



Policy styles, opportunity structures and proportionality: Comparing renewable electricity policies in the UK

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Abstract

Researchers expect under-reaction in climate policy. However, this might differ depending on the access of different interest groups to a political system. To explore the relationship between entrenched patterns of domestic politics and proportionality of climate policy, we compare two renewables policies which financially support new renewable electricity in the UK. Drawing on the literature on policy styles and related opportunity structures, this article shows that UK political parties have responded to growing public concern and NGO pressure by, at times, trying to out-green one another to win votes. However, powerful industry actors have been influential in shaping UK renewables policies, in particular when political competition about the individual policies has been low. The findings suggest that an over-reaction in terms of exceeding the marginal costs of renewable electricity production is equally likely under conditions of high or low political competition.

Keywords

Interest groups, opportunity structures, policy styles, proportionality, renewable energy, support schemes, UK

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Introduction

Internationally, the UK has been a promoter of ambitious climate agreements and decarbonisation targets for the European Union (EU), but its enthusiasm for targets specific to renewable energy has been less than wholehearted (Rayner et al., 2020). The 2009 EU renewables directive committed the UK to a 15% share for renewable energy. In electricity, the UK government proposed a sub-target of 30%. To reach this, the UK adopted two key support instruments for the generation of electricity: the feed-in tariff (FiT) in 2008 and Contracts-for-Difference (CfD) in 2013. According to Maor et al. (2017), a policy is proportionate when its costs are matched by its benefits. By this definition, the proportionality of the two instruments may be considered to differ. Although important for renewable energy deployment in terms of kick-starting new industries and decreasing technology costs in the future (e.g. Jacobs, 2014), economists (e.g. Boomsma and Linnerud, 2015) tend to consider the FiT as being disproportionate because tariffs systematically exceed the marginal costs of renewable electricity production. The need to control the rate of deployment of renewables, thereby cutting costs, has been one key reason why Germany phased out its FiT for large-scale renewable projects, adopting auctions instead (Leiren and Reimer, 2018). The British CfD instrument is also an auctioning model, which, at least in theory, provides the authorities with the opportunity to control the proportionality of deployment and the related costs. We view the FiT as at least potentially an over-reaction in terms of the scale of the subsidies eventually paid. In contrast, the CfD has been designed explicitly with proportionality in mind. The official goal has been to ensure that investments in low-carbon electricity generation would take place. It provides a top-up payment between the market price and a pre-defined 'strike price' in long-term contracts.

Focusing on these two policy outputs – FiT and CfD – we aim to understand whether and, if so, how entrenched patterns of domestic politics can explain the difference in proportionality. We also ask whether the CfD actually represents proportionality, through exposure to market price, in a better way than the FiT. We trace the development of the policies to understand why they have emerged and developed as they have, paying attention to policy styles and their associated opportunity structures. We examine how interest groups in the power sector have dealt with the opportunity structures and whether they have been successful in influencing the policy outputs being examined here. Can differences in interest groups' access to the political system explain these outputs?

To answer these questions, we draw on the literature on policy styles, opportunity structures and proportionality perspectives. The UK is particularly interesting, given the pluralistic character of its political system (Leach et al., 2011) on the one hand, and its rather 'elitist' pressure group activity (Norton, 2011), on the other. This contrast has created disagreement about whether the UK policy style is impositional or, rather, consensual (see theory section, below). In addition, the UK government is known for being effective in enacting policy change, due to strong majority governments and a relative lack of veto points. Special features of British politics also ensure that 'only a few politicians, operating within a number of institutional constraints, have power to determine the content of the policy agenda' (John et al., 2013: 21). It has a parliamentary system capable of ignoring the demands of a wide range of pressure groups (Richardson, 2018).

Within this political system it is of interest to study one particular sector, as policy styles are known to vary across sectors, while less is known about variation within sectors (Knill and Tosun, 2012). The energy sector is relevant because it typically consists of dominant utilities, which engage in consultative processes with ministries. However, where the utilities primarily rely on generation from fossil fuels, smaller, exclusively renewable energy actors may challenge the utilities' position, growing outside the prevailing channels of institutional power, as has happened in Germany (Hager, 2015). In contrast, in the UK, debate researchers tend to take for granted that the big utilities are dominant (Mitchell, 2008). The debate is heated, particularly in relation to the

introduction of the long-term auction-based CfDs, which tend to favour bigger companies. However, the FiT, which was introduced in 2008, has supported small electricity generators and resulted in a high deployment of small-scale production, often by private households (Inderberg et al., 2018). Given these differences, it is interesting to study the renewable energy sector in the UK to understand how access to the political system influences output.

In the next section we present the analytical framework. We then present the methods before we describe the development of the FiT and CfD. Lastly, we weigh the evidence and conclude that a ‘disproportionate’ reaction is more likely to happen when political competition is high and interest groups compete for public attention as well as when there is less public attention and the political system is open to lobbying from particularly influential interest groups.

Combining policy styles, opportunity structures and proportionality perspectives

‘Policy styles’ refers to different ways in which governments may develop and execute policies. Different styles provide varying possibilities for actors to influence policy-making (e.g. opportunity structures). Combining this approach with proportionality perspectives may be fruitful for understanding whether and how entrenched patterns of domestic politics can lead to under- or over-reaction in climate mitigation policies. The design of political institutions can likely help explain differences in the degree of proportionality of climate policy (Finnegan, 2019).

Policy styles and opportunity structures

Since the 1980s, comparative public policy scholars have sought to understand whether countries develop decision procedures that make them susceptible to creating policies in distinct ways (e.g. Richardson et al., 1982). The authors expect that policy-makers (i.e. politicians and civil servants) develop ‘standard operating procedures’ for dealing with policy problems on the political agenda (Richardson et al., 1982: 4). Richardson et al. (1982), who have provided the best-known attempt to identify key characteristics of such procedures, argue that policy styles differ in two ways: government approaches to problem-solving (i.e. whether governments are assuming active or reactive roles when addressing societal problems) and governments’ relationship to other actors in the policy-making and implementation processes (i.e. whether governments try to reach consensus with organised groups or impose decisions despite opposition).

However, the many case studies that have been carried out do not support the expectation that different countries have distinct policy styles, but suggest instead that a country may feature more than one style (see Howlett and Tosun, 2019; Knill and Tosun, 2012). Researchers have also criticised the policy style approach for being ‘too simple’ and not capturing the context in which policymaking takes place, including constraints imposed by policy environments (Cairney, 2019). This is reflected in the disagreement related to the UK policy style. In contrast to the strong state in the Westminster system, Richardson et al. (1982) found that even in the UK, consultation is the preferred way of solving problems, while policymakers try to avoid challenging well-entrenched interests. Richardson (2018) later changed his mind, arguing that austerity has changed the power relationships between politicians, civil servants and interest groups and shifted horizontal *governance* to *government*. He also found that the focus on austerity has increased the influence of the Treasury and that influence has shifted from civil servants to ministers. Accordingly, the policy style in the UK has developed to become more impositional. While the authorities may still be involved in networks or carry out consultations, researchers argue that in the UK there is a lack of deliberation: as Ministers are taking

decisive actions, there is an increasing number of instances where interest groups are more or less excluded from decision-making or ignored (King and Crewe, 2014: 386).

To what extent a government's policy style is consensual or impositional and who has access to policy-making processes is relevant for understanding the type of policy outputs a system produces. While pluralist approaches assume that interest groups have equal access to decision makers, institutional perspectives acknowledge that institutions tend to be more susceptible to certain interests (Baumgartner, 2007). Hence, the possibility for actors to influence policy outputs varies. This is reflected in the concept of political opportunity structures, which integrates how easy it is to access a political system and how open the political system is to political actors that seek to influence it (Princen and Kerremans, 2008). It is also reflected in access point theory: Ehrlich (2011) argues that the more points of access (i.e. the number of policymakers who can be lobbied and have influence in a policy area) provided to interest groups, the more interest groups will lobby and the more policy will be influenced as policymakers change their preferences in line with interest group preferences.

One common assumption is that interest groups focus on the access points where they have the best opportunities to exert influence (Princen and Kerremans, 2008). Such access points relate to the mutual relationship between interest groups and the political system: interest groups need information to adapt and influence policies, bureaucracies need information about likely effects of policies and politicians need information about support that can be decisive in an election. Bouwen (2002) calls such resources 'exchange goods' and expects them to affect the ability of interest groups to influence policy-making. Hence, we expect that *the more important an interest group's exchange goods are perceived to be for the policymakers, the more influence it will have (first expectation)*.

However, if an interest group experiences defeat, it may seek alternative venues to influence policymaking. While political systems that are open to interest groups promote lobbying (Marks and McAdam, 1999), such groups will, if they encounter closed doors, turn to other means, including protest, thereby externalising conflict and making it visible (Leiren and Parks, 2014). We expect such *alternative strategies to increase interest groups' ability to influence policies when there is considerable public support (second expectation)*. Under such conditions, a politician may fear punishment in the next election. Influence also depends on salience and the technical complexity of an issue (Dür and de Bièvre, 2007).

Proportionality perspectives

There are challenges related to policy outcome both for the consensual policy style and the impositional policy style: while the consensual policy style may create sub-optimal decisions for society, as it facilitates lowest common denominator-type decisions (see Peters, 1997), the impositional policy style runs the risk of creating unworkable policies (see King and Crewe, 2014). Although we are not aiming to evaluate policy outcomes, proportionality perspectives may provide useful guidance in understanding the relationship between entrenched politics and policy outputs. It is important to understand how interest groups' access to decision makers in a political system affects whether policy responses to climate change represent over- or under-reactions.

Drawing on institutional theory, Peters et al. (2017) argue that, given the entrenched patterns of domestic politics, policy under-reactions to climate change are likely. Maor et al. (2017) are also of the opinion that climate policy reactions are typically disproportionate in this sense. Defining disproportionate policy response as a mismatch between the costs of a public policy and the utility derived, they present four conditions under which disproportionate policy responses to climate change occur and derive related hypotheses about the causes.

First, economic considerations (e.g. protecting economic interests) can create disproportionate policy responses. Hence, Maor et al. (2017) expect *the impact on the domestic economy* to affect the policy response to climate change. If policy makers expect that a policy measure is beneficial for the domestic economy, an over-reaction is likely; otherwise an under-reaction will follow. Second, the wish to *respond to public demands* may result in disproportionate policy responses. Maor et al. (2017) assume that a public that is fearful of a given risk, may result in an over-reaction in responding to that risk. Conversely, under-reactions are more likely in situations where public attention is absent or low, as policy makers tend to prioritise problems that have high visibility. As such, visibility is related to the third and the fourth conditions that Maor et al. present: the occurrence of *focusing events* which push public attention to a higher level and, hence, increase the chances of an over-reaction; and, *strategic considerations* that make politicians compete to take the lead in policy arenas, creating a drive towards over-reactions. Because the third and fourth conditions are related to the second, we treat the three of them together in the analysis.

Case selection, data and analytic strategy

Because of its strong majority governments and the uneven distribution of power among interest groups, the UK is of interest in studying how politics shape renewable energy policy. Within this political system, we study two support instruments for electricity production: FiT and CFD.¹ As mentioned in the introduction, we expect these outputs to differ in terms of proportionality and also which interests they benefit.

The analysis mainly builds on qualitative data. Sources of written data include, in addition to secondary literature, blogs, policy papers, Parliamentary Select Committee reports, consultancy reports and newspaper articles and the Nexis Advance media database. Oral data includes the collection of information from 16 interviews (see the Online Appendix). We selected informants based on different roles and expertise related to renewables policies, trying to gather different viewpoints on the topics; for example, persons who had key roles in government or in relevant interest organisations at the time of the introduction of the different support instruments were approached. The interviews were semi-structured, enabling us to grasp nuances and clarify contextual factors. We let the informants talk freely about topics that we addressed, focusing in particular on organisational factors, political factors and the relationship between the UK and the EU. These key points and the ambition to write a chronological account guided both the selection of sources and the analysis of the data. Anonymity ensured that informants could speak freely. This was considered more important than the benefits for readers of knowing the source of each statement.

Two outputs of the policy-making process

The two outputs represent a shift in policy from the former support instrument for renewable electricity generation, a certificate scheme labelled the Renewables Obligation (RO). The adoption of the RO in 2002 followed Labour's election in 1997 and replaced the Non-Fossil Fuel Obligation. In contrast to its predecessor, the RO did not support nuclear power, and placed an obligation on UK electricity suppliers to source a proportion of the electricity they supply from renewable sources. It attracted criticism, however, for falling short of its targets and failing to take account of the maturity and different risk levels of different technologies (Wood and Dow, 2011). Following such criticism, in 2007 the government decided to provide differentiated levels of support for different technologies through 'banding' (entering into force in 2009). Each of the five bands provided their associated technologies with particular support levels, depending on maturity and risk levels.

Representatives of the renewable-energy industry like the British Wind Energy Association (since 2010: RenewableUK) were satisfied with the reformed RO (Interview 8), as were several of the ‘big six’ utilities – with the notable exception of the energy company EDF (House of Lords, 2008). By 2008, EDF were already questioning the RO’s fitness for purpose and promoting the concept of contracts for difference. Elsewhere, critics of the RO, including the regulator, Ofgem, charged with ensuring affordability to consumers, grew increasingly vocal (Interview 16). About the same time, two other important issues rose up the political agenda: energy security and climate change. Around 2006–2007, rising energy security concerns contributed to a change in attitude towards nuclear power, with the government expressing greater willingness to facilitate its expansion (Pearson and Watson, 2012).

Climate change also received increased attention politically. The Conservatives, Labour and the Liberal Democrats, were competing to ‘out-green’ each other between the general elections in 2005 and 2010 (Carter and Jacobs, 2014), contributing to keeping climate change and energy policy politically salient. Friends of the Earth’s Big Ask campaign capitalised on the ‘green’ saliency and were able to mobilise support from Liberal Democrats and the Conservative Opposition Leader (Carter and Jacobs, 2014; Carter and Little, forthcoming). This created pressure on the Labour Government to respond and drove the push for the *Climate Change Act 2008*, which saw remarkable levels of cross-party support, as well as the creation of the Department of Energy and Climate Change (DECC).

Moreover, the UK had committed to meet the EU’s mandated renewables target and needed to invest to replace aging infrastructure. Under these circumstances, governments brought changes to the instruments for supporting renewable electricity generation, including a decision to replace the RO. Civil servants in DECC began considering alternative systems under the Labour government, and continued the process under the post-2010 Conservative and Liberal Democrat Coalition government. As the RO fell out of favour, FiT and CfD attracted support instead.

The small-scale FiTs

The Labour government introduced the FiT for small-scale renewables into the 2008 Energy Bill, with effect from 2010. While small-scale generation such as photovoltaics had not previously been accompanied by remuneration, there were several versions of relatively ineffective installation support schemes that targeted household suppliers and small and medium-sized enterprises (Inderberg et al., 2018). The FiT requires electricity suppliers to pay fixed tariffs to small renewable generators for electricity exported to the National Grid. Such payment is available for anyone who has installed solar, wind, micro combined heat and power, hydro or anaerobic digestion (i.e. production of biogas) up to a capacity of 5 megawatt (or 2 kilowatt for combined heat and power). Given the market-oriented ideology promoted by Thatcher, which was accepted to a significant extent by later governments (Pearson and Watson, 2012), FiT as a technology-oriented support scheme was not considered appropriate. Neither civil servants nor the big utilities favoured it. Nevertheless, FiT was introduced for small-scale electricity generation. How did this happen?

The idea of introducing a fixed FiT was inspired by the rapid deployment of renewable electricity generation after the introduction of FiTs in Germany and Spain. Environmental NGOs and several academic researchers (e.g. Toke, 2012) advocated FiTs as the primary support mechanism in the UK (for large and small-scale generation). In contrast to the German FiT, which benefited small-scale electricity providers, the RO was complex and directed towards large-scale provision. The more established renewables sector, however, thought the RO was ‘a perfectly fine instrument’ (Interview 8).

The FiT’s emergence in the UK owed much to the heightened cross-party competition over and politicisation of energy and climate issues. In 2007, a group of Conservative politicians enthusiastically embraced FiTs after a trip to Germany. Conservative Party Leader David Cameron received

public attention for placing a wind turbine on his home (BBC, 2007). Although FiTs could potentially place a disproportionate burden on poorer households (Monbiot, 2010), Labour Ministers did not want to be out-done by the Conservatives on this issue, and began to back them (Interview 14).

Just before the *Climate Change Act 2008* was adopted by Parliament, Prime Minister Brown reshuffled his Cabinet and created DECC. This move aimed to reap synergies between energy and climate policies, and to lead the development of energy market reforms. In his role as DECC's first Secretary of State, Ed Miliband was keen to implement 'a move away from the obsession with market mechanisms as being sufficient. [. . .] He started talking about the need for small scale FiTs from day one in DECC' (Interview 10). Miliband was also influenced by the German experience:

The idea that Germany's support for solar had been such a triumphant success was very influential in British politics at that time. [. . .] Lots of shiny solar panels heavily subsidised was quite appealing electorally (Interview 10).

At the same time, the sector continued to be dominated by the close links between the big six utilities and government – although a set of smaller players, able to profit from smaller-scale initiatives that would be encouraged by a system of FiTs, began to grow in influence. FiTs had also received a favourable evaluation in the Stern Review on the Economics of Climate Change, albeit with the caveat that referenced the high premium paid by consumers. The political imperative to develop the instrument over-rode a degree of civil servant scepticism:

feed-in tariffs are not so popular among civil servants [. . .] It was forced by this major backbench drive. [. . .] It was a sense of Ed Miliband going, 'ok, I get the message', it was passed on to the civil servants: 'Do something about this' (Interview 8).

A further factor driving the decision was the fact that small independent producers were a fledgling industry that New Labour wanted to encourage. Moreover, Miliband's close relationship with the civil society groups behind the 'Big Ask' campaign for the Climate Change Bill (Carter and Jacobs, 2014) was significant. The FiT decision indicated a Secretary of State keen to cultivate support for his wider agenda from environmental NGOs (Interview 8), which, together with the Renewable Energy Association, created a large coalition to back their campaign to boost solar power and encouraged parliamentarians to vote for the FiT (Friends of Earth, 2017).

There was also a desire to engage householders with the climate change agenda, hoping that 'by having a solar panel on the house, you are hopefully unlocking some of the wider behaviour change' (Interview 11). Small-scale FiT made that possible. Based on much of Miliband's preparatory work (Interview 10), the FiT was introduced into law in 2008, but only for small-scale electricity production. At that time, Labour held the majority in the House of Commons, with 355 seats.

In summary, in spite of civil service resistance, the FiT was adopted because it was electorally salient, supported a fledgling industry and was pushed by a strong Energy Minister with close affiliation with environmental groups and support for environmental issues. It was adopted at a time when the large parties were competing to be the 'greenest'.

Contracts-for-difference

In 2010, a Conservative and Liberal Democrat Coalition government replaced the long-standing Labour administration. In the same year, it quickly proposed the support scheme CfD in new draft legislation, which was eventually passed in 2013. In contrast to the FiT, where 'everyone' is eligible, generators compete for the long-term contracts for provision of capacity through an auction

system (the first auction took place in 2017). There are separate auctions and contract lengths for different technologies, including nuclear, and the auctions determine the prices. CfD provides a greater degree of price certainty for investors than the RO did, but less certainty than a fixed FiT. The shift from the former RO to the CfD bidding system (and the FiT) has been regarded as part of a turn away from the hitherto preferred market-led approach, in favour of a more impositional policy style in the electricity sector (Kern et al., 2014). Why did this happen?

In 2010, the UK witnessed the unusual phenomenon of an indecisive election and subsequent formation of a Coalition government of the Conservatives and Liberal Democrats, together holding 363 out of 650 Parliamentary seats. During the 2010 elections, climate change had still been a topic that the main parties claimed to care about (Carter, 2014: 429). It shared the agenda with increasing concern for energy security, as the widely accepted official view held that significant investments in new generation and transmission assets in electricity would be needed for the UK to meet its targets for emission reduction, renewables and energy security, replace ageing plants and increase interconnection.

Labour and Conservatives had proposed three main approaches to promote low carbon electricity production: an increased share of renewables, nuclear, and ‘clean coal’ using carbon capture and storage; while the Liberal Democrats ruled out new nuclear build (Jowit, 2010). The Coalition Agreement (HM Government, 2010) included a commitment to ‘reform energy markets to deliver security of supply and investment in low carbon energy, and ensure fair competition’. It also highlighted the disagreement between the Coalition partners about nuclear. To accommodate Liberal Democrat opposition, it was agreed that there would be no public subsidy for new nuclear. However, in line with the Conservatives’ wish to allow the replacement of existing nuclear power stations, the Government would be permitted to bring forward a new National Planning Statement for ratification by Parliament that allows for nuclear plants in principle (HM Government, 2010: 17). Yet, without subsidies, there would be no nuclear investments (Interview 10).

In late 2010, the government initiated the Electricity Market Reform (EMR). The initial consultation document introduced two key options for a support scheme for renewable energy. It recommended CfDs but also highlighted the premium FiT system as an alternative (DECC, 2010). Civil servants within DECC, as well as in the Treasury, highlight three factors leading them to favour CfDs. One was scope: ‘we wanted to keep an instrument that was at least in principle also for nuclear and CCS’ (Interview 9). Mitchell (2012) suggests that there has always been a strong interest behind nuclear in DECC. A second factor was affordability. In contrast to FiTs, which set support levels administratively, the CfD strike price is decided through auctioning, which tends to make it more affordable than alternative instruments. CfDs were also considered as ‘fitting’ better with a carbon tax, which pushes up wholesale prices in the power market (DECC, 2010). The rising market price would, in the case of CfDs, decrease the need for subsidies over time (Interview 9). A third factor was attracting sufficient capital from the wider investment community by providing greater certainty and loans with discount rates. DECC’s ‘modelling showed that CfD was the best way of doing that because investors get 15 years [returns] indexed to inflation’ (Interview 9).

While DECC was leading the consultations on policy development, the Treasury was exerting its own influence. Although the RO, FiT and CfD are all ‘budget neutral’, in that their associated costs are passed on to the consumer, rather than the taxpayer, and therefore not officially falling under its formal remit, the implications of these policies for the economy and public spending justified Treasury involvement. The Treasury was also important in the 2009–2010 Energy Market Assessment that preceded the EMR, and its significance was further boosted when the Levy Control Framework – an instrument to control public spending on energy policy – was introduced in 2011 (Lockwood, 2016). Critics of the Treasury highlight the damaging effect on climate policy

of a short-termist outlook among officials, reflected in modelling practices and discount rates typically applied to evaluate policy (see e.g. Green Alliance, 2014). They also highlight a preference within the Treasury for developing what at the time were relatively inexpensive gas-fired power stations (Mitchell, 2012) rather than renewables (Interview 3). During the policy development process, DECC was required to demonstrate why CfD was the most affordable instrument (Interview 9). In particular, the Treasury was focused on hitting the target cheaply; other parts of government were keener on creating new industry particularly around offshore wind as a benefit from the subsidy regime (Interview 11).

There was an extensive consultation process with a wide range of interest groups (Interview 9). For some renewables sector interest groups, the recommendation to leave the green certificate system and introduce CfD came as an unwelcome surprise (Interview 8). Some renewable-energy trade interests favoured the Premium FIT – that is, the government gives a defined additional payment for each unit of renewable-energy generation which the renewable-energy generator earns on top of the value of any electricity sold on the wholesale electricity market (Toke, 2012: 15). Others feared that for small and independent generators, the CfDs would be less generous than the green certificate (Toke, 2012: 18). Certain renewables sector organisations initially found that civil service doors were closed to them (Interview 8). Although the renewables interest groups, like RenewableUK, later spent much time working with the government, the government appeared suspicious about their message: ‘there was always a sense that they did not quite trust what we were telling them’ (Interview 8). An environmentalist supports this impression, arguing that ‘the renewables industry is [. . .] seen as a special interest pleading for subsidies’ (Interview 4). In contrast, employees from the big six energy companies worked closely with DECC. Because of shortage of time and pressure on staff resources (even though staff numbers increased to prepare the EMR), consultants were extensively used and some use of secondees increased the size of the EMR team (Lockwood, 2017: 58). This group largely shared a worldview and policy paradigm with the other DECC officials and the big six, but did not necessarily push big six interests, as these were not always unified (Lockwood, 2017).

The views of the big six on the use of CfD for all low-carbon generation varied with their generation fleet and plans for future development. At the time, all the big six utility companies were in nuclear new-build consortia exploring these options (Lockwood, 2017). However, in general, companies such as EDF with substantial amounts of nuclear in their portfolios favoured the combination of a CfD and carbon price support (ECC Select Committee, 2011: para 129). Those with a greater proportion of renewables or fossil-fuel generation and less nuclear did not necessarily favour the package. For example, the energy company SSE did not support the CfD design, seeing it as a ruse to support nuclear. Established market incumbents arguably wanted to control the expanding renewable-energy market and had no interest in allowing a fixed FIT option, as this would lead to declining sales from their own power stations (Toke, 2012: 16). In contrast to certain renewables interest groups, the big six are perceived as having been quite influential on policy development, and civil servants were largely in agreement with the incumbents (Interview 1). Civil servants agree that the big utilities’ greater chance of being ‘heard’ is related to their perceived competence and ability to provide useful market information to the government (Interviews 9; 10). One representative of one of the big six companies describes how their competence is useful for government:

I have [. . .] a team of people who are doing similar long-term modelling [. . .] who can do that kind of analysis and who can understand the cost implications. In some cases it means that I can help DECC, the government. In other cases it means that I can understand the analyses that they are doing and predict the conclusions that they can reach (Interview 7).

In Parliament, the House of Commons Committee on Energy and Climate Change monitored the work of DECC. Whilst broadly supportive of the CfD concept during the period of developing and implementing EMR, this Committee initially expressed misgivings that the CfD instrument was too much of an attempt to boost the nuclear industry while at the same time nominally remaining within the bounds of the Coalition Agreement:

While a Contract for Difference Feed-in Tariff may be the best option for nuclear generation, it may not be the best for all low-carbon generation. The Government must not go down the route of Contracts for Difference for all low-carbon generation just because it does not feel able to differentiate between nuclear energy and other low-carbon technologies. The White Paper should address the advantages, risks and challenges of promoting new nuclear generation head-on and honestly; it should not distort the market merely to save political face about the precise meaning of the Coalition Agreement for Government (ECC Select Committee, 2011: para 132).

A further actor in the debate was the independent advisory body established under the *Climate Change Act 2008*. The Committee on Climate Change concluded that nuclear appeared likely to be the most cost-effective form of low-carbon power generation in the 2020s (i.e. before costs of other technologies have fallen) (Committee on Climate Change, 2011). This perception would later prove to have been misguided.

In summary, the government and civil servants preferred the CfD because of its wide technological scope, affordability, and ability to attract investment capital. Through various channels and by supplementing DECC's expertise, the big six power producers were generally influential. Most of these big companies, the bureaucracy (which had close ties with the incumbent industry) and the Conservative Party promoted the inclusion of nuclear in the support instrument.

Discussion

Viewing the case information in relation to the theoretical perspectives, we start with policy styles and find that both cases have important elements of imposition, but the policy styles are impositional in different ways and degrees in the FiT and the CfD case: while politicians imposed FITs on the reluctant civil service, the CfDs were imposed on those who liked the existing RO. FITs were not popular among civil servants nor the big utilities, who had close links with government. However, the political imperative to develop the instrument over-rode a degree of civil servant scepticism. In this case, the evidence supports the first expectation: that the *more important an interest group's exchange goods are perceived to be for the policymakers, the more influence it will have*. Small independent producers that began to grow in influence, researchers, green NGOs and the Stern Review all promoted FITs. They represented important constituencies for the Minister who commanded the civil servants to introduce the FITs.

By contrast, in the case of the CfD, the civil service was convinced of the case. The policy style in the CfD case had more consensual characteristics than the FIT case because of this relationship between the politicians and civil service, but also due to the fact that the links between government and the big utilities were stronger than with FiT (there were also different parties in government when the FiT and the CfD were adopted). The findings support the first expectation also in the CfD case, but here the interest groups that found favour had particular knowledge to offer as an 'exchange good', at a point when lack of capacity and time made government dependent on external expertise. The big six energy companies could provide expert knowledge and market information to the government. Nevertheless, the CfD may be regarded as a product of impositional policy style in the sense that certain renewables sector organisations initially found that doors to the

policy process were closed to them. This is reflected in the fact that the Treasury highlighted a preference for developing relatively inexpensive gas-fired power stations rather than renewables, and DECC was largely in agreement with the incumbents that promoted support for nuclear.

The second expectation highlights interest groups' use of alternative venues to increase their ability to influence policies. We find that environmentalist and renewables groups that were, at least for a period, largely excluded from the conventional channels of lobbying, went elsewhere in an effort to boost UK small-scale renewables. Friends of Earth and the Renewable Energy Association pulled together a large coalition to back their FiT campaign and urged parliamentarians to vote for this initiative. This was successful due to high cross-party competition and politicisation over energy and climate issues at the time. There was wide media publicity and the visibility of the Conservative Leader's roof-top wind turbine and the successful deployment of renewables in, for example Germany, prompted visibility in society. Government Ministers did not want to be outdone. The evidence suggests that DECC's Secretary of State realised that visible solar panels had an electoral appeal and were promoted by interest groups, with whom he had good relations. The policy was important for strategic considerations (i.e. Maor et al.'s fourth condition). However, there was no significant focusing event (i.e. Maor et al.'s third condition) that pushed public attention to a higher level. Nevertheless, party political competition created a supportive environment for such policy.

Two years later, when Parliament voted on the CfD, the politicisation over climate change was lower, although still present. In the CfD case, the most heated debate was about whether to support nuclear, about which Conservative and Liberal Democrat opinions diverged. While the Coalition Agreement included a provision that there would be no public subsidy for new nuclear, the support scheme introduced worked well for nuclear. The evidence suggests that CfD's broad technological scope was a way of keeping face politically, given the Coalition Agreement. There was less media attention devoted to CfD than to the FiT. There was roughly twice as much coverage of FiTs than CfDs in the UK's main environment and climate-attentive national newspaper, *The Guardian* (information from Nexis Advance media database).

The analysis becomes more complex when relating these findings to the proportionality expectations by Maor et al. (2017). We assumed that the FiT exhibits a greater risk of over-compensation (i.e. there is no economic-mediation mechanism beyond administratively set prices) than the CfD (where government can control deployment through quantity regulation, the price level being decided on via auctions and the granted support is somewhat exposed to market prices). However, the inclusion of nuclear in CfD highlights the difficulties in deciding whether and when a policy is proportionate. While the wholesale price of electricity in 2017 was around £40, the UK government's contract price for the planned new Hinkley Point C nuclear power plant announced in 2012 was a staggering £92.5 per megawatt time for 35 years, rising with inflation. This part of the CfD arguably represents a significant over-reaction. The subsidy level for Hinkley Point C did eventually provoke public opposition, but failed to stop the over-reaction. Meanwhile, since 2015 the FiT is in the process of being phased out. This insight makes us conclude that the wish to respond to public demands (i.e. the second condition in Maor et al.'s contribution) does not necessarily result in a greater policy response to climate change in terms of proportionality than where such a wish is not present. Both in the FiT case, where there were clear public demands, and the CfD case, which is characterised by a larger degree of industry lobbying, the policy response can be considered as an over-reaction.

However, the long-run picture is more nuanced. While traditional climate-economics models recommend beginning with the cheapest opportunities to reduce emissions, it can – overall – be a more cost-efficient strategy to start with more expensive support policies for renewable energy, as they can contribute to building a strategic industry or a political constituency for change (Vogt-Schilb et al., 2018) and to declining costs of renewable technologies.

Regarding Maor et al.'s first condition, we do not find that the different perceived impact on the domestic economy has affected the policy response to climate change differently in the two cases. The authors assume that higher expected benefits for the domestic economy increase the chances of over-reaction in climate change mitigation policy. A core difference between the cases is how the two instruments target industries that are represented in the British economy: in the FiT case, primarily smaller industries and small and medium-sized enterprises (as well as households), while CfDs are aimed at big utilities. CfD has contributed to the UK's emergence as a leader in offshore wind deployment. While turbine firms are foreign owned, production is in part based in the UK and surrounding expertise and employment in for example, supply chains, some research, planning, offshore logistics are in the UK. For nuclear, although Hinkley Point C has French and Chinese ownership, the nuclear research and supply chain are linked to UK military interests (Cox et al., 2016). The importance of FiT for the national economy was marginal compared to CfD; still, over-reaction is associated with both schemes.

Conclusion

While Cairney (2019) argues that governments 'juggle two policy style stories' (Cairney, 2019), the comparison of the FiT and CfD shows how UK governments juggle the choices associated with one policy style – in this study, the impositional style. The comparison also highlights the importance of considering who the government is impositional over (or consensual with), as in this study the distinction between politicians and officials has been crucial.

The comparison also shows that different ways of being impositional and related opportunity structures do not necessarily affect policy outputs in terms of proportionality in the energy sector. The interest groups promoting the different schemes, the FiT and the CfD instruments, were faced with different opportunities to influence policy-making; however, they both resulted in disproportionate outputs. Interest groups promoting FiT were met, at least for a time, with closed doors and went public to raise awareness. At a time when parties were competing to 'out-green' each other, this was effective. The responsible Minister acted on public demands by instructing the civil servants to carry out commands. The result was a support scheme that has been portrayed as an over-reaction to the need to decarbonise, because of the generosity of the design.

In contrast, the design of the CfD instrument drew less public attention (during the policy-making phase of the instrument) and the ties between government and big energy actors were close. The low degree of political competition about the design, along with a consensual policy style with the established utilities, did not produce a more proportionate response to the decarbonisation objective of the energy sector than did the FiT. Comparing these two policy outputs, we find that powerful industry actors have been influential in shaping the support policy instruments in the UK, in particular when political competition about the individual instruments has been low.

The comparison suggests that an over-reaction in terms of exceeding the marginal costs of renewable electricity production is equally likely under the conditions of high political competition and clear public demands as under conditions when political competition is lower; that is, our study does not support Maor et al.'s (2017) assumption that high public demands are likely to result in over-reaction. When it comes to the other condition highlighted by Maor et al., the impact on the domestic economy, we find that the perceived impact on the domestic economy did not affect different results in terms of the policy response to climate change as expected. The importance of FiT was marginal for the domestic economy in comparison to CfD; but over-reaction is associated with both.

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Note

1. For a wider-ranging analysis of UK renewable electricity policy developments covering a longer time period, see Rayner et al. (2020).

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