Politics of climate change: ETS as a Trojan horse?

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Abstract

Climate policy is high on the political agenda in many places and it plays a central role for the ongoing sustainability transition in the energy sector. The EU emissions trading scheme (ETS) represents one of the most prominent policy instruments in this field. It is a highly controversial policy that has been criticized for, among other factors, not being effective. This study takes a closer look at the politics behind the ETS. It compares the policy preferences of key industry actors and associations with regard to the ETS and renewable energy support policies. We find that business associations, energy intensive industries and coal producers express preferences in favor of the ETS, while opposing support for renewables and more ambitious climate action. The preferences articulated by environmental NGOs and renewable energy advocates are in nearly complete contrast. A third group of energy suppliers and utilities hold an intermediate position as they criticize the ETS for not being effective and, like the NGOs, demand a more stringent ETS. Our research lends support to earlier evidence suggesting that the ETS is the result of a coordinated strategy to oppose and slow down the low-carbon transition in the energy sector. In this fashion, it may be the climate policy Trojan horse of our time. Still, there are signs that the ETS may yet change course and begin to encourage much needed movement toward decarbonization.

Keywords: Climate policy, politics, EU, ETS, energy transition

1 Introduction

Sustainability transitions, i.e. fundamental transformations of existing sectors toward more sustainable modes of production and consumption, are receiving increasing attention by researchers and policy makers to address critical sustainability challenges such as climate change, air and water pollution, or the destruction of ecosystems. Envisioning and pursuing sustainability transitions are inherently political processes (Hess, 2014; Meadowcroft, 2011; Rosenbloom et al., 2016). Public policies play a key role in triggering and guiding desired changes, and various actors with different, often conflicting interests seek to influence the outcomes of policy making (Markard et al., 2016; Rosenbloom et al., 2018).

One such field of contestation revolves around climate policy and carbon pricing. Earlier studies have reported about the many conflicting views and battles over climate policies both nationally and internationally (Markussen and Svendsen, 2005; Meckling, 2015). In the following study, we examine the European Union Emissions Trading System (EU ETS), which is the first and largest carbon market (until it will be unseated by China's carbon market). Prior research has shown that since the late 1990s, a coalition of actors from the oil and electricity industries has played an important role in the adoption and formulation of the EU ETS in response to plans to introduce a carbon tax in the European Union (Meckling, 2011).

A related and similarly intense field of contestation surrounds renewable energy policy (Lauber and Jacobsson, 2016). It is receiving particular attention as renewable energy technologies such as wind and solar have expanded rapidly in recent years and policies have played a major role in this (Mitchell, 2016). As renewables have become key elements in the ongoing sustainable energy transition, they are challenging incumbent firms and business models and thereby creating conflicts. Below we study the EU Renewable Energy Directive (RED), which provides the general framework for EU member states to implement specific support policies for renewables at the national level.

In this paper, we study the policy preferences and statements of key actors and interest groups who intervene in and seek to influence EU policy making around climate change and energy. Based on a content analysis of submissions to public consultations surrounding the EU ETS and RED, we identify the main constituencies in support of, or opposition to, these policies. Our intention is to understand the role of the EU ETS and its interaction with renewable energy policies from a political perspective. In light of past and present controversies around its design and operation, we provocatively ask whether the ETS is like a

Trojan horse, i.e. whether it fulfills a hidden agenda of the industrial actors who had a strong hand in its development.

The conceptual reflections motivating this work are the following. Within the climate policy field, it has long been accepted that carbon pricing, at least in theory, is the most efficient means of addressing climate change (Stern, 2007). The logic is that market mechanisms can be leveraged to impose steadily rising costs on carbon pollution, signaling long-term decarbonization and redirecting business strategies and individual behavior toward lower carbon alternatives.

More recently, a surge of research has begun to challenge this carbon pricing orthodoxy, calling attention to the political dimensions of market-based climate approaches (Green and Denniss, 2018; Jaccard, 2016; Jaccard et al., 2016; Pezzey, 2014). In particular, some have noted that there are important tensions between the stringency of a carbon pricing system and its political acceptability. This calls into question whether pricing regimes can be made both politically acceptable and consistent with long-run climate targets.

To date, political administrations have largely been unwilling to enact carbon pricing regimes at sufficiently high levels to promote a low-carbon transition. Take, for example, British Columbia's carbon tax, which has stagnated for the better part of a decade (though it will begin to rise modestly in 2018); California's cap-and-trade system, which has seen low and stable prices; along with many others (e.g., Ontario cap-and-trade system at $18-20 per ton). The EU ETS has also been criticized for low prices.

Meanwhile, many jurisdictions have had more success enacting sector- and/or technology-specific regulations and incentives. Consider, for instance, the widespread and effective adoption of: feed-in-tariffs or renewable portfolio standards in the electricity sector (e.g., Germany and the United States); coal phase out policies (e.g., Canada, Finland, and the United Kingdom); EV incentive frameworks in the transport sector (e.g., Norway and France); as well as fuel economy and emissions standards in the transport sector (e.g., the United States and the European Union).

While these measures have also encountered considerable controversy, a number of jurisdictions and researchers increasingly recognize these responses as having equal if not more potential than carbon pricing in driving a transition to a low-carbon society (Rogge et al., 2017). Others view these measures as market distortions and underscore the negative interactions between carbon pricing and ostensibly complementary responses – especially renewable energy support (see Lehmann and Gawel, 2013 for a helpful review).

Responding to this debate, our analysis focuses on the political struggles over climate and energy transition policies. That is, we are principally concerned with

what others have referred to as the "social life" of climate policy measures (Voß and Simons, 2014). This shifts attention away from policy coherence and efficiency to policy constituencies and politics. Drawing together perspectives on the politics of low-carbon transitions and lobbying, we engage with the view that policy instruments garner support because they fulfill functions that align with certain interests. In the case of carbon pricing mechanisms, research suggests that one such function may be to hedge against and preclude the adoption of command-and-control policies that may be more costly but also more effective in driving decarbonization (Meckling, 2011). In this fashion, some carbon pricing mechanisms may not only face political acceptability challenges but may also distract from other promising complementary measures.

The paper is structured as follows. First, we briefly review existing research on the politics of climate change and sustainability transitions. Then, we introduce EU climate and renewables policy and describe our methods. Our results are presented in section 4. Section 5 discusses our findings and makes concluding remarks.

2 Theoretical perspective

This analysis draws upon three strands of research surrounding the politics of transitions in general and climate policy and politics more specifically. The latter includes political and policy studies perspectives on *instrument constituencies and lobbying* in the context of climate policy as well as specific insights on the politics of the EU ETS. The aim here is to leverage the existing literature in order to support the research approach (see section 3).

2.1 Politics of transitions

Over the past decade, transition perspectives (see Markard et al., 2012) have increasingly engaged with the political dimensions of large-scale systems change toward more sustainable societal arrangements (e.g., Avelino et al., 2016; Geels, 2014; Hess, 2014). Transitions are understood to be *socio-technical* in nature and concern shifts in the way in which basic societal functions are met (i.e., the way we do things). That is, sustainability transitions not only involve changes in technologies and infrastructures, but also relate to the policy and regulatory frameworks, norms and practices, as well as economic and political arrangements that underpin societal functions such as the provision of transportation or electricity (Geels and Schot, 2007; Smith et al., 2005). Existing institutional and material arrangements are viewed as durable given that they are deeply embedded in society (e.g., they link to deeply held normative beliefs about how things are and should be), display path dependent characteristics,

and are entwined with longstanding interests (Berkhout, 2002; Unruh, 2000). In this fashion, incumbent actors (e.g., industry actors but also government departments) tend to use their resources to perpetuate established trajectories, resisting or modulating change processes in ways that align with their perceived interests (Geels, 2014). Policy, in this view, represents a central battleground among contending interests and actors struggling to shape the direction of system change (Foxon et al., 2013; Markard et al., 2016; Rosenbloom et al., 2018).

For transition studies, the study of politics is particularly important as it reveals vested interests and conflict lines, which are essential to understand who benefits (or loses) from certain policy decisions and why – in a specific context - certain transition pathways are more likely to unfold than others (Geels et al., 2016; Rosenbloom et al., 2018). For the study of climate policy and politics, the transitions perspective is essential as it highlights the impact of socio-technical developments (including technological progress) on policy processes. In their study on Swiss energy transition policy, Markard et al. (2016) showed that – as renewable energies were becoming cheap and competitive and part of the mainstream – even otherwise conservative actors lend their support for major policy change.

2.2 Lobbying and instrument constituencies

Political and policy studies traditions offer complementary perspectives on the abovementioned battles over policy direction. In particular, two interrelated concepts are of relevance: lobbying and instrument constituencies. In regard to the former, lobbying plays an important role in influencing regulatory and policy regimes (Howlett et al., 2009). Business and sectoral interests are seen as playing important functions in the decision-making process, leveraging different tactics and strategies to influence decision makers (Miller and Harkins, 2010). However, this relationship is not unidirectional (Woll, 2007). Rather, industry actors depend on receptive government bodies and officials to advance their agendas. Lobbying is not limited to certain policy fields, but instead extends to decision-making processes around climate policy (Gullberg, 2008). Indeed, the tremendous influence of industry over climate policy has sometimes been pointed to as a critical reason for failing to reach more sustainable arrangements (Pezzey, 2014).

While there are many different perspectives on the dynamics underlying lobbying, here we focus on the notion of instrument constituencies from the policy feedback literature (Pierson, 1993) to help explain the persistence of established interests and policy trajectories. In marked contrast to models of policy development which view policy as the unidirectional result of politics,

policy feedback is concerned with the "impact of previously enacted policies on future political behavior and policy choices" (Béland, 2010, p. 570). Policies, in this view, can encourage the emergence of different instrument constituencies by building capacities and augmenting resources surrounding these interests. Importantly, there is a bidirectional relationship here as the beneficiaries of a policy or regulatory framework – also commonly referred to as "instrument constituencies" – can be expected to mobilize during subsequent rounds of debate to support and attempt to expand their favored institutional arrangements (Béland et al., 2017; Voß and Simons, 2014). Consider, for instance, the way in which particular industrial strategies around the development of fossil fuels have created powerful networks of interests that now mobilize to protect their endowments and favored positions in policymaking processes.

2.3 Politics of ETS

A number of studies have already identified these political dynamics surrounding the enactment and continuation of the EU ETS. In tracing the early consultation, negotiation, and design process surrounding the ETS, Markussen and Svendsen (2005) show how the final directive was shaped by interest groups and particularly large energy firms. Similarly, Wettestad (2009) examines the treatment of energy-intensive industries within early iterations of the ETS, revealing how these actors have effectively argued their positions (e.g., leveraging carbon leakage arguments) and how the ETS has expanded the venues available to energy-intensive interests to be represented, increasing their access to deliberative processes. Others contend that this privileged position has extended through later revisions (Meckling, 2015, 2011; Skodvin et al., 2010).

Taken together, research has shown that the ETS has been pushed forward by leading industry associations that represent large CO_2 emitters. Meckling (2011, pp. 43–44), for instance, notes that "the firms promoting emissions trading were all big emitters from the energy industry or energy-intensive manufacturing sectors" and that their "support for market-based policy was primarily a hedging strategy that would prevent policy alternatives such as carbon taxes and command-and-control policies that were perceived to be more costly". Examining other contests over climate policy reveals that this hedging strategy is particularly prevalent as actors work to shape regulations when they looked likely to succeed and may publicly support climate policies while opposing them through less direct channels (Downie, 2017).

In this light, the ETS can be viewed as a Trojan horse as a coalition of actors that oppose stringent climate action had a strong hand in its development. While it may have initially served to prevent the introduction of a carbon tax, today it may

be used for other political purposes, including the delegitimization of renewable energy policies or other, complementary climate policy action.

3 Study object and methods

3.1 EU ETS

The ETS is the central climate policy instrument of the European Union and covers about 45% of its total greenhouse gas emissions (see Vlachou, 2014 for a more in-depth review). Large emitters such as coal-fired power plants, steel or cement plants, or pulp and paper mills have to buy certificates for every ton of CO_2 they emit. There is an overall cap on the amount of certificates available per year and this cap decreases over time (currently at a rate of 1.74% annually).

A significant but declining share of certificates is allocated for free (e.g. following certain benchmarks for steel and cement production), though certificates are also auctioned or granted for Clean Development Mechanism emission reductions outside of the EU.

The EU ETS was implemented in 2005, replacing original ideas to introduce a CO_2 or energy tax. It is currently in its third trading period (2013-2020). The price of CO_2 certificates has been in the range of 4 to 8 €/t for many years but has increased recently to 14 €/t.

A main critique of the EU ETS is that too many allowances have been issued[1] and, as a consequence, CO_2 prices are too low to incentivize long-term structural changes and/or technology development for CO_2 reduction (EEA 2016). As a counter-measure, the EU has successively reduced the amount of new allowances per year from 2013 onwards. In 2019, a total of 900 million allowances will be transferred into a so-called market stability reserve. Unallocated certificates at the end of the third period will also be transferred to the reserve. Depending on how the CO_2 market develops, further certificates will be placed into or released from the reserve.

3.2 Data sources

Our study is based on publicly available responses to consultation processes initiated by the EU (see Table 1). The primary input is from a recent consultation concerning the revision of the emissions trading scheme (ETS, closed March

[1] In 2013 and 2014, the cumulative surplus of certificates exceeded the emissions of an entire year (EEA 2016).

2015) and a consultation on the preparation of a new directive for renewable energies (RED, closed February 2016). These two sources are complemented by two consultations which had a broader focus: one on energy market design (NEM, closed October 2015) and the other on long term climate and energy policy and planning (GP, closed July 2013). Each consultation contained a specific set of open (and sometimes also 'tick-box') questions to which interested parties could respond. Responses varied in length, ranging from a few to 20 or more pages.

Table 1: Public consultations used in this study

Name (& acronym)	**Consultation period**	**Responsible**	**Number of responses**
Preparation of a new Renewable Energy Directive for the period after 2020 (RED)	November 2015 to February 2016	DG Energy	614
Consultation on revision of the EU Emission Trading System Directive (ETS)	December 2014 to March 2015	DG Climate Action	436
Consultation on the Green Paper on a 2030 framework for climate and energy policies (GP)	March 2013 to July 2013	DG Energy	550
Consultation on a new Energy Market Design (NEM)	July 2015 to October 2015	DG Energy	320

The two primary consultations (ETS and RED) were used to compile results on policy preferences and the statements actors made to support their positions. GP responses were used for a more general assessment on energy technology preferences (see below). NEM responses were used occasionally where data from the primary sources was missing because a specific organization did not submit a response, or it was of insufficient length.

3.3 Analysis

We distinguish four analytical dimensions in coding actor submissions to the above consultation processes (see Table 2). The first set correspond to specific policy instruments: the emissions trading scheme and the renewable energy directive. The following two capture more general policy preferences on the importance of climate policy and different technologies. Sub-dimensions were also developed to capture the range of considerations that constitute a particular preference. For each sub-dimension we defined four categories of answers (see appendix) and responses were coded on a scale from 1 to 4 in order to reflect the gradient of articulated preferences.

The unit of coding encompasses actor statements within the responses to the abovementioned consultations. Such a statement can vary in length from a few words to one or more sentences (see examples of statements in the results section). If the same or a very similar statement is made within the same logical

flow of argumentation (consistent subject and set of claims) it is coded as one occurrence. When a split in this logic occurs or when the actor repeats the statement in a response to a different question, this is counted as a new occurrence.

Table 2: Main dimensions

Dimension	**Explanation**	**Sub-dimensions**
ETS preference	Covers the actor's view on the EU ETS	E1 Is the ETS effective/ stringent? E2 Should the ETS be complemented by other instruments?
RED preference	Covers the actor's view on renewable energy policies (esp. the renewable energy directive)	R1 Is the RED effective/ stringent? R2 How ambitious are the RED targets?
Climate policy preference	Covers the actor's view on climate policy in general	C1 What priority for climate change mitigation? C2 How ambitious are the climate policy targets in the EU?
Technology preference	Covers the actor's preference for particular energy technologies	T1 Renewable energy technologies T2 Fossil fuels T3 Nuclear T4 Does the actor have a preference or not?

Development of the coding scheme and procedure

Our coding scheme was developed in an iterative process. First, each author studied a sub-sample of responses, covering 1-2 representative(s) of the three actor groups. From this we collected key statements and preferences on renewable energy policy and the ETS. Exchanging and comparing our findings, we drafted and applied a coding scheme on these two dimensions as a second step. After this first round of coding, we checked our findings for coherence and logic. As a result, we revised the coding scheme, splitting up the sub-dimensions and adding another two main dimensions (on climate policy and technology preference). The four-dimensional coding scheme was tested and some minor refinements were carried out. Subsequently, we coded a common set of responses, compared how our assessments differed, and took steps to bring our coding efforts into alignment. As part of this, we defined rules for coding (the primary unit of coding and a procedure for recording occurrence) and specified interpretations of some sub-dimensions. Following this, we re-coded all initial responses and compared our results. The deviations were small (typically in the range of 5-12%). Importantly, we calculated average values for those actors that were coded by both authors. In a final step, the remaining set of actor responses were distributed equally among the authors for coding. For each actor selected, at least two sources were used (see above).

3.4 Selection of actors

Our analysis builds on the actor selection of a prior study by Lindbergh et al. (under review) using a reputational approach: EU policy experts were asked to rank 70 actors (firms and associations) according to how influential they are for EU and climate policy making. This resulted in a list of 36 actors. From this list we select actors according to a maximum variation selection strategy (Flyvbjerg, 2001; Seawright and Gerring, 2008). That is, we seek to cover a broad variety of positions and reflect the full range of values on the four analytical dimensions. Selected actors include five environmental NGOs, four representatives of large energy intensive businesses and five energy companies, some of which were also involved in the initial adoption of the EU ETS (see **Fehler! Verweisquelle konnte nicht gefunden werden.**).

Table 3: Actors covered in this study

Acronym	**Explanation / Full Name**	**Type**
Business Europe	General business association, umbrella organization to national business federations	Industry association
CAN	Climate Action Network	e-NGO
Cefic	European Chemical Industry Council	Industry association
E3G	International, not-for-profit climate think tank	e-NGO
EDF	Electricité de France, international electric utility (origin: France)	Energy company
Euracoal	European Association for Coal and Lignite	Industry association
Eurelectric	Association which represents the common interests of the electricity industry	Industry association
EWEA	European Wind Energy Association	Industry association
Greenpeace		e-NGO
Iberdrola	International electric utility (origin: Spain)	Energy company
IFIEC	International Federation of Industrial Energy Consumers	Industry association
Total	Oil and gas supplier (origin: France)	Energy company
RWE	International electric utility (origin: Germany)	Energy company
WWF	World Wildlife Foundation	e-NGO

4 Results

The results of the content analysis are presented in three sub-sections. The first contains the quantitative findings of policy preferences and their relationships. Second, we take a closer look at the statements different groups of actors make. Finally, results are briefly summarized.

4.1 Quantification of policy preferences and relationships

Here we present findings from three analytical dimensions: ETS preferences, preferences concerning the renewable energy directive (RED), and climate policy preferences. The fourth dimension we coded (technology preferences) did not generate sufficient data for a comprehensive quantitative comparison.[2]

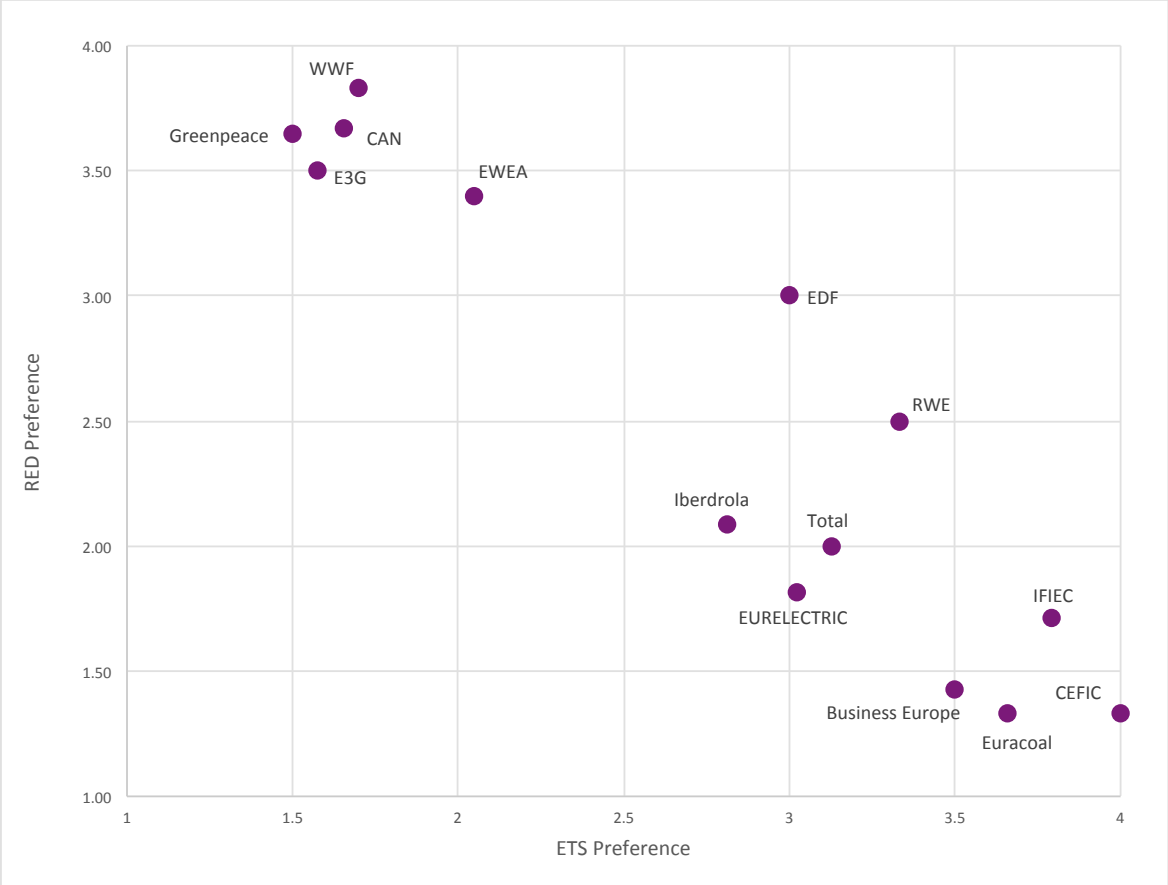

Figure 1: Preferences for the renewable energy directive vs. for the ETS

Our analysis shows that the policy preferences of central industry actors and associations vary substantially. For many actors, the ETS is the preferred option for climate policy. In particular, Cefic, IFIEC, Euracoal and BusinessEurope are very much in favor of the ETS. These associations represent the chemical industry, large industrial energy consumers, coal producers and businesses more generally. For these actors, it is also vital that the ETS be *the only* instrument to address climate policy priorities and that these priorities should be pursued at the lowest-cost possible. Other actors are much more reluctant toward the ETS. Most sceptical are WWF, the Climate Action Network (CAN) and E3G, a climate policy think tank. They critize the ETS for not being effective,

[2] Also note that Greenpeace did not submit to the ETS consultation, so we were not able to generate a value for the organization's climate policy preference.

suggest major modifications are needed and are largely in favor of other, complementary instruments. Interestingly, even of the most critical actors in our sample, no one wanted to abolish the ETS. In between the two extremes are actors with more moderate positions with respect to the ETS. These include utility companies and Eurelectric, the association of the electricty industry. Among others, they regard the ETS as a very important instrument but also demand significant changes to increase its effectiveness.

In regards to the renewable energy directive (RED), preferences are diverse as well. CEFIC, Euracoal and BusinessEurope tend to favor the rapid decline or complete abolishment of support for renewable energies. IFIEC and Eurelectric are also rather reluctant concerning the RED. In contrast, environmental NGOs and EWEA, the European wind energy association, are very much in favor of strengthening the RED and pursuing more ambitious RES targets. Also some electric utilities such as EDF and RWE express preferences in favor of renewable energies.

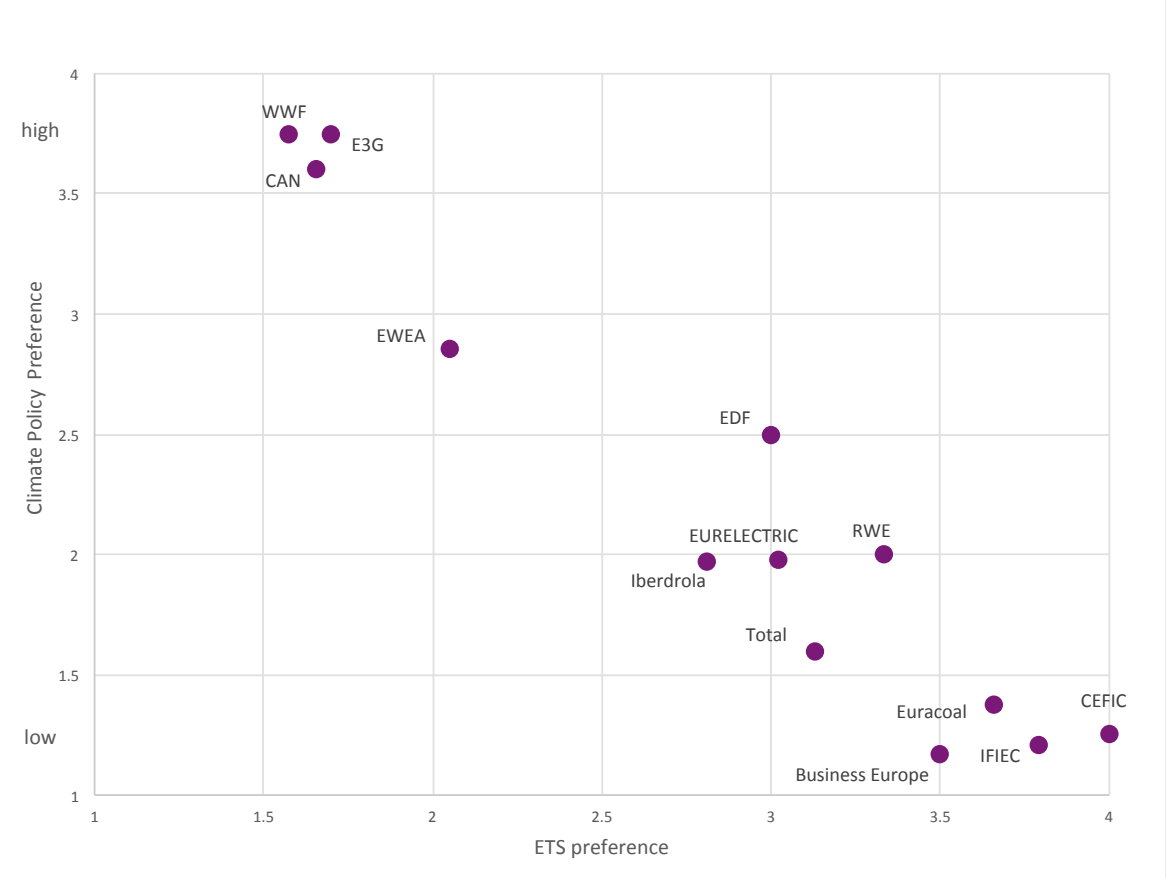

Figure 2: Climate change priority vs. preference for the EU ETS

Plotting the relationship between ETS and RED preferences reveals an emerging pattern among actor preferences (see Figure 1). Organizations that are strongly in favor of the ETS, stating that it is a success, are oppose further support for

renewables. And, actors that are very critical towards the ETS prefer more ambitious RES support through the RED. It is remarkable though that the latter constituents do not suggest terminating the ETS, while the former want to end further RES support.

Analyzing general climate policy preferences can help to shed more light on this relationship. WWF, CAN and E3G rank highest on the scale of climate policy preferences. Climate change and ambitious public policies to mitigate climate change are a top priority for these actors. BusinessEurope, IFIEC, CEFIC and Euracoal call for less ambitious climate policies and tend to highlight the primary importance of competiveness together with cheap and secure energy supply.

Plotting climate policy and ETS in the same graph (Figure 2), we find that actors who do not have a strong preference for ambitious climate policy are very much in favor of the ETS. In marked contrast, those with a high interest in stringent climate policy are rather critical toward the instrument and ask for complementary measures. In other words, those actors who have little interest in stringent climate policy are most positive toward the ETS.

4.2 In-depth analysis of responses

Here actor statements are examined more closely, drawing on specific instances to more carefully assess how different groups are articulating their policy preferences. From Figure 1, we distinguish three actors groups according to their general positions (see Figure 3). The following discussion addresses the policy preferences of each of these groups according to the four analytical dimensions.

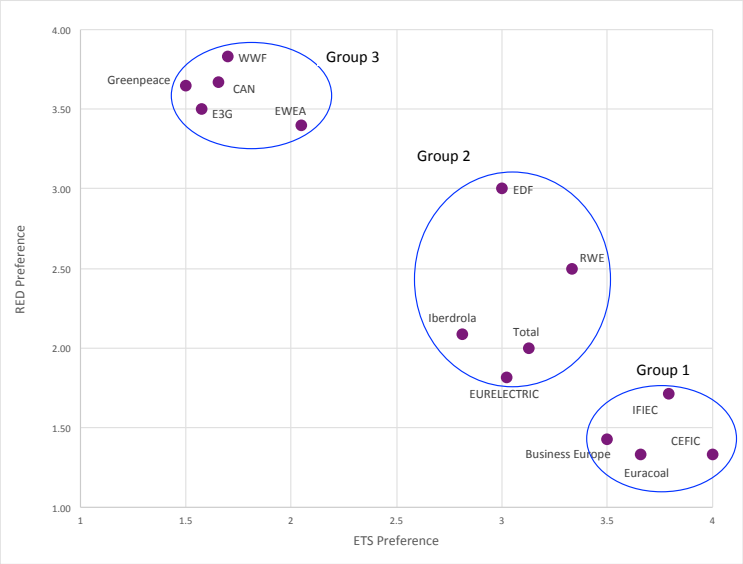

Figure 3: Three actor groups

4.2.1 Group 1

Climate policy statements

These actors tend to articulate statements that reinforce the primacy of security of energy supply and low energy prices in the context of energy policy and planning decisions. Indeed, Business Europe's NEM submission states that "[t]he top priority must be security of supply and affordable prices that ensures industrial competitiveness whilst aligning with a coherent and consistent climate and energy policy". They go on to say that "[r]einforcing the competitiveness of European industry and securing international competitiveness is of paramount importance". Similarly, Euracoal's ETS submission states that "[t]his [industrial competitiveness] must now take priority and demands as much or more attention by policymakers as the Commission devotes to climate action".

Actors in the first group also display a strong tendency to only support strict(er) climate policies if implemented at a global level. These actors express a concern that climate policy instruments such as the ETS negatively affect the international competitiveness of businesses. They argue, with the EU taking the role of a frontrunner in climate policy engagement, that there is a high risk of 'carbon leakage', i.e. increasing emissions in places with lax regulations (and firms moving production to these places) as a result of stricter regulation in Europe. For example, IFIEC's ETS submission states that "[e]mission trading on a global scale would be an effective and efficient market based instrument providing climate protection at lowest costs … [h]owever, as long as there is no global system, a robust carbon leakage protection is needed".

ETS statements

Actors in this group portray the ETS as a success. As a consequence, the ETS is not only their preferred policy option but they also emphasize that it should be the main (or only) instrument to reduce GHG emissions. Both Euracoal and CEFIC state that "the ETS is delivering its objectives for 2020". Euracoal's ETS submission goes on to say that "[t]he headline, "strengthening the EU ETS", should not be equated to higher CO_2 prices" and that "policymakers should keep it [the ETS] as the main instrument to achieve EU GHG emission reduction targets in a cost-effective way and refrain from using other instruments that target CO_2 reductions in the same sectors". Similarly, CEFIC's ETS submission states that "low CO_2 prices are desirable and initiatives to raise the CO_2 price are neither necessary nor justified", reiterating that "[i]ndustry has consistently stated that it prefers the ETS over regulatory standards or taxation." In this fashion, the renewable energy directive (RED) as well as national support schemes for renewables are viewed as policies that cause market distortion. Among other factors, it is stated that these policy interventions have failed to

adequately integrate renewables into the electricity market. As a consequence, there are claims to cease policy support for renewables.

RED statements

These positions are carried through in statements about the RED. The main thrust of actor positions is that current support schemes are going too far, leading to market distortion. Business Europe's NEM submission, for instance, states that "[s]upport schemes for renewables should be progressively phased out to allow the market to determine energy choices". IFIEC echoes these concerns in their RED submission, stating that "subsidies for 20-40% additional RES-E capacities (and up to 50-60% RES-E in 2030), having close to zero marginal costs, and hence distorting the market and provoking new subsidies for all other technologies is not a sustainable market model for Europe".

Technology statements

A central technology-related argument behind this position is that renewables are too costly and unreliable due to their intermittency. Euracoal's submission to the GP, for instance, states that "[i]n terms of carbon abatement cost …, renewables are an expensive option compared with many energy efficiency options, including the modernization and renewal of coal-fired power plants". CEFIC's RED submission states that "[i]t should also be kept in mind that in order for RE to contribute fully to security of supply, its intermittency must be off-set by increased storage and back-up capacities – which in turn increases system costs." In this fashion, actors in group 1 also tend to suggest that complementary technologies such as storage are not catching up with the deployment of renewables. Instead of supporting renewables, policy should favor 'technology neutral' policies such as the ETS.

4.2.2 Group 2

Climate policy statements

These actors view climate policy as an important element of energy policy that should obtain equal attention as security of supply and low costs. Eurelectric's ETS submission reads "[our] members are committed to delivering carbon-neutral electricity in Europe by 2050, and to ensuring a competitively priced, reliable electricity supply throughout the integrated European energy market." The association also highlights the importance of competitiveness: "it is essential that EU climate policy supports competitiveness by promoting reductions of greenhouse gas emissions in a cost-effective manner".

ETS statements

The ETS is considered the favored instrument. For example, Eurelectric "supports a strong ETS, which we see as the best way to provide affordable,

reliable and sustainable electricity". At the same time, the ETS is strongly criticized. EDF Energy's ETS submission states that "[t]he ETS in its current state does not deliver an appropriate price signal and therefore fails to stimulate investment in de-carbonized generation." Eurelectric and Total make very similar statements. Total also says in its ETS submission that "the transition to a lower carbon power system has not been achieved based on the price signals of the ETS …, but through national schemes subsidizing RES generation, at very high CO_2 abatement costs, much above ETS prices".

Consequently, several of these organizations want to strengthen the instrument, e.g. by activating the market stability reserve. Eurelectric demands that the ETS "must be urgently strengthened by swiftly adopting the Market Stability Reserve (MSR) and ensuring its entry into force by 2017" and EDF Energy "welcomes and supports the recent European initiatives aiming to fix the system… [and] to start the needed structural reform as soon as possible to obtain a well-functioning allowance market in the long run."

In line with the first group of actors, they demand that the ETS should be the main instrument for climate policy. Eurelectric argues that the ETS "is a more cost-effective way to drive renewables growth than the current subsidies. National measures are less effective and efficient than a European approach with a high risk of non-harmonized instruments causing distortions for the electricity markets." And RWE sees "the efficiency of the ETS … distorted and undermined by other measures, especially national climate protection initiatives including renewables subsidies and carbon taxes".

RED statements

The RED is viewed as a key driver for renewable energies but at the same time criticized for high costs and a lack of flexibility in the electricity system. Total's RED submission states that "[t]he RED triggered the growth of variable renewable power generation without stimulating the necessary flexible means of production to complement them." The firm also writes that the "RED has resulted in a significant increase in electricity costs for consumers." This is also echoed by Eurelectric who wants to "remind the Commission that it is not the ETS, but rather taxes and the burden of expensive renewables subsidy policies that are today causing end-user electricity costs for society as a whole to rise."

In summary, group 2 actors criticize the ETS for not being effective and demand substantial strengthening of the instrument. They regard the ETS as the (potentially) best way to pursue climate and renewable energy policy goals.

4.2.3 Group 3

Climate policy statements

Group 3 actors assign a high priority to the reduction of greenhouse gas emissions. In its ETS submission, CAN mentions "the urgency and the scale of the impending climate crisis" and state "that in order to have a reasonable chance to keep global average temperature rise well below 2°C as compared to pre-industrial levels, the EU will need to reduce its emission by at least 95% by 2050." Similarly, the WWF is asking the EU to take "its fair share in delivering greenhouse gas emission reductions that would go beyond 40% domestic reduction in greenhouse gas emissions by 2030".

ETS statements

A central view among these actors is that the ETS has failed to effectively reduce greenhouse gas emissions. CAN says that "To date the EU ETS has failed to deliver on its objectives." WWF seconds this position, saying that "the ETS is not, and will not be, on track to deliver adequate emission reductions...".

It is argued that the instrument suffers from structural problems caused by an oversupply of emission allowances. According to CAN, the failure of the ETS "has been due to a combination of factors, such as static policy design without built-in adjustments if significant demand changes occur, a weak reduction target and the massive use of international offsets." This again is seen as the result of a lack of political will. E3G's ETS submission reads: "[d]espite these significant failures, the EU and its Member States have been unwilling to implement the necessary reforms to turn the EU ETS into a functioning policy tool." It is also argued that the ETS needs to be protected from the influence of vested interests. Following the WWF, "[t]he ETS is a valuable instrument and could potentially deliver meaningful emission reductions if its implementation was better insulated from political interventions designed to appease vested interests instead of creating society-wide benefits."

At the same time, there are also voices that see merit in the ETS, e.g. as it directs attention to the importance of reducing GHG emissions. The WWF argues that "[i]t is broadly recognized that the ETS Directive, by putting a price on carbon pollution, has brought the issue of greenhouse gas emission reductions to the attention of Boards of Directors, Investment Committees and decision-makers in the industrial economy."

There is broad consensus among this group of actors that the ETS needs to be improved substantially to deliver on its objectives. E3G says that "[t]he EU ETS must be reformed boldly if it is to be turned into an effective policy instrument. Otherwise it will … fail[s] to adequately drive the decarbonization of European industry." This view is supported by the WWF who "believes that the most expeditious and effective approach today is to reform the EU ETS in order to correct its failings, rather than seeking to replace it altogether." The latter is

important. Group 3 actors want to maintain the ETS and – similar to group 2 actors – they suggest strengthening the instrument.

Moreover, actors in this group argue that a range of different policies are needed in addition to the ETS to credibly tackle climate change. E3G's ETS submission states: "Given the numerous market failures different sectors face it would be naïve to believe that a single carbon price could drive the necessary mitigation measures." CAN writes that "…the EU ETS alone will not be able to deliver the necessary incentives to decarbonize the EU." and that "Member States need a bouquet of national and European policy tools including national binding renewable energy and energy efficiency targets and support measures in order to be able to tackle the significant challenge of decarbonization".

RED statements

The RED is viewed as a success by the actors of this group. EREF's RED submission states that "The RED has proved to be a successful tool in achieving the EU energy and climate change objectives." This position is shared by EWEA who writes: "[t]he clearly defined European regulatory framework … was decisive in fostering national policies and attracting private investment in renewable energy assets".

At the same time, there is a critique that some EU member states have cut back their support for renewables despite the directive. Actors in this group also ask for more ambitious long-term targets for renewables, even including the vision of 100% renewables. EWEA writes that "[t]he general elements and concrete details of national plans should allow Member States to aim higher that the 27% renewable energy target by 2030". CAN similarly argues that "NGOs and others have demonstrated that the global energy mix can be 100% renewable by 2050" and that "[t]he EU should achieve this goal (well) before 2050".

Technology statements

Renewables and energy efficiency technologies are regarded as the most important means to reduce GHG emissions. According to CAN, "[t]here is well-funded evidence on the environmental, economical and social benefits of renewables and energy efficiency technologies. … There is no other type of energy technology than can help solve the climate change challenge and reduce the dependency on … fossil fuels as efficiency and renewables technologies do." Also, EREF sees renewables as the central piece of a future energy system: "[a] robust Energy Union is based on the transformation of our current centralized and inflexible energy system into a decentralized and flexible one. This requires putting variable renewable energy at the cente of the system and allowing and incentivizing the existence of flexibility options…".

EREF and also CAN argue that the future should be fossil fuel free. EREF's statement highlights the role of public policies to achieve this target: "[national plans should include] phase out policies and targets for incumbent capacity from fossil (for electricity, transport and heating) and nuclear use in order to curb on overcapacity of electricity in the Member States and to reduce dependency from import and CO_2 output".

5 Discussion and Conclusion

Our results show that the ETS is very much favored by incumbent firms such as coal, oil and power producers as well as large industrial energy consumers and business associations. For most of these actors, climate action is not a top priority. In other words, it seems that the ETS is most supported by those who care least about stringent climate policies.

Against this background, it seems plausible to view the ETS as a Trojan horse that has been pushed by incumbent firms to prevent more stringent climate action and to slow down the ongoing energy transition. This is in line with earlier findings by Meckling (2011) and Wettestad (2009) who show how energy-intensive industries and conventional energy producers were not only involved in developing the EU ETS but were also able to influence its functioning (e.g. the principles for allocating emission allowances). This control of the instrument can be viewed as another element in the 'Trojan horse strategy'.

Our results also show that there is a contrasting relationship between (pro-) ETS and (pro-) RED preferences, i.e. those that support the ETS are against the RED and vice versa. In fact, pro-ETS advocates use the instrument as a vehicle to delegitimize complementary climate policies (e.g. at national levels) as well as policies that support renewable energies. Their central argument is that the ETS is the only (and best) instrument to incentivize least-cost climate action and that all other, possibly complementary policies at EU or national levels interfere with the ETS and distort the market.

Again, from a political perspective, we can argue that the ETS is not only used to control and prevent more stringent climate policies but to also fight against support for renewable energies, or policies targeting energy efficiency. This is a third element of the strategy: it is supposed to be the only horse in town.

Consequently, we find environmental NGOs and – to a lesser extent – renewable energy associations in vivid opposition. They very much criticize the current functioning of the ETS and demand not only more ambitious climate policy targets but also ambitious, complementary policies to support renewable energies. These actors clearly favor renewables above other energy technologies and envision a 'full' transition towards renewable energies.

What is interesting though is that these latter actors do not explicitly demand the ETS to be abandoned. Instead, they ask for a general overhaul of the instrument and more control to be exerted by governments (instead of industry) over ETS targets and allocation mechanisms. So, it seems, that the horse as such is acceptable, just not its current characteristics.

Even more interesting are the positions of those actors who occupy some kind of middle ground (group 2, Figure 3). Similar to the environmentalists, they also criticize the instrument and call for a major overhaul of the EU ETS. So there seems to be a fracture in the coalition of actors that is reluctant toward major changes in the energy sector. With more and more critical voices demanding a more stringent ETS, there is also an increasing likelihood for the ETS to become more effective.[3]

So it seems that – as the energy transition has progressed substantially – the 'Trojan horse strategy' also has its risks for those who oppose climate action. Once the instrument is in place and widely accepted, it is difficult to get rid of it or retain control over it indefinitely. And when control over the features of the instruments starts to tilt toward those in favor of more stringent climate policy action, it may begin to backfire against its original instrument constituencies.

The arguments around the ETS and other policies to support low-carbon technologies and the energy transition point to a more general debate about the 'right approach' to tackle externalities. While some argue that such issues are best resolved by market based instruments that favor the cheapest available solution (in terms of technology, industry and places), others maintain that specific policies are required e.g. to widen the spectrum of available solutions (Jaccard, 2016; Rogge et al., 2017). This debate is typical when it comes to RES support. While the former actors regard them as too costly and technically underperforming, the latter see these shortcomings as temporary issues that have to be resolved by technology-specific policies (Jacobsson and Bergek, 2011).

Underlying this debate are not only conflicting economic interests (incumbent power generation vs. renewable energy industries) but also conflicting worldviews on how the economy is (or should be) working. This is demonstrated by the following quote from E3G's ETS submission: "[t]he myopic carbon market orthodoxy that views the EU ETS as the "flagship" of European climate policy has proved to be dangerously misguided."

Neo-classical views promote policies such as the ETS based on assumptions (e.g. about such instruments operating in isolation and on level playing fields) that

[3] In fact, the EU just recently activeated the so-called ETS stability reserve and CO2 prices have substantially increased lately.

are not necessarily met in reality. More pragmatic approaches, in contrast, highlight that real-world policy making and implementation is complex and messy (e.g. due to conflicting interests, existing instruments and regulations interfering) and dynamic (Flanagan et al., 2011).

5.1 Limitations of our study

Of course, our study had several limitations. First, it was based on one central data source (consultation documents), which could be complemented in future research by expert interviews, especially to shed more light on the motives and strategies of the central actors involved in the policy processes.

Second, it includes just a limited sample of actors. Enlarging this sample will probably reveal more nuanced positions than the ones we have presented so far. We would expect to find more actors positioned in the area of group 2 and possibly between group 2 and 3. At the same time, we are fairly confident that with our sampling strategy we have covered the most diverse views of those actors that can be expected to have a strong influence on EU policy making. Even with a larger sample though we would still be missing other key actors such as the EU Parliament (and its parties), positions of EU member states or views in and of the EU Commission. This is a limitation that can, again, only be tackled by other means of data collection that would come with their own set of challenges (e.g., sacrificing depth of coverage).

Another critique might be whether the analytical dimensions we propose are fully independent. When designing the coding scheme and also in our interpretation of how to code different statements, we did our best to maintain a sufficient degree of reflexivity, dialogue, but also alignment in our approach. One way to do that was that we used different sub-dimensions to cover the nuances on each main dimension. Still, there is discretion in how to interpret our codes and other scholars might arrive at somewhat different findings (though we doubt these differences would be substantial enough to invalidate our conclusions). By making our methods as transparent as possible we want to encourage potential replication but also improvement of our approach.

5.2 Outlook

The sustainability transition of the energy sector is taking off with renewable energy technologies diffusing rapidly in many countries. The European Union is no exception. At the same time, the politics around renewable energy and climate policies are intense and much is at stake both for incumbent energy suppliers, large industrial energy users, renewable energy producers and environmental NGOs (Markard, in press). Our study has shed light on the divergent positions of

different groups of actors. It has also demonstrated that climate and renewable energy policy are both part of a larger struggle over the future of energy supply.

Our study built on earlier work tracing the politics of the ETS (Meckling, 2011), of renewable energy policy (Lauber and Jacobsson, 2016) and transitions more broadly (Markard et al., 2016; Rosenbloom et al., 2018). A worthwhile topic for future research in this area will be take a dynamic perspective, e.g. to examine the development of actor positions over time and eventually capture more recent positional adjustments surrounding ETS and RED.

It will also be interesting to deploy similar approaches to examine interactions around other prominent environmental policies in related policy fields (e.g., carbon pricing vs. coal phase outs or fossil fuel combustion vehicle bans). Scholars could analyze who is mobilizing around which climate response strategies and expose similar and opposing interests.

Another area for future research could be to compare political and business strategies of various actors. Are they aligned or might we find actors that, through their political action, seek to slow down the pace of the transition, while their innovation strategies already take into account major changes in the energy sector.

Finally, this study also builds a bridge between transition and policy studies. Scholars from both backgrounds have not only addressed the same phenomena but also started to work with the others' frameworks. It is certainly one of the most promising tasks for future research to further strengthen these ties and the intellectual exchange between so far not very much related strands of research. Sustainability transition studies require insights from multiple disciplinary backgrounds in order to cope with the complexities and the constantly changing nature of the phenomena.

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