

# Look to Sweden: The Making of a New Renewable Energy Support Scheme in Norway

## Abstract

Two renewable energy support schemes have spread across Europe: green certificate schemes (GCSs) and feed-in tariffs (FITs). After a decade-long policymaking process, Norwegian decision-makers in 2011 decided to adopt a GCS compatible with the already existing GCS in Sweden and thereby establish a joint Norwegian-Swedish GCS. The article explores this process of policy transfer, and asks to what extent competition and policy learning contributed to Norway's choice of a GCS. We find that competition was a barrier to a joint Norwegian-Swedish GCS rather than (as predicted by some scholars) a driver of policy transfer. In terms of policy learning, we find that Norwegian bureaucrats systematically were searching for information about renewable energy policy instruments in a process characterized by rational learning. However, this information was not taken into account by elected policy-makers, whose learning was unsystematic and almost exclusively influenced by Sweden – making it a process of bounded learning. Finally, we identify domestic factors that facilitated and constrained the policy transfer process. A reluctant bureaucracy defending the status quo policies *constrained* the policy transfer process. GCS as a market-based instrument independent of yearly allocations over the annual national budgets *facilitated* the process by securing strong support in a broad coalition of stakeholder groups and thereby cross-partisan support. The latter finding may contribute to the literature by underscoring the importance of

domestic *political* factors. This is in line with Gilardi (2010) who argues that learning is not only a question of *policy*, but also *politics*.

## Introduction

European Union (EU) renewable energy directives enacted in 1991, 2001, 2003, and 2008 have been strong drivers for policy change in Europe, including in Norway. Norway is not an EU member, but it is a member of the European Economic Area and therefore bound by EU directives. In the 1990s and early 2000s, Norway lagged behind other northern European countries in terms of increasing the share of new renewable energy in its total energy consumption (Buan et al. 2010, 2–4). Norway's resource base was dominated by large hydropower and petroleum, and it had a weak incentive structure for development of new sources of renewable energy (for example, wind and solar energy). Aiming to produce 3 terawatt hours (TWh) of wind power and 4TWh renewable heating energy by 2010, Norwegian politicians began searching for options to strengthen the country's renewable energy policy. This paper analyses the policy process by which Norway adopted a renewable energy support scheme compatible with the already existing GCS in Sweden, and thereby established a joint Norwegian-Swedish GCS.

As Norway's discussions started in the late 1990s, two different renewable energy support systems were diffusing in Europe: feed-in tariffs (FITs) and green certificate schemes (GCSs) (Busch 2005; Busch & Jörgens 2005a, 2005b; Jacobs 2012). Denmark and Sweden, Norway's neighbours, established different renewable energy support systems. Denmark had early success with FITs (Toke 2011, 71), while Sweden was among the early adopters of GCS in 2003 (Bergek & Jacobsson 2010, 1258).

The main principle of FITs is to encourage investment by offering guaranteed prices for fixed periods of time for renewable electricity (Couture & Gagnon 2010, 955). Under GCSs, "renewable electricity is sold in the usual electricity market at market

prices, but these sales are complemented by certificate trading in a separate market for green certificates” (Bergek & Jacobsson 2010, 1256). The sale of certificates provides an additional income for renewable energy producers. While GCSs dominated in Europe in the early 2000s, FITs have now emerged as the most commonly used renewable energy support system (Bergek & Jacobsson 2010, 1255; Toke 2011, 71).

There is a large literature on environmental and energy policy convergence and diffusion in the EU (Busch 2005; Busch & Jörgens 2005a, 2005b; Busch, Jörgens, & Tews 2005; Holzinger, Knill, & Sommerer 2011; Holzinger & Sommerer 2011; Jacobs 2012; Jacobsson & Johnson 2000). Studies focusing on FITs and GCSs conclude that both types of schemes have diffused in Europe – although through somewhat different diffusion mechanisms (Busch 2005; Busch & Jörgens 2005a, 2005b; Jacobs 2012). The German FITs spread to Switzerland, Austria, France, Greece, and the Czech Republic (Busch 2005; Busch & Jörgens 2005a, 2005b). Busch and Jörgens find that these governments “systematically searched for policies already implemented elsewhere before deciding upon their own ways of promoting the generation of electricity from renewables” (2005a, 877).

Focusing on a singular case, this paper examines a process of policy transfer (Dolowitz and Marsh 2000; Knill 2005): Norway’s adoption of a GCS compatible with the already existing Swedish GCS – through which a joint Norwegian-Swedish GCS was established. To explain this specific case of policy transfer, we explore the decision making process that led to the adoption of the GCS. More specifically, we investigate the extent to which policy learning from the Swedish system affected the process, and whether competitiveness concerns mattered. We also examine factors that facilitated and constrained the policy transfer process.

The article proceeds as follows: section two gives an overview of the decision-making process from 2000 to 2011, section three develops the analytical framework, section four analyses the empirical findings, and section five concludes.

## **Background**

In the year 2000 the Norwegian parliament asked the government for an assessment of a GCS “adjusted to Norwegian and Nordic conditions” (NP 2000, 16). The resultant 2002 governmental white paper did not recommend a GCS, but even so the parliamentary majority asked the government to initiate negotiations for a joint Norwegian-Swedish GCS (NMPE 2002a; NP 2003).

The white paper argued that introducing another policy instrument in addition to the recently established renewable energy support fund, administered by Enova, would lead to uncertainty. The government at the time was a minority centre-right coalition headed by Prime Minister Bondevik (the Bondevik II government). This was shortly after Sweden had decided to introduce a national GCS of green certificates. Belgium, the Netherlands, Italy, the United Kingdom, and Austria were also about to introduce a GCS (NMPE 2002a, 112), and the European Commission had expressed a clear preference for GCSs over FITs (Lauber 2004; Nilsson et al. 2009; Toke 2008).

After the white paper was released, the policymaking process dragged on, and after the general election in September 2005, a new red-green coalition took power, consisting of the Socialist Left Party, the Labour Party, and the Centre Party, headed by Prime Minister Stoltenberg (the Stoltenberg II government). At that point, five years had passed since Parliament first asked for an assessment of green certificates. The new

government decided to work towards a joint GCS with Sweden, but by early 2006 these negotiations failed.

In November 2006, the government instead proposed a Norwegian variant of FITs. The proposal was strongly opposed by the opposition parties but was adopted by the red-green parliamentary majority in March 2007. However, the FIT-program was never implemented, and when Parliament negotiated a cross-partisan compromise on Norwegian climate policy in January 2008 (NG 2008), the centre-right opposition parties rekindled the GCS discussion and insisted that the climate policy compromise must include new rounds of GCS negotiations with Sweden. As the Norwegian Parliament decided to resume the discussion about a joint Norwegian-Swedish GCS in 2008, the preference for renewable energy support programs in the EU had changed: 18 EU member states had now introduced FITs, while only seven had introduced a GCS (European Commission 2008b; Toke 2011). Furthermore, the EU Commission now recommended FITs over GCSs because FITs had proved more successful in increasing the share of renewable energy (European Commission 2008b; Toke 2011).

Norway and Sweden negotiated an agreement in September 2008, and as the parliamentary session opened in October 2009, the red-green government announced that a joint Norwegian-Swedish GCS would enter into force in 2012. After a decade of policymaking and negotiations, the Norwegian Parliament adopted the joint Norwegian-Swedish GCS in June 2011.

## **Analytical Framework**

The literature on policy convergence, policy diffusion, policy learning, and policy transfer is extensive and growing (e.g., Dobbin, Simmons & Garrett 2007; Dolowitz & Marsh

2000; Elkins & Simmons 2005; Happaerts & Van Den Brande 2011; Heinze 2011; Holzinger, Knill, & Sommerer 2011; Knill 2005; Lenschow, Liefferink & Veenman 2005; Nedergaard 2005; Shipan & Volden 2008; Simmons & Elkins 2004; Volden, Ting & Carpenter 2008). There are many, sometimes contradictory, scholarly discussions of these concepts. Policy transfer and policy diffusion are often equated – as both concepts refer to processes which can lead to increasing similarities – in other words policy convergence (Knill 2005; Tews 2002). However, Knill (2005, 4) argues that the analytical differences between these concepts should not be overlooked: Analyses of policy transfer processes typically study underlying causes and contents of singular processes of bilateral policy exchange, while policy diffusion studies typically investigate the spread of innovations between many countries.

Our analytical framework leans on the abovementioned broad literature to identify mechanisms that can explain the policy transfer process we study. Shipan and Volden (2008), for instance, identify four key causal mechanisms in diffusion processes: learning from early adopters, economic competition, imitation and coercion. While learning, competition and imitation are mechanisms that we can characterize the Norwegian GCS policy transfer process, coercion can likely be ruled out.

They find that policy learning and economic competition are the most common mechanisms explaining policy diffusion (Shipan & Volden 2008, 842). Also Simmons & Elkins (2004) and Volden (2002) emphasize the importance of competition, while Gilardi (2010), Meseguer (2006), Simmons & Elkins (2004) and Volden (2006) focus on policy learning. Based on this literature, our analysis explores how and to what extent *competition* and *policy learning* motivated and affected the policy transfer process concerning a GCS in Norway.

Furthermore, we lean on Dolowitz and Marsh (2000) as we assess whether factors that characterize domestic policymaking shaped the policy transfer process. Dolowitz and Marsh provide a useful framework for the analysis of policy transfer. They point to a set of factors

that influence both the characteristics of the transfer and the reasons for it: who the key actors are, why they engage in policy transfer, what is being transferred, where lessons are drawn from, what the different degrees of transfer are, what restricts or facilitates the policy transfer process, and how the process of policy transfer is related to policy success or failure. They argue that identification of the elements involved in a policy transfer process can help researchers categorize and frame their empirical work. We use this framework to analyse how domestic political, institutional, and economic interests facilitated or constrained the development of a renewable energy support scheme in Norway. In the following pages we specify the analytical framework further.

### *Competition*

Our analysis starts with exploring *competition* as a key mechanism causing policy transfer (Knill and Lenschow 2005; Shipan and Volden 2008; Tews 2005). Many scholarly contributions focus on *regulatory* and *economic* competition (Busch et al. 2005; Busch and Jörgens 2005; Knill 2005; Knill and Lenschow 2005; Simmons and Elkins 2004; Shipan and Volden 2008; Tews). We investigate the *economic* aspect of competition – how and why governments compete to attract economic activity. According to Simmons and Elkins (2004, 173) policy diffusion may happen because of “competition among policy makers to attract capital and international business generally as a means to enhance aggregate economic growth”. In other words, concerns about competitiveness and economic growth can guide policy change. Moreover, policy change in one country may alter the benefits of adoption for others (Simmons & Elkins 2004, 172). This could imply that policymakers in different countries will compete to attract investments in renewable energy development, and the adoption of renewable energy support schemes in competing countries may alter the benefits of adoptions for others.



We investigate whether adoption of a renewable support scheme, and a GCS in particular, was expected to increase Norway's competitiveness in the European renewable energy market.

### *Policy Learning*

The second part of our analysis focus on policy learning. The literature on learning is large and increasing (see Meseguer 2006 and Gilardi 2010 for an overview). Learning may be defined as a process whereby policymakers change their beliefs about the effects of politics (Dobbin, Simmons, & Garrett 2007; Elkins & Simmons 2005). According to Gilardi (2010, 651), learning can be understood as a mechanism of diffusion when these beliefs are adapted by taking into account the experience of others.

Meseguer (2006, 39) points to two separate but not mutually exclusive learning concepts: rational learning and bounded learning. *Rational learning* assumes that governments observe the experience of countries with different policies, they use that information to systematically update their prior beliefs, and they switch to policies with the highest expected utility (Meseguer 2006, 39). Hence, rational learning involves a systematic search for information. More specifically, policies that are implemented in other countries may provide information about the costs, benefits, and consequences of a particular policy (Simmons & Elkins 2004, 174). As mentioned above, Busch & Jörgens (2005a) find that several European countries systematically searched for renewable energy policies already implemented elsewhere before adopting FITs or a GCS.

In contrast, in *bounded learning*, "policymakers' analytical capabilities are limited; they do search for relevant information, but use various cognitive shortcuts in the search for and processing of experience" (Meseguer 2006, 40). Two such cognitive shortcuts that occur frequently are to prioritize the experiences of neighbouring

countries and successful experiences (Meseguer 2006). Similarly, Simmons and Elkins find that policymakers make cognitive shortcuts and learn from success (2004, 175). In terms of incentives for renewable energy development, a successful policy would increase shares of renewable energy in the total portfolio of a country.

In the analysis, we assess whether Norwegian decision-makers systematically sought information about renewable energy policies (in other words, carried out rational learning), or whether their search for information was less systematic (more characterized by bounded learning), and particularly influenced by policies implemented, successfully, in neighbouring countries.

### *Facilitating and Constraining Factors*

As the final part of our analysis, we seek to identify factors that may have facilitated or restricted the policy transfer process in the Norwegian debate over renewable energy support schemes.

Based on Dolowitz and Marsh (2000) we identify domestic factors that can influence policy transfer processes, focusing in particular on factors that may have constrained or facilitated policy transfer when Norway adopted a new renewable energy support scheme. Dolowitz and Marsh pinpoint several such factors as important, and we focus on the effects of structural institutional feasibility, bureaucratic constraints, and past policies (Dolowitz & Marsh 2000, 9). Adapting these considerations to the Norwegian GCS discussion, we first assess the level of structural institutional feasibility by analysing the importance of voting rules in the Norwegian Parliament, and how such rules affected what was perceived by policymakers as politically feasible policy. Second, assessing the level of bureaucratic constraints in the GCS debate, we explore how the bureaucracy's policy recommendations and assessments influenced the policy learning

process. Finally, we examine how past policies affected the policy transfer process. We analyse how existing policy programs (the status quo) and prior political decisions created path dependency for the policy learning process.

## Analysis

The study is based on both primary and secondary data sources. We conducted twelve semi-structured interviews with former and present members of the Norwegian Parliament who served on the Standing Committee on Energy and Environment (SCEE), former ministers and state secretaries of the Ministry of Petroleum and Energy, and representatives of interest groups that were active in the decision-making process. All seven parties represented in the Norwegian Parliament were solicited, and all except the Liberal Party chose to participate. We performed additional interviews in two cases, after the advice from interviewees who felt that political party fellows who had been active in the early phases of the decision making process could add valuable information.

Semi-structured interviews are commonly used to interview elite actors and experts; they offer a combination of flexibility and structure that “can provide detail, depth, and an insider’s perspective, while at the same time allowing hypothesis testing” (Leech 2002, 665). All the interviews were done in Norwegian, and responses quoted in this article were translated by the authors. Interviewees had the opportunity to screen these quotations and references, and gave permission for their names and affiliations to be mentioned. The appendix provides a numbered list of the interviewees and their affiliations. Interviewees are referred to in the text by the number that they are assigned in this list.

We also analysed official documents like white papers, legislative proposals, cabinet declarations, positions of the parliamentary SCEE, and parliamentary debates, as well as position papers by business and environmental organisations.

### *Competition*

Our first assumption is that governments compete to attract economic activity and enhance economic growth and that this competition can influence policy choices. Hence, we investigate whether a renewable support scheme, and a GCS in particular, was expected to increase Norway's competitiveness in the European renewable energy market. However, interviewees did not put much emphasis on competition when they tried to explain the choice of a renewable energy support system for Norway [interviewees 1, 3, 4, 5, 6, 7, 8]. The interviewee representing Energy Norway, an organization representing about 270 companies involved in the production, distribution, and trading of electricity in Norway (Energy Norway 2013), explicitly said that Norwegian decision-makers do not take part in such a competition. The interviewee emphasized that the energy situation in Norway is very special as the renewable energy share extraordinarily high [1]. This was a common view among the decision-makers. A representative of the Christian Democratic Party said: "I do not experience that Norwegian politicians have been afraid that it would be more attractive to make investments abroad compared to making investments in Norway. . . . The reason is that we already have a large share of renewable energy in Norway" [8].

Norway certainly has the highest share of renewable energy in Europe; in 2005, it was 59.9 per cent (Bøeng 2011). However, as the EU in 2007–2009 adopted a new renewable directive, it became clear that Norway, as a European Economic Area

member, would have to increase this already high share. After negotiations with the EU in 2011, Norway's share was set to 67.5 per cent by 2020.

However, as the discussions about a GCS started in 2000, this second EU renewable directive was still many years down the road. The official Norwegian renewable targets in the early 2000s was 3TWh of wind energy and 4TWh of renewable heating energy production by 2010.

These targets were motivated by climate change concerns, but maybe most importantly by the need for higher energy production in Norway. As almost 100 per cent of its electricity is based on hydropower, Norway is highly vulnerable to yearly changes in precipitation. In its recommendation to Parliament in 2003, the SCEE stated the following aims of a market of green certificates: To increase the renewable energy production, to strengthen the Norwegian and Nordic energy balance in order to reduce the price fluctuations and the vulnerability to dry years (NP 2003, 17). All the parties except the Progress Party also noted that a GCS would reduce CO<sub>2</sub> emissions (NP 2003, 17).

However, the situation was about to change. After several years with net imports of electricity, Norway exported electricity in 2007 (NOU 2012, 17). Climate change was now on the top of the political agenda, and EU member states were discussing a comprehensive legislative package on climate and energy policy – including the new renewable energy directive (European Commission 2006a, 2006b, 2007, 2008a, 2008b). A Conservative member of Parliament (MP) described the development like this: “When I think back on the Bondevik II government [2001–2005], the main reason for discussing increased renewable energy investments was that Norway was not self-sufficient in power in an average year. Hence, the question was how one could increase the energy

production in Norway. But while we were negotiating with Sweden, the situation changed, and when the new round of negotiations started, we were actually self-sufficient – we did not strictly need to increase energy production anymore” [7].

The increase in energy production, and thus the reduced need to step up (renewable) energy production, happened gradually. In March 2007, the Progress Party still argued that more renewable energy was important to increase energy production because Norway had been a net importer of electricity in seven of the preceding eleven years (NP 2007, 2237). However, as the energy situation changed in 2007–2008, the motives for a renewable energy support scheme also changed.

The Conservative MP explained that as the EU adopted the renewable energy directive in 2008, Norway became committed to increasing its share of renewable energy. Not because Norway needed to increase its own energy production, but to fulfil the obligations according to the EU renewable energy directive [7]. This view was shared by the environmental non-governmental organisation (ENGO) Bellona [12].

Hence, rather than emphasizing competition, Norwegian policymakers point to the following aims: In the first phase, 2000–2006, to reach the domestic renewable energy targets, based primarily on the need for increased energy production to avoid expensive imports of electricity, but also on climate change concerns. In the second phase, the aim was to reach the 2020 renewable energy target set by the EU.

Still, when the negotiations between Norway and Sweden on the design of the joint Norwegian-Swedish GCS started in the mid-2000s, competition played an important role. In the first round of negotiations between Norway and Sweden, both countries were concerned about the distribution of investments. Sweden was concerned that the majority of the investments would be channelled into Norwegian hydropower

because these projects were the least costly. Norway was also concerned about an imbalance in investments. Indeed, after negotiations stalled, Norwegian Prime Minister Jens Stoltenberg, representing the Labour Party, explained why in Parliament: “We would have funded many new investments in Sweden and few investments in Norway, because the agreement was too unbalanced. . . . [W]e would like to spend more money on renewable energy in Norway. Less of this money should fund investments in Sweden” (NP 2006, 1425). Fears of high consumer costs combined with failed investment incentives seem to have mattered more than the potential to improve Norway’s competitiveness in the joint Nordic and European electricity market. Norway’s huge hydropower reserve is likely one important underlying factor in these calculations, since stable access to hydropower has provided Norwegian consumers with low electricity prices for decades, and also because clean hydropower is already an asset for Norway in the European market, making development of new renewables less urgent. In sum, competition between Sweden and Norway about distribution of investments ended up being a barrier rather than an incentive to the introduction of a joint GCS in 2006.

### *Policy Learning*

Our second assumption is that policy learning influenced the decision-making process. We therefore assess how systematically Norwegian decision-makers searched for information about renewable energy policies. In particular, we investigate whether successful implementation of similar policies in neighbouring countries was an important source of learning.

Designing a policy proposal for the government in 2001–2002, bureaucrats in the Norwegian Ministry of Petroleum and Energy (NMPE) were definitely well informed about the situation in Europe. The ministry’s 2002 white paper referred to several

European countries which had introduced – or were planning to introduce – a market of green certificates: Belgium, the Netherlands, Italy, the United Kingdom, Sweden and Austria (NMPE 2002a, 112). The Ministry produced several assessments of the GCS in 2002, comparing it with FITs and noting how certificate schemes worked in other countries (e.g., NMPE 2002b).

When the GCS negotiations with Sweden failed in 2006, the red-green government proposed FITs as an alternative. The Ministry ordered a report assessing alternative FIT designs (NMPE 2006a). The governmental proposal stated that the proposed renewable energy program had “clear similarities with feed-in tariffs, which is the most common support scheme for renewable electricity in Europe.” The proposal emphasized that of 25 EU countries, 15 countries had established different forms of feed-in tariff systems, and pointed in particular to Denmark, Germany, Spain, Netherlands and Greece (NMPE 2006b, 4). Hence, our analysis of governmental white papers show that the bureaucracy and the government were primarily acting as would be expected under the concept of rational learning – they were systematically searching for information about other countries’ experiences with GCS and FITs.

Still, in the first phase, back in 2002, the Ministry did not fully and independently assess how a feed-in tariff would work in Norway, and the GCS received more attention and was better assessed than FITs. An interviewee who was a state secretary in the Ministry in 2002–2003 said: “As far as I remember, we did not assess alternatives to green certificates. We confined ourselves to comparing GCS to the system we already had. We compared the GCS to the incentive structure for wind energy in existing policy programs” [2]. Although the Ministry was relatively systematic in its collection of information about renewable energy support schemes in other European countries, the



process had traces of bounded rationality: GCS was only compared with the existing support scheme, not with FITs.

In the Norwegian Parliament, on the other hand, lawmakers seem to have acted in line with the concept of bounded learning: Although the governmental white papers provided information about other countries' experiences with GCS and FITs, the MPs interviewed for this study referred primarily to the Swedish GCS as an important source of learning. Several interviewees said that MPs never seriously considered FITs as an alternative in the first decision-making phase (2000–2006), because the parliamentary majority had already decided to support a GCS [2, 3, 4, 6]. This conclusion is supported by written documents: The minutes from the debates in the Norwegian Parliament and the recommendations from the parliamentary SCEE focused on Sweden (NP 2003, 2007; see also Author 2013). Weyland (2005, 271) argues that an innovation is more likely to be “adopted on the basis of its apparent promise, not its demonstrated success”. This seems to have been the case here: In 2003 Norwegian MPs decided to adopt a GCS based on the Swedish GCS long before this system had proved successful.

Policymakers were also influenced by stakeholder groups. Both energy industry actors and ENGOs advocated the GCS as the preferred policy instrument in an early phase, and they used examples of success in other countries – especially Sweden and the Netherlands – to persuade Norwegian politicians. FITs did not have the same support. The ENGOs Bellona and Zero lobbied in favour of GCS, and frequently pointed to success in other countries as a rationale for Norway to follow suit. One Bellona advisor emphasized that “the background for proposing GCS in the early 2000s was that there was a discussion about introducing similar policies in many other countries as well [12]. The same interviewee noted that there was also a discussion about a common EU [green certificate] market at the time” [12].

Decision-makers confirm that interest groups were pushing for a GCS – referring to Sweden [2, 5, 12]. A former Minister of Petroleum and Energy referred to pressure from several ENGOs, such as WWF, Bellona, and Nature and Youth: “One argument was that if countries like Sweden, the Netherlands, and others can do it, then so can we. Another argument was that since we are lagging so far behind in the development of bioenergy compared to Sweden, then let’s get started. GCS was something that worked in other countries, and Sweden was discussing a similar system” [12]. These findings may be a partial explanation for why Norwegian MPs did not seriously consider FITs and why a GCS was considered the natural choice of policy instrument for Norway.

When the GCS was discussed for the second time (2006–2008), decision-makers referred to the successful implementation of the Swedish GCS [5, 8, 10]. In the 2008 parliamentary debate, when Sweden’s GCS had been in effect for several years, there was a clear sense that it was a better option than the existing incentive program, Enova. A long-time MP said: “Sweden clearly was an inspiration for us, while the rest of Europe meant quite little. Since Sweden had speeded things up, they were an inspiration. In 2006–2007 the Swedish results were so meagre that they didn’t matter much, but it clearly meant more later on in the process” [10].

The fact that many European countries had by then implemented FITs does not seem to have made a big impression on Norwegian MPs. Furthermore, the FITs proposed by the red-green government in November 2006 were perceived by many lawmakers as not ambitious enough [8].

Our data indicate that what Sweden did was much more important for Norwegian policymakers than what happened in the rest of Europe [5, 8, 10, 12]. References to the Swedish GCS as an important element in the decision-making process came from a clear

majority of our interviewees. Interestingly, none of the interviewees referred to the Danish FITs. To the extent interviewees referred to FITs in other European countries, it was usually to the German FITs' tendency to heavily favour wind energy development [4, 6, 7] despite the fact that FITs can be designed in many different ways to fit domestic circumstances.

In conclusion, therefore, we find that although the bureaucracy systematically searched for information about renewable energy support schemes in Europe, Norwegian MPs did not take the available information comparing GCS and FITs into account. Several interviewees mentioned that the focus was never on a choice between a GCS and an FIT [2, 3, 4,]. Rather, the focus was on implementing the GCS as an alternative to the existing, ineffective Enova incentive structure.

Moreover, our analysis shows that Norwegian policymakers were particularly attentive to the policy adopted by neighbouring Sweden. This should also be seen in the light of the first decision made by Parliament asking the government for an assessment of a GCS adjusted to Norwegian and Nordic conditions (NP 2000, 16) and later in 2003 the parliamentary decision to initiate negotiations with Sweden about a joint GCS. Hence, the Nordic focus was set already in December 2000.

Especially when the Swedish system showed signs of effectiveness, the interviewees emphasize the importance of the Swedish example. However, in line with the concept of bounded learning, they were attentive to the Swedish policy even before it was successfully implemented, and they decided to adopt GCS based on its "apparent promise" (Weyland 2005).

### *Facilitating and Constraining Factors*

In the third part of our analysis, we lean on Dolowitz and Marsh (2000) as we identify domestic factors that can facilitate or constrain policy transfer processes. The following factors seem to have been at work in Norway: First, the need for a parliamentary majority in a political situation characterized by with shifting minority governments ; the fact that the GCS did not – in contrast to the proposed FITs – depend on annual allocations from the national budget (structural institutional feasibility), and finally, lack of support for a GCS in the NMPE bureaucracy which preferred to stay with the status quo - the already existing renewable energy support system administered by ENOVA (bureaucratic constraints and past policies).

First, cross-partisan support was emphasized as an important facilitating factor by the interviewees. At the time the GCS discussions started in 2000, Norway had been governed by shifting minority governments for decades. A new renewable energy support system did not require more than simple plurality in Parliament. However, as Norway at this time was governed by minority (coalition) governments, simple plurality required broad parliamentary support. Broad parliamentary support was therefore of great importance to the minority government of Bondevik II [2]. This was also commented on by an MP from the Socialist Left Party: “We were searching for a policy instrument that could gather a parliamentary majority, while reducing greenhouse gas emissions and increasing energy production” [3].

Cross-partisan support was an important condition when the decision-makers were selecting a policy instrument in 2003, and a broad alliance of interest groups and political parties seems to have become an important reason in itself for continuing the support for a GCS: ENGOs (Bellona, Zero, Friends of the Earth Norway) as well as the hydropower sector (Energy Norway and Statkraft) supported a GCS [1, 2, 4, 8, 9, 10].

Several decision-makers referred explicitly to the importance of this broad alliance representing a consensus between the hydropower sector and the environmental movement [2, 9, 10].

The second great advantage of a GCS, mentioned by almost all interviewees, was its independence of the annual national budget [1, 3, 5, 6, 7, 8, 10, 11, 12]. This was closely related to another characteristic of a GCS: it was perceived as a market-based policy instrument. A Conservative MP explained: “A market-based solution is independent of changing annual national budget allocations. . . . Market-based solutions give a higher degree of predictability . . . and stability. There are so many different goals to consider in the annual national budgets. Moreover, one should also take changing governments into account” [7].

FITs in Europe are usually financed by electricity consumers, but Norwegian policymakers still perceived FITs to be dependent on annual national budget allocations. (And the FITs proposed by the Stoltenberg II government in 2006 (NMPE 2006b) were indeed supposed to be funded through the national budget.) Hence, in the Norwegian debate, the choice was considered to be between a market-based GCS and state-funded FITs.

The GCS was framed as a renewable energy support scheme with long-term credibility. The predictability and stability of a policy instrument that depended neither on the annual national budget nor on shifting political majorities were of great importance to the decision-makers. A former Minister of Energy and Petroleum said: “The great enthusiasm for GCS was that it was independent of the annual budget” [11].

This view was also shared by the ENGOs and the energy sector (which is dominated by hydropower). An interviewee from the ENGO Bellona mentioned

independence from the annual national budget as one of the main reasons Bellona supported a GCS from the beginning [12]. An interviewee from Energy Norway emphasized that a joint Norwegian-Swedish GCS was associated with less political uncertainty than were FITs – not only because the GCS is independent of the annual national budget, but also because the political risk decreases as there are “two parliaments and two governments involved” [1]. Hence, the predictability and stability of a market-based renewable energy support scheme that is not dependent on the annual national budget can be seen as facilitating factors of great importance.

The third factor, relating to bureaucratic constraints as well as past policies, was bureaucratic reluctance: The NMPE bureaucracy was not at all supportive of a GCS (NMPE 2002a). The 2002 NMPE white paper referred to Enova, an agency that had recently been established to promote environmentally friendly energy consumption and production (Enova 2011), and argued that introducing an additional policy instrument would lead to uncertainty: “NMPE does not support a national market of green certificates. NMPE will rather continue the existing policy to reach the aims of restructuring energy use and energy consumption – based on support from the energy fund and Enova” (NMPE 2002a, 107).

Two former political leaders of the NMPE mentioned the lack of enthusiasm in the Ministry as a likely reason for the slow progress in the legislative process under the Bondevik II government [2, 11]. A former state secretary said that “bureaucracies in general, and the bureaucracy of the Ministry of Petroleum and Energy in particular, are conservative in nature” [2]. The same interviewee related the Ministry’s scepticism about green certificates to its role as defender of the 1991 Energy Act, which had liberalized the Norwegian electricity market: “The warnings against market interventions were very much a part of their [the Ministry’s] culture” [2]. Although politicians saw a

GCS as a market-based policy instrument, NMPE bureaucrats considered it an intervention in the market – an intervention which was not in line with the intentions of the 1991 Energy Act.

To summarize, the following constraining and facilitating factors seem to have been influential as Norwegian decision-makers decided to adopt a GCS. First, the broad alliance of support for a GCS not only in Parliament but also among interest groups facilitated the process. Second, the GCS's independence of annual national budgets made it popular with decision-makers and interest groups. Third, a reluctant bureaucracy, which defended the 1991 Energy Act and the already existing renewable energy support scheme Enova, was mentioned by interviewees as a factor that delayed – and thereby constrained – the decision-making process.

## **Conclusion**

After a ten year long debate, Norwegian policymakers in 2011 finally adopted a renewable energy support scheme. In the process, policy transfer took place: the Swedish GCS system was transferred to Norway in the form of a joint Norwegian-Swedish GCS.

Relating our discussion to the research literature, we find that the extraordinarily high renewable energy share in Norway made competition less important as a driver for policy change in Norway than expected. Interestingly, and in contrast to the existing literature, we also find that distributional concerns linked to competitiveness and investments in new renewable energy technologies were a roadblock in the first round of negotiations between Sweden and Norway. It would be politically intolerable for Norwegian policymakers if the GCS led to an imbalance in investments in which the

lion's share of investments was made in Sweden rather than in Norway. Hence, competition became a barrier rather than a driver to a joint Swedish-Norwegian GCS.

With regard to policy learning, we find that while the bureaucracy systematically searched for information about possible renewable energy incentive systems. This part of the process was characterized by rational learning. However, this information was not taken into account by Norwegian MPs. The learning of Norwegian MPs seems to have been bounded to Sweden's decision to introduce a GCS, to such an extent that Norway's debate in 2003 was influenced by the apparent promise of the Swedish GCS rather than any demonstrated success. Hence, this part of the process was characterized by bounded learning.

Further findings from our analysis show, however, that domestic factors played an important role for the policy outcome. First, we found that cross-partisan support in Parliament secured the required parliamentary majority for a GCS. The cross-partisan support was based on the overall preference among MPs for a *market-based* policy instrument that would be independent of yearly allocations in the national budget and hence escape annual bickering in Parliament. Moreover, support from a broad alliance of interest groups, including both energy producers and ENGOs, was of great importance to decision-makers because it made cross-partisan agreement in Parliament more achievable.

Further, the choice of GCS in 2003 seems to have caused path dependency to the extent that during the debate in 2008 Norwegian MPs did not consider alternatives to a joint Swedish-Norwegian GCS. In 2008, Norwegian MPs saw Sweden's successful implementation of the GCS as evidence for a policy instrument that worked well and had put Sweden on a path to fast growth in the share of renewable energy. Hence, even if



FITs had become the most popular policy instrument in Europe by March 2008, when the Norwegian Parliament decided to resume the GCS negotiations with Sweden, they were not seriously considered, and discussions concentrated on the success of Sweden's GCS rather than the success of FITs in many other European countries.

The contribution of this study to the literature is to show the great importance of how policy diffusion mechanisms interact with domestic factors in explaining policy change processes. The aspects of how the transfer of policy ideas affect policy outcome must be analysed in conjunction with interest structures, institutions and the distribution of political power at the domestic level (Lenschow et al. 2005; Kurzer 2012). As Gilardi (2010) points out, when explaining learning, not only *policy* – but also *politics* – defined by Gilardi as the electoral consequences - have to be taken into account. Politicians do not only search for the most economically and/or environmentally effective policies, but policies which can gather electoral support. Focusing on politics in addition to policy may contribute to explain why the Norwegian Parliament preferred GCS to FITs. A GCS was politically feasible due to very broad stakeholder support, and at the same time it represented a new policy solution that had gained traction in Sweden.

Following up Gilardi's (2010) question - who learns from what – there are several interesting research questions for the future: Are bureaucrats more prone to rational learning than elected politicians? And finally, can apparently bounded learning by elected politicians be explained by taking politics – not only policies – into account?

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## Appendix: Interviewees

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