disadvantage for conventional oil	37
5.6 CER: Unnecessary without an automobile industry?	39
5.7 Assessing implementation with a view to 2050	42
6 Explaining Norway's implementation performance	48
6.1 Misfit: Mixed picture, and only explains half the story	48
6.2 Domestic politics	53
6.3 What has been accounted for, and what not?	64
7 Conclusions	67
Annex	69
Interviews	71
Literature	72

List of figures and tables

Figure 1: Final energy consumption in Norway in 2005, by product	69
Figure 2: Norwegian emissions in 2005 by sector	69
Table 1: Implementation performance score	4
Table 2: Support or opposition from target groups	9
Table 3: Emissions from traded sectors	25
Table 4: Norwegian transposition of the EU's climate and energy package	42
Table 5: Gross inland energy consumption in 2007, in percentage	50
Table 6: Emissions by largest sectors, in percentage	51
Table 7: Inter-ministerial special committees for EEA issues in Norway	70

1 Introduction

Cooperation between Norway and the European Union has a long history, also as regards climate and energy issues. Although Norway is not an EU member state, it has been part of the Single Market through the Agreement on the European Economic Area (EEA Agreement) since 1994. The prerequisite for market access was the commitment to implement EEA-relevant EU legislation (NOU, 2012); as a result, over the years, Norway has implemented EU climate and energy legislation (Austvik & Claes, 2011; Boasson, 2011). Between 2007 and 2009, the EU took steps towards decarbonization by the year 2050 by adopting an integrated climate and energy policy for 2020. This was a ‘package’ consisting of directives covering various sectors of the economy, from issues like the production and consumption of energy to the reduction of CO₂ emissions.¹ However, as a comprehensive package catering to needs and interests at the EU level, it did not necessarily match those at the Norwegian level – not least since Norway does not have formal representation in the decisionmaking phase of EU policymaking.

In Norway, then, a mixed pattern of support, delays and opposition emerged concerning implementation of the EU package. Although the two most important directives – those regulating emissions trading and promoting renewable energy – have been fully transposed, there has been little change in actual behaviour thus far. Moreover, the remainder of the climate and energy package remains to be fully implemented. This may seem puzzling, given Norway’s previously good track record of implementing EU legislation. Within the literature on European implementation, Norway – along with the other Nordic countries – has been seen as belonging to the ‘world of law observance’, and the Nordic countries have been characterized as generally compliant (Falkner & Treib, 2008; Falkner et al. 2005). Moreover, studies of Norwegian implementation of EU climate and energy policy adopted before 2009 have shown that Norway has largely been compliant; and that there has been room for manoeuvre for Norwegian policymakers to implement policies and measures as they saw fit within the more general framework of EU legislation. As a result, EU legislation did not have a major impact on the main objectives and strategies within Norwegian climate and energy policies, although Norwegian decisionmakers sometimes had to go to lengths to retain national practices following changes in EU legislation (Austvik & Claes, 2011; Boasson, 2011). However, five years after formal adoption of the EU climate and energy package, parts of the package remain unimplemented, whereas other parts were transposed swiftly.

This report asks: How was the EU’s climate and energy package implemented in Norway? Moreover, what can explain the differentiated imple-

¹ The package consisted of the Emission Trading System Directive (ETS Directive), the Effort-Sharing Decision (ESD), the Directive on the Promotion of Renewable Energy (RES Directive), the CO₂ Storage Directive (CCS Directive), the Fuel Quality Directive (FQD), and the Car Emissions Regulation (CER).

mentation performance of different parts of the package here? Against this backdrop, what this means for long-term policies will also be discussed. A central aspect at the EU level was the linking of different policies into an integrated package in order to achieve the 2020 targets with a view towards 2050. As such, a key question is whether this packaging made any difference implementation in Norway. Rather than merely considering outcomes, then, this report traces the specific implementation processes for each part of the EU's climate and energy package. The course of events is reconstructed by drawing on public documents, media coverage and previous empirical research, as well as semi-structured interviews with key informants.² These processes and their outcomes are then analysed by means of perspectives from the implementation literature.

The theory framework is presented in part 2, where previous EU implementation literature is considered in light of the logic of 'packaging'. Part 3 presents the baseline for the energy-economic situation and already existing climate and energy policies in Norway. Then follows an overview of the process leading to the EU's climate and energy package in part 4, which also presents the role of Norway in this connection. Part 5 turns to Norwegian implementation of the package, including an assessment of the impact on domestic positions and long-term policies. The causes of Norway's mixed implementation performance are then analysed in part 6. Finally, part 7 concludes the report with reflections on whether Norway's long-term climate and energy policies are being transformed through Europeanization – or whether Norway can 'cherry-pick' selected pieces of the package.

² A list can be found in the back of the report, but reference was not made to specific individuals when presenting information in the report, in accordance with wishes from half of the informants.

2 Conceptual framework

What happens after policies are adopted? This question is at the very heart of implementation research, which seeks to examine 'what happens between the establishment of policy and its impact in the world of action' (O'Toole, 2000: 273). Implementation is a broad concept that may encompass 'anything meant to happen after an intention or aspiration has been expressed' (Hupe, 2014: 166). Implementation has also been defined as to 'carry something into effect' (Weale 1992: 43).

While decisions on EU legislation are taken at the EU level, implementation usually occurs at the national level. Following the adoption of EU legislation, 'further steps are usually required in order to put it into effect' (Young, 2010: 61). EU legislation must normally be *transposed*, which means that an EU directive must be formally incorporated into national legislation before it becomes valid in any given member state.³ This usually includes the adoption of policies and measures at the national level in order to achieve the objectives within EU legislation. Policies and measures are then applied by the national state administration.⁴ Ultimately, implementation should lead to changes in target-group behaviour: the exercise of policies and measures should lead those involved in the problem to alter their behaviour in such a way as to contribute to achieving the objectives. In reality, transposition and application may not follow a linear trajectory. National legislation may also be adopted for other reasons than the EU directives at hand. And, once adopted, policies and measures may be applied differently than initially intended. Finally, it is challenging to measure a causal relationship. This complicates measurement of the relationship between behavioural change of target groups and the overarching objectives. Target groups may comply with objectives without there being a causal relationship between the two, for instance because reduced economic activity could also serve to lower emissions. This will be taken into account in the discussion.

2.1 Implementation performance

This report examines implementation performance in the transposition as well as the application of the various parts of the EU's climate and energy package. Implementation performance will be measured along two dimensions: correctness, and timeliness. With transposition, this should entail incorporation of a directive's requirements into national legislation within a set deadline. As regards application, national policies and measures are to be executed by the public administration, which should address the target groups relevant for achieving the commitments, and the latter should respond by changing their behaviour in ways that can

³ In contrast to the case of EU directives, all EU regulations and EU decisions apply directly across the Union once they are adopted, and thus do not require 'transposition'. Given Norway's association to the EU through the EEA Agreement, however, all types of relevant directives, regulations and decisions must be transposed, i.e. formally added to the EEA Agreement.

⁴ Both adoption and application could take place at the sub-national level, depending on the distribution of competencies *within* the various EU countries.

contribute to realizing targets on time. Finally, in assessing implementation, a key question is whether ‘packaging’ made any difference as achieving the 2020 targets with a view to decarbonization by 2050. Implementation performance can be seen as varying between low and high, as shown in Table 1.

Timely \ Correct	<i>Yes</i>	<i>No</i>
<i>Yes</i>	High	Intermediate
<i>No</i>	Intermediate	Low

Table 1: Implementation performance score

Correctness and timeliness are far from self-evident, and require further specification. Correct transposition is operationalized as approval from the European Commission (or the EFTA Surveillance Authority in the case of Norway, see section 5). For EU member states, timeliness is a function of whether or not transposition deadlines are complied with. For countries like Norway that are associated with the EU through the EEA Agreement, however, there are important differences. While the ambition is for legislation to be transposed in parallel with EU member states, in practice this usually takes place later. The transposition deadline will depend on the formal incorporation of a legal act from the EU into the EEA Agreement, and specific deadlines are included in the EEA decision. Due to the need for time to carry out the additional EEA process, a certain timelag in transposition as compared to EU member state is considered ‘natural’. According to informal rules, this entails transposition deadlines that are six to nine months later than within the EU; up to one year later is also accepted (NOU, 2012: 95). As a rule of thumb, implementation of a legal act will be regarded as ‘on time’ if it is transposed no later than one year after the specific deadline set for EU member states for that directive.

Regarding the weight given to the two dimensions, it could be argued that correct implementation is more important than timeliness. This would make the two intermediate outcomes rather distinct from each other. However, given the short amount of time available for achieving the 2020 targets, with an extra year added for EEA-EFTA countries like Norway, delays can be as serious a threat to goal achievement as incorrect transposition. Actual implementation performance will be assessed in greater detail in any case. However, application will only be given a preliminary assessment, as the actual targets are to be achieved by 2020. At present, a preliminary assessment of progress towards these targets is all that is possible. Moreover, the impact of the package on long-term climate and energy policies and positions will be evaluated.

2.2 Explaining implementation performance

Most research on the implementation of EU legislation has approached the issue from a compliance perspective, concentrating on the legal transposition aspect. What actually happens on the ground in terms of actual application has been less extensively studied (see Falkner et al., 2005; Mastenbroek, 2005; Treib, 2008).⁵ More research on the variation in implementation performance across countries and policy-areas has been called for (Steunenberg & Toshkov, 2009: 953). This variation is made possible by room for national manoeuvre in implementing EU legislation. Within the frames and targets set by EU legislation, there may be significant scope for action as regards developing domestic policies and measures.

According to Treib (2014), EU implementation research has gone through four phases. First-wave research emphasized the presence of domestic administrative capacity and clearly stated objectives in the directives as factors important in explaining implementation performance. Although this research also found that implementation was facilitated by the inclusion of relevant domestic actors throughout the policymaking process, from EU negotiations to domestic incorporation, little attention was paid to domestic politics. Research in the second wave concentrated on the 'degree of fit or misfit between European rules and existing domestic institutional and regulatory traditions' (Treib, 2014: 8). Here the underlying assumption was that domestic actors would prefer the status quo, so institutional differences were seen as the main explanatory factor for implementation performance. Following lack of empirical support, and criticism for inadequate attention to actor preferences, this perspective was complemented by insights about 'veto players': misfit could be overcome if the number of veto players was low, or if the political culture was consensual. Moreover, resistance due to misfit was traced back to 'negatively affected societal interests' (Treib, 2014: 9). Following up on this, the third wave put domestic politics at the centre of EU implementation research, highlighting the importance of 'the preferences of crucial domestic actors and their institutional positions in the decision-making process' (Treib, 2014: 10). In parallel, quantitative research emphasized the importance of efficient and capable administrations. To synthesize these political and managerial insights, researchers considered factors that might explain such differences. The type of EU requirement could affect how legislation was incorporated, and thereby also which actors would be involved (e.g. for revising a ministerial decree or making a new law subject to parliamentary approval). Alternatively, the mixed pattern was explained as following from sectoral or national differences, which gave rise to later-criticized typologies like the 'worlds of compliance', where countries were categorized according to the type of implementation practice (Treib, 2014: 10-12). The fourth wave saw increased attention to application and enforcement, with qualitative studies of member-state responses to preliminary ECJ rulings, or the role of EU agencies in monitoring and assisting domestic implementation. Meanwhile, quantitative studies

⁵ Although there are exceptions, like Gulbrandsen (2010).

examined the relationship between member-state opposition within the EU negotiations and later domestic implementation, albeit with mixed empirical results (Treib, 2014: 13–15).

Drawing on previous implementation literature, this report will employ two perspectives to explain Norway's performance in implementing the EU climate and energy package. The first perspective uses *misfit* to explain implementation performance. Here, differences between EU requirements and existing regulatory framework at the domestic level will have a negative effect on domestic implementation. While there might be a strong domestic bias towards maintaining the status quo, this need not be the case, as highlighted by previous research. In order to complement the misfit analysis, then, the second perspective considers *domestic politics*, where various actors might support or oppose EU legislation. In contrast to what is expected under the misfit perspective, they will not necessarily favour the status quo. Governmental veto players, administrative organization, cost–benefit distribution for societal groups targeted by the legislation, and policy style as to how non-governmental actors might be included in policymaking (or not) will impact on implementation performance. Further, the involvement of domestic actors throughout the policymaking process, also during implementation, will be examined within the domestic politics perspective, thus drawing on insights from the first and the fourth waves of research.

A major insight from earlier research on the EU's climate and energy package has been that *packaging* of different policies allowed for the adoption of the EU's climate and energy package: side-payments and issue-linkages created a compromise solution that was acceptable to policymakers (Skjærseth, 2013, 2014). A key consideration when explaining implementation performance from the two perspectives, then, will be to examine the impact of policy-packaging on transposition and application. Specifically, did the inclusion of different legal acts in the package impact its transposition? Moreover, was the adoption of single domestic policies and measures seen in relation to other parts of the package, such as other legal acts or national policies and measures connected to these? Regarding application, was the exercise of domestic policies and measures seen in relation to other parts of the package? Moreover, were target groups targeted by multiple parts of the package – and if so, how did this affect their responses to (different parts of) the package?

Misfit between EU and national level

This perspective explains implementation performance with reference to the 'goodness of fit' between the EU and the national level (Börzel & Risse, 2003; Knill, 2001; Knill & Lenschow, 2001). Countries are seen as unitary actors that favour the status quo, and that will oppose challenges to this. Member states will respond in different ways to the same legislation from the EU, because they have different domestic energy-economic situations, and different domestic policy objectives and measures already in place. The extent of fit between the energy-economic situation at EU level (i.e. the EU average) and that of individual

countries, or the fit between EU requirements and domestic practices, will influence implementation performance.

Alignment in policy between the EU and the national level will probably lead to high domestic implementation performance, because in such cases the EU legislation does not challenge the domestic status quo. However, if policy objectives and types of instruments used at the national level are challenged by EU requirements, this misfit will put adaptation pressure on the member state in question. As most countries are seen as favouring the status quo, they will oppose this. As a result, the low fit will result in low implementation performance. This report analyses the distance between EU requirements and domestic arrangements for each part of the climate and energy package. Where there is misfit, domestic implementation performance is expected to be low as regards that particular EU legal act. Conversely, implementation performance is expected to be high for legal acts that fit with the existing domestic status quo.

At a more fundamental level, differences in energy-economic situation between the EU and the domestic level mean that legislation might not fit the individual member state. Specifically, member states whose energy economic situation differs from that of the EU on the whole will experience greater misfit. This will make implementation more difficult, and reduce implementation performance. Here we operationalize the energy-economic situation as consisting of the energy mix, energy trade balance and emissions structure (distribution of emissions from various sectors of the economy). National-level figures will be compared against the EU average.

When negotiating at the EU level, EU member states generally seek to 'upload' their domestic arrangements. If successful, this will increase the subsequent fit when EU legal acts are 'downloaded', i.e. implemented at the national level (Börzel & Risse, 2003). As noted, non-EU member Norway could not take part in negotiations on the EU's climate and energy package, although it could provide inputs to policy preparation as well as communicating its positions to EU actors. Low influence on negotiations is expected to increase misfit, and reduce implementation performance.

Domestic politics: Veto players, administrative organization, societal groups, policy style

Scholars have emphasized the need to open up the 'black box' of domestic politics (Mastenbroek, 2005). EU requirements that challenge domestic practices will not necessarily hinder implementation. Domestic actors might support change to the status quo, if this is in line with their interests, and thus might support EU legislation that introduces changes to domestic policies and measures. In order to have an impact, however, interests must be channelled into the domestic policymaking process. The domestic politics perspective explains implementation performance by analysing the role of governmental veto players, administrative organization, societal groups and the policy style that links societal groups to policymakers.

Governmental veto players

Implementation, and transposition in particular, will be affected by the response from veto players within government. ‘Veto players’ are actors whose support is needed to change the status quo (Tsebelis, 2002), and might be located within the legislative or within the executive branch of government. The response from veto players will be decisive for implementation performance. While support will increase implementation performance, it will be low if veto players are opposed to what the EU requires. Within a parliamentary system like that of Norway, governmental proposals can be voted down in the parliament, the Storting. However, proposals coming from the government are more likely to pass when there is a majority government in office, precisely because it will hold a majority in the legislative assembly. In practice, then, the influence of the parliament will be reduced. Moreover, changes in government can affect implementation performance negatively, as a new government might have other interests. Thus, consistency in government throughout the policymaking process at the EU level to domestic implementation is expected to enhance implementation performance.

Administrative organization

Administrative competence for developing proposals for legislative measures and/or making executive measures for implementing EU legislation may be vested in a single organization within the public administration, or be shared between multiple units. Generally, the lower the number of units, the easier it will be to make changes. Moreover, different public sector organizations have different mandates and tasks. As noted by Allison, ‘where you stand depends on where you sit’ (1971: 176): different organizations tend to perceive issues differently. Fragmentation can give rise to coordination problems as well as conflicts due to diverging interests, between governmental organizations in implementation processes. In the case of EU legislation that requires domestic changes, then, fragmented responsibility for transposition is expected to reduce implementation performance.

Competence can be horizontally as well as vertically fragmented. Horizontal fragmentation concerns the distribution of competencies between multiple governmental organizations at the same level, which for transposition in unitary states will usually be the national level. If transposition responsibility is fragmented among several ministries, this can reduce implementation performance. Vertical fragmentation refers to the distribution of competencies between organizations at various levels of government – whether between a ministry and a regulatory agency, or between the national and the local levels. While responsibility for transposition is usually at a higher level, the policies and measures adopted will often be administered by specialized regulatory agencies at the lower national level of government, or by local authorities. Following Allison (1971), organizations placed at different levels might see things in different ways. As a result, vertical fragmentation between the transposing entity on the one hand, and the public authority that administers the adopted policies and measures on the other, is expected to reduce implementation performance in application.

Combining interests and the number of bureaucratic units involved in transposition leads to different expected outcomes. Support from a single responsible administrative unit is expected to lead to high implementation performance, while opposition is expected to produce low implementation performance. Despite support, fragmentation of responsibility could lead to delays that render overall implementation performance intermediate. Even if the various public sector organizations are all in favour, they might disagree on the details involved in implementing measures: thus they may be willing, but unable to implement the EU legal act according to schedule. Packaging might play a role if a single unit within the public administration is responsible for multiple parts of the package, and can exploit links between package components that make it more acceptable. However, 'packing' the various legal acts together might not make any difference if the different pieces are not seen in context.

Societal groups

The positions of societal actors are also expected to affect implementation performance. While support will facilitate implementation, opposition will make it more difficult. Target-group response will be important for behavioural change in application. Resistance will make it harder for the public authorities to implement legislation, in transposition as well as in application. Moreover, resistance could entail that target groups do not change their behaviour in the direction intended by the new legislation, so that targets are not met. Conversely, support could pave the way for behavioural change, thereby facilitating progress towards achieving the targets that have been set. Generally, distributed benefits and concentrated costs can be expected to increase opposition from those targeted by costs, who will mobilize against it. In contrast, concentrated benefits and distributed costs are expected to increase support from those who stand to benefit (Wilson, 1973). Moreover, if both benefits and costs are distributed widely, mobilization from societal actors will be low, whereas the response when both factors are concentrated will depend on the relative balance between costs and benefits (Skjærseth 2000), see Table 2. Depending on the distribution of costs and benefits from the various package components, not all the outcomes presented here might be relevant.

Costs \ Benefits	<i>Concentrated</i>	<i>Distributed</i>
<i>Concentrated</i>	Response depends on balance of costs and benefits	Support
<i>Distributed</i>	Opposition	Low response

Table 2: Support or opposition from target groups. *Adapted from Skjærseth (2000).*

To the extent that the EU package could introduce synergies and side-payments that would improve the balance of costs and benefits, this is expected to reduce resistance, and thus improve implementation performance. However, if the package places costs from multiple legal acts on the same groups, this is expected to increase opposition (especially if the benefits remain spread and not concentrated), which would reduce implementation performance, as affected sectors will have all the more reason to combat the measures. Moreover, if links between different package components increase target group costs, this is expected to increase opposition as well.

Policy style

Opposition or support from target groups does not automatically equal influence on the transposition process, which is formally in the hands of the government. The ability to influence implementation performance will be decided by their participation in, or access to, the policymaking process. Depending on the 'policy style', the relationship between the state and society can take various forms. The term 'policy style' is here used to characterize a country's approach to the process of making policy – notably, how the societal actors affected are involved in policymaking, which is also likely to affect the implementation of EU legislation. Access to policy development through consultations may be formal or informal. Some target groups may gain privileged access, e.g. due to their importance for the domestic economy, and represent the 'core'; other target groups may be more peripheral (Maloney, Jordan & McLaughlin, 1994).

A 'consensual' policy style has been contrasted to a 'conflictual' one within comparative environmental politics (Jänicke, 1992). The former encourages broad and extensive participation of target groups in order to establish consensus. The flipside of a conflictual policy style, however, is that the limited access for affected societal actors is likely to promote more stringent governmental policy goals. This is particularly so within environmental policy, which frequently implies net costs for target groups. Establishing consensus with affected target groups could water down governmental regulations. If targeted (or affected) societal actors are included in the policy process through a consensual policy style, this can allow for influence. Here, opposition from societal actors will be expected to reduce implementation performance in transposition. If domestic policies and measures are watered down, this could reduce incentives for behavioural change, making it harder to reach overarching targets.

In contrast, a more closed and conflictual policy style could mean better implementation performance in transposition, but with the risk of lower implementation performance in application. A conflictual policy style entails that the process is more closed, where the state might adopt policies and measures that conflict with the positions of by target groups.

Norway has traditionally had a relatively open and consensual policy style – but there has also been privileged access to policymaking for core target groups like its traditional energy-intensive industries (Kasa &

Malvik, 2000). Moreover, the negotiation situation between Norway and the EU could serve to close policy processes, limiting access to policy-making for target groups. As a package, the consultation processes could bring in new actors, which could facilitate implementation if it produces new alliances – or aggravate conflicts by bringing together clashing interests, so that the domestic policy process gets bogged down.

3 Norwegian climate and energy policies up to 2007

This section presents the energy and emissions data for Norway as well as the national climate and energy policies prior to the EU's climate and energy package.

3.1 Hydro-powered industries and petroleum export

The Norwegian economy has flourished in recent decades, with an almost uninterrupted trade surplus since 1980. Today, its gross domestic product (GDP) is the second highest in Europe (after Luxembourg), with an average growth rate per year of about 3% (Statistics Norway, 2014a: 34–41). A major reason is the petroleum sector, which is the single most important sector of the Norwegian economy. In 2012 it contributed to about one fourth of Norwegian value creation, one third of state revenues and half of Norwegian export (MPE & NPD, 2013: 21). The predominance of the petroleum sector has spurred warnings that Norwegian economy is becoming divided in two (NOU, 2013). The country also has a large energy-intensive industry onshore, which despite its lower relative contribution to GDP today (8%) remains important for employment (Statistics Norway, 2014a: 34–41).⁶ In particular, traditional industry has offered employment outside the biggest cities – an important political objective in Norway. The energy-intensive industry is still relatively large in a European context, with Norway being largest aluminium producer here (NOU, 2012: 550).

Energy export, primarily petroleum products, is of major importance for the Norwegian economy. Most of the petroleum is exported: unlike many other European countries and the EU in general, Norway is a net exporter of energy. Norway is an important energy supplier to the EU, being the second largest gas supplier to Europe since 1996 (Norwegian Oil Industry Association, 2010). Norway also trades electricity with the EU, although the overall significance of electricity exports is dwarfed by its gas exports. In 2012, the amount of natural gas exported was equivalent to ten times the total Norwegian 'normal year' production of electricity (120TWh) (MPE & NPD, 2013: 44), of which less than 20 TWh at most has been exported per year (Statistics Norway, 2014b).

Norway's overall energy mix has the highest share of renewables in Europe: in 2005, the renewables share in final energy consumption was 60.1% for Norway (MPE, 2012b). Notably, about 99% of Norway's onshore electricity production came from renewable energy sources, specifically hydro. Other sources – mainly wind, biomass and natural gas – were responsible for only about 1% (Eurostat, 2007: 459–460). By source, Norway's domestic energy consumption is split almost equally between fossil fuels and renewables, with the latter comprising the larger share (58% in 2005, see Annex). Nevertheless, Norwegian emissions of

⁶ Traditional industry accounts directly for 20% of total employment, as compared to 3% in the petroleum sector (Statistics Norway, 2014a: 34–41), although the latter has been credited with up to 200,000 jobs indirectly, i.e. taking into account employment related in some way to petroleum activity (MPE, 2011a: 15).

greenhouse gases (GHG) have grown over time, particularly within the petroleum sector, whereas the contribution to relative share of emissions within traditional industry has declined. Total emissions in CO₂ equivalents increased from 50.4 million tonnes (mtoe) in 1990 to 54.3 mtoe in 2005, i.e. a growth of about 1% (Statistics Norway, 2013). In 2005, the major emitting sectors were transport, petroleum and traditional industry, together accounting for 73% of total emissions (see Annex).⁷

3.2 Energy policy for economic growth, cost-efficiency for the climate

Within government, energy policy is handled by the Ministry of Petroleum and Energy, while climate policy is administered by the Ministry of the Environment. However, given the emphasis on cross-sectoral and general economic measures, the Ministry of Finance is also important for climate policy. Moreover, climate policy affects various sector ministries, *inter alia* the Ministry of Petroleum and Energy, the Ministry of Trade and Industry and the Ministry of Transport and Communications. Major policy changes must be approved by the parliament (the Storting), where climate and energy policies are treated within the Standing Committee on Energy and the Environment. Here, research has found industrial policy to be the most important 'side-issue' (Bruvoll, Dalen & Larsen, 2012).

The overarching objectives of *Norwegian energy policy* have been value creation and employment. Security of supply has also been important within the electricity sector, but to a lesser extent within the petroleum sector, as most production has been exported. Generally, policymakers have emphasized public ownership, strict regulations and high tax levels for its two major energy sectors, petroleum and power.⁸ With regard to the petroleum sector, public policy has been motivated by revenue maximization, the development of new businesses as well as job creation (NOU, 2012: 549). Successive Norwegian governments have emphasized that the country's petroleum export is strictly a matter of trade, seeking to downplay the international dimension in order to avoid politicization (NOU, 2012: 550). Energy policy within the power sector has sought to address two main concerns: First, to ensure a secure supply of electricity across the country, and second, to facilitate the development of a power-intensive industry within Norway's borders (NOU, 2012: 549). With a low level of electricity prices in general, and benefitting from additional discounts, Norway has a significant energy-intensive industry (NOU, 2012: 550), and the two sectors have historically developed in tandem (Wicken, 2011).

Norwegian climate policy has been characterized by its focus on cost-efficiency, with strong political support to reducing emissions where this

⁷ Figures for 2007 are energy industries 28.2% (predominantly petroleum, i.e. not power and heating), industry 22%, transport 34.3% (Commission, 2010a).

⁸ Beyond the usual business tax (28%), petroleum and power companies are given an additional tax at 50 and 27%, respectively. The latter reflects that the resource rent from activities within these two sectors is to be allocated to the public good, a point strongly emphasized within Norwegian energy policy (NOU, 2012: 548–549).

is cheapest. As a result, Norway has emphasized the international work for a global climate agreement as well as international flexible mechanisms under the framework of the Kyoto Protocol that allow for offsetting (funding emissions cuts elsewhere) to be counted in the national target, e.g. through international emission trading.⁹ Nevertheless, whether to contribute to mitigating climate change by reducing emissions domestically or internationally has been a recurrent debate in Norway. At the national level, Norway has favoured general economic measures that are applied cross-sectorally. In line with the 'polluter pays' principle, emissions have been regulated mainly by through imposing economic costs on emitting, primarily through the CO₂ tax, emissions trading and the car tax. The CO₂ tax has covered 55% of Norwegian emissions, including the petroleum and transport sectors. Moreover, for sectors already subject to such general measures, the main rule has been that additional regulation is to be avoided, without completing ruling out the possibility of using other instruments. Norway had originally intended to set up an emissions trading system for sectors not covered by the CO₂ tax (e.g. steel, cement, refining), but the European initiative for an EU-wide system proved to be a more attractive option. Emissions trading was applied from 2005, with Norwegian participation in the EU ETS from 2009 (NOU, 2012: 98). In the transport sector, Norway has used the car tax to incentivize consumers to purchase less carbon-intensive automobiles, including electric vehicles (MoE, 2007: 68).

Two issues have stood at the crossroads between increasing emissions on the one hand, and climate ambitions on the other hand. First, the use of flexible mechanisms has allowed Norway to compensate its domestic growth in emissions through international offsetting. Second, Norway has funded research and development (R&D) programmes seeking to unlock technological change. Investments in carbon capture and storage (CCS) have been an important aspect of Norwegian climate policy as regards the petroleum sector. Norway has been storing CO₂ in offshore geological structures on the continental shelf (offshore): about 1 million tonnes of CO₂ have been stored at Norway's Sleipner field each year since 1996 (MoE, 2012d: 96). Additionally, the Norwegian government started working with industry in order to achieve CCS on gas-fired power plants (MoE, 2009). This became necessary in order to make plans for facilitating onshore consumption of natural gas acceptable, following political controversy. Moreover, this approach resolved the contradiction between increasing emissions from the petroleum sector and the government's climate ambitions through technology development (Tjernshaugen & Langhelle, 2011: 180). Between 2007 and 2011, the government granted almost €1 billion to CCS technology development (MoE, 2012: 112). R&D has also been promoted through government-owned companies like Enova, which have allocated funding to projects on renewable energy and energy efficiency (MPE, 2007b).

⁹ Norway has also invested in measures to reduce deforestation in developing countries, as part of its foreign development aid aimed at reducing emissions, although such efforts are not counted towards Norwegian emission reduction at present (MoE, 2012d).

4 Negotiating the package

Renewed talks on climate and energy policy within the EU gained traction in 2005–2006. During this period, the Commission identified synergies between energy security and sustainability, and the UK abandoned its resistance to EU-level energy policy. Importantly, the member states now agreed on a common approach to climate and energy policy (Skjærseth, 2014). In January 2007, the Commission presented two green papers proposing climate and energy targets for the year 2020: 20% reduction of emissions, an increase of the share of renewable in final energy consumption to 20%, and a 20% increase in energy efficiency. The key message was that of synergies: policies addressing climate change would promote energy security and vice versa. Moreover, climate and energy policies were differently valued by different actors, which allowed for concessions across policy-areas that could foster compromises acceptable to all parties (Skjærseth, 2014). In March 2007, the European Council adopted the headline targets. Member states underlined the need for differentiated burden-sharing among member states, noted the centrality of the ETS for long-term emissions reduction, and emphasized cost-efficiency for measures targeting major energy-intensive industries (European Council, 2007).

In early 2008, the Commission followed up by proposing a climate and energy package for achieving the 2020 targets, with a further view to 2050. Particular attention was paid to emissions reductions and renewables (Commission, 2008). Reduction of emissions within the ETS sectors (energy-intensive industries and energy producers) would be regulated by a revised ETS, while domestic targets would be set for non-traded sectors (buildings, transport, agriculture, waste) through an effort-sharing mechanism. Emissions within the traded sectors were to be reduced by 21% compared to 2005, and this EU-wide cap would be reduced by 1.74% per year. Moreover, allocation rules were harmonized. Non-traded sectors were to reduce their emissions by 10% compared to 2005. While the ETS was centralized at the EU level, it was left to the member states to decide on instruments for attaining national targets for non-traded sectors and for increasing the share of renewable energy (Commission, 2008; Skjærseth, 2013). Moreover, a specific directive was proposed for promoting the expansion of renewable energy, including a formula for calculating domestic targets. A directive was also proposed for ensuring safe CO₂ capture and storage (CCS). Not part of the core package, legal acts had also been proposed for fuel quality and car emissions, but no new legislation was proposed for energy efficiency (Christensen & Gulbrandsen, 2012; Skjærseth, 2014).

The structure of the package was based on the above-mentioned side-payments and synergies between climate and energy policy objectives. Moreover, three additional side-payments were included to ensure a fair distribution of efforts, and included differentiated domestic targets and compensation for low-income member states. First, domestic targets for non-traded sectors were differentiated by GDP per capita. Second, domestic targets for renewable energy were based on a formula that combined GDP and a flat percentage rate for increased share of renew-

ables in final energy consumption. Third, auctioning revenues would be placed in a solidarity fund for low-income member states. An additional side-payment was offered to companies. While power producers would have to purchase credits, energy-intensive industries exposed to international competition would receive free allowances through sector-specific benchmarks. Moreover, all companies could use international carbon credits (CDM/JI) for meeting obligations under the ETS. CCS offered a path for the continued use of fossil fuels in power production, especially coal. The overall package was designed to facilitate political agreement within the EU and thus adoption of the package itself (Skjærseth, 2014).

Rather than separate processes on each legal act with qualified majority voting within the Council of Ministers, the package would be unanimously adopted in its entirety by the European Council. This was an unusual procedural requirement (Skjærseth, 2014). Nevertheless, the main structure of the package survived, and it was adopted in December 2008. However, some changes to reduce the regulatory and economic burden for sceptical industries and member states were necessary in order to reach agreement (Skjærseth & Wettestad, 2010). With backing from Germany, the energy-intensives wanted higher allowance allocation, which was resisted by the European Parliament. Here, the latter accepted this in exchange for the establishment of a specific fund (NER300) that would use ETS income to co-fund R&D projects like CCS and renewable energy technologies. Moreover, Central-Eastern European countries wanted major changes to baselines and effort-sharing, but their resistance was reined in by increasing revenues to the solidarity fund and by allocating some allowances to the power sector in these countries (Skjærseth, 2014). The year 2009 saw the formal adoption of the legal acts, including directives for ETS, RES and CCS, and burden-sharing for non-traded sectors specified in the Effort-Sharing Decision (ESD). A directive on fuel quality was also adopted along with a regulation on car emissions.

Just before the Copenhagen climate summit in late 2009, the European Council adopted a long-term decarbonization objective: emissions were to be reduced by 80% to 95% by 2050 (European Council, 2009). The Commission followed up by issuing two roadmaps in 2011. The first set out a cost-efficient pathway for attaining the decarbonization objective (Commission, 2011b). The second roadmap concerned how the 2050 decarbonization objective could be reached whilst ensuring energy security and competitiveness, and focused on the energy sector (Commission, 2011a). However, the decarbonization target was later vetoed by Poland (EurActiv, 2012).

Summing up, the EU's climate and energy package was directed at energy supply in particular, pricing the use of fossil fuels (ETS) and supporting the production of renewables within the energy sector (RES). CCS was also seen as a way of reducing emissions from the use of fossil fuels within the energy sector, whereas specific policies and targets aimed at reducing emissions within the transport sector (FQD, CER, RES) (Skjærseth, 2013).

4.1 A Norwegian climate compromise

In Norway, climate change was also on the agenda. In January 2008, a broad cross-party political compromise was reached on climate policy. This 'climate settlement' (*Klimaforliket*) was a broad political compromise involving all the parties represented in the Storting at the time, with exception of the populist right-wing Progress Party.¹⁰ By 2020, emissions were to be reduced by 30% compared to 1990, including international offsetting and domestic forest uptake.¹¹ Cost-efficiency consideration should determine where cuts would be made (MoE, 2007: 37, 51). However, agreement was found on the distribution of cuts at home vs. abroad compared to a business-as-usual scenario for 2020. Compared to the expected growth in emissions by 2020, about two thirds of the cuts should be carried out in Norway. Compared to 1990, however, this meant that domestic emissions should be lowered by 12–16% by 2020, including forest uptake.¹² In practice, then, between 50% and 40% of emissions reductions would be carried out domestically, whereas the remainder would be cut where this was most cost-efficient – a flexible approach to the distribution of emission reduction. While the government had initially offered estimates for potential emissions reduction within the various sectors (MoE, 2007), the Storting did not stipulate sector-specific targets, noting the high uncertainty of the amount of emission reduction that could be achieved within the various sectors (Stortinget, 2008a: 3). Finally, Norway aimed to become 'carbon neutral' in 2050, entailing the contribution to reducing *global* emissions equivalent to 100% of its *domestic* emissions, compared to 1990 (Stortinget, 2008a: 1). It was explicitly noted that the latter target did not say anything about the size of Norwegian emissions in 2050, only that these should be neutralized through Norwegian funding of emissions reduction conducted at home or abroad (MoE, 2007: 36).

¹⁰ The climate settlement was upheld by the same parties in 2012. The new compromise strengthened low-carbon R&D (more research on low-carbon technologies, strengthening of the climate technology fund (MoE, 2012b). Following the 2013 elections, the Conservatives and the Progress Party formed a minority coalition government, and declared that their government would base its climate policy on the climate compromise, thereby bringing the Progress Party on board (Conservative Party & Progress Party, 2013).

¹¹ It was estimated that Norway could subtract 3 mtoe CO₂ equivalents from domestic emissions in 2020 target under the Kyoto Protocol due to absorption of CO₂ from forests (Environment Agency, 2014b: 7). Note that forest uptake is not subtracted from the baseline year, which means that net emissions for 2020 will be compared to gross emissions for 1990, thus making a higher relative reduction easier.

¹² Share of domestic emissions in 2020 (42–44), including forest uptake, with 1990 (50.4). Excluding forest uptake (3 mtoe), domestic emissions should be reduced to 45–47 mtoe CO₂ equivalents, a reduction of about 7–11% compared to 1990. Originally, domestic emissions should be reduced by 13–16 mtoe as compared to a baseline scenario where emissions were estimated to 59 mtoe in 2020. Thus, domestic emissions should be 43–46 mtoe in 2020 (MoE, 2007: 37, 51). 13 meant that half, while 16 meant that two thirds, of overall emission reduction would be carried out domestically. Parliament adjusted the domestic emission reduction figures to 15–17, with domestic emissions to be 42–44 in 2020 (Stortinget, 2008a).

4.2 Norwegian participation in EU negotiations

Not being a member of the EU, Norway did not formally participate in the negotiations among the member states that produced the headline climate and energy targets for 2020. The EEA Agreement provides Norway with the opportunity to engage in the Commission's policy-preparation by sending representatives to expert committees and working groups (MFA, 2012a: 18), but does not grant formal access to negotiations and decisionmaking within the European Parliament, the Council of Ministers or the European Council – although Norwegian representatives may be invited to informal meetings on a case-by-case basis. This limits Norway's access to the negotiations among the member states, be it within Council working groups or at higher political levels (Hayes-Renshaw & Wallace, 2006; Håge, 2013).

There was Norwegian representation in the Commission's expert committees that prepared policies for the ETS Directive and the CCS Directive (including the Climate Change Committee and its subsumed working group on emissions trading) (Europaportalen, 2013c). Additionally, Norwegian representatives approached various actors and participated in informal discussion, and Norwegian authorities also met with representatives through the energy dialogue with the Commission.¹³ Moreover, in November 2008, the Norwegian Prime Minister, Jens Stoltenberg, along with six ministers (energy, climate and development, foreign affairs, finance, transport and communications, fish) met with the Commission to discuss the financial crisis as well as energy and climate policy (*Dagens Næringsliv*, 2008), notably CCS (MPE, 2008a). This was the largest political delegation that Norway had sent to Brussels thus far. The government had developed positions on the various elements of the package, which were communicated at a high political level in Brussels and in central capitals across Europe. Some of these issues were also on the agenda when the political delegation met with the Commission in November 2008. The Norwegian government was positive to the ETS, RES and CCS Directives (Stortinget, 2008b), but had previously expressed strong opposition to binding national-level targets for renewable energy (Europaportalen, 2007).

At home, steps were taken to facilitate exchange of information among the different ministries in charge of the affected policy-areas, including the Ministry of Petroleum and Energy, and the Ministry of the Environment. This was due to the challenge of keeping track of the negotiations at EU level, which took place in multiple fora and involved many actors and policy-areas. Monthly telephone conferences, also including the delegation in Brussels, were coordinated by the Ministry of Foreign Affairs, according to informants. The immediate response from the Minister of Petroleum and Energy and from the Minister of the

¹³ For instance, the Minister of Petroleum and Energy met with the Commissioner Piebalgs (DG Energy), and attended a preparatory meeting for the Energy Council in February 2007, which would provide input to the European Council meeting in March 2007 (MPE, 2007c). The two also discussed Norwegian gas export to EU countries as well as CCS within the energy dialogue (MPE, 2007a).

Environment to the Commission's package proposal in January 2008 was positive. The former minister also stated that Norway should be at least as ambitious as the EU (MoE, 2008b; MPE, 2008b). The EU's adoption of the package in December 2008 was welcomed by the Minister of the Environment (MoE, 2008a).

5 Norwegian implementation of the package

The development of an integrated climate and energy package by the EU had been seen as challenging by the Norwegian government. While Norway would not be bound by the EU's overarching climate and energy policy goals, it would have to adopt legislation relevant to the cooperation within the EEA framework. In the following, the specific aspects of Norwegian implementation of EU legislation are presented, before individual accounts for the various policy-processes for the legal acts of the EU's climate and package are offered, each in chronological order. This section ends with an assessment of what impact the package may have on Norway's long-term climate and energy policies.

5.1 Implementation through the EEA Agreement

Norwegian implementation processes differ from those of EU member states. Due to its association through the EEA Agreement, Norway is required to incorporate EU legislation that is 'EEA-relevant'. Such relevance is determined by a screening process within the EEA Committee, which gathers representatives from the EU and from the EEA-EFTA countries (currently Iceland, Liechtenstein and Norway). Prior to this, designated inter-ministerial special committees in Norway discuss the issue (NOU, 2012: 565; Stortinget, 2012a), see Table 4. Roughly put, legislation is 'EEA-relevant' if it concerns issues already regulated by the EEA Agreement. This includes legislation on the Internal Market, but also issues of relevance internal market cooperation that have previously been added in annexes to the EEA Agreement, such as environmental legislation. If a legal act is deemed to be of relevance to the EEA, it is to be transposed into national legislation in the EEA-EFTA countries. Moreover, there might be negotiations with the Commission on potential 'adjustments' in specific legal acts (MFA, 2012a: 16–17). In connection with transposing an EU legal act, the Norwegian government might state that Norwegian law is already compliant with the requirements laid down in a legal act from the EU, or it ensure that the necessary changes are made to Norwegian law. Changes can be made through executive or legislative measures. While the former can be adopted by a ministry, the latter requires the ministry to forward draft legislation to be adopted by the Storting.

Whereas the Commission monitors national implementation of EU legislation for EU member states, this work is carried out by the EFTA Surveillance Authority (ESA) for EEA-EFTA countries. ESA also initiates infringement proceedings in the case of non-compliance. And whereas the Commission in an infringement case can ultimately take a member state to the European Court of Justice, ESA can take an EEA-EFTA state to the EFTA Court (MFA, 2012a: 17). ESA does not have the authority to initiate an infringement case on a particular directive until that directive has been added to the EEA Agreement. Norway's compliance with EU legislation thus incorporated is monitored by the ESA.

To return to the climate and energy package: screening has rendered some parts relevant, whereas others have been deemed not relevant.¹⁴ While some issues were still pending at the time of this writing, it was clear that the entire EU climate and energy package would not be adopted. Nevertheless, Norway has adopted the most central elements of the package: the ETS Directive and the Renewables Directive. The Norwegian government generally treated the issues separately, one informant noted. The package was split up and distributed to the ministries (and sections within these) in charge of the respective policy-areas. Thus, various ministries were in charge of following and preparing for the discussions of the different legal acts.

5.2 ETS: Timely implementation despite hurdles and previous delays

The Norwegian authorities regarded the EU ETS as the most cost-efficient way of reducing emissions in accordance with domestic targets as well as obligations under the Kyoto Protocol (MFA, 2012b: 6). When EU discussions on a third phase (2013–2020) were initiated, the Norwegian government was positive to participating in a revamped ETS (MoE, 2012d: 98; MFA, 2012b: 6–7). However, the Norwegian authorities were preoccupied with revising practices to comply with the previous version of the ETS Directive, as ESA had rejected important parts of Norwegian implementation of the second trading phase, notably allocation rules.¹⁵ This meant that less capacity was available for the Ministry of the Environment to engage in active influence regarding the ongoing reform process of the ETS. Even as the government was discussing the new ETS Directive in late 2008, attention was focused on implementation measures under the previous version (Stortinget, 2008b). A proposal for revising Norwegian allocation rules for the *second* period was not submitted to the Storting until December 2008 (MoE, 2008c).

The Ministry of the Environment submitted the Commission's proposal to a public hearing in 2008, as is usual with major draft directives (MoE, 2008d), and meetings were held with stakeholders. This consultation was used as an opportunity to state the government's view and receive feedback from stakeholders, according to an informant. This input was subsequently used as a basis for discussions between Norwegian state representatives and the EU. Given the proposed increase in the harmonization of rules, however, there would be less room for national adjustments in the third phase than in the second phase; and as a non-member, Norway could not participate in EU-level decisionmaking. Stakeholders were generally positive to the scheme, and welcomed a more harmonized ETS. However, they emphasized that some of the funds (shares ranging from 20 to 50%) from sales of emissions credits should

¹⁴ Norway has not adopted the Energy Efficiency Directive nor the revised Performance of Buildings Directive (although the predecessor directive has been adopted). The transposition deadlines (for member states) were in June 2014 and July 2012, respectively.

¹⁵ During the years 2008–2012, the ETS left more scope for national arrangements than the upcoming phase, which also meant that it was more demanding for the national public administration.

go to R&D for low-carbon technologies.¹⁶ Industry also pointed out that another part of the climate and energy package – the RES Directive – could entail additional costs (Federation of Norwegian Industries, 2008). Many policymakers shared this scepticism towards additional measures within the traded sectors. For instance, the Ministry of the Environment noted additional measures might undermine the ETS by reducing the price on credits, via the negative impact on credit demand (MoE, 2012d: 98).

It was considered ‘obvious’ that Norway should incorporate the revised ETS Directive, because it had added the predecessor directive to the EEA Agreement, and because the Norwegian government supported putting a price on CO₂, as emphasized by an informant. The new ETS Directive was screened for EEA relevance within the inter-ministerial special committee for the environment (see Table 7) led by the Ministry of the Environment.¹⁷ With the new directive, allocation rules became harmonized. One informant pointed out that Norway had wanted decisions on auctioning vs. allocation to be made at the national level. However, the EU had defined the petroleum sector as exposed to carbon leakage, thus granting it allowances free of charge. Norway, on the other hand, wanted to retain auctioning of credits for its petroleum sector, not sharing the view that it was exposed to risks of carbon leakage. In negotiations with the Commission, the Norwegian government sought to get an exception from EU rules whereby the sector would continue to have to purchase allowances (Environment Agency, 2011: 5), but in the end it accepted the Directive even though such concessions were not forthcoming. Originally, the government had preferred auctioning to allocation as a general rule. In 2007, it had stated that it would work for an ETS not based on allowances, while acknowledging that it would consider this in light of EU developments. When the EU presented its revamped allocation rules, Norway decided to adjust to these (MoE, 2012d: 99). However, the government announced that it would implement a measure to ensure that the cost of emitting CO₂ for the petroleum sector would not be impacted by the change and that would prevent the allowance allocation from entailing economic relief for these companies (MoE, 2011).

Before the EEA Committee incorporated the ETS Directive into the EEA Agreement (MFA, 2012b: 1), however, steps were taken to implement the Directive in Norway. Referred to as ‘unusual, yet manageable’ by the Minister of Foreign Affairs (Støre, 2012), it was deemed critical to implement measures in Norway *in advance* of the start of the third trading phase (2013) in order to facilitate the participation of Norwegian companies, by ensuring that these companies would receive the correct amount of allowances (MoE, 2012e). Early implementation entailed revising Norwegian ETS legislation as well as submitting a National Implementing Measure (NIM) – an allocation plan listing mandatorily

¹⁶ Stakeholder responses are found together with the hearing at MoE (2008d).

¹⁷ Additionally, an inter-ministerial sub-committee was established on ETS credits due to the complexity of the issue, where bureaucrats from the most affected ministries would meet more frequently to discuss the technical details as well as share information.

participating companies and the allocation of allowances free of charge – to ESA for approval (MoE, 2012a: 1–2). The Ministry of the Environment drafted a proposal for a revised Climate Credit Act, which was circulated, formally and informally, to other ministries before being submitted to the Storting. In particular these were the Ministry of Foreign Affairs, because the Act would affect the EEA Agreement; and the Ministry of Finance, because it would affect state finances – both ministries with overarching responsibilities. Moreover, ministries of affected sectors (the Ministries of Petroleum and Energy, and of Trade and Industry) followed the issue closely in order to see how their sectors would be affected, according to informants. Both the final directive and the proposed implementing measures were subjected to a public hearing (MoE, 2012a).

In May 2012, the Storting adopted the act (Stortinget, 2012b).¹⁸ The Ministry of the Environment also adopted an executive measure revising the Climate Credit Regulation (Norway, 2012a). In substance, the contents basically mirrored those included in the ETS Directive, with the exception of budgetary issues.¹⁹ The ETS Directive was added to the EEA Agreement in July 2012 (EEA, 2012a). The national allocation plan (NIM) had to be forwarded to the Commission (via ESA) by September 2012 (MFA, 2012b: 1). The Norwegian Environment Agency had developed a list of companies within the traded sectors as part of this work, specifying which companies should be entitled to allowances and how this had been calculated (Environment Agency, 2011: 9). The Environment Agency worked together with businesses on compiling the list of allowances to be allocated free of charge (MoE, 2012c).

The EU had – through comitology procedure in the Climate Change Committee – adopted guidelines on how allowances should be allocated. Norway's Ministry of the Environment participated in this work, and engaged in the issue of allowance allocations to the ferro-alloy industry. This is a highly power-intensive industry that is important in Norway, although small in Europe more generally. Because the ferro-alloy industry did not recover heating generated through the production process, the allocation of credits for this sector was set at a lower level than the Norwegian authorities and industry had wanted. Norway pointed out the consequences of low allowances for this industry, and the issue was subsequently discussed within the Climate Change Committee. As a compromise, allowances were set somewhat higher in the final guidelines than in the Commission's initial proposal. However, allocation remained lower for industries that did not make use of heat recovery than the

¹⁸ This was adopted along with a mandate – tabled by the Ministry of Foreign Affairs – to the Norwegian government for making a decision within the EEA Committee (MFA, 2012b: 5).

¹⁹ Through negotiations between the ETFA/EEA countries and the European Commission, it had been agreed to exclude article 10.3, which contained budgetary issues (earmarking of funds from credit sales and reporting thereof to the Commission) that have remained outside the scope of the EEA Agreement (MFA, 2012b: 5).¹⁹ Moreover, revenues from auctioning would not be earmarked in Norway, making reporting less relevant. Norway pointed out that it already allocated greater funds to climate purposes than its revenues from ETS auctioning.

average for industries exposed to international competition in general (Climate Change Committee, 2011). Industry responded by emphasizing that the guidelines were non-binding, and that other countries were not adhering strictly to them. Industry therefore felt that Norway as not obliged to follow the guidelines. The Environment Agency's decision in mid-2012 to adhere to the guidelines spurred a formal complaint from industry to the Ministry of the Environment. The latter consulted with ESA, which responded that the guidelines should be followed because they expressed what would be accepted by the Commission and ESA in their evaluation of the NIM. The Ministry consequently upheld the decision by the Environment Agency. An informant stated that this process took place rather close to the start-up of the third trading phase. In July 2013, the Norwegian NIM was found to be compliant with EU law, and was thus approved by ESA (ESA, 2013a).

For the third trading period, the share of Norwegian emissions covered by the ETS rose from approximately 40% to about 50%. Of the roughly 130 companies to be covered by the ETS, 124 of them were set to receive in 18.7 million allowances free of charge in 2013, to be reduced to 18.2 million in 2020 (Environment Agency, 2012). While the petroleum sector was already covered, the third phase saw the inclusion of the aluminium and ferro-alloy industries, both of which were major industries in Norway that had previously been covered by voluntary agreements with the state (Environment Agency, 2014c). Another change as compared to the second phase was that Norway could no longer set the total amount of ETS credits. For the third phase, the number of available credits would be a function of the overall European cap, of the EU-level headline target for emission reduction. Moreover, allocation rules became harmonized. Whereas companies within the Norwegian petroleum sector had had to purchase ETS allowances during the second phase (2008–2012), in the third phase these companies would receive such allowances free of charge (100% of the benchmark). As announced by the government, measures for upholding the price of emitting CO₂ from the petroleum sector were introduced to compensate for the change from auctioning to allowances: In 2012, it proposed that the CO₂ tax should be increased so that the overall price on emitting CO₂ for the petroleum sector would remain stable (Ministry of Finance, 2012: 167; MoE, 2012d: 113). One informant characterized this as a 'technical' revision of 'low drama'. Although called for by stakeholders, funds from auctioning or from the CO₂ tax were not earmarked for particular purposes.

For the energy-intensive industry, the government launched a compensation mechanism in 2012. Here, energy-intensive companies could apply for compensation for the increases in electricity prices due to the ETS. The justification given was the need to avoid carbon leakage, targeting about 80 companies at a cost of NOK 500 million (roughly €60 million) (*Aftenposten*, 2012). The compensation mechanism was given high political priority. An informant explained that a designated inter-ministerial working group was established, with several ministries involved (the Ministries of the Environment; of Trade and Industry; of Finance; of Petroleum and Energy, and of Government Administration, Reform and Church Affairs). As the issue concerned economic and industrial policy, the most affected ministries were the Ministry of Trade

and Industry and the Ministry of Finance. Following ESA approval in September 2013 (ESA, 2013c), the Ministry of the Environment adopted the regulation (MoE, 2013b).²⁰ The compensation mechanism applied from July 2013, with support depending on the ETS price. The Environment Agency would administer the compensation mechanism, and it approved support of NOK 220 million (roughly €26.4 million) to 40 companies for 2013 (Environment Agency, 2013a), i.e. less than initially expected. Industry appealed the Environment Agency's decisions for reimbursing individual companies for 2013 to the Ministry of the Environment (an ongoing process at the time of writing) (Federation of Norwegian Industries, 2014a; Stortinget, 2014), indicating that they were not satisfied with the level of compensation for indirect costs of the ETS.

In 2013, 71% of emissions were covered by free allowances (Statistics Norway, 2014e). Actual allocation of the free allowances was delayed by a year due to the new allocation rules; as a result, the Environment Agency distributed the allowances for 2013 (17.6 million) and 2014 (17.3 million) at the same time. In all, 116 companies in Norway received free allowances, with about 140 companies now covered by the ETS (Environment Agency, 2014a). From 2012 to 2013, emissions increased within all the traded sectors, as shown in Table 3. Note that the important aluminium and ferro-alloy industries were included within the ETS only from 2013 on, which explains the leap in emissions for onshore industry. The Environment Agency expressed concern about rising emissions, especially from the petroleum sector, which is responsible for more than half of all emissions from the traded sectors (Environment Agency, 2014c). While the petroleum sector (excluding refining, gas terminals and gas power plants) accounted for 48% of emissions within the traded sectors, the energy-intensive industries producing ferro-alloys and aluminium came second with 11% and 9%, respectively (Environment Agency, 2014c). Emissions from the petroleum sector as well as onshore energy-intensive industry are projected to rise somewhat towards 2020 (Ministry of Finance, 2013: 114).

	2012	2013
Mining and petroleum sector	12.7	13.0
Onshore industry	5.1	10.9
Energy supply and waste combustion	0.7	0.8
Total	18.5	24.7

Table 3: Emissions from traded sectors (*Statistics Norway, 2014e*).

²⁰ In late 2013, the newly-elected right-wing coalition government announced revisions to the ETS compensation mechanism, proposing a carbon price floor – compensating industry for increases in electricity prices stemming from ETS prices above NOK 30 (about €3.5) instead of full compensation for such indirect ETS costs (MoE, 2013a). This encountered strong opposition from the energy-intensives in particular (*Teknisk Ukeblad*, 2013b), but also from major interest groups representing business (Confederation of Norwegian Enterprise) and employees (Norwegian Confederation of Trade Unions) (*Dagsavisen*, 2013). The government soon retracted its proposal (*Bergens Tidende*, 2013).

Generally, Norway implemented the ETS Directive swiftly and on time, although things became hectic due to complications in implementing the previous version. Implementation was on time as compared with the deadline for many EU member states, despite the usual time lag in the additional EEA process.²¹ Emissions trading enjoyed broad support among politicians, bureaucrats and stakeholders alike. Traditional industry has been active in the discussion of compensatory measures, seeking to avoid measures that could increase costs.

5.3 RES: Target reduction, and joint implementation with Sweden

The first RES Directive, from 2001, had been implemented in Norway in late 2007 (MPE, 2007d). It was therefore expected that Norway would have to implement the revised RES Directive from 2009. The previous RES Directive had not had any significant impact: It had only covered the electricity sector, which in Norway is dominated by renewable energy. In contrast, the new RES Directive was broader, covering total energy consumption (power, heating/cooling and transport). Moreover, it now included biofuel regulations (mirrored in the Fuel Quality Directive) (MFA, 2011a: 5).²² The new Directive was discussed within the EEA prior to EU adoption, and the EEA-EFTA countries were briefed by the Commission on developments in the EU discussions. It was also dealt with then and later within the inter-ministerial special committees for environment and energy, respectively, where it was screened for EEA relevance (Europaportalen, 2012b). The Ministry of Petroleum and Energy was responsible for this policy-area. According to an informant that had followed the process, the ministry had not spent much time seeking to influence the EU's decisionmaking, intensifying its contact with the Commission only after the directive had been adopted.

Following EU adoption, the RES Directive was subject to prolonged negotiations between Norway and the Commission. The Minister of Petroleum and Energy had acknowledged that the directive was EEA relevant (MPE, 2009), but the national renewables target was controversial given Norway's already high share of renewables. It was expected that the domestic target would be set at a level far higher than for the rest of Europe. Based on the formula for calculating national RES targets, it was estimated that Norway's target would be around 72% (Bøeng 2010: 50). In comparison, the highest target among the EU member states was the Swedish target, of 49%. A maximum share of 50% had been mentioned in the Commission's impact assessment (Bøeng 2010: 50), which the Norwegian government interpreted as meaning that it should not get a higher target (*Teknisk Ukeblad*, 2010). Several informants highlighted the differences between the EU in general and Norway with regard to the directive's objective of increasing the share of renewable energy: Norway had a unique starting point, given its already renewables-based electricity sector. Another informant noted that the

²¹ 16 member states were required to transpose the directive by the end of 2009, and 11 by the end of 2012.

²² The previous EU biofuels directive had not been implemented in Norway

RES Directive was neither suitable nor designed for Norway, whose energy production profile differs from those EU countries that had formulated the directive.

During the negotiations, there was close contact at the political level among several ministries, including at the cabinet level: the Ministry of Petroleum and Energy discussed the issue with the Ministry of Finance and the Office of the Prime Minister. The Ministry of Finance did not consider the RES Directive to be in the economic interest of Norway. Moreover, it did not see the objective of the Directive – to increase RES shares – as an efficient way of reducing emissions, particularly given the existence of the ETS, and was sceptical, as pointed out by several informants. The Ministry of Finance regarded a high target as costly, and even the Ministry of the Environment was not keen, seeing an ambitious target as demanding in light of nature preservation concerns, an informant noted. The Ministry of Finance gained acceptance within the government for its view that the RES Directive was not suitably adjusted to Norwegian conditions, and that it therefore was not in Norway's interest to copy the directive's formula for calculating a Norwegian target. An informant noted that this was followed by a mandate to Norway's Mission to the EU and the political leadership in the Ministry of Petroleum and Energy for negotiating with EU, with the aim of getting the target reduced. To this, another informant added that 'we would rather not take it, but if we have to, we would prefer to have as low a [RES] share as possible'.

In Norway, the draft directive and the final version were subjected to a public hearing in 2008 and 2009 (Europaportalen, 2012b). Most stakeholders welcomed the directive, and called for swift implementation in order to clarify the framework conditions, but many also noted the differences between Norway and the EU with regard to existing RES share and energy security. At this point, the Norwegian RES target was not yet clear, as it would be subject of negotiations between Norway and the EU. Environmental groups and windpower interests called for ambitious targets, emphasizing the potential for using this to phase out fossil fuels in Norway. Energy producers were more sceptical towards the potential for conversion, regarding an increase in export to be the likely outcome unless specific measures were adopted (Energy Norway, 2009). Business interests saw Norwegian subsidies that would result in increased export as being inexpedient (Confederation of Norwegian Enterprise, 2009). The industry was concerned that the Directive would discourage the establishment of new industry in Norway because an increase in energy consumption would trigger demands for higher RES production (Federation of Norwegian Industries, 2009). Moreover, an ambitious RES target was seen as unfavourable to CCS because cleansed gas would not be categorized as 'renewable', making its use negative for the RES share (Confederation of Norwegian Enterprise, 2009; Federation of Norwegian Industries, 2009).

In parallel with discussions with the EU, Norway negotiated with Sweden on a joint support scheme for increasing the production of renewable power. Norway and Sweden had in fact sought to establish such a market earlier, but negotiations had stranded due to disagreement on the

overarching target. The power sector wanted another support scheme, as the current one for windpower did not deliver results. Thus, calls for a green certificates scheme re-emerged. 'The sector wanted green certificates, perhaps without really understanding what it was about' an involved informant explained. The Ministry of Petroleum and Energy had sought to develop an alternative scheme (MPE, 2006a, 2006b), but their scope for manoeuvre was restricted by the EU's state aid guidelines. Moreover, discussions with ESA would take time, which led the Norwegian government to return to the certificates concept (Boasson, forthcoming). As talks with Sweden on a joint certificates market were re-initiated in late 2007, note was made of the expected RES Directive (MPE, 2007e). Although the green certificates scheme was initially a separate process from the RES Directive, several informants underlined that the two eventually became interconnected. Importantly, Sweden demanded that Norway should implement the RES Directive. Otherwise, Sweden would not be able to count the potential Norwegian contributions to increased RES production towards its obligations under that directive, as permitted by the flexible mechanisms. Sweden was less concerned about the size of a Norwegian RES target, but it was adamant that Norway should implement the directive. This message did not go unnoticed by the EU, which understood that Norway would have to transpose the directive in order to get the certificates scheme. One informant who had been involved in these processes noted that the negotiations between the EU and Norway took on the characteristics of a 'chicken or egg' discussion: should Norway should transpose the RES Directive or adopt the green certificates market first?

During the early phase of Norway's negotiations with the EU, the Norwegian government had been accused, especially by environmental NGOs, of going to Brussels to reduce ambitions, one informant explained. However, as negotiations progressed, the costs of such a high target became clear, especially given the low potential for phasing out fossil fuels from Norway's mainland power and heating sectors, which entailed that major efforts within the transport sector would be required. According to informants, power producers began to worry about a power surplus as it became clear that the main measure to implement the RES Directive would be the green certificates. Some feared an ensuing price collapse. By contrast, the preservationist sectors of the environmental movement were critical to the construction of windpower installations in remote areas. The picture among stakeholders and public opinion was becoming increasingly mixed.

By December 2010, Norway and Sweden had reached agreement on the overarching principles as well as content of the green certificates (Boasson, forthcoming). The Norwegian government had initially sought to restrict costs that would ensue, as Norway already had a high share of renewables. As a result, it wanted a technology-neutral scheme, as noted by several informants. However, Norway had a rather poor negotiating position due to the previous failed attempt; moreover, Sweden had already launched a national market for green certificates. According to one informant who had participated in this process, Norway would have to adapt to some of the Swedish arrangements if it wanted to join. Sweden aimed for 25 TWh by 2020, and expected to have realized 12

TWh by the end of 2011. Needing an additional 13 TWh during the period 2012–2020, Sweden regarded it as reasonable that a joint scheme should produce the double of this, and that the two countries should contribute half of the funding each. Norway accepted this. However, and in contrast to the Swedish system, support in Norway would be technology-neutral.

In the winter of 2010/2011, the green certificates scheme was submitted to a public hearing. In general, stakeholders were largely positive to the green certificates scheme, also to adjusting to the Swedish scheme. An informant involved in the process noted that stakeholders saw it as positive that the green certificates scheme became as similar to the Swedish system as possible. However, the environmental movement was divided, as one informant pointed out: Those concerned more with climate issues saw the certificates as something that would improve access to renewable electricity, thus making it less relevant to build gas-power plants, and easier to argue for electrification of items that were using fossil fuels directly. Nature conservationists, however, were concerned about the construction of new power plants. The picture was also mixed with regard to the technology-neutrality of the scheme: on the one hand, environmental NGOs concerned with nature preservation were critical. Statoil also pointed out that this would not promote currently immature technologies such as offshore windpower. On the other hand, a mixed group representing trade unions, businesses, windpower and climate-oriented environmentalists was positive to the technology neutrality of the scheme (MPE, 2011e).

Within the government, the Ministry of Finance had been sceptical to the green certificates concept, but had accepted it as long as it would be technology-neutral. The ministry stressed cost-efficiency concerns: the cost should be kept as low as possible. This was noted by several informants, of which one added that the Ministry of the Environment emphasized that requirements within the licensing process should not be relaxed (including assessing the environmental impact) as more projects would become profitable due to the certificates.

At this point, negotiations with the EU were still ongoing. The Minister of Petroleum and Energy rejected the applicability of how the EU calculated a Norwegian RES target (*Teknisk Ukeblad*, 2010). In April 2011, the Ministry of Petroleum and Energy forwarded a proposal for a Green Certificates Act (MPE, 2011g), which had been drafted together with the Water Resources and Energy Directorate. The act was adopted by the Storting in June (Stortinget, 2011c), followed by the signing of an agreement on a joint scheme by Norway and Sweden (MFA, 2011b). In late July, the Ministry of Petroleum and Energy announced that a 2020 target for Norway had emerged from the negotiations (for the renewables share of total consumption) at 67.5%, as compared to 58.2 in 2005 (MPE, 2011f; MFA, 2011a: 5).²³ This was considered ambitious, yet realistic

²³ Roughly put, the share is calculated by dividing overall RES production and RES consumption by overall energy consumption. Energy consumption within energy producing sectors is more or less excluded from the latter figure. Thus excluded from the

(MFA, 2011a: 9), and was lower than the expected share. The 10% target for the transport sector, however, was described as challenging, as current levels were around 4–5% (MFA, 2011a: 9). The State Secretary of the Ministry of Petroleum and Energy pointed out that implementing the RES Directive was more challenging in Norway due to its already high share of renewable energy. She also noted that increased electricity production could serve to lower prices, and thus give incentives to higher consumption – the opposite of the intention behind the Directive (Blakstad, 2011).

In late October 2011, the Norwegian government sought the Storting's approval of two outstanding issues in parallel: adding the RES Directive to the EEA Agreement (MFA, 2011a) and consent to the green certificate agreement with Sweden (MFA, 2011b). In December, both were approved (Stortinget, 2011a, 2011b), and the RES Directive was added to the EEA Agreement (MPE, 2011b). In parallel, the Ministry of Petroleum and Energy adopted an accompanying executive regulation (MPE, 2011c).²⁴ Norway was required to make a national action plan (NREAP) that would explain how it intended to realize the targets under the RES Directive. In June 2012, this was submitted to ESA, and made available to the Commission (MPE, 2012b), i.e. *after* the launch of the green certificates scheme (January 2012). Moreover, progress reports were to be submitted every two years. There was some disagreement between ESA and Norway concerning the deadline for submitting the first progress report. Whereas the Directive required the first progress report to be delivered by the end of 2011, the Ministry replied that, given the timing of EEA transposition (December 2011), this should not be due until December 2013 (MPE, 2013b). And indeed, Norway submitted its first progress report in December 2013 (MPE, 2013c: 2). Norway aimed at achieving its RES target primarily by increasing the production of electricity from renewable energy sources. The green certificates scheme was noted as a key implementing feature for meeting the 67.5% target, utilizing the possibility for flexible mechanisms, as provide for by the Directive. As a joint scheme with Sweden, the two countries would

calculation is the use of natural gas within the petroleum sector, which would have lowered the Norwegian RES share significantly (Bøeng, 2010). This was already part of the Directive, and was not a particular concession to Norway.

²⁴ Beyond this, transposing the RES Directive required revisions to existing executive regulations, of which the most important one concerned changes to the Norwegian Product Regulations (MFA, 2011a: 8). The RES Directive included sustainability criteria for biofuels and bioliquids (mainly in articles 17–19) that were mirrored in the Fuel Quality Directive. This revision was carried out by the Ministry of the Environment (MFA, 2011a: 8–9) in September 2013, to apply from 1 January 2014 (Environment Agency, 2013b: 3). Although the RES Directive included RES targets as well as the sustainability criteria these were separate processes during the Norwegian implementation, according to an informant. In November 2012, ESA sent a letter of formal notice of partial non-implementation to Norway, in particular concerning Norway's failure to implement decisions on biofuels and bioliquids (ESA, 2012). The Ministry of Petroleum and Energy replied that there had been delays in preparing the corresponding national legislation (Product Regulations), because of technical issues related to implementation of the Directive, and due to 'issues concerning related national policy processes,' but promised implementation by summer 2013 (MPE, 2013b). The revised Norwegian Product Regulations were adopted in September 2013 (Norway, 2013b).

support additional 26.4 TWh by 2020 on a cost-efficiency basis. Installations would be constructed where most profitable, but both countries would be credited with the same contribution, each paying half the bill (MPE, 2011b). For Norway, there are currently no plans for extending the scheme beyond 2020 (*Nationen*, 2012).

The Norwegian Water Resources and Energy Directorate (a governmental regulatory agency, hereafter: energy agency) was charged with implementation of the green certificates scheme, although administering it in close contact with the Ministry of Petroleum and Energy as well as with the Swedish Energy Agency. Administration of the certificates scheme at the operational level was not seen in context with other measures, according to an involved informant. The green certificates scheme requires applicants to have obtained a license, a process also administrated by the Norwegian energy agency and criticized for being slow, especially for windpower (*Teknisk Ukeblad*, 2012a). However, applicants could also gain exemption from the licensing requirement, a decision made at the local municipality level. According to an informant following this process, approving such projects for certificates was quite time-consuming. Different tax regulations for power projects had also given rise to expectations that more would be built in Sweden (*Teknisk Ukeblad*, 2014b; Thema Consulting Group, 2012).

During the two first years of operation, 2012 and 2013, the green certificates market led to an increase of 6.2 TWh, of which 0.9 TWh was in Norway (mainly hydropower), and 5.3 TWh in Sweden (mainly windpower, and to a lesser extent biomass) (NVE & Energimyndigheten, 2014). In 2014, the Norwegian government proposed raising the depreciation rates for windpower in order to improve attractiveness of developing windpower in Norway (MPE, 2014b). Regarding the specific target for the transport sector, the Norwegian government had noted that additional measures would be needed, and had presented various possible measures in a White Paper (MoE, 2012d). However, it did not commit to any particular combination of instruments, nor was the timing for such instruments indicated (MPE, 2012a: 13). In its 2013 progress report, Norway reported to the Commission that its overall RES share had grown to 66.1% in 2012 (up from 64.8% in 2011), well above the interim targets (62.6 in 2011, 62.8 in 2012). Within the transport sector, the figure had remained fairly stable (from 4.1% in 2011 to 4.6 in 2012), and was below the interim targets (4.6 in 2011, 5.3 in 2012) (MPE, 2012b: 15; 2013c: 2). The latter indicated that more steps would be needed than measures targeting the private transport segment. Despite strong growth, electric vehicles' share of overall personal cars remained below 1% (Statistics Norway, 2014c).

The green certificates market was widely discussed in its first two years of operation, being criticized for not delivering emission reduction. Staunch proponents of the EU ETS in Norway were sceptical to increasing RES production in Norway because they felt that the EU ETS should be sufficient to tackle emissions. This reflected the emphasis on cost-efficiency and avoiding double regulation by applying single rather than multiple measures – even if this was not always the case in practice, as one informant noted. The same person emphasized that the new RES

Directive was a different way of thinking about climate policy, with multiple goals and measures that were meant to work together. Another informant, who was involved in administering the system, underlined that the objective of the certificates scheme in the short term was to expand RES production. This was an end in itself. Contributing to the phase-out of fossil fuels was an objective only in the longer term.

Another criticism concerned the early results that showed that far more installations were being built in Sweden than in Norway. The Storting had stated that about half should be built in Norway. However, informants noted that the point was that installations should be constructed where it was most cost-efficient. An informant involved in administering the scheme added that she did not believe that half would be built in Norway. Another informant was puzzled by the criticism, noting that advocates of the scheme were only now realizing that the market would determine where projects would be built, and that if they had been concerned about ensuring projects in Norway, they should perhaps have considered retaining the previous support scheme.

Summing up, Norwegian policymakers were sceptical towards a domestic RES target, and views among stakeholders were mixed. The Directive was implemented after lengthy negotiations on the specific RES target for Norway, but nonetheless roughly on time. Norway's power sector was already predominately based on renewable energy. Its heating sector had already undergone gradual changes over the years to reduce the use of fossil fuels, a process that had been nationally driven (Boasson, forthcoming). The RES share within the transport sector was increasing only slowly. In implementing the RES Directive, Norway introduced technology-neutral green certificates to support behaviour already established: hydropower has long traditions in Norway, and dominates the onshore electricity system. How new renewable energy should reduce emissions was not addressed, and there were only weak or few instruments that targeted energy consumption and transport.

5.4 CCS: A forerunner falling behind

The CCS Directive established a legal framework for environmentally secure storage of CO₂. An informant that had followed this process noted that the Norwegian government had initially regarded the development of CCS as a race, with the EU a rival. Over time, however, Norway became more supportive of the EU's efforts, acknowledging that these could complement and support Norwegian initiatives. In early discussions on transposition, the Norwegian authorities presented the CCS Directive as the result of existing international developments, where Norway had played a prominent role. According to the Ministry of Foreign Affairs, the Directive was to a large extent based on international rules established in 2007 within the framework of international conventions on the marine environment (the OSPAR Convention and the London Protocol), by which Norway was already bound. Moreover, the ministry highlighted the contribution by Norwegian authorities and experts within the related forums of this framework where CCS was discussed, as well as within UNPCC (MFA, 2012a: 39). Beyond underlining the Norwegian engagement in international discussions, the ministry pointed out that Norway

had participated in the EU's legislative process on the CCS Directive. The Norwegian Environment Agency had been invited to join the Commission's working group that was preparing the Directive, and Norwegian experts from SINTEF and Veritas had been involved. Further, according to the Ministry, Bellona was a driving force; and, through cooperation with UK, the Netherlands and central members of the EP, this 'alliance, which Norway was part of, [managed] to secure the necessary majority for integrating CCS as a measure within the EU's climate policy, and thus also for the CO₂ Storage Directive [CCS Directive]' (MFA, 2012a: 39, own translation).

The CCS Directive was discussed in the inter-ministerial special committee for the environment, led by the Ministry of the Environment (see Table 7). The responsible ministries were those for the Environment, and for Petroleum and Energy. It was not expected that that implementing the CCS Directive would challenge existing Norwegian practice on storing CO₂ (Boasson, 2011: 22). The Commission's proposal for a directive, tabled in January 2008, was put to a public hearing in July–September 2008, launched by the Ministry of the Environment and the Ministry of Petroleum and Energy (MoE, 2014c). The stakeholder responses are not publically available, but a government website states that stakeholders were generally positive to the Directive, although the need for flexibility was noted, given the ongoing technological development (Europaportalen, 2012a). In June 2012, the CCS Directive was added to the EEA Agreement (EEA, 2012b), although Icelandic constitutional requirements delayed entry into force until June 2013.

As regards implementation, three Norwegian ministries (Environment, Petroleum and Energy, and Labour) would be involved (MPE, 2011d: 26), although the main ministry was Petroleum and Energy. An informant noted that there had been competition between the Ministry of Petroleum and Energy and the Ministry of the Environment as to which should have responsibility for coordinating implementation of the CCS Directive. Agencies under both ministries had been involved; and in addition, several other governmental bodies from other sectors were also affected. According to an informant that followed the process, this was 'not exactly an easy issue'. The same informant noted that relations between the Ministry of Petroleum and Energy and the Ministry of the Environment on this issue had become cooler.

The Ministry of the Environment was responsible for incorporating the environmental aspects of transport and storage of CO₂ into Norway's Regulation on Pollution. A revision regarding general pollution regulation (not CCS-specific) was adopted in July 2013 (Norway, 2013c; Stortinget, 2013). Regarding transport and storage of CO₂ on the continental shelf, responsibility for regulating this was delegated to the Ministries for Petroleum and Energy, and the Ministry of Labour through a revision of the Continental Shelf Act in March 2009 (MPE, 2011d: 25): The Ministry of Petroleum and Energy was formally mandated to regulate transport and storage of CO₂ in subsea reservoirs on the continental shelf, while the Ministry of Labour was formally in charge of safety aspects of transport and storage of CO₂ in such areas, and was to adopt new health, safety and environment (HSE) rules (Stortinget, 2013).

Until then, CO₂ storage had been regulated through general petroleum legislation (Frisvold, 2014: 109). The Ministry of Petroleum and Energy announced that it would adopt a regulation on subsea storage and transport of CO₂ on the continental shelf ‘based on the decisions in the EU’s [CO₂] storage directive as well as on existing petroleum legislation’ (MPE, 2011d: 25, own translation). The ministry further noted that storage has many commonalities with petroleum activities, with many decisions in existing petroleum legislation having relevance also to storage (MPE, 2011d: 25). Further, the Ministry of Labour would adopt a regulation on HSE aspects of these activities, aiming for a public consultation on this in 2011 (MPE, 2011d: 25). As of November 2014, neither of the two regulations had been adopted.

The difficulties were connected to issues within the CCS Directive, and to other parts of the climate and energy package. In particular, the ministries discussed the issue of responsibility for stored CO₂, and how this should be handled in practice – for instance, by licensing processes. However, an informant stressed that costs had been the main barrier to CCS in Norway, mentioning, *inter alia*, the low price of carbon credits. These difficult issues also affected Norway’s relations with the EU. While Norway had welcomed the EU’s adoption of the CCS Directive, an informant noted that relations became strained due to disagreements concerning the content of what had been adopted, in particular the liability for stored CO₂, as regards the responsibility of the state, and liability. Another informant noted that existing petroleum legislation for storing CO₂ basically gave the petroleum companies *carte blanche*, whereas the EU was more concerned about formally regulating the transfer of responsibilities and financial liabilities etc. He also pointed out that the Norwegian petroleum company Statoil had argued that high operator financial liability for CO₂ leakages by having to pay for ETS allowances (EUAs) could be costly and make CCS uneconomic. Norway–EU relations on the issue had also been affected by the question of applying the EEA Agreement to the Continental Shelf and disagreements on various matters concerning the euro.²⁵ Because it touched on Norwegian petroleum activities the issue was a sensitive one, made even more sensitive by the later adoption of the EU directive concerning offshore safety.²⁶

The Norwegian government has invested heavily in CCS R&D, with the CO₂ Technology Centre Mongstad opening in 2012. Preparations for full-scale CO₂ capture at Mongstad gas-fired power plant and refinery were carried out in parallel to the development of the test facility (MoE, 2012d: 116). A major target has been to realize full-scale CCS by 2020 (MoE, 2012d). Following an official audit that severely criticized the undertaking (Office of the Auditor General, 2013), however, the newly-elected government announced a re-think in 2013 (MPE, 2013a, 2013d; *Teknisk Ukeblad*, 2013c). In 2014, it announced that it would continue to work for CCS, but that a more flexible approach would be taken, with the

²⁵ Disagreement on bank deposit guarantee and Norwegian participation in EU financial agency.

²⁶ Labelled EEA relevant by the EU, something that has been contested by Norway.

possibility of projects outside Norway as well. Moreover, the new government noted that the lack of projects for *capturing* CO₂ in Europe indicated that the demand for *storage* capacity thus far was limited, and stated that large-scale storage projects on the continental shelf would be postponed until the situation changed (MPE, 2014f).

The implementation deadline for the CCS Directive expired the same day as it entered into force in the EEA-EFTA countries (1 June 2013). In September 2013, ESA sent a letter of formal notice to the Ministry of the Environment for not having provided notification of national implementing measures. According to the letter, the Norwegian government had informed the ESA that the Ministry of the Environment and the Ministry of Petroleum and Energy were working on draft regulations, which, upon completion, were to be subjected to a three-month public consultation (ESA, 2013b).

Between March and May 2014, the Ministry of Petroleum and Energy and the Ministry of the Environment launched parallel consultations for implementing the CCS Directive. The Ministry of Petroleum and Energy conducted a public consultation on a new executive measure on offshore CO₂ transport and use of subsea reservoirs for CO₂ storage (MPE, 2014g), while the Ministry of the Environment launched a consultation on adding a new chapter to an existing executive measure (the Regulation on Pollution) that would implement 'significant' parts of the CSS Directive, including storage regulation (MoE, 2014d). The Ministry of Petroleum and Energy also noted that HSE regulations in place for the petroleum sector would be revised by the Ministry of Labour and Social Affairs or the Petroleum Safety Authority so as to apply to transport and storage of CO₂ as well (MPE, 2014g: 11). Generally, the Ministry of Petroleum and Energy wanted to have a regulatory system (for transport of CO₂ and use of subsea reservoirs for CO₂ storage) that would correspond largely to the existing system for regulating the petroleum sector (MPE, 2014g: 6). The two proposals were seen as comprising an integrated approach (MoE, 2014e: 2; MPE, 2014g: 3). The Ministry of Petroleum and Energy underlined that its new executive measure would regulate new fields only – not existing fields used for CO₂ storage (Sleipner, Gudrun, Snøhvit), which would continue to be regulated by the petroleum legislation and pollution legislation (MPE 2014g: 1). In contrast, the Ministry of the Environment noted that its executive measure would apply to all storage, although existing storage fields would be granted a transitional period until 1 January 2016 (MoE, 2014a: 8).

The CSS Directive made operators economically responsible for stored CO₂, also for a set period after closure of a facility. 'Financial security' was required for establishing, running and closing a storage facility; and as was a 'financial mechanism' to cover expenses after closure. The former should cover the responsibilities for the operator until responsibility was transferred to the state, *inter alia* to fund ETS credits to compensate for emissions in case of leakage of stored CO₂. The latter should cover the expenses for the state for at least 30 years after transfer of responsibility for the facility, which as a main rule should take place

20 years after closure. *Financial security* concerned regulation of pollution as well as of offshore resources, and would therefore be regulated jointly by the ministries responsible for these aspects: the Ministry of the Environment (pollution) and the Ministry of Petroleum and Energy (resources) (MPE, 2014g: 4). Here, reference was made to the ETS Directive requirement that, in the event of leakage of stored CO₂, the operator of a storage facility would have to compensate such emissions by means of ETS credits. The two ministries would together make the decision on the financial security offered by an operator during the process of granting a license (MoE, 2014a).

In contrast, the *financial mechanism* would be regulated by the Ministry of Petroleum and Energy, to which responsibility would be transferred after closure. The Commission had adopted a guideline on financial mechanisms, and the Ministry stated that it would take this into account when considering financial security and financial mechanisms. This would also be done in contact with the operator in question (MPE, 2014g: 4–5). Both ministries noted the difficulties involved in estimating the amount of funds needed for ‘financial security’ (the Ministry of Petroleum and Energy also included the financial mechanism here), and stated that the more specific requirements would be decided in conjunction with future applications for storage (MoE, 2014e: 4–5; MPE, 2014g: 12).

During the hearing, participants voiced concern for double regulation, with competence placed with the environmental *and* the energy authorities. Moreover, divergences between the two proposals at the level of detail were pointed out, including on the applicability for existing storage sites, which was seen as unclear (Environment Agency, 2014d; Norwegian Oil Industry Association, 2014; Petroleum Safety Authority, 2014).²⁷ Moreover, several actors were critical to the regulation of operator liability and of the transfer of responsibility to the state. Notably, representatives from the petroleum sector and from an environmental NGO supportive of CCS were critical to a framework that they considered would reduce incentives for CCS; they wanted greater flexibility (Gassnova, 2014; Norwegian Oil Industry Association, 2014; Zero, 2014). Although generally supportive of the CCS Directive, the Norwegian Oil Industry Association was critical to several issues within the proposed executive measures. It saw these as adding risks, costs, procedures and workload to operators, thus being a barrier to the development of CCS and CO₂ storage in Norway (Norwegian Oil Industry Association, 2014: 1–2). Although the Norwegian Oil Industry Association noted that carbon credits should provide incentives for CO₂ storage, it was concerned about requiring operators to offer financial security to cover expenses to credit purchase in case of leakage, and held that this should not apply to CO₂ stored from non-traded sectors. Moreover, the Association noted the uncertainties involved in assessing

²⁷ The Petroleum Safety Authority also noted that terms applied in the proposal from the Ministry of Petroleum and Energy were not aligned with Norwegian HSE terminology (Petroleum Safety Authority, 2014)

the extent of a leak, and in future ETS prices – it would not be possible to take out insurance against this risk, so few commercial actors would be able to absorb such a risk. The group also noted that short notice had been given for providing inputs on the draft regulations (Norwegian Oil Industry Association, 2014). Statoil had previously emphasized that the liability requirements to businesses would make CO₂ storage commercially unviable (CLIMIT, 2013).

In parallel, the government was evaluating its CCS work. The Federation of Norwegian Industries stated that CO₂ storage was unlikely to be established by 2020, and that CCS as such would not be able to contribute to reducing emissions by that time (Federation of Norwegian Industries, 2014b: 2). It underlined that the construction of installations for capturing CO₂ would hinge on the availability of adequate transport and storage facilities (Federation of Norwegian Industries, 2014b: 5), while also noting that 'Norway generally has fewer point discharges with limited advantages from coordination as regards CO₂ transport and storage' (Federation of Norwegian Industries, 2014b: 4, own translation).

In November 2014, following a final warning from ESA, the Ministry of the Environment adopted the revised Regulation on Pollution. The Environment Agency would administer the measure by handling and issuing permissions to store CO₂ (MoE, 2014b). Concerning the transfer of responsibility to the state, the Ministry's proposal had referred to the executive measure to be adopted by the Ministry of Petroleum and Energy (MoE, 2014a: 8). However, the latter had yet to be adopted at the time, and the Ministry of the Environment instead noted that the Ministry of Petroleum and Energy would determine regulations on the matter (MoE, 2014b).

Although initially positive to the directive, Norwegian authorities and stakeholders were soon engulfed in discussions involving many parties on the content of the directive. The Ministry of Petroleum and Energy, and the Ministry of the Environment held overlapping responsibilities, and the major stakeholder Statoil was critical towards liability for operators in case of a leak of stored CO₂.

5.5 FQD: Early-mover disadvantage for conventional oil

Norway had implemented the previous EU Fuel Quality Directive (FQD). The new Directive aimed at reducing emissions from the transport sector by 10% by 2020, of which 6% was to be attained through measures targeting the fuels segment. An important part of this was lifecycle calculations of fuels (Christensen & Gulbrandsen, 2012). The FQD was dealt with in the inter-ministerial special committee for environment (see Table 7) at an early stage (once in mid-2007), and, later, following EU adoption (twice in 2009) (Europaportalen, 2013b). Transposition of this directive would be managed by the Ministry of the Environment, which would revise the Norwegian Product Regulations. In the transposition process, this Directive was linked to the decisions contained within the Renewables Directive, especially those on biofuels and the 10% emission reduction target for the transport sector.

The Directive was subjected to public consultations in 2009 and 2010, receiving input on technical details. The downstream fuels business were concerned, but this was not something that received notable media attention, one informant noted. In 2009, biofuel producers (NoBio) emphasized that the calculation of emissions from fossil fuels was too low, which would make biofuels less competitive; by contrast, downstream fossil-fuel companies (Norsk Petroleuminstitutt, NP) encouraged the Norwegian authorities to follow international standards regarding fuel content, and to participate in work on indirect land-use change (ILUC). NP also stressed that Norway should get the exemption, provided for in the Directive, for higher vapour pressure in to colder temperatures. During the winter 2010/2011, the Norwegian Environment Agency submitted a draft for changing Norwegian regulations to public consultation, and received mainly positive responses regarding implementing the Directive's decisions (Europaportalen, 2013b). While transposition was managed by the Ministry of the Environment, the Environment Agency was also involved, e.g. by submitting draft regulations to public consultations. Norway wanted to be able to avail itself of the Directive's exemption provisions regarding vapour pressure in cold countries (Europaportalen, 2013b).

A central component of the FQD was a lifecycle approach to calculating emissions, with default values for various fuels to be determined through comitology (Christensen & Gulbrandsen, 2012), with Norway participating as an observer (Norway, 2012b). Norway was sceptical towards the default values, regarding reported emissions as a better indicator. As a compromise, it proposed that companies could be allowed to report lower emissions than the default values if they provided verification that their emissions were indeed lower (Norway, 2012b). An informant noted that the Ministry of Petroleum and Energy was generally sceptical to the lifecycle approach. Moreover, Norway had considered flexible mechanisms, with Statoil involved in the process, but 'had not been very creative', according to the same informant. Norway suggested trade in upstream emission reduction (Norway, 2012b), comparable to emission trading. This informant also pointed out that climate targets for fuels as well as sustainability criteria were important issues for Norwegian climate policy, especially with regard to cost-efficient reduction of emissions within the transport sector, adding that Norwegian authorities had perhaps been too concerned with defensive interests, and less with offensive ones.

Meanwhile, the EU was struggling with finding common ground on implementing legislation for the FQD. Discussions on the standard values (for calculating the emissions for different fuels) proved challenging. Debate centred on whether unconventional oil, e.g. produced from tar sands, should be given the same default value as conventional oil. A common value was expected to be an advantage for unconventional oil, as higher average emissions had been estimated. Originally to be decided in 2011, lack of agreement had led to delays (EurActiv, 2014a, 2014b). In parallel, the Norwegian environmental movement criticized Statoil's ownership in tar-sands fields in Canada, which was expected to give Statoil an interest in a lower standard value for unconventional oil (*Aftenbladet*, 2012b). The Minister of Petroleum and Energy expressed

criticism of setting a higher default value for unconventional oil (*Aftenbladet*, 2011).

According to Statoil itself, however, it was far more concerned about the default values for conventional oil – especially because the reference year had been set to 2010. As reductions after this year would be rewarded, Statoil feared that oil-exporting countries that had barely started implementing emissions-reducing measures would gain a competitive advantage, not least because the same default values would be used as basis for calculating lifecycle emissions (*Aftenbladet*, 2012a). As steps (i.a. the CO₂ tax) had already been taken to reduce emissions within the Norwegian petroleum sector, the Ministry of Petroleum and Energy did not see how the FQD could give this sector a competitive advantage, one informant noted. Attention turned to the reference year: Statoil felt that it should be rewarded for emissions reductions carried out prior to 2010 (*Aftenbladet*, 2012a). This view was shared by other major stakeholders within the Norwegian petroleum sector (Esso/Exxon Mobil, Federation of Norwegian Industries), and supported by the State Secretary in the Ministry of the Environment. Norway therefore sought to get an adjustment in its implementation of the Directive. This was to be dealt with in the Environment Constellation of the Council in 2012 (*Teknisk Ukeblad*, 2012b) as well as in 2013 (*Aftenbladet*, 2012c), but has been postponed repeatedly. As of November 2014, the Directive had not yet been added to the EEA Agreement, and Norwegian transposition was still pending.²⁸ The Norwegian petroleum sector was perhaps hit by an early-mover *disadvantage*.

5.6 CER: Unnecessary without an automobile industry?

The Car Emission Regulation (CER) laid down legislation on permitted CO₂ emissions from cars, based on annual averages. Over time, this average was to be reduced. Emissions from cars were to be limited to 130g CO₂/km for 65% of all new cars in 2012, increasing to 75% in 2013, 80% in 2014 and 100% in 2015 – with penalties to be paid by car manufacturers for each car surpassing that limit. By 2020, moreover, the limit was set at 95g CO₂/km (Christensen & Gulbrandsen, 2012: 41–42), with member states required to report the annual average to the Commission from 2010. Initially, this regulation was not expected to have significant impact on Norway, given its lack of an automobile industry, as noted by the Minister of Transport and Communications in late 2008. The Minister also noted that Norway had already set a target to restrict emissions from new cars to 120g/km, in addition to existing use of the tax system to incentivize lower emissions from cars. Norway was positive to the EU's plans for adopting such legislation, and the Minister of Transport and Communications emphasized that EU legislation would send a much stronger signal to the automobile industry than what Norway could do. She therefore regarded this as important, and stated that Norway was pushing for EU adoption of this legislation (Stortinget, 2008c).

²⁸ A draft EEA decision was reported to have been sent to the Commission in July 2013 (Europalov, undated).

Following its adoption in 2009, the CER was discussed within several of the inter-ministerial special committees, including those for the environment, and for trade liberalization, before a position was adopted in the transport committee in the autumn of 2010 (see Table 7). The regulation, designated as acceptable and EEA-relevant, would require changes to the Road Traffic Act (Europaportalen, 2013a). The responsible ministry was the Ministry of Transport and Communications. A fundamental issue was the regulation's delegation of authority to the Commission, empowering it to impose fines on automobile producers. Given Norway's association with the EU through the EEA Agreement, this competence would have to be delegated to ESA. Beyond this, because Norway had no national automobile industry, the main changes concerned reporting requirements. The Norwegian Public Roads Administration (*Vegvesenet*), a government agency subsumed under the Ministry of Transport and Communications, had notified the Commission that the technical solutions needed for reporting in accordance with the Regulation's requirements would not be in place by the deadline set for this (January 2010). The requirements would necessitate changes in the Public Roads Administration's existing system, although they would not require additional costs, as a revision of the system was already underway (Norway, 2010). The government concluded that it would not make sense to incorporate the CER in Norway unless Norway were to get a national automobile industry (Norway, 2010), thereby postponing it until further notice.

Meanwhile, emissions from new cars were decreasing. In 2013, the average emission from new cars was 123g/km, down 7 grams from 2012. Moreover, while the EU target for 2020 was 90g/km, the Norwegian target was 85g/km (Vegvesenet, 2014). Norway has used the tax system to reduce emissions from cars. This has included tax exemptions for electric vehicles, introduced in 2001, as well as differentiating the registration tax for new and used cars by emissions intensity (*ABCnyheter*, 2014; *Forskning.no*, 2012). However, the Ministry of Finance has been sceptical to the benefits accorded to electric vehicles, and in 2013 sent a formal request to ESA, requesting its opinion on the legality thereof under EU state-aid guidelines (*ABCnyheter*, 2014). Norway's new right-wing government (from October 2013) has relaxed vehicle taxation (*Dagens Næringsliv*, 2014a; NRK, 2013).

In 2013, the Commission adopted a decision revising the CER.²⁹ The main alteration concerned reporting requirements, a change referred to as 'marginal' by the Norwegian authorities. The government stated that Norway was already observing the reporting requirement under the CER on a voluntary basis, as far as possible within existing technical solutions. The revision was deemed EEA-relevant and acceptable. As a follow-up, the government submitted a draft decision incorporating the CER – along with the revision – to the EEA Agreement to the Commission in November 2013, with adoption by the EEA Committee scheduled for

²⁹ Commission regulation (EU) No 397/2013 of 30 April 2013 amending Regulation (EC) No 443/2009 of the European Parliament and of the Council as regards the monitoring of CO₂ emissions from new passenger cars.

February 2014 (Norway, 2013e). By November 2014, it had yet to be adopted.

Summing up, Norway welcomed EU legislation on car emissions, but did not want to implement the Car Emissions Regulation. This was not seen as necessary, because Norway had no national automobile industry – the main addressee of the Regulation – and the authorities wanted more time to update the system for gathering data on Norwegian car emissions. However, pressure from the EU might have pushed the implementation process to the next step, with talks on EEA incorporation now underway, although the Regulation has yet to be added.

5.7 Assessing implementation with a view to 2050

Table 4 sums up implementation performance in the transposition of the EU's climate and energy package. In this section, implementation will be evaluated, and the impact of the package on long-term targets and policies will be considered.

EU legal act	EU transposition deadline	EEA relevant?	EEA incorporation	Special Committee	Ministry responsible	Implementation performance ³⁰
ETS Directive	Dec 2012	Yes	July 2012	Environment	Ministry of the Environment	High
Effort-Sharing Decision	(direct effect)	No ³¹	N/A	Environment	N/A	N/A
RES Directive	Dec 2010	Yes	Dec 2011	Energy	Ministry of Petroleum and Energy	High
CCS Directive	25 June 2011	Yes	June 2013 ³²	Environment	Ministry of Petroleum and Energy; Ministry of the Environment; (Ministry of Labour)	Low
Fuel Quality Directive	January 2011	Yes	Pending	Environment	Ministry of the Environment	Low
Car Emissions Regulation	(direct effect)	Yes	Pending	Transport	Ministry of Transport and Communications	Low

Table 4: Norwegian transposition of the EU's climate and energy package (as of November 2014).

³⁰ Implementation performance is high if complete and on time (max. 1 year later than EU deadline); intermediate if complete but delayed; low if incomplete and delayed.

³¹ The Effort-Sharing Decision (ESD) regulates emissions from various sectors not covered by the ETS, such as transport, agriculture and waste. The decision was not deemed 'EEA relevant' by the EU; moreover, agriculture is not included in the EEA Agreement. The inter-ministerial special committee for the environment found the ESD as having relevance to the EEA, and was therefore not incorporated into Norwegian law.

³² A decision was made in the EEA committee in June 2012, but it did not enter into force until June 2013 due to constitutional requirements for Iceland.

Assessment of Norwegian implementation of the 2020 package

The transposition process gave a mixed picture, as Norway's implementation performance was high for two directives (ETS, RES), irrelevant for one (ESD) and low for the remainder of the package (CCS, FQD, CER). For the two directives that were implemented, the ensuing domestic changes were largely absorbed by existing practices, so there was little behavioural change. At the general level, the *ETS Directive* did not change Norwegian climate policy, although it brought about changes at the level of detail. Application of the ETS has not led to overall reduction of emissions within the traded sectors within the third trading period. In 2013, emissions within these sectors grew by 300,000 tonnes. While emissions from almost all sectors grew, most of this – two thirds – came from the petroleum sector. The general picture over time is differentiated, but with an overall increase in emissions. Whereas emissions from onshore industry have been sinking, they have grown within the petroleum sector (Environment Agency, 2014c). Beyond a low ETS price, traded sectors in Norway largely receive free allowances (energy-intensive traditional industry and the petroleum sector) or have insignificant emissions (the power sector). In the long term, however, carbon pricing could affect investments. According to a survey conducted for the Environment Agency, most businesses within the traded sectors expected the carbon price to rise over time, and it was estimated that this affected their investments. However, the impact of future carbon prices differed between onshore and offshore industries. The investments of mainland industries, which are very power-intensive, were affected by the exposure to indirect carbon costs (ETS-induced growth of power prices). In contrast, the overall carbon price for the petroleum sector (ETS and the CO₂ tax) would have to be far higher to have an impact on major investments (Carbon Limits & Norsk Energi, 2014). Summing up, there are generally insufficient incentives for behavioural change among target groups before 2020.

In order to implement the *RES Directive*, Norway introduced a support scheme for expanding renewable power production. The certificates scheme might have been established irrespective of the RES Directive, but the latter set a tighter timeframe for the process of developing a support scheme. This raised the threshold for alternatives to a certificate market, and placed pressure on Norway to find agreement on the joint target with Sweden. At the level of application, overall progress has been positive, and forecasts show that the 2020 target will probably be achieved. So far, there has been low behavioural change among target groups in Norway. Most of the growth in renewable power production is likely to be in Sweden, as power producers have greater economic incentives to invest there due to favourable tax regulations as well as more expedient licensing. The Norwegian authorities have weak incentives to change this overall picture, as half the expansion will be counted towards Norway's RES target. In Norway, the support scheme will cover projects that are finalized during a limited timeframe (2012–2020), but, due to long licensing processes, projects entitled to certificates had already been submitted to the public authorities. As a result, the impact of the certificates of bringing new projects to the (licensing) table will be limited. Moreover, the scheme is likely to reinforce existing target

group behaviour in Norway, as the most profitable projects here will be hydropower, which has a long tradition of dominating the mainland electricity system.³³ As the overall change in power production will be limited and will reinforce existing investment behaviour, the changes may well be absorbed instead of having a transformative impact.

Given the power-market integration among the Nordic countries, however, Swedish RES growth could also affect target group behaviour in Norway. The expected overall Nordic power surplus has created an additional push for power export. Although satisfied with the green certificates scheme, producers worried that increasing production towards 2020 might depress power prices unless capacity for electricity exchange with other countries, particularly beyond the Nordic region, was expanded. This encountered strong resistance from energy-intensive companies, who feared rising energy prices through harmonization of price levels with non-Nordic countries. Historically, power producers and the energy-intensive industries have developed in tandem in Norway (Wicken, 2011), but with an expansion of renewable electricity production, interests might increasingly come to diverge. If the result is greater integration of the Norwegian power system with European countries beyond the Nordic region, this could represent a lock-in for change beyond 2020.

While possibly transformative, however, this change might not necessarily serve to lower Norwegian emissions. Export of low-carbon electricity to other European countries has the potential to reduce the use of fossil fuels there, although this depends on these countries' energy market regulation (including market design), as well as on developments in power prices. The overall European cap on emissions within the traded sectors will also be important (Bye, Hagem, & Rosendahl, 2011). Within Norway, however, increased electricity export is less likely to contribute to lower emissions.³⁴ Moreover, exporting electricity could lock out decarbonization by electrifying the transport and the petroleum sectors in Norway, if export serves to raise power prices. Export could also lower the push for electrification from power producers interested in creating more demand in order to keep up with increased supply.³⁵ While the Norwegian government has generally been in favour of electrifying transport (mostly personal vehicles), recent years have seen major discussions highlighting the lack of governmental push – but also the technological and economic challenges – for electrification within the petroleum sector (*Teknisk Ukeblad*, 2013a, 2014a). Regarding the latter, an informant noted that new infrastructure investments here would

³³ This is likely to be the case despite the proposed changes to tax regulations for windpower from 2015, aimed at making such projects relatively more competitive.

³⁴ While reduced demand for Norwegian gas could bring down Norwegian emissions if it were to lead to lower production within the Norwegian petroleum sector, Norwegian power export alone is not likely to be the deciding factor here, given the difference in scale. Current gas export is roughly nine times higher than total power production in a normal year (120TWh), of which net export has remained below 20 TWh at the highest (Statistics Norway, 2014b).

³⁵ Although shutting down nuclear power plants in Sweden (*Aftonbladet*, 2014) could also address this issue.

constrain future developments, but that there was strong pressure for continuing doing things as in the past.

We turn now to an assessment of Norway's overall efforts for decarbonization. While transposition of the ETS and RES Directives was aligned with EU requirements, it did not go any further. The exception was the increase in the CO₂ tax when the petroleum sector started receiving free allowances. In application, however, efforts remained low on emission reduction. Generally, emissions from the traded sectors have grown, and will continue to do so towards 2020, with some variation across sectors. A higher carbon price is unlikely to change this picture as long as carbon leakage provisions (including the compensation mechanism for indirect carbon costs) remain in place, although lower allocation towards 2050 could change this. While the potential change towards 2020 was somewhat greater regarding renewables, this would not necessarily reduce Norway's emissions. Whereas efforts in application on renewables could be characterized as intermediate towards 2020, they remained low in a longer 2050 perspective – especially since policies and measures for converting current use of fossil fuels to renewable energy consumption are either too weak (evaluation of electrifying new petroleum installations on a cost-efficiency basis) or too narrow (passenger cars are responsible for only a small share of overall transport emissions). Generally, Norway's climate policies and measures have succeeded only in reducing the growth in emissions, and not in reversing the trend (Environment Agency, 2014b; Office of the Auditor General, 2010).³⁶

Norwegian targets and positions towards 2050

Norway's implementation of the 2020 package did not give rise to transformative changes that would bring it closer to domestic decarbonization, as the package was largely absorbed into existing practices. Still, there were two signs of change in the long run: A higher carbon price could incentivize low-carbon investments for companies without full allocation. Second, the way Norway implemented the climate and energy package did strengthen power-producers' interest in export. On the one hand, the package did not provide sufficient incentives for phasing out the use of fossil fuels beyond the power and heating sectors; on the other hand, Norway did not in addition adopt sufficiently broad or strong measures for making use of the new electricity (e.g. within the transport or petroleum sectors). Nevertheless, increased attention to interconnectors in a climate policy context could be observed in the government's response to the EU's 2030 targets (see below). However, this could be a limited shift, as no further interconnectors are scheduled at the time being, with energy-intensives have continued to remain sceptical (*Dagens Næringsliv*, 2014b). Thus it remains to be seen how the impact on the power sector will play out. It might be reversed by reduced nuclear

³⁶ Emissions were below the projected growth without any policies and measures (approx. 13–15 mtoe below trajectory in 2010) (Environment Agency, 2014b: 56), but nevertheless 4.6% higher in 2012 than in 1990, with main growth contributions coming from the petroleum and transport sectors (Statistics Norway, 2014d).

power in Sweden. At any case, increased power export in itself is not likely to reduce Norwegian emissions.

Will Norway be able to decarbonize by 2050? Norway has no intention of decarbonizing, but of becoming *carbon-neutral*. While the EU aims at a reduction of GHG emissions by 80–95% by 2050, Norway's 2050 target entails an international reduction of emissions corresponding to 100% of Norway's emissions in 2050 (or by 2030 if an ambitious international climate agreement can be negotiated). This means that Norway will seek to reduce global emissions equivalent to its own carbon footprint (including forest uptake),³⁷ with cost-efficiency considerations deciding whether emissions will be reduced domestically or internationally (MoE, 2012d). Given the clause allowing for global emission reduction, goal attainment will be a matter of allocating sufficient funds for purchasing international carbon credits.

In EU context, Norway has expressed support to a continued use of the ETS as a climate-policy instrument. In 2013, the Norwegian government submitted its input to the Commission's communication on climate and energy policy towards 2030, stating a clear preference for a single overarching target: emissions reduction. Moreover, it noted that the EU ETS should be the main measure for achieving this. Efforts in renewable energy and energy efficiency should be subordinate to the goal of emissions reductions. The government further noted that targets should not diverge, underscoring the importance of prioritizing the emission reduction target (Norway, 2013d). Moreover, Norway had long favoured the use of international credits (CDM/JI), and was against limiting the use of these for complying with the ETS (Norway, 2013a). Inputs were also provided by Norwegian societal actors representing energy-intensive mainland industry, the petroleum sector, power producers and a green NGO. The positions of most stakeholders were largely along the lines of the government – they too preferred a single overarching target, with the ETS as the main measure. Interestingly, many stakeholders pointed out the divergence within the 2020 package, highlighting the lack of integration of energy and climate policy due to what they considered to be inconsistent headline targets. Nevertheless, stakeholders were generally supportive of an integrated energy and climate policy, although they stressed the need for a single target. Norwegian long-term targets and positions were largely the same as those held prior to the 2020 package.

In October 2014, the European Council adopted three binding targets for 2030, thus signalling a new climate and energy package. Emissions were to be reduced by 40%, while the share of renewables in the energy mix should be at least 27%. Finally, energy efficiency should be increased by 27%, i.e. total energy consumption should be reduced by this percentage compared to projections. All targets applied to the EU level, and energy targets (renewables and energy efficiency) would not be disaggregated to

³⁷ The contribution from forest uptake will be subtracted from Norwegian emissions first. Restrictions apply under the existing Kyoto Protocol for how many million tonnes can be subtracted.

national targets. While the targets for emissions reduction and renewables expansion were binding, the energy efficiency target was indicative. Moreover, emissions were to be reduced 'domestically', indicating a further restriction on the use of CDM/JI credits, although the specifics of this remains to be seen (European Council, 2014). In contrast, Norway had expressed its preference for a single target (Norway, 2013d, 2014a, 2014b). The EU continued to emphasize multiple targets and instruments (with a relative shift in emphasis), whereas Norway maintained its preference for a single target, with the ETS as the main instrument. Moreover, the EU already had restrictions in place for the use of international carbon credits (and announced further ones), while Norway emphasized flexibility, with cost-efficiency as the deciding factor.

6 Explaining Norway's implementation performance

Although not bound by the EU's headline targets for 2020, Norway has implemented parts of the legal acts included in the climate and energy package. These include the ETS and RES Directives; in other cases, implementation is either pending (CCS, FQD, CER) or has been conclusively rejected (ESD). What can explain the differentiated pattern of support and resistance to different parts of the EU package?

6.1 Misfit: Mixed picture, and only explains half the story

Generally, misfit between the EU and Norway was expected to reduce implementation performance. Differences between the EU's climate and energy package on the one hand, and existing Norwegian policies on climate and energy issues on the other, were expected to create hurdles for transposition. While EU legal acts that placed adaptation pressure on existing Norwegian practices would be met with resistance, legislation that was aligned with Norwegian policies and measures would meet open doors. Moreover, if the package increased overall misfit – compared to the separate pieces of legislation included therein – this was expected to have a negative impact on implementation performance. At a more fundamental level, differences in the energy-economic situation between the EU average and Norway would give rise to various challenges. Moreover, Norway's low possibilities for involvement in EU decision-making could mean that the EU's solution – the climate and energy package – might not fit the Norwegian situation.

Mixed pattern in fit between package content and existing Norwegian policies

Emissions trading had already been implemented in Norway, with a system in place since 2005. As such, it went well with the emphasis on cost-efficiency and carbon pricing within Norwegian climate policy. To a large extent, this explains Norway's timely and correct implementation of the *ETS Directive*. Moreover, domestic practices (pricing emissions from the petroleum sector and shielding energy-intensives from such costs) could be maintained. Although the revised ETS Directive did include changes, these did not challenge Norwegian practices.

However, there was misfit regarding the *RES Directive*. Subsidizing renewable energy did not fit well with existing Norwegian policies. The EU wanted to increase its share of renewables in the overall energy mix, paying considerable attention to its electricity mix. The EU saw this as reducing emissions *and* enhancing energy security. In contrast, Norway's overall share was already quite high – in fact, the highest in Europe – and its electricity mix was almost completely 'green'. Moreover, the RES Directive was seen primarily as a climate policy, whereas a renewable energy target was not seen as contributing to cost-efficient reductions in emissions. That collided with Norwegian conceptions of climate policy. In addition, as a net exporter of energy, Norway was not particularly concerned with energy security. Further, the linkage between the

Directive and the green certificates scheme added turbulence: although market-based and technology-neutral, this supply-side measure entailed a further step away from demand-side instruments that targeted emissions directly. This misfit can explain much of Norway's resistance to the RES Directive. Moreover, the connection between this Directive and the ETS brought further difficulties, since the energy sector in general was targeted by both measures, a double-regulation that increased the perceived inappropriateness of the RES Directive. Nevertheless, Norway did implement it in the end, missing the transposition deadline for EU member states only narrowly (by a matter of days). As a result, Norway's performance in implementation of the RES Directive can be characterized as high, because transposition was correct and (roughly) on time. However, misfit cannot explain why Norway implemented the directive on time but apparently unwillingly – as indicated by the clear political signals that it would discontinue the green certificates scheme in 2020. Despite a turbulent implementation process with initial opposition, a high implementation performance ensued. Instead of a low implementation performance, Norway reluctantly accepted the RES Directive.

Norway had given paid considerable attention to carbon capture and storage (CCS) domestically, and urging its inclusion in the EU's climate and energy package. With a high fit, good implementation performance of the *CCS Directive* was expected. Nevertheless, implementation was delayed and has remained incomplete. This poor implementation performance seems puzzling from the misfit perspective.

While positive to reducing emissions within the transport sector, Norwegian policies had targeted emissions through demand-side measures. Differentiated by emission-intensity, levies had been imposed on fuels, in the form of a CO₂ tax. In contrast, the EU's *Fuel Quality Directive* (FQD) introduced a lifecycle approach which also targeted upstream and downstream producers of fuels. As such, low implementation performance could be expected for Norway, and indeed: the FQD has not been transposed on time. Norway was critical to the lifecycle approach, in particular to the use of default values in calculating emissions rather than reported emissions. Under the Norwegian CO₂ tax scheme, levies are also imposed on various fuels, with differentiation stemming from a combination of estimated emissions and political decisions. However, under the FQD, relative improvement vis-à-vis a reference year for suppliers is rewarded, in contrast to the Norwegian scheme, where consumers are given economic incentives for choosing fuels with lower average emissions. Given this misfit, it does not seem surprising that Norway's implementation performance was low.

Norway had used general tax measures to give consumers incentives to purchase cars with lower emissions, and an ambitious Norwegian target for CO₂ emitted per km was already in place. As such, the EU's *Car Emissions Regulation* (CER) fit well with Norwegian policies. Nevertheless, implementation performance was low due to delayed and incomplete implementation, which is not explained by the misfit perspective.

To what extent, then, did the legislation within the EU's climate and energy package challenge the status quo within these policy areas in

Norway? In terms of package content, some pieces had a better fit than others, while others challenged the status quo. The former was expected to increase implementation performance, while the latter was expected to reduce it. The ETS Directive represents the former, whereas the FQD is an example of the latter – both in accordance with our expectations, as difference in fit could explain the different implementation performance on these two directives. Despite alignment with existing Norwegian policies, however, both the CCS Directive and the CER experienced difficulties, whereas such difficulties could be bridged in the case of the RES Directive. For the latter three legal acts, then, Norway’s implementation performance seems puzzling.

No reproduction of package synergies in the Norwegian situation

Turning to the overall package, to what extent did this solution from the EU fit the Norwegian situation? There were striking differences in energy use and emissions profile in Norway and the EU. In the latter, the energy mix (gross inland consumption) consisted predominantly of fossil fuels (78.6%), with less than one tenth from renewables, whereas the Norwegian energy mix was more evenly split between fossil fuels (55%) and renewables (45%); see Table 5. The EU was thus more reliant on fossil fuels to cover its energy needs than Norway. Moreover, as a net importer, the EU was becoming increasingly reliant on imported fossil fuels, while Norway enjoyed a surplus of energy and was a net exporter. As a result, the EU was increasingly concerned about energy security. While security of supply within the electricity sector had been a recurrent issue in Norway (especially during years of low precipitation, which directly affects hydropower production), this had mainly been a matter of improving internal transmission capacity within the country. Instead, Norway has been concerned about security of *demand* for oil and gas in Europe, as investments in petroleum production and pipelines must be taken within a long-term perspective.

	EU27	Norway
<i>Oil</i>	36.4	35
<i>Gas</i>	23.9	17
<i>Solid fuels</i>	18.3	3
<i>Nuclear</i>	13.4	-
<i>Renewables</i>	7.8	45

Table 5: Gross inland energy consumption in 2007, in percentage. *Source: Commission (2010c).*

Norway’s energy export is an important reason for its economic growth, and also a substantial contributor to its growth in *emissions* of 29.3% (excl. forest uptake) since 1990 (Commission, 2010b: 66). Similarly, a decline in EU exploration for fossil fuels is part of the picture of overall decline in EU emissions, which in 2007 was 4.8% lower than in 1990

(Commission, 2010b: 2). Nevertheless, the energy sector has remained the largest contributor (38%) to EU emissions (see Table 6), predominantly from electricity and heating (87%) (Commission, 2010b: 2). Thus, the EU's use of fossil fuels for generating electricity and heat was responsible for energy security concerns as well as being the cause of a major part of its emissions. In contrast, in Norway the largest emissions came from the transport sector (Table 6); power/heating had relatively insignificant emissions, whereas emissions from energy industries stemmed mainly from the petroleum sector.

	EU27	Norway
<i>Energy industries</i>	38.2	28.2
<i>Industry</i>	22.3	22
<i>Transport</i>	23.1	34.3

Table 6: Emissions by largest sectors, in percentage. *Source: Commission (2010b)*

For the EU, then, increasing the share of renewables would address two objectives in parallel. Replacing fossil fuels with 'domestic' renewable energy sources could diminish import dependency, while also reducing emissions. Concerns for energy security and sustainability ranked high on the EU agenda at the time, and were important driving forces for the EU's overarching targets for climate and energy. As such, the EU's energy situation and its emissions profile allowed for the integration of climate and energy targets: sustainability was seen as contributing to energy security, and vice versa.

In contrast, the way in which the EU's climate and energy package integrated policies for sustainability and security of supply did not fit the Norwegian situation, where no such link could be established. The situation there was less favourable to such integration due to three reasons: First, Norway did not share the EU concern for demand-side energy security, and it already had a high share of renewable energy. Importantly, a higher share would not contribute to enhancing energy security (or vice versa), nor was such enhancement needed. Second, instead of synergies between climate and energy objectives, Norway saw the renewable target as undermining the emissions reduction target. It regarded the former as undermining the economic incentives for the latter, since both objectives targeted the energy sector. Third, climate targets and energy targets were not linked in Norway. While the overarching climate objective for Norway was to contribute to reducing emissions internationally on a cost-efficiency basis, the overarching energy target was to generate income, including economic growth and jobs.³⁸

³⁸ Representatives of the Norwegian government and the petroleum sector have argued that export of Norwegian petroleum products helps to lower global emissions, not least by

Generally, we note a low degree of integration of climate and energy policies targeting domestic behaviour in Norway. Although important exceptions exist – electrification of transport and petroleum – these have collided heavily with the emphasis on cost-efficiency, and policies and measures have been too weak and limited in scope. Internationally, however, Norwegian climate and energy goals were sought reconciled through international offsetting (emissions trading) and R&D aiming for international deployment (e.g. CCS). While the EU also emphasized CDM/JI and CCS for the 2020 package, alignment between Norway and the EU has gradually weakened, as the EU seems less interested in these issues in its policies towards 2030.

Moreover, the EU's emissions structure, where the power and heating sectors represented a major share, led it to target these sectors in particular. Pricing emissions from the EU's power and heating sectors, and increasing energy efficiency and the share of renewables within these sectors, would entail a lower share of fossil fuels here; but that did not apply in the case of Norway, whose power and heating sectors were already basically fossil-free. With the exception of transport, then, most Norwegian emissions came from sectors largely shielded from the EU's climate and energy package through carbon leakage provisions. And that makes it easier to understand Norway's initial resistance to the reformed allocation rules under the ETS. Although Norway shared the EU's concern for carbon leakage, it wanted to maintain its own practice of targeted emissions from the petroleum sector in particular.

We had expected low influence on the EU's negotiation process to increase misfit, as the package was not tailored to the Norwegian status quo. In contrast to usual legislative processes in the EU, the climate and energy package saw extensive involvement of member-state prime ministers and heads of state. Additionally, they negotiated on multiple issues under multiple targets, which would be addressed by multiple instruments. This unusual process at the EU level, with negotiations on a *package*, and with the relatively informal European Council at the helm, effectively limited Norwegian influence, as access to policymaking was concentrated in the Commission's work on policy-preparation.

Unsurprisingly, a package tailored to the needs of the EU did not fit well with conditions in Norway. The Norwegian energy and emission situation differed from that of the EU, and the overarching synergies (between sustainability and energy security) as seen from the EU's perspective would not materialize for Norway. While the different components of the package were designed to work together to address multiple concerns for the EU, the package was fragmented in Norway, where the pieces that did not fit Norwegian conditions or match existing practices became all the more problematic. Moreover, this created a need for additional policy-making at the national level, to rebalance and uphold existing climate and

reducing coal consumption (*Aftenbladet*, 2014; TU, 2014). Regardless, the overarching energy objective of continued petroleum export has not been (significantly) linked to the overarching climate target of the Norwegian government, nor has it been connected to Norway's international climate-policy initiatives like reforestation or the purchase of European or international carbon credits.

energy policy. Within the petroleum sector, the Norwegian CO₂ tax had to be revised to uphold pricing of pollution, while full use of direct and indirect carbon leakage provisions was made to shield the energy-intensive industry. Within the power sector, however, the interests of power producers and major power consumers (i.e. energy-intensives) have become increasingly out of sync.

6.2 Domestic politics

Despite the fundamental differences between the EU and Norway in terms of energy and emission profile, then, they were largely aligned on emissions trading, which explains the swift implementation of the ETS. Moreover, with a concession on the domestic renewables target, the RES Directive was reluctantly accepted. However, Norway's implementation performance on the CCS and Fuel Quality Directives as well as on the Car Emissions Regulations remains puzzling. The domestic politics perspective relaxes the assumption that retaining the status quo is the favoured option, and considers the response from different actors within the state, government and society when accounting for implementation performance. First, the role of *governmental veto-players* will be considered, followed by *administrative organization*. We then turn to the role of *societal actors*, examining the distribution of costs and benefits imposed by the EU's climate and energy package. Finally, their scope for influence on policymaking is decided by a country's *policy style*.

Governmental veto players

Opposition from veto players within the state apparatus was expected to lead to low implementation performance. This perspective focuses on the impact of the distribution of governmental authority and interests regarding implementation performance in transposition.

From 2005 to 2013, Norway was governed by a left–centre majority government. The Storting was not expected to have played a role for the adoption of the ETS or the RES Directives, although there was strong support of green certificates within the opposition, which might have facilitated implementation. For the remaining three legal acts (CCS, FQD, CER) that have yet to be fully transposed by Norway, there is no indication that parliamentary involvement has been important, although the change from majority to minority government in October 2013 might give the Storting a bigger role in subsequent transposition. Transposition could also be affected by a *change of government*, through executive or legislative measures. However, there was no change in government in Norway throughout most of the period studied (2005 to 2013), and we find few indications of any impact on transposition processes as a result of the change to a minority right-wing government in the autumn of 2013.³⁹ Summing up, parliamentary involvement or change of govern-

³⁹ At the level of detail, the new government proposed a price floor for the compensation mechanism for energy-intensives under the ETS. Due to heavy criticism across the board – most notably from business and trade unions, but also from the opposition – this was withdrawn.

ment emerged as less important in accounting for implementation performance.

Administrative organization

Even where veto players are supportive, fragmentation in the administrative part of the government could also give rise to delays. Coordination problems between involved bodies, e.g. ministries, might result in only ‘intermediate’ implementation performance. In Norway, there was a broad set of organizations within the public administration involved in process of implementing the package, which was transposed more or less according to ‘normal’ procedures for incorporating EU legislation.

Administratively, there is a sharp divide between climate policy and energy policy in Norway, with separate ministries in charge. While energy policy belongs under the Ministry of Petroleum and Energy, responsibility for climate policy is located mainly within the Ministry of the Environment, although the Ministry of Finance has been active when questions of economic instruments (CO₂ tax, emissions trading etc.) have arisen. Transport policies are the purview of the Ministry for Transport and Communications.⁴⁰

Different ministries were given the mandate for different aspects relating to the EU’s climate and energy package. Despite the inter-ministerial coordination on specific package components, there was an institutional separation between the governmental bodies handling the different parts of the package in Norway.

The package components were disintegrated and fragmented along horizontal and vertical lines following initial assessments. After initial evaluation of package components by cross-ministerial committees and/or working groups, the different directives were allocated to the ministry in charge of that policy area – in other words, responsibility followed the usual procedure for horizontal fragmentation. Although most of the legal acts from the package seem to have been handled by a single ministry, other governmental bodies were given the option of providing informal or formal input. The CCS Directive stands out as distinct, as its transposition was handled by several ministries, with jointly organized public consultations in 2008 and 2014. Generally, however, the different ministries prepared separate pieces of legislation following from their respective fields of mandate. Despite the presence of inter-ministerial coordination, then, in making Norwegian legislation, the different parts of the package were largely treated in isolation from one another, and implementation of the different legal acts was not integrated. This was perhaps also affected by the different transposition deadlines initially set at EU level.

The transposition process for the *ETS Directive* was handled by the Ministry of the Environment. Informally, however, the Ministry of Finance also played an important role. Moreover, the latter was in charge

⁴⁰ This overall situation is not unique for Norway, but is found elsewhere in Europe.

of making the revisions to the CO₂ tax, to enable domestic practices to be upheld despite changes to ETS allocation rules. In terms of implementing the Directive itself, however, it was the Ministry of Environment that held responsibility. Combined with a supportive attitude from that ministry, this led to high implementation performance. An indicator of the strong support from the Ministry of the Environment is the fact that it managed to implement the ETS Directive on time despite delays in implementing the previous version, which required considerable resources. Moreover, and *not* accounted for by the misfit perspective, the strong support for ETS could explain why the changes to sector coverage and allocation rules did not represent a hurdle to implementation. In the domestic politics perspective, instead of being oriented to maintaining existing policies, actors are not necessarily opposed to change *per se*: change can be supported if it is aligned with actor preferences. In Norway, ministries involved wanted to extend the sector coverage of the ETS (including to the country's important energy-intensive companies dealing with aluminium and ferro-alloys), and to uphold the overall level of carbon pricing for the petroleum sector. The Norwegian government had already in the past revised the CO₂ tax in order to absorb changes introduced by the ETS to this purpose. Moreover, emissions trading and carbon taxes were increasingly seen as instruments of the same kind – as demand-side economic measures that placed a price on pollution. Thus supported, this change did not represent a hurdle to implementing the ETS Directive because it could be absorbed. As such, there was a willingness to change in order to uphold existing practices. Application of the ETS Directive was delegated vertically within the Norwegian public administration, with responsibility concentrated in the Environment Agency. As with other pieces of legislation, however, some vertical integration was retained through the involvement of the superior ministry as an appellate body for stakeholders.

The *RES Directive* was handled by the Ministry of Petroleum and Energy, which had formal responsibility for tabling a legislative implementing measure. Despite the formal concentration of responsibility, the ministry was assisted by an underlying energy agency (the Water Resources and Energy Directorate). Moreover, the transposition process was carried out in close contact with the Ministry of Finance and the Office of the Prime Minister. In particular the Ministry of Finance was opposed to setting a high RES target. Moreover, the Ministry of Petroleum and Energy had previously tried to establish *other* support schemes, and the Ministry of Finance was sceptical to the green certificates market. While concentrated responsibility was expected to facilitate implementation, the general picture of resistance should have reduced implementation performance to low. However, implementation performance was in fact high with the RES Directive, which seems particularly puzzling given the joint opposition from the most important ministries, expected to pose hurdles to correct and timely implementation.

Application of the RES Directive was delegated vertically within the public administration, with a governmental agency (Energy and Water Resources Directorate) being responsible for the exercise of policies and measures. Further fragmentation existed in that the energy agency had to coordinate with local authorities in administering the green certificates

scheme. Municipalities were indirectly involved through local decision-making of relevance to the exercise of national policies and measures for the RES Directive (e.g. relating to licensing, which affected the Norwegian energy agency's application of the green certificates scheme, which was connected to the RES Directive). As such, application was indirectly affected by the vertical distribution of competencies between the national and the local level. Local responsibility for area planning, and the possibility for municipalities to grant exemptions in some cases from licensing requirements did slow down the process for the energy agency to issue green certificates. Thus, vertical fragmentation did reduce implementation performance in application – Norway's share of RES expansion during the first two years remained far below that of Sweden.

In contrast to the two directives discussed above, responsibility for transposing the *CCS Directive* was shared primarily between the Ministry of Petroleum and Energy and the Ministry of the Environment. Although there was general support, the fragmented responsibility for implementation gave rise to problems. Turf battles were reported between the two ministries; in addition, several other governmental bodies wanted a say in the process, including subsumed agencies as well as other ministries and agencies. The transposition process was thus severely affected by overlapping competencies. Moreover, the two ministries had diverging interests, which could be observed in the divergences at the level of detail in the two executive regulations proposed in parallel. Fragmentation between these particular ministries became a barrier to transposition, aggravated by the divergence at the level of detail for how carbon storage should be regulated. This shows that fragmentation between ministries with different perceptions of how a directive should be transposed could reduce implementation performance sharply, despite general support to the directive itself. This goes a long way in accounting for Norway's low implementation performance on the CCS Directive. In terms of application, this would also be shared between environmental and energy authorities. These included the Environment Agency, the Ministry of the Environment, the Petroleum Directorate and the Ministry of Petroleum and Energy. However, it is still too early to offer any assessment of application.

The *Fuel Quality Directive* (FQD) had yet to be transposed at the time of writing. This was the responsibility of the Ministry of the Environment, although it delegated drafting tasks to the subsumed Environment Agency. Moreover, as the FQD affected petroleum companies (upstream and downstream fuel), due to the subject matter, the Ministry of Petroleum and Energy was also involved. While formal responsibility was concentrated in the Ministry of the Environment, resistance from this ministry and from another affected ministry that had strong ownership to the policy area (the petroleum sector) can explain poor implementation performance. Here, then, unwillingness rather than inability due to fragmentation seems to have been decisive for the low implementation performance.

The *Car Emissions Regulation* (CER) was handled by the Ministry for Transport and Communications. Although positive to the content of the CER, the ministry did not see transposition as necessary, as Norway had

no automobile production – the industry that was targeted. This combination of concentrated responsibility and opposition led to low implementation performance: Even though some aspects under the CER have been implemented, such as the reporting requirements, transposition has remained incomplete and delayed.

Generally, then, placing responsibility for multiple pieces of the package within one single ministry could allow for greater coordination between the package components in the ministry's portfolio. Did this occur in Norway? The Ministry of the Environment was responsible for transposing the EU Directives on ETS, Fuel Quality and CCS, but there are no indications that these three were seen in context. The same applied to the Ministry of Petroleum and Energy, which had responsibility for transposition of the RES and the CCS Directives. True, both ministries recognized the connection between the ETS Directive and the CCS Directive, but this was probably more due to the link in content – with storage provisions under the CCS Directive explicitly linking up to carbon credits. As such, concentration of transposition responsibility in one ministry did not increase package integration. Instead, climate goals and energy goals – and the accompanying policies and measures that were adopted – remained largely separated.

Summing up, the implementation of the EU package was relatively centralized in Norway, with one ministry at the national level being the responsible body in most cases. Their interests seem to have been more important in accounting for the variation in implementation performance. Nevertheless, general support was trumped by fragmented responsibility in the case of the CCS Directive. Implementation performance for the RES Directive was aided by concentrated responsibility, but the high performance still seems puzzling, given the opposition.

Affected target groups

Societal actors were expected to respond in line with the distribution of costs and benefits. We had expected concentrated costs and distributed benefits to increase target-group opposition, whereas distributed costs and concentrated benefits should lead to greater support. Target-group response is the key to behavioural change, i.e. implementation as application. Generally, opposition would make behavioural change more difficult, and implementation performance was expected to be low; by contrast, support should facilitate a high implementation performance. Moreover, to the extent that the side-payments and synergies from the package could be reproduced at the national level, this was expected to improve implementation performance.

The ETS Directive was meant to impose costs for pollution from energy-intensive and energy-producing sectors, a cost-concentration that was expected to entail resistance. However, companies on the carbon leakage list were shielded. In Norway, carbon leakage provisions meant that the overall costs imposed by this system were significantly reduced. Both the energy-intensive industry and the petroleum industry would receive allowances – and power production had very low emissions, as it came almost entirely from renewable energy sources. As such, the overall cost

for target groups was low due to high allowance allocation or low emissions. The low ETS price, not expected to rise significantly by 2020, reduced the expected costs of lower allocation towards 2020 for industries less exposed to international competition. Finally, the Norwegian government would compensate energy-intensives for increases in power prices due to the ETS. At the level of detail, however, costs did spur resistance. Energy-intensives wanted higher compensation for ETS-induced growth of power prices, and the ferro-alloy industry wanted higher allowance allocations. Nevertheless, the general picture was one of low costs, which made resistance less likely. Target groups were supportive of the instrument as such. They could sell surplus allowances, and participation in the ETS could also be seen as a strategy to circumvent the adoption of domestic measures. Thus, Norway's high transposition performance seems unsurprising when target group response is considered, because application of the ETS Directive did not entail major costs for target groups. For the petroleum sector, the stable and relatively low costs imposed by the ETS in combination with the CO₂ tax did not serve to incentivize new reductions in emissions. Moreover, low carbon pricing did not affect major investment decisions that could have brought down emissions in the long term. While emissions from Norway's mainland industries have declined since 1990, this has mainly been due to other reasons than emission trading, but the ETS has been reported as affecting long-term investments, although indirectly through power prices (Carbon Limits & Norsk Energi, 2014).

The RES Directive concentrated benefits to power producers through the adoption of a support scheme for increasing renewable power production. However, this benefit came with a flipside, because increased production without corresponding changes in options for export or new domestic demand could reduce electricity prices. This would turn the picture of cost and benefits upside down, to the disadvantage of power producers, with lower power prices benefitting energy-intensives in particular. Power producers were therefore concerned because the political signals about building new interconnectors for export were mixed. Moreover, existing policies and measures for increasing demand – like creating demand within new sectors like petroleum or transport – were not aligned with the expected increase in power production. In terms of costs, the green certificates would be funded directly by consumers of onshore electricity (households and businesses), although the traditional energy-intensive industry was exempted.⁴¹ However, the increase in small-scale variable renewable power production was expected to be accompanied by an increased need for grid reinforcement. Energy-intensives were quite concerned about this, in spite of receiving a rebate they receive on grid tariffs. Environmental NGOs concerned with nature preservation were also critical to the certificate scheme. Both benefits and costs were relatively concentrated, with benefits surpassing the costs for power producers, and energy-intensives not seeing any benefits. Given the influence of the latter within Norway, it seems odd that Norway achieved a high implementation performance in transposition. Moreover, while

⁴¹ In late 2014, the Ministry of Petroleum and Energy proposed to exempt refineries within the petroleum sector from funding the green certificates scheme (MPE, 2014e).

low behavioural change among power-producers (building new RES production) might have been the product of worries about depressing prices, this seems less likely as most projects to be covered by the certificates were already in the pipeline, with little room for entirely new projects, due to the short deadline (2020). Thus, Norway's low performance in application seems to have had more to do with lengthy licensing processes. Even if incentivizing new RES production, the technology-neutrality of the scheme in Norway meant that it did not offer strong incentives to invest in less mature technologies.

Within the framework of the *CCS Directive*, both benefits and costs could be seen as concentrated. This technology could contribute to continued use of fossil fuels globally, meaning a long-term indirect benefit for the Norwegian petroleum industry, which relies on international demand. However, costs became an important reason for the low implementation performance as regards on transposition here. A key challenge was liability for stored CO₂, notably how this was to be distributed this between the petroleum industry and the state. These costs surpassed the perceived benefits, which were relatively diffuse. Despite a good fit at the general level with existing practices in Norway, the costs faced by industry gave rise to resistance that can account for much of the delay in the making of domestic policies for transposing the *CCS Directive*.

The Fuel Quality Directive (FQD) was expected to impose major costs on Norwegian businesses due to an 'early-mover' disadvantage. Strong policies would be needed to reduce emissions, with a high cost for additional emissions cuts. Costs were thus concentrated, and while downstream biofuels producers would benefit, resistance from the larger upstream and downstream petroleum industry can explain much of Norway's low implementation performance here.

Norway does not have an automobile industry, so the main societal actor to bear the cost of the *Car Emissions Regulation* (CER) did not exist in Norway. While car producers could pass on increased costs to consumers through car prices, that would be in line with existing Norwegian policies, as discussed in the misfit section above. Benefits or costs for societal groups thus cannot shed light on Norway's low implementation performance for the CER.

In what ways did the overall package affect the distribution of costs and benefits among target groups in Norway? Within the EU, negotiations had ensured side-payments to member states and businesses for which the Commission's initial proposals had placed high costs. Through side-payments in the form of allowances (more to energy-intensives, some to power producers in Central Eastern Europe) or funds (NER300, solidarity fund), here, high costs for target groups in the EU were compensated. Generally, the distribution of costs and benefits was more uneven in Norway than at EU level. There was a relatively lower burden for power producers (due to Norway's already decarbonized power sector), and a higher burden on energy-intensives (due to the low potential for reducing emissions through electrification, which was already high, and thus also a higher impact from ETS-induced growth in power prices) and petroleum companies (due to early steps in making production more efficient in

Norway, reducing the potential for cheap emissions reduction compared to other petroleum exporters; as well as less attention to evening out the regulatory burden for CO₂ storage at EU level, with relatively greater involvement in storage in Norway than elsewhere in the EU). Moreover, not being able to take part in the negotiations made it far more difficult for Norway to secure such concessions at a later stage, although it did manage to get a lower target for renewables than what would have followed from the standard formula. This point makes it easier to understand Norway's reluctant acceptance of, and high implementation performance for, the RES Directive, whereas the high regulatory burden for the petroleum sector on the CCS and FQD can explain low implementation performance there. Implementation performance remained high for the ETS Directive, because steps could be taken at the national level to reduce the costs for energy-intensives.

Summing up, the responses from affected target groups were in part as expected from the distribution of costs and benefits. The generally low costs imposed by the *ETS Directive* make the lack of resistance against the instrument as such understandable, while opposition from energy-intensives at the level of detail (compensation for direct and indirect carbon costs for energy intensive-industry) can be explained by costs. However, the perception of benefits – as indicated by strong support from target groups across the board – could follow from a broader conception of costs and benefits (benefit as avoiding costs from alternative regulation), or from subscribing to emissions trading as a legitimate climate instrument, being in line with the emphasis on cost-efficiency as discussed in the misfit analysis above. This contributes to explaining the high transposition performance, where low costs also explain the low performance in terms of behavioural change. The concentration of benefits and costs on different target groups under the *RES Directive* made for a mixed picture of support and opposition, in accordance with expectations, but could not explain Norway's high performance in transposition, nor the pattern observed in application. Cost-concentration under the *CCS* and *Fuel Quality* Directives made the petroleum sector oppose them, as expected. The absence of an automobiles industry meant that it was not available to oppose costs imposed by the *car emission regulation*. The package offered some benefits, but mostly costs for Norway. To the extent that different parts of the *package* interacted, this had a negative impact on target groups, fuelling resistance rather than making the package more acceptable. Seen together with the misfit analysis, the different situation for the production and consumption of electricity in Norway (low emissions from power producers, and a high share of RES-based electricity in energy-intensives' energy consumption) as compared to the EU average explains much of the opposition from target groups, with a negative impact on implementation performance.

Policy style

To what extent were target groups included in the national transposition process, and what impact did this have on implementation performance? Cost-concentration was expected to increase target group opposition, but the influence of the latter on transposition would depend on the policy style: Generally, a consensual and open style was expected to align

policymakers with stakeholders. It should be noted here that the Norwegian government's lack of access to EU decisionmaking would reduce the incentives for stakeholders to engage in domestic policy processes on matters that would be decided at EU level. However, Norway negotiated on domestic targets and adjustments with the EU; and the climate and energy package also left important decisions to the national level. These included the compensation mechanism for ETS-induced increase in power prices; the RES support scheme; extent of CO₂ storage (commercial, demonstration or prohibition) and size of financial liability under the CCS Directive; policies and measures for reducing emissions from fuels (Fuel Quality Directive), and from cars (Car Emissions Regulation).

While talks between Norway and the EU have tended to be closed due to the need for secrecy in the negotiation situation, the development of domestic policies and measures has been more aligned with 'normal' policymaking. Norway has a strong tradition of consensual policymaking, and public consultations were carried out according to normal procedure. With separate consultation processes at different points in time for the various parts of the package, no new alliances facilitating implementation of the package as such were identified.

While carbon pricing has a relatively long tradition within Norway's petroleum sector, the revised *ETS Directive* extended coverage to major parts of the mainland energy-intensive industry, which previously had been largely exempt from climate-policy regulations, including the CO₂ tax.⁴² Earlier research has identified this sector as a core insider with support from a segment consisting of business interests, trade unions, major political parties as well as sector ministries (for industry and energy) (Kasa & Malvik, 2000). During transposition of the ETS Directive, energy-intensives were included in the process. They participated in the Environment Agency's work on developing the NIM, and if not shaping, at least being aligned with governmental positions in negotiations within the Climate Change Committee on allowance allocations for the ferro-alloy industry. Moreover, the willingness of the Norwegian government to shield energy-intensives further from the cost of the ETS was reflected in the adoption of compensation for ETS-induced increases in power prices. In contrast, the government tried to uphold auctioning for the petroleum sector, and, failing that, announced at an early stage that the CO₂ tax would be revised so that the carbon price faced by this sector would remain stable. Thus, the policy style saw inclusion and attention to energy-intensives' interests in the transposition process, whereas maintaining the status quo was sought vis-à-vis petroleum companies, which were less involved. Both target groups supported the ETS; and, accompanied by domestic adjustments, ETS revision did not entail major changes for either sector. Thus, policy style facilitated high implementation performance in transposition, although the generally low carbon price meant that less behavioural change could be expected within application.

⁴² Energy-intensives had previously entered into voluntary agreements for emission reduction with the state.

The policy style in transposing the *RES Directive* was heavily impacted by the negotiation situation, with Norway and the EU discussing the size of the Norwegian RES target. This process was closed, and there was much at stake for the Norwegian government, which wanted to avoid too high ambitions. Here, target group concerns could not be addressed by the government alone, but would be affected by the RES target and the already-high share of RES in Norway. New industrial production would increase industrial energy demand and thus reduce the RES share. CCS in Norway would also have a similar impact – a source of concern among energy-intensives and business interests in general. While target groups and government shared the interest of reducing the Norwegian target, the closed process goes far in explaining why the government was able to transpose the RES Directive on time. Moreover, the domestic policy-development process – green certificates – occurred through negotiations, with Sweden. Here, the Ministry of Petroleum and Energy along with the Water Resources and Energy Directorate was important for the green certificates scheme, and the Ministry of Finance was important for the technology-neutrality of the scheme. Transposing the RES Directive became a governmentally driven process, with a closed policy style. Target-group concerns here were attended to later in the process – including decisions on electricity export and on harmonizing tax regulations with Sweden (power producers),⁴³ and exemptions from funding the green certificates (energy-intensives, petroleum companies).

The policy style for the *CCS Directive* changed in the course of the transposition process. Initially, an open process was signalled by the early consultation, with supportive target groups. However, important revisions were made at the EU level after this consultation.⁴⁴ These revisions included changes (on operator liability) that were opposed by the petroleum sector. With government at the helm, delays were caused by difficulties in negotiations between Norway and the EU on related issues like the Offshore Safety Directive, whose EEA relevance was contested by Norwegian authorities. Moreover, when the government in 2014 proposed implementing measures, the negative response from the petroleum sector indicates that this group had not been substantially included in the process of developing a domestic policy on important details like financial liability. Developments after this response indicated a change in policy style, varying across ministries. Once the important petroleum sector was offered a chance to provide input on the specifics within the proposed measures, its opposition caused subsequent delays to the Ministry of Petroleum and Energy's adoption of the financial liability regulation. However, its influence seems to have been lower as regards the Ministry of the Environment, which still adopted its proposed measure, in contrast to the Ministry of Petroleum and Energy. Thus, the variation in policy style over time and across ministries goes far in

⁴³ Power producers were sceptical to RES expansion without parallel development of policies and measures for converting fossil energy use to renewables, or for increasing existing demand. The Norwegian government at a later stage granted licenses to two new interconnectors for electricity exchange, with Germany and the UK (MPE, 2014d).

⁴⁴ The consultation ended in September 2008, with the proposed directive being made in the European Parliament and by the member states in October (European Council, 2008; European Parliament, 2008), before final agreement was reached in December.

explaining the low implementation performance on the CCS Directive, which became all the more difficult given the changes in content.

The public consultation on the *Fuel Quality Directive* focused mainly on technicalities (e.g. vapour pressure), whereas more challenging issues were discussed directly between government and the main target group, the petroleum sector. They shared the concern that the FQD would have a negative impact on them vis-à-vis other petroleum-exporting countries that had taken fewer steps towards effective production (thus also reducing emissions) prior to the reference year. The petroleum sector thus had a core insider status in this matter, which – given the challenges faced by this sector – makes Norway's low implementation performance understandable. While the question of adjusting the reference year would be addressed through negotiations with the EU, the policy style still allowed for access for the core insider in this case.

Finally, the policy style for the *Car Emission Regulation* has been relatively closed, but this might well be due to the lack of an automobile industry to involve (or regulate) in the policy-process. Thus, policy style cannot explain Norway's low implementation performance here.

Overall, then, when implementation processes were characterized by a consensual policy style, target groups' response to the various directives affected implementation: Support facilitated transposition of the ETS Directive, and the inclusion of the energy-intensive industry in domestic implementation (including the development of compensatory instruments) was important for this. For the Fuel Quality Directive, attentiveness to the petroleum industry's interests also added to the explanation of low implementation performance. Opposite, a closed policy style could also affect implementation: The negotiation situation effectively excluded target-group representatives from the process of implementing the RES Directive, and this was probably crucial for transposing the directive on time. For the CCS Directive, however, late inclusion of a sceptic petroleum industry in domestic policymaking created an additional delay of implementation.

Summing up domestic politics, governmental veto-players and important societal groups – business interests – seem to have held aligned positions on multiple parts of the package. The Norwegian Storting and changes of government were less important in accounting for implementation. Ministry positions seem to have been more important than administrative fragmentation, although the latter was found to give rise to delays due to divergences at the level of detail. The difficulties of reproducing synergies and side-payments from the package in Norway increased resistance to those parts of the package that were already opposed. Low package impact was also found in policy style. The *ETS Directive* saw high support within the state administration, with low costs and inclusion of energy-intensives in policymaking facilitating implementation. Implementation performance with the *RES Directive* was aided by concentrated transposition responsibility, as well as by closing the process to target groups, which were divided between those with concentrated benefits and those with cost-concentration. Despite general support to the *CCS Directive* from the ministries involved, their

overlapping responsibility created coordination problems and turf battles, which acted to reduce implementation performance. This was further aggravated by the later inclusion of the resistant petroleum industry by the Ministry of Petroleum and Energy. In the case of the *Fuel Quality Directive*, ministry interests were aligned with those of the petroleum sector, which faced high costs. This can help to explain low implementation performance there. Finally, resistance from the state administration explains why the *Car Emissions Regulation* has yet to be incorporated in Norway.

6.3 What has been accounted for, and what not?

Here we draw together the results from the misfit and the domestic politics analyses, in order to identify outcomes not accounted for. Some unresolved puzzles still remain— notably, Norway's high implementation performance for the RES Directive, and its low performance for the CER. In the following, supplementary perspectives are utilized.

For the *ETS Directive*, high fit with existing climate policy explained the high implementation performance, although the domestic politics perspective explained why Norway was willing to make some changes to the status quo (accepting allowance allocation to petroleum companies, extending emission trading to energy-intensives). This was supported by target groups, which perceived the ETS as beneficial and as imposing low costs. Moreover, the inclusion of energy-intensives in policymaking allowed hurdles to be overcome. The general support and alignment of governmental and societal actors made for high implementation performance. The misfit and the domestic politics perspectives together offered a good explanation of this.

In contrast, misfit could not explain Norway's high implementation performance in transposing the *RES Directive*, which was not well explained by the domestic politics approach either. While the closed policy style could explain why the mixed response from target groups did not reduce implementation performance, it is inadequate for explaining the outcome, since important governmental actors were sceptic. However, the *RES Directive* can be understood in light of the EEA Agreement, where the costs of non-compliance are quite high. Rejection of EEA-relevant EU legislation may result in cancellation of entire chapters of the EEA Agreement, thus putting cooperation within a policy area on ice. For Norway, this could have severe economic implications, since the EU is Norway's most important market (80% of exports). So far this has yet to occur, and, from a Norwegian perspective, the costs of such a step are very high. Moreover, when EU legislation is screened for EEA relevance, Norway must argue on the matter of principle. While such screening could be affected by strategic interests, it is usually a legal-technical matter. The room for strategic manoeuvre is significantly weakened if the previous version of a directive has already been incorporated into the EEA Agreement, because it reduces the credibility of arguments for non-relevance. The previous versions of the RES Directive had already been added to the EEA Agreement. Norway's association with the EU through the EEA Agreement can thus explain that the RES Directive was implemented despite the misfit.

At the general level, the misfit perspective failed to explain the difficulties that arose concerning the *CCS Directive*. However, the domestic politics explanation could shed more light over the outcome. While the responsible ministries were generally supportive, fragmented responsibility for implementation created hurdles. Moreover, as this directive entailed costs for the petroleum sector, its late inclusion in policymaking processes at the level of detail created difficulties. Fragmentation and late inclusion thus offer a satisfactory explanation of the outcome here.⁴⁵ Moreover, domestic policy processes that become attached to EU directive(s) related to same issue may cause delays. For the *CCS Directive* there is an ongoing reform process concerning Norwegian petroleum legislation. This finding is in line with previous research on the transposition of EU legislation, which has highlighted how linkage to national policy-processes can be a cause of delay (Falkner et al., 2004).

Seen from the misfit perspective, Norway's low implementation performance on the *Fuel Quality Directive* was as expected. Moreover, the picture was consistent with the analysis of domestic politics. Resistance from government as well as from the important target group, the petroleum sector, meant that the two were aligned in policymaking, with government being attentive to this stakeholder in negotiations with the EU. The outcome is thus unsurprising. While Norway's association with the EU through the EEA Agreement would have been expected to lead to implementation (particularly as the previous version of this directive had been incorporated), given the stakes and the affected target groups, the Norwegian government had more incentives for opposing the FQD, not least in view of the impact on the most important sector in its economy. Importantly, the risk of sanctions from the EU was significantly reduced because EU-level negotiations on implementing measures for the directive were still ongoing. This process stretched out in time, which is likely to have delayed negotiations between the EU and Norway until decisions have been established at the EU level. Given the Norway's interest in revisions, there would have been strong incentives for foot-dragging in negotiations with the EU as long as intra-EU discussions continued.

The *Car Emissions Regulation* did not really collide with existing Norwegian practices, as shown by the misfit analysis above. Domestic politics contributed to explaining the low implementation performance by reference to opposition from government, which did not have to consider the concerns of the main target group in policymaking, as Norway did not have an automobile industry. However, this offered a rather thin account for the low implementation performance. Given the EEA Agreement, Norway had little to lose from implementing the CER, with few worries

⁴⁵ Incorporating legislation into the EEA required unanimity among the *EEA/EFTA countries*. Delays in Iceland and Liechtenstein – due to domestic processes or negotiations between those countries and the EU – could give rise to delays for Norway's transposition of EU legislation. Icelandic domestic processes did delay the *CCS Directive*, as it took a year before the EEA Committee's decision to incorporate this directive could enter into force due to Icelandic constitutional requirements. Nevertheless, the Norwegian transposition process was further delayed thereafter, so the Icelandic delay was perhaps of lesser importance.

that EU sanctions might exceed the costs of implementing it. Here, too, continued EU-level negotiations may offer the explanation as to why Norway could drag its feet in incorporating this legal act.

7 Conclusions

Norway has transposed two of the six legal acts within the EU's climate and energy package, with three still pending. Implementation performance was high in transposing the *ETS and RES Directives*, and low for the *CCS Directive* and the *Fuel Quality Directive* as well as for the *Car Emissions Regulation*. Application of transposed directives has been low, with continued growth in emissions within the traded sectors and low expansion of renewable energy in Norway. Admittedly, Norway's cooperation with other countries on behavioural change (the EU cap on emissions and the joint certificates scheme with Sweden) means that this does not necessarily have to occur in Norway itself. The impact of the package has been relatively low. Changes effectuated were largely absorbed by existing Norwegian practices. Changes that might be transformative are either less likely to affect emissions in Norway itself (increasing export of renewable electricity), or less likely to affect economic incentives for emissions reduction, due to carbon leakage provisions and a low ETS price. However, a higher ETS price could facilitate greater change indirectly by influencing power prices, which play a major role for Norway's energy-intensive mainland industries.

The *ETS Directive* was well received due to its high fit with existing Norwegian practices as well as governmental and societal actors that supported the changes at the level of detail. The inclusion of energy-intensive industry in policymaking cleared away difficulties that could have reduced implementation performance. Despite misfit and domestic resistance, the *RES Directive* was also implemented, which can be explained by the high cost of rejecting EEA-relevant EU legislation, as well as pressure from the EU. Misfit could not explain the delayed and incomplete transposition of the *CCS Directive*, but this became understandable when we took into consideration the fragmented governmental responsibility as well as the resistance from the petroleum sector, which had been included in policymaking on details only at a late stage. That implementation of the *Fuel Quality Directive* is still pending at the time of this writing seems to have multiple reasons: First, there is the general misfit with existing practices as well as resistance from domestic actors; and second, the high stakes involved led Norway to postpone implementation (even though it had incorporated a previous version of the directive), knowing that pressures (and the risk of sanctions) from Brussels would be low as long as discussions were still ongoing at the EU level. Despite low stakes, this point applied to the *Car Emissions Regulation* as well.

The package approach made it more challenging for Norway to influence the EU's policymaking process on the climate and energy package. This was clearly illustrated by the case of the *CCS Directive*, which, despite relatively heavy Norwegian engagement, ended up with provisions that were not well received in Norway. Moreover, important synergies and side-payments in the package were not reproduced in Norway, where sustainability and energy security objectives could not be combined. As a net exporter of energy – in contrast to the EU – Norway was not concerned about import dependency. The various components of the

package were generally treated in isolation from one another; however, where connections were made, this only served to fuel resistance, rather than making the pieces or the package more acceptable.

Generally, the EU's climate and energy package has not been a game changer for Norwegian decarbonization, nor has it greatly affected Norway's positions on long-term climate and energy policy, although interest in exporting electricity seems to have grown somewhat. As Norway is not an EU member, however, changes to Norwegian positions are less important for prospective EU climate and energy policies. While its export of oil and gas to the EU is certainly important, Norway has emphasized the commercial aspects, not wanting to politicize the matter. That said, prospects of reduced EU demand for oil and particularly gas have been a major source for concern in Norway.

What, then, of the impact of the EU's climate and energy package on Norway? The package means a further outsourcing of Norwegian climate policy through expansion of the ETS, with national scope for manoeuvre diminishing. The impact on Norwegian energy policy has been lower, as most changes could be absorbed, although the seeds of transformative change might have been planted by the RES Directive. In the long term, a stronger ETS could transform the behaviour of emitters within the traded sectors. Moreover, RES expansion could also have transformative impact in the long term, unless it is exported. Thus, although we can see a potential for transformative changes, Norway has important safety valves, where import of carbon credits and export of surplus electricity could prevent domestic transformation. In 2050, then, Norway might be *carbon-neutral* rather than decarbonized.

Is Norway still part of the world of compliance? As the EU adopts legislation that increasingly challenges Norwegian arrangements, the EU's impact on specific policy-issues could be more contested by Norway, which could remove Norway from the world of compliance. However, due to the nature of the EEA Agreement, Norway's ability to cherry-pick from EU climate and energy legislation is limited, given the high costs for Norway to reject a legal act that the EU considers to be EEA relevant.

Annex

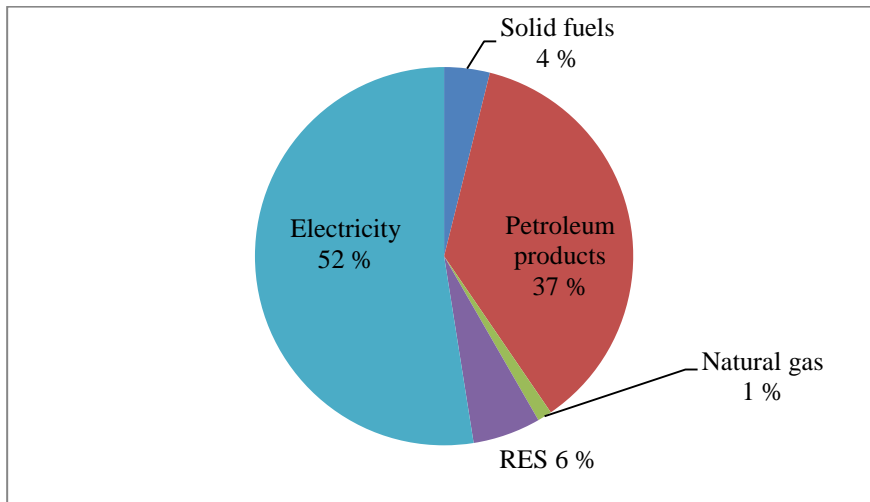


Figure 1: Final energy consumption in Norway in 2005, by product (Eurostat, 2007: 459). 99% of electricity was produced from renewable energy sources in 2005.

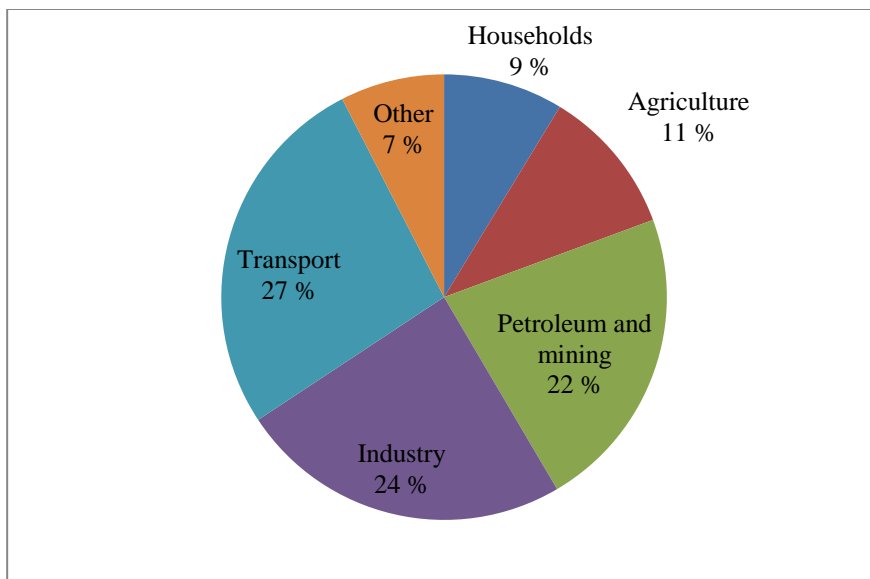


Figure 2: Norwegian emissions in 2005 by sector (Statistics Norway, 2013).

Special Committee (Spesialutvalg, SU)	Chair	Members
Environment	Ministry of the Environment	Ministry of Fisheries and Coastal Affairs Ministry of Petroleum and Energy Ministry of Health and Care Services Ministry of Local Government and Regional Development Ministry of Transport and Communications Ministry of Agriculture and Food Ministry of Trade and Industry Ministry of Finance Ministry of Foreign Affairs
Energy	Ministry of Petroleum and Energy	Ministry of Agriculture and Food Ministry of the Environment Ministry of Finance Ministry of Transport and Communications Ministry of Foreign Affairs
Transport	Ministry of Transport and Communications	Ministry of Fisheries and Coastal Affairs Ministry of the Environment Ministry of Trade and Industry Ministry of Justice and Public Security Ministry of Finance Ministry of Foreign Affairs
Trade liberalization (<i>handelsforenkling</i>)	Ministry of Trade and Industry	Ministry of Labour Ministry of Children, Equality and Social Inclusion Ministry of Finance Ministry of Fisheries and Coastal Affairs Ministry of Government Administration, Reform and Church Affairs Ministry of Defence Ministry of Health and Care Services Ministry of Justice and Public Security Ministry of Local Government and Regional Development Ministry of Culture Ministry of Education and Research Ministry of Agriculture and Food Ministry of the Environment Ministry of Petroleum and Energy Ministry of Transport and Communications Ministry of Foreign Affairs

Table 7: Inter-ministerial special committees for EEA issues ('Spesialutvalg for EØS-saker') in Norway. *Source: Regjeringen (2013).*

Interviews

Interviews were carried out May-September 2014, in Norwegian. The author takes responsibility for any errors that might have occurred in translation.

Unni Berge, former representative of Zero. Oslo, 26 May 2014.

Agnethe Dahl, Ministry of Climate and the Environment (former representative of the Ministry of the Environment at the Norwegian Delegation to the EU). Telephone interview. 5 September 2014.

Paal Frisvold, former representative of Bellona. Telephone interview, 2 June 2014.

Mari Hegg Gundersen, Norwegian Water Resources Directorate. Seconded to the Ministry of Petroleum and Energy, to work on the RES Directive and the green certificates. Oslo, 5 June 2014.

Knut Kroepelien, former representative of the Ministry of the Environment at the Norwegian Delegation to the EU. Oslo, 27 May 2014.

Kjetil Lund, former State Secretary, Ministry of Finance. Oslo, 26 August 2014.

Dag Svarstad, Ministry of the Environment. Oslo, 26 May 2014.

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