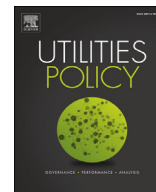




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# The political economy of renewable energy policies in Germany and the EU

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## ABSTRACT

In this paper, we employ a public choice perspective to analyze the development of policies for renewable energy sources (RES) in the EU in general and in Germany more specifically. In doing so, we explain the main characteristics of current RES policies by reference to the self-interest driven motivations of voters, stakeholders and political actors. One important puzzle, which we address, is the following: How could effective RES-policies be introduced against the political opposition of fossil-fuel interest groups in the past? Via analyzing the German example in more detail, we show how over time a self-reinforcing interplay of ideological and financial RES support has emerged. Moreover, we argue that observed specific design choices for RES policies in Germany, such as largely riskless remuneration schemes and high degrees of technology differentiation, as well as decentralized decision-making across EU Member States, can be traced back to politicians' need to balance a variety of partly opposing interests. A major benefit of the presented analysis is that it provides a realistic assessment of the challenges for RES policy reform – any reform effort critically depends on its ability to balance stakeholder interests.

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## 1. Introduction

Policies supporting renewable energy sources (RES) have become a cornerstone of climate and energy policy in the EU. All EU Member States have introduced some form of RES support or a mix of support policies. Apparently, these policies are very effective: In the EU, the share of RES in electricity consumption has increased from 14.3% in 2004 to 25.4% in 2013<sup>1</sup> and in Germany from 9.3% to 25.4% (BDEW, 2015) within the same time. This development is somewhat surprising, given that the EU's (and more generally developed countries') environmental policies have been scolded as “merely symbolic” and broadly ineffective (Blühdorn, 2007). Moreover, RES policies have been continuously facing critique from academia as well as industry stakeholders. Some economists have

repeatedly argued that RES policies (allegedly) reduce the cost-effectiveness of climate policy; in consequence, they call for RES instruments to be scrapped and EU climate policy to exclusively rely on the EU emissions trading scheme (e.g., Stavins, 2014; Weimann, 2009). From an industry perspective, conventional utilities, the direct competitors of newly emerging RES producers, have tried to undermine the cause of RES by both provoking numerous court proceedings (e.g. against the German RES Act) and by exerting influence on the general public, for instance by placing ads claiming that RES cannot significantly contribute to secure electricity supply (e.g., German utilities, 1993). Recently, with the energy transition growing in popularity (even occupying the political mainstream in Germany, cf. Strunz, 2014), and RES affecting electricity markets to the point of questioning the conventional utilities' business models (Steitz and Käckenhoff, 2015), critiques are more specifically directed at the set-up of RES policies. For instance, the association of European industries and employers takes aim at priority grid access for RES and demands that RES be made “responsible for imbalance costs” (BusinessEurope, 2013: 14). Thus, the first puzzle is how policy support for RES has become politically feasible and

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<sup>1</sup> [http://ec.europa.eu/eurostat/tgm/table.do?](http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tsdcc330&plugin=1)

<http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tsdcc330&plugin=1>

continues to effectively transform electricity markets despite the incumbent competitors' organized opposition.

The second puzzle concerns the fragmentation of RES policies in the EU: while there is evidence that EU-level cooperation would increase the cost-effectiveness of RES-deployment (e.g., [Unteusch and Lindenberger, 2014](#); but see also [Gawel et al., 2014b](#)) and even though a common EU RES-target architecture exists, the actual support policies remain decentralized on the level of EU Member States and cooperation among the latter is scarce ([Klinge Jacobsen et al., 2014](#)). Furthermore, regional and communal activities drive the bottom-up deployment of RES, adding to the picture of overall fragmentation. Thirdly, as regards the technical details of policies, policy makers must select among a variety of design options (quota scheme or feed-in tariff, support level, degree of technology differentiation, finance mechanism, etc.). Again, the actual pattern of strongly differentiated policies varies significantly from often recommended market-based, technology-neutral instruments (e.g., [Monopolkommission, 2013](#)). Thus, a satisfying theory would explain why particular options have been preferred over others and why the most relevant decisions are made on (sub-)national level despite the fact that the establishment of a common market for, amongst other goods, energy with uniform market conditions, is one of the core objectives of the EU project.

In order to shed some light on these puzzles, the paper addresses three specific sets of questions, related to 1) the very existence of RES support, 2) the organization/distribution of responsibilities for policy making across political levels and 3) the specific policy design:

- 1) Why have ambitious targets for RES deployment become politically palatable? How could effective RES policies have been implemented against the opposition of conventional utilities and their interest groups?
- 2) Why are RES policies still fragmented – both between EU Member States but also within Member States?
- 3) Why have the specific patterns of national RES policy design emerged?

We adopt the approach of public choice to analyze these questions. The public choice approach assumes that the self-interest of actors involved in the political process (voters, politicians, bureaucrats and interest groups) drives the actual design of policies (seminal [Tullock, 1967](#); see [Kirchgässner and Schneider, 2003](#) for an introduction). This perspective leads to a “politics without romance” ([Buchanan, 1984](#)) view that does not expect policy outcomes to be welfare-maximizing. Rather, politicians act as brokers ([McCormick and Tollison, 1981](#)), balancing different stakeholder interests so as to maximize their own special interest, which consists mainly in getting (re-)elected. Likewise, bureaucrats may tend to maximize budgets and influence ([Niskanen, 1971](#)). The advantage of this approach lies in providing a realistic basis for policy advice whereas more idealistic conceptions place high hopes on politicians, who are expected to implement “rational policies against special interests” ([Weimann, 2009](#): 222, own translation). But then, why should politicians act less according to their self-interest than other citizens?

The literature provides already some analyses of RES policies from a public choice perspective. [Jenner et al. \(2012\)](#)'s econometric analysis of the EU-27 identifies several factors that makes the introduction of RES support more likely: the existence of solar energy associations, a high unemployment rate and relatively low concentration of electricity markets. [Vossler \(2014\)](#) investigates the development of Germany's RES Act – the law that formalizes the support for RES – and discusses the prospects of further reforms. [Müller \(2015\)](#) provides an analytical model of interest-group

competition between RES and conventional energy producers. [Gawel et al. \(2014a\)](#) analyze the interaction between EU emissions trading scheme and RES support policies; they find that, in principle, the latter could work to the benefit of a stronger EU emissions trading scheme via lowering the emitting industries' bargaining power. While these existing studies focus on specific aspects of RES policies, such as certain stages of development and stakeholder involvement, we aim to provide a more comprehensive public choice discussion. In particular, our analysis includes all relevant levels of political decision-making (EU, national, subnational). Moreover, we do not only try to understand the introduction of RES policies, but also observed patterns of fragmented responsibilities and specific design choices under repeated policy reforms. Hence, we shed light on the relevance and dynamic evolution of political interests throughout the entire policy cycle of RES support schemes. For this purpose, our paper brings together evidence from a variety of existing theoretical and empirical analyses.

While the paper generally deals with the EU as a whole, it partly focuses on the particular case of Germany for two reasons: First, this focus allows us to provide a less abstract and therefore more accessible storyline. Second, and this is the main reason, Germany's support scheme for RES has proven to be a forerunner and model for other EU Member States (cf. [Jacobsson and Lauber, 2006](#); [Lipp, 2007](#)) and its long-term energy transition goals are very ambitious. At the same time, Germany's highly industrialized economy is the largest in Europe and the politico-economic foundations of the German transition process – which has already been called a “gamble” ([Buchan, 2012](#)) – are worldwide of general interest.

As a result of this paper's analysis, the emergence of the current framework of RES support in Germany and the EU will be clearer – for instance the reliance on highly differentiated support schemes enables policy makers to satisfy a broad range of interests. Even more importantly, the analysis also provides important insights for future reforms to RES policies, which may be required, for example, to improve market and system integration of RES power generation. In fact, we show that the success of reform efforts critically depends on the reforms' ability to cater to the demands of concerned special interests; that is, any successful reform needs sufficient public support for the unavoidable redistribution of RES-related rents. The danger, therefore, is that RES policies become locked into inefficient paths, and that envisaged policy adjustments fail to materialize. In order to avoid such a scenario, reform discussions should duly account for the distributional and thus political aspects of aspired reforms.

The rest of this paper is structured as follows: in Section 2, we set out the theoretical public choice framework in more detail. Section 3 is devoted to the main analysis of RES policies and their specific configurations. In Section 4 we discuss these findings and draw conclusions.

## 2. Theoretical framework

The public choice perspective is based on the assumption that political decisions are predominantly determined by the self-interest of voters, interest groups as well as politicians and bureaucrats on different levels of government.

First, voters cast their ballot in order to maximize their expected personal gains ([Downs, 1957](#)). In their double role as electricity consumers, they aim at receiving secure supply at a minimum of costs – both in terms of financial costs (electricity prices, RES surcharges) and externalities from electricity production (e.g., air pollution from coal plants, NIMBY problems from wind farms and transmission lines).

Second, various interest groups compete in their lobbying efforts to extract rents by steering regulation in their favor ([Stigler,](#)

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