

Advocacy coalitions in EU energy policy – Indicators of an advancing transition?

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Abstract

Sustainability transitions are highly political. Incumbent actors, newcomers, environmental NGOs and industry organizations typically have diverging interests concerning preferred technologies, transition pathways and public policies. Identifying the positions of key actors and larger coalitions of actors is therefore central for understanding ongoing struggles and larger transition dynamics. This paper looks into the policy core beliefs of key industry actors in the European Union in order to reveal alignment and interest conflicts regarding renewable energy and energy market policies. The study builds on the transitions literature and mobilizes the Advocacy Coalition Framework to study actor coalitions. Based on a systematic analysis of public consultation documents we identify three coalitions of actors whose policy core beliefs differ in many ways. At the same time, we also find that the positions of environmental NGOs, renewable energy associations and many electric utilities are not that far apart: this could be interpreted as an indication that – as the energy transition progresses – the differences between former niche and regime actors diminish.

Keywords: Energy transition, EU, politics, advocacy coalitions

1 Introduction

The ongoing energy transition is increasing in dynamics and scope. Renewable energy is expanding rapidly in the global energy mix driven by a range of different developments. These include falling technology costs, technology development and improvement, ambitious policy targets in many countries and regions, active civil society and a large ‘green’ research community (REN21, 2017). The renewable energy expansion is particularly prominent in the electricity sector. Due to the nature of electricity generation and the presence of viable zero-carbon options, the sector is often highlighted as the first and easiest one to decarbonize (IPCC, 2014). Analyses show that in order to stay below 1.5C, the energy sector needs to fully decarbonize by 2050 (Schleussner et al., 2016).

The waves of the energy transition affect both socio-technical systems and policy systems, and the changes in these systems mutually influence and reinforce each other (Markard et al., 2016). The ongoing changes are of high interest to researchers and scholars from political sciences as well as innovation and transition studies. This article combines insights from these two strands of research in

order to shed light on the ongoing sustainability transition in the EU electricity sector and in the associated policy system. It devotes particular attention to the role of non-governmental actors by exploring the positions of key companies and interest organizations in the EU energy policy process.

Increasing shares of renewable energy in the electricity system pose several challenges to existing legislative frameworks and market designs. Current legislation on renewable energy and energy efficiency in the EU expires after 2020. Since 2015, EU actors and institutions are working hard to produce new legislation on energy and climate policy in order to replace expiring directives and to translate the targets from the EU 2030 energy and climate framework into legislation¹. In 2015, the European Commission (hereafter: Commission) initiated multiple consultation processes as part of the preparation of new directives and regulations within the energy sector. High on the agenda is the request for “a market fit for renewables” (European Commission, 2015 p. 7). On 30 November 2016, the Commission launched a comprehensive package of policy proposals called the ‘Clean Energy Package’², which comprises proposals for four directives and several regulations.

Our main interest is to study the positions of actors pertaining to the upcoming revised legislation, i.e. the renewable energy directive and the electricity market directive. The object of study is these actors’ core beliefs and values, which we assess by means of a document analysis of submissions to public policy consultations initiated by the European Commission. The paper devotes particular attention to the issue of assessing what the ACF call ‘policy core beliefs’ in order to explore whether we can identify advocacy coalitions based on such an assessment.

We draw on two specific strands of literature. From policy analysis, we adopt the advocacy coalition framework (ACF), which maintains that actors with similar beliefs form alliances that affect the output of the policy process (Sabatier and Jenkins-Smith, 1993). In addition, we mobilize the literature on sustainability transition studies (Geels et al., 2004; Smith and Stirling, 2010), which is interested in the conditions for and dynamics of far-reaching changes in socio-technical systems (Grin, 2010).

Since the ACF has primarily been applied to studies at national levels, there is a lack of studies that thoroughly document coalitions in an international setting. A few studies have applied the framework on the EU setting (e.g. Feindt, 2010; Nedergaard, 2008; Nohrstedt, 2013; Weber and Christophersen, 2002). Rozbicka (2013) provides an overview of EU policy studies that have applied the advocacy coalition framework. A brief review of the papers who have done this reveals that these studies seem to pay little attention to the identification of the policy core beliefs. They are rather interested in the strategic alliances between actors and these actors’ position in a specific policy process.

Szarka, 2010 and Ydersbond, 2016 are a few examples of studies where the ACF has been applied on EU level in the energy field. More detailed documentation of the coalitions within EU’s electricity policy can inform both the literature on the policy processes, but also the literature on sustainability transitions. Despite the well-acknowledged relevance of politics for sustainability transitions (Avelino

¹ The EU 2030 energy and climate framework states the main targets for 2030; 40% GHG emissions reduction, 27% renewable energy (binding on EU level) and 30% energy efficiency (not binding). These represents the targets in EU’s INDC to the UNFCCC and are the obligation made by the EU to the Paris Agreement.

² The official name of the proposal package is ‘Clean Energy for All Europeans’. All documents are compiled here: <https://ec.europa.eu/energy/en/news/commission-proposes-new-rules-consumer-centred-clean-energy-transition>

et al., 2016; Meadowcroft, 2011, 2009), there have been very few studies to date that systematically investigate the explicit relation between coalitions and sustainability transitions. Hess (2014) and (Markard et al., 2016) are noteworthy exceptions to this.

When coalition structures change, the policy system and eventually the socio-technical system change as well. This paper sheds light on what characterizes coalitions in the EU energy policy, which is highly relevant to understand the ongoing energy transition in the EU. It investigates main distinctions between influential actors, i.e. companies and interest organizations, within the electricity sector by asking:

What are the main coalitions within EU electricity policy and what do coalition structures tell us about the development of the energy transition?

This study is based on a structured analysis and coding of consultation documents submitted to the European Commission in 2015 and 2016. By means of these documents, we identify the actors' policy core beliefs. In order to assess degree of cooperation between actors, we carry out a survey among the respective actors during spring 2018.

Based on a literature review of the negotiation process leading up to the extant Renewable Energy Directive (Dir 2009/28/EC) and the Third Energy Package in 2009 (especially the Electricity Market Directive Dir 2009/72/EC), we are able to identify the important coalitions at the time of negotiating these legislations. This allows us to draw inferences about changes in coalition structures over the past ten years.

The paper is structured as follows. We continue the paper in chapter 2 by presenting the theoretical frameworks used in this study, the ACF and the MLP, in more detail. In chapter 3, we present our case study, data and methods. Here, we describe the procedures for our coding of documents, the cluster analysis and network analysis. The results are synthesized in chapter 4, which shows the maps of the coalitions and the networks. Finally, we discuss the findings and conclude in chapter 5.

2 Theoretical background

Our theoretical intention is to investigate whether it is possible to build on and eventually bridge elements of the traditional frameworks of political science and transitions studies. In order to enhance our understanding of how the coalitions structure relates to the European energy transition, we formulate hypotheses related to the two main frameworks applied, the ACF and the Multi-level Perspective (Geels 2002). The main objective is two-fold. On the one hand, we show how current policies and exogenous (landscape) factors in the socio-technical system affect the coalitions, and on the other hand, how the coalitions can be perceived as an indicator of change in the socio-technical system. As such, we explicitly illustrate the influence of technological change on the policy system.

2.1 Studies of the policy process

The purpose of the ACF is to explain major policy change. It draws on actors and coalitions of actors and on the beliefs these actors hold. The underlying assumption is that actors who share similar beliefs work together in a coalition through which they influence the policy process. Changes in coalitions (and the underlying beliefs) are regarded as a key explanation for major policy change to happen.

The ACF approach defines advocacy coalitions as “actors sharing *policy core* beliefs who coordinate their actions in a nontrivial manner to influence a policy subsystem” (Jenkins-Smith et al., 2014, p. 195). Sabatier (1998, p. 103) characterizes policy core beliefs as the fundamental normative commitments, causal perceptions and value priorities across an entire policy domain. Policy core beliefs are stable over time and more resistant to change than what is demarcated as the *secondary aspects* of the beliefs system. Secondary aspects constitute the lowest level of the beliefs system. They represent what can be described as the actors’ policy preferences with respect to concrete policy options, e.g. specific policy design, policy instruments, budgetary allocations and others. These preferences are more prone to change based on new knowledge and experience.

In addition to shared policy core beliefs, the ACF assumes that members of a coalition “engage in a non-trivial degree of co-ordinated activity over time” (Sabatier, 1998, p. 103). This aspect of the ACF recognizes that many actors could share the same policy core beliefs, but still not act together in pursuit of common policy objectives. In order to constitute a coalition that contributes to policy change, there has to be some joint activities or coordination.

The ACF distinguishes between major and minor policy change (Sabatier, 1998, p. 118). Major change involves changes in policy core aspects of a governmental program, which involves a change in coalition’s structures. Minor policy change refers to change in secondary aspects. Hence, a change in policy core beliefs among the members of the main coalitions is a prerequisite for major policy change.

Since it was developed primarily for the US context and national or state policy levels, political parties and their representatives are often considered to be among the core members of the coalitions (Sabatier, 1998; Zafonte and Sabatier, 2004). Even though Sabatier himself argued that the ACF was well suited to be applied to other countries as well (Sabatier, 1998, p. 120), the translation to the case of the European Union raises several challenges pertaining to discerning the role of member states and their Government representatives.

First, it is difficult to identify policy core belief of the member states, since the countries do not hold policy core beliefs that hardly change over time. The positions of each member state is often a result of negotiations within the respective country. Even though they have a position within the negotiations, this position might not be clear until the very last moment when decisions are voted upon in the Council of Europe. Instead, their positions reflect the preferences of current governments, which means that they might change with the next election.

Second, it is also not always the case that member states are the main players in the policy process. Börzel (1997) argues that policy networks linking the Commission and subnational actors can by-pass national governments, giving subnational actors direct and independent access to the European policymaking arena. The treatment of member states in the ACF and operationalization of their policy core beliefs represents a conceptual challenge of the ACF on international / supranational levels, which has not yet been adequately addressed in the literature.

In this study, we focus on interest organizations as the political agents and coalition members. We deliberately exclude member state governments and the European policy institutions. Previous studies have found the focus on interest organizations to be a fruitful approach for applying the ACF to the EU level (Weber and Christophersen, 2002).

2.2 Sustainability transitions research

From the innovation studies literature, we draw on insights from the recently emerged field coined 'sustainability transitions', characterized by the study of "long-term, multi-dimensional and fundamental transformation of large socio-technical systems towards more sustainable modes of production & consumption" (Markard et al., 2012, p. 956). The advantage of taking a transitions perspective is that technological change is viewed as a multi-dimensional process, including social, organizational, institutional and technological changes, instead of treating it merely as an 'external shock' or 'factor'. In extant policy studies, such technological changes are merely treated as changes in the policy system manifested through changing policy beliefs or preferences of key actors.

Transitions are characterized by a shift or movement from one state to another and can take place on different levels. A high-level transition includes a change in society as a whole. Most commonly, sustainability transitions addresses transition processes for specific sectors or industries. Since the transition within a given sector includes changes not only in technology but also in practices, regulations, infrastructures and cultural meanings, the term 'socio-technical system' is used to comprise the interrelatedness of all these elements (Geels et al., 2004). The term 'system innovations' is used to describe large-scale transformations, in which there is a shift from one socio-technical system to another. The multi-level perspective (MLP) has evolved as an integrated perspective for analyzing system innovation (Geels, 2004).

MLP distinguishes between three analytical levels for describing and explaining technological change: the socio-technical landscape, regime and niche levels. The 'landscape' serves as an external context for actors in regimes and niches, and is more difficult to change than the other levels (Geels, 2004, p. 35). The notion of 'regime' refers to a set of rules carried by different social groups:

"By providing orientation and coordination to the activities of the relevant actor groups, socio-technical regimes account for the stability of the socio-technical system" (Geels, 2004, p. 33).

The regime level is of primary interest for transitions scholars, because transitions are defined as "shifts from one regime to another regime" (Geels, 2011, p. 26). The term 'niche' has its origin in innovation literature, where it refers to a space that is protected from normal market selection (Kemp et al., 1998). Regimes typically generate incremental innovations, whereas radical innovations are generated in niches (Geels, 2004, p. 35). This means that new technologies often starts on niche levels, protected and supported by policies.

Technological change within a socio-technical system can be explained by analyzing change on the respective levels of the system in different phases of the transition. Often, new technologies on niche level combined with changes on landscape level will provide change in the established regime. "The major point is that TT [technological transitions] occur as the outcome of linkages between developments at multiple levels" (Geels, 2002, p. 1262).

Sustainability transitions have been described as the interaction between technology, policy/power/politics, economic/business/markets and culture (Geels, 2011, p. 25). However, there is a prominent role of policies due to the purpose of the transition (Smith et al., 2005). As a result, the issue of

politics, i.e. the process of making policies³, has received growing attention within the sustainability transitions literature. Politics is a broad concept that has been defined in many different – and often contradictory – ways. For a thorough discussion of the various applications of the term see Alexander (2014).

Moreover, transitions scholars are lending increased attention to environmental policy studies and studies of the policy process (e.g. Kern & Smith, 2008; Meadowcroft, 2009; Rogge & Reichardt, 2016). At the heart of these research activities stands the desire to understand changes in the policy system and how changes in the policy system influence the socio-technical system.

2.3 Analytical Framework

The research design combines insights from the ACF framework and the MLP. The overall rationale for combining these two approaches is that sustainability transitions needs to consider the international policy context. The EU is one of the most important players within energy and climate policy. Hence, it is important to analyze EU energy and climate policy processes and identify coalitions on EU level. Moreover, the particularity of the EU as a supranational political entity with a diverse array of actors and countries is a conceptual challenge that needs to be further explored in future research.

Figure 1 depicts how the socio-technical system and the policy system is interrelated. It is important to note that the socio-technical system is here represented through the actors that are active in the system on the respective levels. Most stylized illustrations of the MLP (Geels, 2011, 2002) do not explicitly show actors, but the dynamics that are enacted by social groups. In our analytical framework the actors are the key entity. Our study assesses the actors and identify the coalitions they build. In order to situate these actors in the socio-technical and policy system, the actors are shown as blue triangles in the figure. In our specific case, actors are companies or interest organizations that represent industry and civil society, but the type of actors can vary according to the type of socio-technical system one demarcate as the object of analysis. Given the prominent role of rules carried by actors, we consider the policy system to be part of the socio-technical system. The policy system represents the formalized process of policy making, whereas the socio-technical system is maintained through rules carried by actors in the continuous process of maintaining (or amending) the regime level. These rules apply on formal and informal areas like technology, politics, culture, economics and markets (Geels, 2011).

Since the policy system is characterized by stability, we hence consider the policy system as to a large extent overlapping with the socio-technical regime. In our illustration, the policy system is depicted as a confined part of the socio-technical system, see Fig 1.

³ We adopt the perspective that ‘politics’ encompasses the process of shaping and influencing policy processes, which includes several elements: a) the actors involved, b) their values, beliefs, positions and preferences, c) the strategies they use to achieve their goals, d) the infrastructure and governance structures they act within. In this paper, we focus on element a) and b).

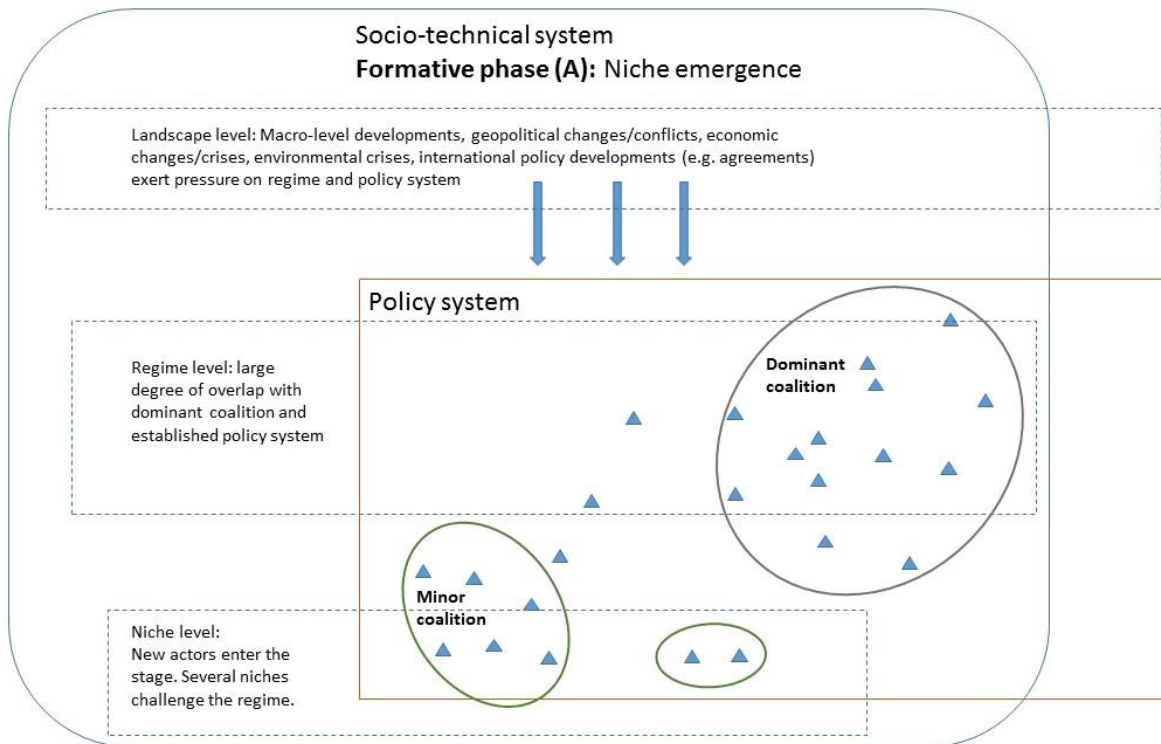


Figure 1. Analytical Framework, Formative phase A. Source: Own elaboration based on Markard et al. 2016.

Figure 1 depicts a stable state (phase A) with systems in balance and no major change. In a potential shift to the next step (phase B), there has been a substantial reaction in the policy system and on regime level to events on landscape level and/or at the niche level. These changes (Phase B) are illustrated in figure 2. Here, activities on niche level have expanded due to advantageous policy regulations, initiated by actors in the minor coalition and benefiteres on niche level in phase A. Note that such a development depends on successful interplay between technology and policy support and conditions that technology is able to deliver on cost-decreases and performance improvements⁴.

⁴ An evident example is the support for renewable energy and carbon capture and storage (CCS), which have both been promoted with R&D funding. However, the CCS technology has not managed to deliver any significant cost decreases and has not yet been commercially deployed within the electricity sector anywhere in the world.

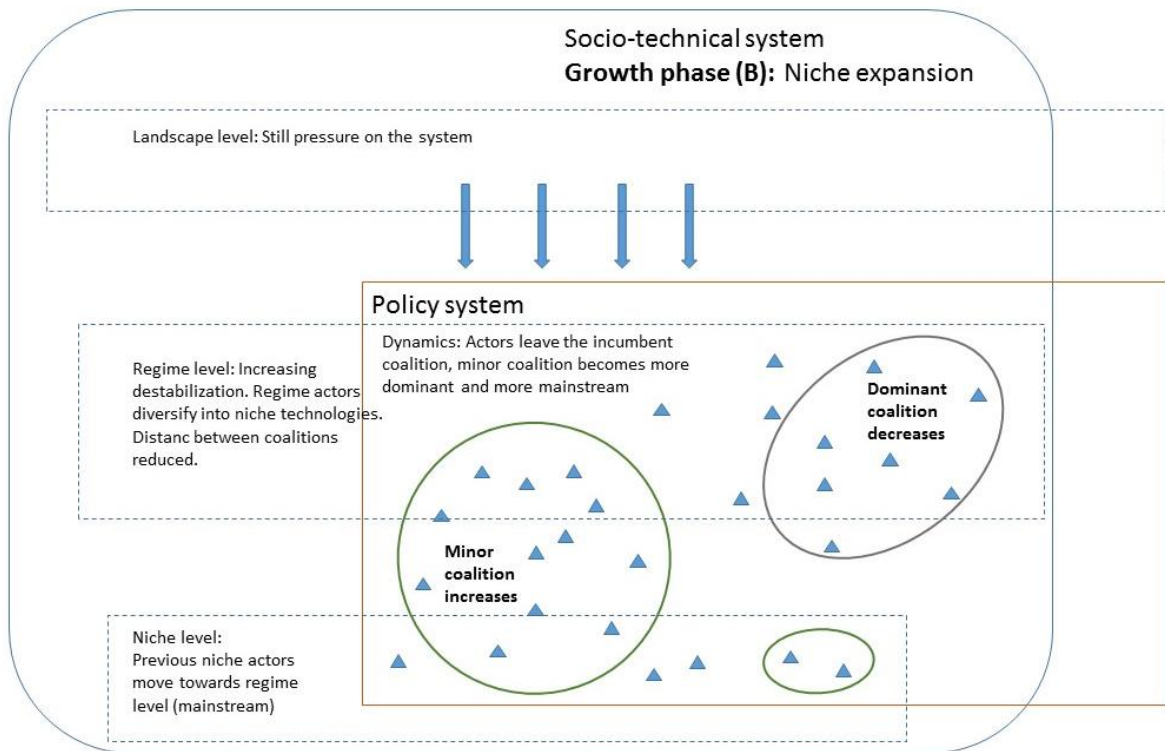


Figure 2. Analytical Framework, Growth phase B.

The framework conceptualizes policy change as a causal mechanism in which actors in the policy system set policy priorities, leading to an initial change in the socio-technical system primarily on the niche level. Activities and changing constellations in the socio-technical system feed back into the policy system and some changes in the coalitions can be observed. This again leads to additional policies being issued or at least preventing the initial policies to be withdrawn. What eventually triggers policy change are inherent dynamics in the socio-technical system (like technology development and economy of scale) or external factors like international pressure or major events (e.g. the Paris Agreement or major climatic disasters (like the 2017 hurricanes over Caribbean islands and the US)). Dependent on how the involved actors deal with these events, and on how the different levels interact, these developments could eventually lead to major change in the coalition structure.

3 Case study: European electricity policy

Our empirical study addresses the positions of interest organizations in the European energy policy with a particular focus on the electricity sector. It assesses how these organizations relate to each other with respect to key belief dimensions, which are explained in chapter 4. This chapter provides a brief overview of European electricity policy.

We consider European electricity policy as a sub-policy system integrated in European energy policy. It hence adheres to the three main objectives of EU energy policy: competitiveness, energy security and sustainability. This three-fold strategy was announced as key for a successful energy policy in the mid-00ies (European Commission, 2006). In the framework for an Energy Union, which was launched in 2015, these principles continues to play a key role. The Energy Union strategy specifies five dimensions, including i) security and solidarity, ii) an integrated energy market, iii) energy efficiency,

iv) decarbonisation and v) research, “designed to bring greater energy security, sustainability and competitiveness” (European Commission, 2015b, p. 4).

3.1 EU energy packages

Current European legislation on the electricity sector is organized within two distinct ‘packages’. On the one hand, we have the directives and regulations in the Third Energy Package, of which the electricity market directive (2009/72/EC) and the electricity regulation (EC No 714/2009)⁵ are the most important. On the other hand, we have the legislation in the 2020 Climate and Energy Framework, which was developed to accommodate for the EU’s 20-20-20 targets: 20% reduction in GHG emissions, 20% renewable energy and 20% increase in energy efficiency. Important directives for the electricity sector are the Renewable Energy Directive (Dir 2009/28/EC) and the ETS directive (Dir 2009/29/EC). The new legislation proposed by the European Commission in 2016 is now aiming to combine the elements of these two package into one single package, i.e. The Clean Energy Package for All Europeans (CEP).

The Third Energy Package is characterized by two overall objectives. First, to continue the liberalization of the energy sector that started with the first electricity directive in 1996 (Dir 96/92/EC) in order to increase competition within the sector and strengthen the position of consumers. Second, to enhance cross-border trade between EU member states, which is perceived as a prerequisite for the internal market for energy. The idea of an internal electricity market originates from the Single European Act signed in 1986, but it remains contested whether it has yet been fully achieved (Glachant and Ruester, 2014).

The 2020 Climate and Energy Package contains several directives, but the renewable energy directive has been the most important for the electricity sector with binding targets for renewable energy deployment for each member state and specific measures to support deployment.

Core issues at stake for electricity sector in the upcoming Clean Energy Package spans over a row of issues, including the question about continued renewable energy support, special treatment of renewable energy producers (or type of producers), enhanced policies for cross-border trade, harmonization of national regulations to facilitate trade, changing market design (e.g. scarcity pricing) and how to provide flexibility (e.g. capacity markets and demand response measures). This paper will not track the stepwise process for negotiating the concrete policy outcome for all of these issues. Instead, we explore the overall pattern of policy beliefs for the actors involved in the policy process and whether this can be used as an indicator for where we are in the energy transition. We will return to this below.

3.2 Previous coalitions

Given our aspiration to analyze conditions for policy change and the dynamics of the energy transition, this chapter aims to shed light on the position of interest organizations in the previous negotiations leading up to the 2020 climate and energy package and the Third Energy Package. These policy processes have been covered by various studies in the policy literature. However, a challenge is that different studies addresses different aspects of these distinct legislations.

⁵ Full name: ‘Regulation on conditions for access to the network for cross-border exchanges in electricity’

Of primary interest is the role of the renewable energy industry, which we later in our study will term the renewable energy coalition. It is evident that much has changed in the energy sector since 2009, when the binding targets for renewable energy were formally adopted by the EU. Several studies provide evidence for the inferior position of the renewable energy in this period. Ydersbond characterizes the renewables industry as “far smaller than the utilities industry in Europe” (Ydersbond, 2014 p. 45). Boasson and Wettestad (2013) confirm the description of the renewable energy lobby as much weaker, characterizing the outcome of the policy process around the Renewable directive as “David beating Goliath” (ibid, p. 79). In her study of lobby strategies of the renewable energy industry, Gullberg (2013) points to the fact that the industry was not representing a large number of jobs in many member states, which made the industry’s capacity for so-called pressure-based lobbying very limited⁶. In 2004, the renewable energy industry had a turnover of 10 billion Euros and employed 200,000 people. In 2016, total turnover amounted to 40 billion Euros. Employment had grown to comprise 309,000 direct and indirect jobs (EurObserv’ER, 2017).

3.3 Research expectations

Even though renewable energy is increasing in the EU, renewable energy still constitutes the minor share of total energy produced and consumed. Share of energy from renewable sources in gross final energy consumption was 17% in 2016 – three percentage points below the 2020 target. For electricity generation, the share is considerably higher. In 2016, almost 30% of total electricity generation came from renewable sources, of which the largest sources were hydro power (350 TWh), wind power (303 TWh), biomass (180 TWh) and solar power (111 TWh) (EurObserv’ER, 2017). This figure shows that the main share of electricity is still produced with conventional sources like coal, lignite and nuclear power. As a result our first research expectation combines the ACF’s assumptions about coalitions and the current status of the electricity sector:

Research expectation 1: The coalition promoting renewable energy is still the minority coalition.

A minority coalition is here defined as a coalition with less members, which would then be less influential when it comes to influencing a policy process. This research expectation would indicate that the coalition’s structure has not yet changed sufficiently in order to provide major policy change in the electricity policy system.

Our second research expectation relates to the MLP framework. We explore whether we can detect changes in the socio-technical system by tracing the position of actors in the socio-technical system. Given that the renewable energy industry is growing, formulate the following expectation:

Research expectation 2: Actors from the renewable energy community (i.e. industry, interest associations, NGOs, research groups) have moved from the niche level up to the regime level.

From the MLP, we know that if you support niche technologies and protect them from the market, they have the possibility to grow and gradually become market mature. If technologies are able to compete with existing products and are taken up by markets, this will lead to a change in the socio-technical system in which we can observe that actors move from niche to regime level. Since the regime level represents the stable and established part of the socio-technical system, such a

⁶ Gullberg defines pressure-based lobbying as ‘lobbying through threats, defined as contingent punishments or rewards that are applied by the interest group itself.

movement would indicate that the energy transition is becoming more advanced and develops an internal dynamic, which is increasingly difficult to reverse or relent.

4 Methodology

4.1 Actor sample

For our analysis of policy core beliefs of key EU policy actors, our first step was to identify influential interest organizations. The starting point for our sample of influential actors to EU electricity policy was the bulk of responses to the consultation processes associated with the revision of two main EU energy policy directives: The electricity market directive and the renewable energy directive. The first consultation is the 'New Energy Market Design' (open from July to October 2015)⁷, which received 320 responses. Our second source is the 2016 consultation is the 'New Renewable Energy Directive for the period after 2020' (open from November 2015 to February 2016)⁸, which received 614 submissions. Both consultations were general enough to touch upon the many different aspects associated with the energy transition and both received a high number of submissions.

The two consultations consist of a set of pre-defined questions all actors were asked to respond to. The RED consultation also included several multiple choice questions, in which respondents had to choose one option. Submissions vary in length: Most of them are 25 – 30 pages, while others contain up to 40 pages. If the actors do not have an opinion on many of the questions asked, they will just cover a few pages. In such a case, it is mostly not possible to carry out a proper assessment of the actor based on the consultation document alone.

As 400 - 600 responses were too many to assess in total, and not all of them are equally important to the policy process, it was necessary to make a selection of the most influential actors. We decided to aim at a final sample of 50 actors. The first step was preparing a 'long list' of actors. This was done by the authors in a deliberative process. We chose to confine our study to influential interest organizations such as industry associations, energy associations, environmental NGOs, major companies and system operators.

Next, we applied the reputational approach (French, 1969), in which actors are selected based on their perceived relevance or influence. To assess the perceived influence, we contacted experts who we asked for their opinion. We proceeded in two steps. In a first test round we contacted three experts. The results from their feedback were used to improve our ranking criteria and to expand the long list to almost 70 actors. In a second round, we contacted another ten experts of which five agreed to assist us. When selecting the experts, an in-depth understanding of European energy policy was a precondition. We managed to involve different types of experts (scientists, administration officials, consultants) from four different countries. Two experts were based in Brussels. All experts were contacted by email. The task that was sent to them was guided by the following question:

Who are the 50-60 most influential actors when it comes to influencing EU electricity policy and the electricity market development in particular?

⁷ <https://ec.europa.eu/energy/en/consultations/public-consultation-new-energy-market-design> (10.04.2017)

⁸ <https://ec.europa.eu/energy/en/consultations/preparation-new-renewable-energy-directive-period-after-2020> (10.04.2017)

The experts were asked to rank the actors on a scale from 1 to 4 from ‘very influential’ (1) to ‘quite influential’ (2), ‘slightly influential’ (3) and ‘not influential’ (4). The experts were also asked to add key actors that they thought were missing from the list and to rank these actors as well.

The primary condition to include an actor in our short list was that it was ranked 1 or 2 by at least two of the experts. Given that our starting point was the two consultations, an additional criterion was that short list actors had submitted at least one response in one of the consultations that was of sufficient quality, meaning that it was possible to identify an actor’s core beliefs within our four belief dimensions. Also, submissions in a different language than English were not included. After the expert group had ranked the actors, we ended up with a short list of 40 actors. This number was reduced to 28 actors (Table 1) due to our selection criteria listed above.

Table 1: Key actors in EU electricity policy – ‘very influential’ in bold

| | |
|--|--|
| Energy associations | CEDEC, Eurelectric , Foratom, (3) |
| Utilities | EDF , Enel, Eon , Iberdrola, RWE , Statkraft , Total (7) |
| System operators & associations | EDSO, Entso-E , ERDF, (3) |
| Industry associations | BusinessEurope , CEFIC , Eurochambers, IFIEC (4) |
| Renewables associations | BEE, EREF, EWEA , SolarPowerEurope (4) |
| Technology providers | GE, Alstom (2) |
| Environmental NGOs | CAN, Greenpeace, WWF (3) |
| Others | Europex , EFET (2) |

4.2 Identifying policy beliefs

To identify coalitions based on policy core beliefs, we pursued a three-step procedure. First, we created a coding scheme in order to grasp the beliefs’ dimensions relevant for the electricity policy sub-system. The coding scheme was developed both bottom-up and top-down, depending on current trends in the sector and the data available in the consultations. After coding the documents for all selected actors, we arrived at four main policy core beliefs dimensions (Table 2). From the coded texts, we compiled quantitative results that reflect the policy core beliefs of the actors.

Table 2: Policy core beliefs – four dimensions

| Policy core beliefs | | Sub-dimensions |
|--------------------------------------|--|--|
| 1) Market - State | Distribution of authority between government and market | 2.1 Belief in the market 2.2 Belief in regulation |
| 2) Regionalisation vs national state | Distribution of authority among levels of government (EU vs MSs vs local levels) | 2.4 National measures and instruments 2.5 Democratic legitimation and ability to intervene |
| 3) Environment and climate | Environmental protection | 3.1 Sustainability 3.2 Climate change |
| 4) Economic considerations | Competitiveness | 4.1 Importance of energy costs for industry 4.2 Importance of competitiveness for industry 4.3 Consequences for jobs |

Each consultation document was coded with specific values for the respective belief dimensions. The values vary between 1 and 4. See Table 3 for an explanation of each dimension and the corresponding values. Since there are several – and sometimes contradictive – statements in the actors’ consultation documents, each relevant statement is coded with the appropriate value. In the end, the values from all statements and all consultation documents (most actors submitted two documents, one for each consultation process) are added up to provide one value for each policy core belief dimension.

Table 3: Policy core beliefs – ranking of coded statements

| |
|---|
| <p>Market vs. state</p> <p>1 = The state should not interfere in the market. Policies and measures are dysfunctional and harm the economy.</p> <p>2 = State intervention in the market might be necessary in some cases, but should be kept at a low level.</p> <p>3 = Policies and measures has to address most cases. There are several problems that cannot be solved by the market</p> <p>4 = Policies and regulations are key. The challenges ahead can only be solved through strong governance.</p> |
| <p>Regionalisation</p> <p>1 = We need strong centralization of governance</p> <p>2 = We prefer centralization of governance and a rather harmonized energy policy</p> <p>3 = National policies and governance are necessary to some extent</p> <p>4 = Governance should be as decentral as possible and energy policy should be the task of national governments</p> |
| <p>Environment</p> <p>1 = Sustainability and climate policy are not that important, and hence not among our upper priorities. Economic development needs to be put first.</p> <p>2 = Sustainability / climate is an important issue along with other targets.</p> <p>3 = Sustainability / climate should be prioritises. If necessary, economic development should be confined in order to respect sustainability goals</p> <p>4 = Sustainability and climate targets have overall priority and is among our greatest challenges in the world today.</p> |
| <p>Economic considerations</p> <p>1 = Competitiveness, jobs and energy costs is of paramount importance and we work actively to ensure competitiveness of EU's industry</p> <p>2 = Competitiveness is very important</p> <p>3 = Competitiveness must be ensured, alongside other targets.</p> <p>4 = Competitiveness is not our overall priority.</p> |

Second, we conducted a Manhattan Distance Analysis to transform our “actor vs. belief” matrix into an “actor vs. actor” matrix. This enabled us to calculate the distance in belief attribution between all actors. Third, clusters were defined with the Tabu Search Clustering approach. To assess the optimal number of clusters, Tabu Search Clustering provides a relative goodness of fit (Hanneman and Riddle, 2005). In our case, the most robust results were produced by a split of the subsystem into three clusters, i.e. three coalitions. Goodness of fit means that the internal differences between the actors within the group (or coalition) are as small as possible, and that the differences between groups are as large as possible. By using multidimensional scaling, the distances of all actors can finally be illustrated graphically in two-dimensional maps.

5 Results

We explored the results of clustering of two versus three coalitions. The Tabu Search Clustering approach provides the best fit and most plausible result with three coalitions, which we labeled ‘renewable energy coalition’, ‘market coalition’ and ‘industry coalition’. However, what is important to note here, is that our coalitions do not show sharp and clearly defined boundaries between each other. Even though the cluster analysis program calculates the optimal clusters with least differences within the clusters, and greatest differences between clusters, our data shows that the boundaries could also have been drawn differently. This is something we will come back to in chapter 6.

Table 4: Values from coding of consultation documents

| | Mark/Stat | EU/Nat | Envir | Econ |
|--------------------|-----------|--------|-------|------|
| IFIEC | 1,19 | 2,13 | 1,71 | 1,25 |
| Statkraft | 1,42 | 1,80 | 3,00 | 2,50 |
| Cefic | 1,24 | 1,23 | 1,91 | 1,11 |
| CAN | 2,58 | 3,14 | 3,68 | 2,00 |
| EDSO | 2,23 | 3,00 | 3,00 | 2,50 |
| Enel | 2,42 | 1,95 | 3,00 | 2,25 |
| Entso-E | 1,75 | 3,06 | 3,33 | 1,50 |
| ERDF | 2,38 | 3,50 | 3,00 | 1,83 |
| Eurelectric | 1,49 | 2,48 | 2,31 | 2,00 |
| Ewea (WindEurope) | 2,35 | 2,50 | 3,45 | 1,67 |
| Iberdrola | 2,48 | 2,19 | 2,28 | 2,17 |
| RWE | 1,85 | 2,36 | 2,50 | 2,00 |
| WWF | 2,95 | 2,87 | 3,75 | 2,25 |
| General Electric | 2,50 | 2,82 | 3,25 | 2,00 |
| Greenpeace | 2,75 | 3,68 | 3,78 | 2,00 |
| Solar Power Europe | 3,62 | 2,10 | 3,67 | 2,22 |
| Business Europe | 1,36 | 1,56 | 1,80 | 1,06 |
| Alstom | 1,42 | 2,33 | 2,00 | 2,75 |
| BEE | 2,34 | 2,85 | 3,25 | 2,00 |
| CEDEC | 2,80 | 3,11 | 2,58 | 2,75 |
| EON | 1,94 | 2,52 | 2,00 | 2,88 |
| EDF | 2,20 | 2,86 | 2,17 | 2,78 |
| EFET | 1,53 | 2,46 | 2,00 | 2,50 |
| EREF | 2,57 | 2,67 | 2,95 | 2,13 |
| Foratom | 1,52 | 2,00 | 3,00 | 2,50 |
| Total | 2,26 | 2,50 | 2,70 | 2,50 |
| Europex | 1,89 | 2,07 | 2,00 | 3,00 |
| Eurochambers | 1,62 | 2,57 | 2,00 | 1,00 |

Figure 3 shows the results from the clustering calculations, based on the figures from the coding of consultation responses. The values from the codings are listed in Table 4. Interestingly, the renewable energy coalition (C1) is the largest of all three coalitions. This coalition comprises environmental organizations, renewable associations and some companies and energy associations. The utilities are all in the same coalition (C2), as well as the industry associations (C3). This contradicts our expectation that the coalition representing renewable energy is still the minor coalition. It indicates that the previous niche of renewable energy has gained substantial momentum.

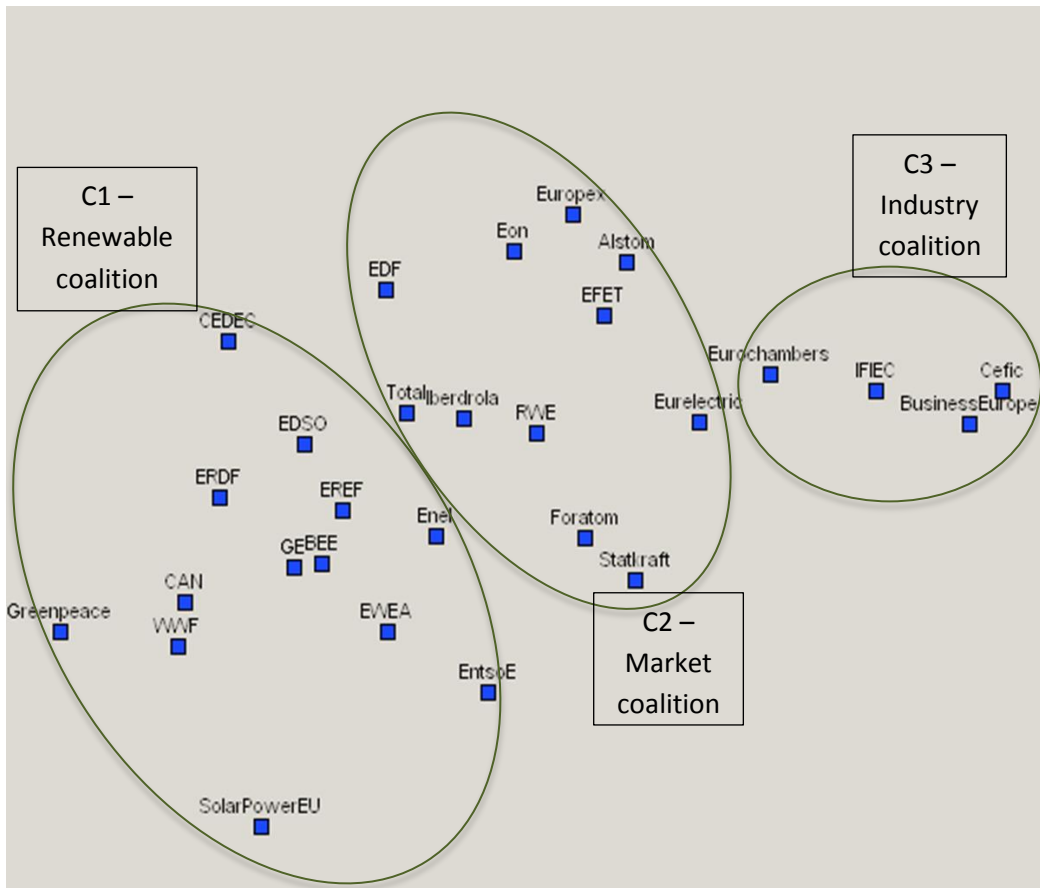


Figure 3: The three coalitions

When summarizing main policy core beliefs and positions within the three coalitions, we see that the actors in the renewable energy coalition have the highest scores on the environment/climate dimension. 11 of in total 13 actors with values equaling or higher than 3 on the environment dimension can be found in this coalition. These actors are further characterized by their preference for high regulation of the energy market and less harmonization of energy policy across member states. The market coalition has the highest scores as to keeping the market free of interventions and regulations. These actors score relatively high when it comes to promoting EU competitiveness and jobs, and medium on the environmental dimension. The industry coalition ranks economic consideration like jobs and industry competitiveness above everything else. They promote free markets, although not as fiercely as the market coalition and have the lowest scores as to environmental beliefs. All actors in the industry coalition and the four upper actors in the market coalition (Eon, Europex, Alstom, EFET) have values equaling or lower than 2.

Table 5 shows the main policy beliefs and a few examples of statements of actors in the three coalitions. Note that the positions of single actors in each coalition might deviate slightly from these core beliefs, as each actor holds individual positions.

| Policy beliefs | core | Renewable energy coalition (C1) | Market coalition (C2) | Industry coalition (C3) |
|----------------|------|---------------------------------|-----------------------|-------------------------|
|----------------|------|---------------------------------|-----------------------|-------------------------|

Table 5: Examples of statements and positions in the three coalitions

| | | | |
|--|--|---|---|
| <p>Market vs state</p> | <ul style="list-style-type: none"> • We need an ambitious regulatory framework for RES • The current energy-only market model might not always deliver this desired outcome. | <ul style="list-style-type: none"> • The European energy transition should be fully driven by wholesale and carbon market signals. • Energy and flexibility markets should be free of distortive interventions • Technology neutrality and competition are key principles in a cost effective transition | <ul style="list-style-type: none"> • A market-based approach is a core element in the new power market design • Support schemes for renewables should be progressively phased out to allow the market to determine energy choices. |
| <p>Regionalization</p> | <ul style="list-style-type: none"> • We need national climate policies and plans. • National policies should have priority over cooperation mechanisms | <ul style="list-style-type: none"> • Harmonization of market designs and subsidy schemes is a prerequisite for an efficient single market based on market mechanisms • Further integration of electricity markets in the EU | <ul style="list-style-type: none"> • EU energy policy should be as harmonized as possible • Support a European wide electricity market |
| <p>Sustainability / climate</p> | <ul style="list-style-type: none"> • Climate change is a huge challenge that we need to solve. • Climate policy has overall priority | <ul style="list-style-type: none"> • GHG emission reduction target of 40% should remain the centrepiece of the 2030 climate and energy framework. | <ul style="list-style-type: none"> • Climate and sustainability is only one of several targets of the Energy Union • Climate policy should not be ranked above other considerations |
| <p>Economic priorities</p> | <ul style="list-style-type: none"> • Economic priorities can only be achieved alongside with ambitious environmental policies. Expansion of RES creates jobs and strengthen EU competitiveness • The large scale deployment of RES contributed to driving down the cost of the technologies and making renewable technologies more competitive. | <ul style="list-style-type: none"> • Local renewable facilities should be developed under a cost-efficient framework • A continuation of current practices of national RES support combined with national RE targets would increase costs, cement market fragmentation, and negatively affect the competitiveness of the EU. | <ul style="list-style-type: none"> • Reinforcing the competitiveness of European industry and securing international competitiveness is of paramount importance |

Table 6 provides a complete overview of the types of actors and the advocacy coalitions.

Table 6: The members of the coalitions

| Type of actor | Renewable energy coalition | Market coalition | Industry coalition |
|------------------------------------|---|---|---|
| Energy associations | EWEA, EntsoE, BEE, EREF, EDSO, CEDEC, ERDF | Eurelectric, EFET, Foratom | |
| Industry associations | | | Eurochambers, IFIEC, Business Europe, Cefic |
| Energy supply companies | Enel | RWE, E.on, EDF, Total, Iberdrola, Statkraft | |
| Environmental organizations | Greenpeace, WWF, Climate Action Network (CAN) | | |
| Others | General Electric | Europex, Alstom | |

6 Discussion and conclusion

This study has shed light on the coalition structure of main interest organizations in the EU electricity policy process. The electricity sector is of very high relevance for the global and ongoing energy transition. We have identified the coalition structure of the EU electricity policy system based on the consultation process for two important EU energy directives: The Renewable Energy Directive and the Electricity Market Directive.

Based on the policy core beliefs of the most influential actors in the electricity policy system, we gain several important insights. Most importantly, we find that a major share of actors achieves very high to rather high values on their policy core beliefs pertaining to sustainability and climate change issues. On a 1-4 scale, where 4 represents very high environmental concerns, as many as 13 actors express values equaling or above 3. Only eight actors hold values equaling or below 2.

Further, we see that the utility companies play a large role in the electricity policy system, and that many of them score high on environmental values as well. In our coalitions map, the utilities – compiled in the ‘market coalition’ – are situated between the renewable and the industry coalition. Enel’s environmental beliefs are so high (3,0) that the company is considered part of the renewable energy coalition. These results reflect the current development where several of the large utilities have growing renewable portfolios and are expanding their activities within this field. For example, Enel describes itself as “the leader in the renewable energy sector”⁹. The shifting portfolios of the incumbents might accelerate the dynamics of the energy transition and promote the renewable deployment. On the other hand, it might also lead to an increased shift towards large-scale renewable projects and less attention to and a cut back on advantages for small-scale and energy community projects.

Our findings show that high scores on the environmental beliefs have become the dominant trend. Within the ACF framework, we could therefore argue that the coalitions’ structure has changed and that the environmental coalition is now the largest. This declines our first research expectation; that the non-renewable coalition is still the dominant.

⁹ <https://www.enelgreenpower.com/about-us>

Several recent incidents seem to support our findings. In 2016, the previous Chief Policy Officer of WindEurope (The European wind power association) Kristian Ruby became the new Secretary General of Eurelectric (The European utilities association) (Eurelectric 2016¹⁰). Eurelectric, who has previously lobbied against renewable energy targets on EU and national level now argue that they support the renewable target in the EU 2030 framework (Eurelectric, 2017). The economic value of the renewable industry is an important factor in this respect. The annual turnover of wind in Europe is €72 billion¹¹ and the solar industry expects an annual turnover for solar of €9.6 billion by 2021¹². The solar industry has been severely challenged since 2011-2012 especially by Chinese companies. Still, the sector continues to improve its results in terms of jobs and value creation¹³. Other studies confirm that the renewable energy now have become mainstream (Bocse, 2017).

Further, we find that the members of the environmental coalition prefer strong national governance in energy policy, especially with regard to renewable targets and policies. Despite measures to increase cross-border trade and harmonizing energy policy, energy market regulations are still very country-specific. This becomes evident when considering the challenges connected to cross-border schemes for renewables. The renewable coalition members want to keep national control and/or prefer nationally binding targets. This aligns very well with the claims of the renewable energy industry in process preceding the Renewable Energy Directive, where the renewable energy industry lobbied for national choice of support schemes. The utilities, represented by their interest association Eurelectric at EU level, lobbied for an EU-wide support scheme for renewables, without country-specific renewable energy targets (Ydersbond, 2014).

Considering these developments from a transitions perspective and the MLP framework, the high values of a majority of actors as to the environmental beliefs indicate that what used to be a renewable energy niche in the 1990ies and 2000ies has grown substantially. In 2016, when data for the beliefs assessment are collected, the renewable energy technologies and actors are no longer an 'environmental niche'. Assessing the development along the lines of MLP theory, we can say that many actors previously on the niche level in the socio-technical system have 'moved' towards the regime level, which confirms our second research expectation.

As accounted for in chapter 3.2, earlier studies provide evidence of the inferior position of the renewable energy coalition during the negotiations for the current Renewable Directive (adopted in 2009). It is therefore without doubt that a growing – and perhaps already dominant – renewable energy coalition reflects large changes in the electricity policy system and in the electricity sector's socio-technical system.

Considering the rapid expansion of renewable energies in the EU electricity sector, our findings illustrate the mutual influence between the socio-technical system and the policy system. Given the rapid technological improvements and changes on all levels in the socio-technical system, we assume that this has contributed to change the policy core beliefs of several actors in the policy subsystem and to transform the previously minor coalition to become more dominant. The fact that there are no clear boundaries between the coalitions supports the assumption that we are currently in a

¹⁰ <http://www.eurelectric.org/media/313008/ruby.pdf>

¹¹ <https://windeurope.org/about-wind/wind-energy-today/>

¹² <http://www.solarpowereurope.org/reports/solar-jobs-value-added-in-europe/>

situation where previous constellations are breaking up and new ones are formed. We therefore argue that our findings indicate that the EU electricity system stands on the threshold to an advanced stage of a sustainability transition as suggested in Figure 2.

It is important to note that our picture provides the findings of the actors identified by the reputational approach, and that we only included consultation responses of sufficient quality. We therefore had to exclude some important actors, which might have changed this picture slightly.

A further conceptual choice we made in our paper is to focus on the interest organizations in the policy subsystem. We deliberately excluded EU member states and EU policy institutions from our assessment and from the coalitions. As for the member states, this decision was based on the consideration that it is problematic to define EU member states as policy actors with policy core beliefs. When it comes to EU institution like the European Commission and the Agency for the Cooperation of Regulators (ACER), these are not supposed to hold policy beliefs themselves, but should create policies to the best of the EU citizens and according to the preferences of the Member States and the European Parliament. To assess their role within policymaking is beyond the scope of this paper. We hence suggest that the role of member states and EU institutions within the coalitions represent a conceptual challenge that could be addressed for future ACF applications.

This study has explored the interface between transition studies and policy analysis. Both fields of research can benefit from each other. Transition scholars can borrow policy process theories such as the ACF to develop a better understanding of the political dimension of sustainability transitions, while researchers in the field of policy analysis can embrace the role of socio-technical change as an additional factor to explain why major policy change occurs and what direction it might take. Further research at the intersection of both fields will not only improve our knowledge of the complex dynamics (and interactions) of policy and technology change but it will also help to identify the underlying conflicts and struggles of actors with competing interests. As a result, we will better be able to understand the obstacles sustainability transitions encounter, which is an important precondition to devise strategies to guide and accelerate societal transformation.

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