

Conservative Political Parties and Energy Transitions in Europe:  
Opposition to Climate Mitigation Policies

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Abstract

This study reviews conservative political party policy positions in six European countries with high greenhouse-gas emissions (France, Germany, the Netherlands, Poland, Spain, and the U.K.). Using party platform statements from recent election campaigns, the positions of moderate conservative parties are compared with those of far-right political parties to investigate similarities and differences on energy-transition policy. Three areas of policy are considered: climate-change mitigation, fossil-fuel development or sunseting, and renewable energy and energy efficiency development. In the countries examined, moderate conservative parties generally remain committed to climate-mitigation policy and renewable energy and energy efficiency policy, but there are some roll-backs of support, and there is variation in their support for fossil-fuel development. Far-right parties tend to show evidence of rejection of climate science, opposition to decarbonization in general, support for natural gas hydraulic fracturing technologies, support for continued use of coal, and opposition to some types of policy favorable to renewable energy and energy efficiency. However, some far-right parties,

notably in France and Spain, share several important positions with the center-right parties. The study cautions against assuming an automatic linkage between far-right parties and opposition to energy-transition policies and against assuming that far-right parties will oppose all types of energy-transition policies.

## Highlights

Skepticism and rejection of climate science appears in some of the platforms of far-right Euroskeptic parties.

The far-right parties of Germany, the Netherlands, and the U.K. are strongly opposed to a range of energy-transition policies.

The far-right parties of France and Spain have more moderate positions that are close to center-right parties.

Far-right parties tend to be opposed to wind power but less so to energy efficiency and distributed solar.

Keywords: conservatives, political parties, policy, energy transitions, climate change, renewable energy, fossil fuels

Abbreviations: AfD, Alternative für Deutschland; CDU, Christlich Demokratische Union; CSU,

Christlich-Soziale Union; EEG, Energiewende; FDP, Freie Demokratische Partei; IPCC,

Intergovernmental Panel on Climate Change; RE, renewable energy; REEE, renewable energy

and energy efficiency; UKIP, United Kingdom Independence Party

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## 1. Introduction

The problem of global climate change requires a transition to decarbonized energy for electricity, transportation, buildings, and other technological systems; however, to date the policy responses that could guide such transitions, from the level of cities to global agreements, have varied widely. Some governments show commitments that are consistent with the optimistic view that the world is undergoing a contested but deepening process of reflexive modernization of policies and political institutions [1]. However, even in countries such as Germany, which is viewed as a leader in energy transition policies, questions have emerged about the pace and commitment of the transition [2]. Frequently, opposition to decarbonization policies is linked to conservative political parties.

This study reviews conservative political party platforms on energy-transition policy in Europe, with a focus on political divisions between center-right and far-right parties. Conservative parties hold power in many European countries, and the far-right parties have gained voter support as part of the surge of populist anti-globalization and anti-immigration sentiment [3]. As the political influence of both mainstream and far-right conservatism has grown, it has become increasingly important for policymakers and policy analysts to understand the range and diversity of views among both types of conservatives on issues related to climate change and energy transitions. This study provides a systematic overview in European countries with the highest level of greenhouse-gas emissions for the most recent election cycles preceding 2017.

An “energy transition” is a long-term shift of a technological system (e.g., electricity, buildings, transportation) from one type of energy configuration to another. Clearly, many factors affect the pace of an energy transition, and policy support can only be successful when it coincides with other factors such as market readiness, resource availability, and affordability. As political opposition from regime actors such as the utilities has become more evident, researchers who study energy transitions have paid increasing attention to the politics of transitions. This area of research has focused primarily on policy coalitions [4] and on resistance from industrial regime organizations [5], although some researchers have drawn attention to the study of differences across political parties with respect to transition policy [6, 7]. This study contributes to the politics of transitions literature by focusing attention on differences among conservative parties.

In the electricity sector, energy transitions can take three main forms. First, there is a within-fossil-fuels transition from petroleum and/or coal to natural gas, which may reduce emissions and improve air quality. Second, there is a decarbonization transition from fossil fuels to the lower carbon alternatives of nuclear power and renewable energy (RE) and toward energy efficiency. Third, in some cases a recarbonization transition involves a shift back toward a higher level of fossil fuels in the energy mix. Recarbonization policies and politics can emerge from various sources: an alliance of fossil-fuel interests and political conservatives that seeks to roll back sustainability policies, rapid demand growth that is outpacing existing low-carbon sources such as hydropower, the development of new extractive capacity such as hydraulic fracturing technologies, and attempts to wind down or freeze the development of nuclear energy.

Conservatives do not necessarily all oppose decarbonization transitions, and stances on energy transition policies differ substantially between moderate and far-right conservatives, across countries, and by type of energy policy. Where conservatives support decarbonization policies, they tend to do so for economic, security, or health reasons. But in countries where there are adequate local fossil-fuel resources, arguments in support of job creation and national security can also justify continued fossil-fuel development, and improvements to health can be achieved by transitioning to cleaner fossil fuels or by deploying better emissions technologies without reducing reliance on fossil fuels.

Although there is growing awareness in the transition studies literature that energy transitions are inherently political processes and that ongoing development of decarbonization policy is not an inevitable outcome, the literature has not examined systematically relationships between conservative parties and energy transitions. In the more general literature on environmental politics, there is growing recognition of important linkages between conservatives and opposition to or weakened support for energy-transition policies and, in some cases, opposition to climate science [3, 8-12]. This literature has helped to explain how conservative opposition has stalled decarbonization policies in some countries, and it has provided insights that are crucial for the development of energy-transition studies. Yet, there are also indications of cleavages among conservatives over climate change and decarbonization policies [13]. This study adds to the literature on conservatives and energy policy by developing a more systematic analysis of the patterns of divided conservatism, a project that is important for the effort to develop effective political strategies that support continued decarbonization.

This review asks the following research question: what are the divisions between far-right and center-right conservative political parties in Europe on energy-transition policy? The review focuses on six countries in the European Union (EU) that have the high greenhouse-gas emissions and also have clearly defined conservative and far-right parties. Europe is important because it has provided global leadership for climate-mitigation policies, and European leadership has become even more crucial since the election of President Trump in the U.S. If the rise of far-right conservatism in Europe coincides with opposition to energy-transition policies, as it has in the U.S., global efforts at decarbonization and climate-mitigation could suffer tremendously.

## 2. Method

The study selected the seven highest-emitting European Union (EU) countries, using total greenhouse gas emissions (including land use): France, Germany, Italy, the Netherlands, Poland, Spain, and the United Kingdom ([14]; based on the most recent data as of early 2018). Each of these countries emitted more than 180 million metric tons of carbon-dioxide equivalent greenhouse-gases annually. The U.K. was included in the analysis because it was a member of the EU during the period of review. Italy was excluded because of the complexity of the party system and because in its most recent election, the conservative parties joined a three-party coalition that signed a common party statement.

The period for the review was 2007 through 2017. During this time, European countries developed decarbonization policies consistent with directives from the EU in its 2007-2008 Climate and Energy Package. The package consisted of three targets for 2020: a 20% reduction

in greenhouse gas emissions over 1990 levels, a 20% share of RE in total energy generation, and a 20% improvement in energy efficiency compared to business as usual. The greenhouse-gas reduction target was implemented through participation in the EU Emissions Trading System. These policies provided an important general framework for conservative politics because they placed some limits on the capacity to chart an anti-climate-mitigation policy trajectory that is found among some conservative party factions in Australia, Canada, and the U.S.

For each country the large, mainstream center-right party was compared with a prominent far-right party. (See Table 1.) This comparison made it possible to explore the extent to which far-right parties have become opposed to mainstream energy-transition policies. For Spain, there is no prominent far-right party equivalent to some of the northern European parties, but Vox has ties to other Euroskeptic, anti-immigrant parties and was selected for comparison.

Table 1. Countries and Parties Selected for Review

| <b>Country</b>         | <b>Center-Right Party</b>                | <b>Far-Right Party</b>  |
|------------------------|--|-------------------------|
| <i>France</i>          | The Republicans                          | National Front          |
| <i>Germany</i>         | Christian Democratic Union               | Alternative for Germany |
| <i>The Netherlands</i> | People's Party for Freedom and Democracy | Party for Freedom       |
| <i>Poland</i>          | Civic Platform                           | Law and Justice Party   |
| <i>Spain</i>           | People's Party                           | Vox                     |
| <i>United Kingdom</i>  | Conservative Party                       | U.K. Independence Party |

The study compares party stances for three general energy-transition policy fields: climate-mitigation, fossil-fuel development, and renewable energy and energy efficiency (REEE). Each country is discussed in a parallel structure of two sections. The background section

for the country provides information on energy resources, parties in power during the 10-year period, and significant energy-transition policies enacted during this period. This section is based on peer-reviewed literature and reports of nongovernmental organizations, but because such literature can be dated, journalistic reports are occasionally used to provide up-to-date information. The second section compares the center-right and far-right party on the three issues, using party platform statements from the country's most recent election cycle through 2017. Qualitative analysis of party manifestos or platform statements has been used previously to examine far-right European parties in an earlier period [15]; this study builds on the method by developing a detailed, controlled comparison of center-right and far-right platforms on the three main issue areas. Where statements on party platforms were incomplete or where party leaders made important clarifications, additional information for the election cycle period was included. Although there are other ways to examine party differences on energy policy (such as opinion polls or votes in parliaments), the use of party platform statements allows a consistent basis of comparison.

### 3. Results

#### 3.1 France

##### 3.1.1 Background

Weak in domestic fossil-fuel resources, France has relied on nuclear energy and prided itself on its engineering excellence in this industry. The country's electricity generation is nearly entirely nuclear and hydropower, a mix that results in much lower greenhouse-gas emissions than for other large European countries. However, public opposition and cost concerns have



reduced enthusiasm for continued development of nuclear energy, and the discovery of substantial shale gas reserves has opened the possibility of a recarbonization transition.

During the 2007-2017 period, France had three presidents: Nicolas Sarkozy (2007-2012, Union for a Popular Movement, center-right), François Hollande (2012-2017, Socialist, center-left), and Emmanuel Macron (En Marche, 2017-, center). President Sarkozy supported the development of natural-gas resources, but he reversed course in 2011 after public protest, and President Hollande upheld the restriction. In 2015 the Hollande government initiated an ambitious decarbonization plan that included a broadly revenue-neutral increase in the carbon tax, a goal to double RE, a decrease in reliance on nuclear energy, and strong energy-efficiency programs and goals. However, the Socialist Party lost popular support and was not an important contender in the 2017 election. The comparison that follows is based on the 2017 presidential election and the comparison of party documents and presidential candidate statements of the center-right Republicans (Les Républicains) and the far-right National Front (Front National).

### 3.1.2 Comparison of Party Goals in the 2017 Election

The Republicans expressed support for climate policy and pledged to respect international commitments to greenhouse-gas reduction [16]. Alongside other environmental commitments, climate policy was framed as a “reconciliation” of ecology and economy: the policy protects human and environmental health without reducing economic growth [16]. As a candidate in 2017, François Fillon called for an E.U.-wide €30/ton carbon-dioxide floor and investments in carbon capture-and-storage technology.

The party did not provide any indication of support for natural gas development or fossil-fuel power for the electricity system. Instead, the 2017 party manifesto advocated a zero-carbon French energy sector by 2023, which would consist of nuclear and RE resources and would “durably improve the health of French citizens” by reducing air pollution [16]. The party also pledged to work toward a global commitment that “prohibits the exploitation of mineral, oil, and gas resources in the Arctic” [16]. Fillon called for the closing of coal-fired power plants and supported the existing government policy of opposition to shale-gas exploration [17].

With respect to REEE, the Republicans endorsed the goal of 20 percent of energy from renewables by 2025, and REEE was anticipated to play a large role in achieving the party’s goal of a zero-carbon French energy industry by 2023. The party platform included the promise to “reinforce renewable energy development” and to improve energy efficiency via a national renovation program for old buildings that consume the most energy [16]. As a candidate in 2017, François Fillon also called for the implementation of tax incentives for individuals and companies who fund RE projects, particularly the development of offshore wind turbines [17].

In contrast with the Republicans, the far-right National Front’s official presidential platform did not endorse the science of climate change or climate mitigation policy [18]. During the 2017 presidential campaign, party leader Marine Le Pen claimed not to be a “climate expert” and advocated further debate about the degree to which human activity is affecting the climate [19]. She expressed some skepticism of international commitments and emphasized that policies should be developed independently by each country [11].

However, the views of the National Front on fossil fuels, nuclear energy, and REEE were fairly similar to those of the Republicans. The presidential platform pledged to ban shale gas

extraction as long as "satisfactory environmental, safety and health conditions" were not being met, called for the development of hydrogen power to replace petroleum, and supported nuclear energy [18]. With respect to REEE, the party advocated "massive development of renewable energy (solar, biogas, and wood)" but proposed an immediate moratorium on wind power [18]. The National Front strongly supported energy efficiency and pledged to launch a "grand plan" for public building renovation and to make home insulation "a budgetary priority" [18]. Improving energy efficiency was linked to the goal of combatting energy poverty by reducing consumer energy costs.

In summary, the two parties differed significantly on the explicit endorsement of climate science and climate policy, but their views on specific energy policies were quite similar with the exception of support for wind energy.

## 3.2 Germany

### 3.2.1 Background

Germany has historically relied on coal and nuclear energy to power its electricity sector. The country has substantial brown lignite coal reserves, which it continued to use for electricity generation during this period. Prior to 2006 there were modest declines in those two sources of electricity and a corresponding increase in natural gas, but after 2006 the effect of decarbonization transition policies became more evident.

Germany has the following party structure: a center-right alliance that includes the Christian Democratic Union of Germany (CDU, Christlich Demokratische Union) and the Christian Social Union of Bavaria (Christlich-Soziale Union in Bayern, CSU); the Social

Democratic Party (Sozialdemokratische Partei Deutschlands, SPD, center-left); the Alliance '90/Greens (Bündnis 90/Die Grünen, environmental left); "the Left" (*Die Linke*, democratic socialism); the Free Democratic Party (Freie Demokratische Partei, FDP, economic liberalism, center-right); and Alternative for Germany (Alternative für Deutschland, far right and Euroskeptic). During the period 2005-2009 and again after 2013, the CDU/CSU governed in a "grand coalition" with the SPD, whereas in 2009-2013 it governed with the FDP. Chancellor Angela Merkel's party received a plurality in the 2017 election, but the far-right Alternative for Germany also gained seats in the Bundestag.

Germany's energy transition law, or the Renewable Energy Act (EEG, a law that was subsequently amended several times), was first approved in 2000, when the center-left SPD controlled the Bundestag. The law provided a strong investment environment for RE with a 20-year contract rate, and it also included a carbon tax. The latter received support from private-sector interests because revenues could be used to reduce health-care and social security expenditures of businesses. At the time, the conservative-liberal coalition (CDU/CSU and FDP) opposed the law. However, when it became governing coalition, there were significant divisions and changes over support for energy-transition policies and the degree to which they should be reduced or phased out. In 2009 Chancellor Merkel decided to slow the decline of nuclear energy and the rise of RE due to concerns with costs and technical issues such as stable baseload power, but after the Fukushima disaster in 2011, she reversed course and agreed to accelerate the phase-out of nuclear and to move toward a target of 80% RE by 2050. In 2016, the German government under Merkel banned natural gas exploration through hydraulic fracturing technologies "indefinitely," thus blocking a possible coal-to-gas transition, but the

German Parliament was scheduled to reassess the rule in 2021. The simultaneous decline of nuclear energy and rise of RE led to continued use of domestic brown lignite coal, which had support from the labor segment of the coalition partner SPD. The absence of nuclear energy as baseload power to smooth the intermittency of solar and wind has therefore led to a combination of decarbonization with modest, arguably short-term recarbonization associated with brown lignite. It has also led to concern with increased electricity prices, but in general there is consensus among the mainstream parties in support of decarbonization.

The sections that follow compare the center-right parties with the far-right Alternative for Germany in the 2017 election. Because the Christian Democratic Union had governed since 2007, its platform of energy policies was largely based on justifications for continuing the existing policies.

### 3.2.2 Comparison of Party Goals for the 2017 Election

In the 2017 platform statement, the center right CDU/CSU alliance highlighted their concern with climate change and the global importance of the problem [20]. They argued that economic growth and prosperity should not be viewed in opposition to the environment but rather as two sides of the same coin. They linked climate-change mitigation to a pan-European and global effort: “That's why Europe is tackling climate change and environmental protection, which is why we stand by the global Climate Agreement of Paris” [20]. The parties underscored their support for the 2015 Paris agreement even though the U.S. had withdrawn [20]. The parties rejected “dirigiste” approaches and endorsed reliance on market mechanisms to achieve the climate-mitigation goals set in Paris [20].

The parties confirmed their commitment to a long-term RE transition and a nuclear energy phase-out. Their platform also noted that the transition from coal should be accompanied by economic development in affected coal-producing regions [20] and that there should be a decarbonization of world energy with a substantial curtailment of fossil fuels by the end of the twenty-first century [20]. Although the parties defended the increasing reliance on RE, they also noted that they had achieved cost reductions [20]. Future plans included the integration of energy for buildings, heat, and transportation; improvements in energy storage and grid efficiency; and the use of market mechanisms to achieve climate-mitigation goals [20]. These projects were linked to the goal of reducing energy costs. The parties did not elaborate specific energy-efficiency goals but noted that Germany was a world leader in this industry [20].

The far-right Alternative for Germany Party program for the 2017 election acknowledged the existence of climate change but denied the anthropogenic contribution, noting that climate changes have occurred throughout earth's history [21]. The party's political program opposed climate mitigation policy because it "is based on hypothetical climate models, which in turn are based on computer-generated simulations of the IPCC" [21]. The document discussed how the IPCC models were "not backed by quantitative data and measured observations" and how the models have been unable to predict the relative stability of global mean temperature that has occurred since the turn of the century [21]. It also asserted that because rising levels of atmospheric CO<sub>2</sub> support plant growth and "world nutrition," they should be promoted rather than restricted. Regarding climate policy, AfD associated decarbonization in Germany with "massive restrictions on personal and economic liberties" and argued that compulsory emissions reductions stifle industry and reduce standards of living by

compromising power supply and raising energy prices [21]. The party proposed the elimination of “all financial burdens” on emissions and the withdrawal of state sponsorship from all climate-protection organizations [21].

AfD claimed that continued reliance on fossil fuels was necessary to ensure a “safe, affordable, and environment-friendly power supply” [21]. The party promised to explore domestic options for new hydraulic fracturing technologies (“fracking”) for shale gas and to repeal the fracking ban implemented by German Federal Parliament in 2015. AfD emphasized the need to educate citizens about “the economic and political benefits of fracking in comparison to its real risks” [21]. The party also supported nuclear energy and condemned Germany’s “hasty” nuclear phase-out, which made the country reliant on “insecure foreign nuclear power plants” [21]. AfD proposed a lifetime extension on operating nuclear plants while alternative energy options are explored [21].

AfD also opposed RE on grounds that it is cost-prohibitive and unreliable. AfD promised to “scrap the German Renewable Energy Act (EEG),” a policy it claimed is “akin to a state-directed economy” via “massive state subsidization of generators that would not be economically viable otherwise” [21]. It portrayed both solar and wind energy as unviable alternatives to conventional generation because they produce power intermittently. Energy storage, a possible solution to the problems of intermittency, was rejected on grounds that the cost of building storage facilities would make power unaffordable. With respect to wind turbines, the party noted that they were “eyesores” and threatened birds. The party claimed that the EEG raised consumer energy prices and facilitated “a gigantic redistribution of wealth from population and enterprises to a few subsidies receivers” [21]. Abolishing the EEG, along

with the RE subsidies and energy taxes it includes, would provide “immediate financial relief” [21].

Regarding energy efficiency, AfD pledged to “protect tenants and owners” by abolishing the German Energy Saving Regulations (EnEV) and the German Renewable Energy Heat Act (EEWärmeG) [21]. The former improves energy efficiency by creating standards for building insulation, and the latter requires building heat to come from renewable sources as much as possible. Furthermore, the party claimed that building insulation is dangerous, causing “inadequate air circulation...as well as algal and fungal growth” in buildings [21].

In summary, Germany provides a sharp contrast between the center-right and far-right parties on the full range of energy-transition policies. The center-right party coalition supports climate mitigation through fossil-fuel phase-outs and continued RE development, whereas the far-right AfD endorses a recarbonization transition by advocating for rollbacks of RE policy and a renewed reliance on domestic fossil-fuels.

### 3.3 The Netherlands

#### 3.3.1 Background

The Netherlands has the second highest natural gas reserves in Europe after Norway, and coal and natural gas have long dominated the country’s electricity system. There has been a slow and modest decarbonization transition in the electricity system, with RE sources growing to over 12% by 2016, and some electrification has occurred in the transportation system. However, the Dutch government benefits from oil-and-gas tax revenue, and the otherwise progressive country is not considered a leader in the decarbonization transition.



During the 2007-2017 period the Netherlands was controlled first by the Christian Democratic Appeal coalition (CDA, 2002-2010, center) and then by the People's Party for Freedom and Democracy (Volkspartij voor Vrijheid en Democratie, VVD, 2010-, center-right). Under the centrist Christian Democratic Appeal coalition government in 2007, energy-transition goals included a 30% carbon reduction from the 1990 level by 2020, a 2% annual energy efficiency improvement, and 20% RE by 2020. In 2013 the center-right People's Party for Freedom and Democracy government adopted the Energy Agreement for Sustainable Growth, which had slightly lower targets for emissions reductions (17% by 2020), energy efficiency (1.5% per year), and RE (14% by 2020 and 16% by 2023). The People's Party for Freedom and Democracy also supported off-shore wind development as part of its 2013 coalition agreement [22]. The reduction of coal-fired power plants was a contentious issue. In 2015 the Dutch House of Representatives passed a non-binding resolution to close all coal plants, and in the same year a Dutch court ruled in favor of a lawsuit brought by the environmental group Urgenda to require the government to take measures to prevent climate change. Although five coal plants were closed between 2013 and 2017, three new plants came on-line in 2016, and five remained operational as of 2017. The government also appealed the court decision.

The analysis that follows compares the positions of the center-right People's Party for Freedom and Democracy and the far-right Party for Freedom (Partij voor de Vrijheid, PVV) for the 2017 election. Because the Party for Freedom did not publish a fully articulated party platform, the analysis was supplemented with statements by party leader Geert Wilders.

### 3.3.2 Comparison of Party Goals in the 2017 Election

In its 2017 election program, the center-right People's Party for Freedom and Democracy highlighted the country's particular vulnerability to sea level rise as well as the government's responsibility to reduce CO<sub>2</sub> emissions and mitigate warming [23]. The election program included support for an international commitment to emissions reduction. However, it opposed stronger national regulations because they incentivize companies to "move to countries where the rules are less strict" [23]. The country's "small share in global emissions" was emphasized to justify the need for international rather than domestic policy [23]. The party platform included support for European emissions trading schemes but stressed the need to reduce the number of available CO<sub>2</sub> permits in order to increase the cost of emissions and to incentivize investment in clean technology [23].

With respect to fossil fuels and REEE, the party expressed concern for the Netherlands' dependence on fossil fuels imported from "dubious regimes like Russia and the Middle East," a problem that was expected to intensify as the country's natural gas supplies decline [23]. The solution included "finding alternative ways of generating energy and dealing sparingly with [fossil fuels]" [23]. The People's Party for Freedom and Democracy also supported RE development along with "clear and less complex regulations" to strengthen innovation and job creation [23]. The party pledged to amend the Netherlands' existing RE stimulus scheme to shift resources from "the most obvious [generation] techniques" to "innovation and promising techniques" provided by clean-energy research and start-ups [23]. Although the party accepted government subsidies for REEE, it noted that subsidies were expected to decrease over time as renewable technologies become cheaper [23]. The party also called for the removal of existing tax barriers that discourage distributed solar generation and pledged to incentivize

improvements in household insulation [23]. The party also advocated a free household energy assessment program to encourage residents to reduce energy consumption for lower energy bills [23].

In contrast with the center-right party, the far-right Party for Freedom made no mention of climate change or climate policy, although statements on the party's website suggested opposition to emissions reductions agreements [24]. This issue was not salient in a campaign focused on anti-immigrant politics, but party leader Geert Wilders also expressed skepticism of the anthropogenic contribution to climate change and suggested that there was a "limited connection between CO<sub>2</sub> emissions and climate" [25].

With respect to fossil fuels and REEE, the far-right party did not indicate any intent to transition from a fossil-fuel energy system. The party supported conventional power generation for being cheaper and more economically efficient than renewables [24]. Party leader Geert Wilders expressed support for coal generation and advocated removing the national tax on hydrocarbon fuels that had been in place in the Netherlands since 1992 [26]. In its 2017 election program, the party labeled RE development "an assassin [of the] economy," which would raise energy prices and cost the Netherlands "tens of thousands of jobs" [24]. The party advocated the immediate end to all RE subsidies so as to "let the market do its job" in allocating energy production [24]. The party also highlighted its opposition to government subsidies of wind energy as part of its general opposition to state spending on "development aid, windmills, art, innovation, [and] broadcasting" [24].

In summary, the far-right Party for Freedom rejected climate policies and RE subsidies as part of its markedly different positions from the center-right People's Party for Freedom and

Democracy. As with the far-right French party, wind power was especially targeted for opposition.

### 3. 4 Poland

#### 3.4.1 Background

Poland has a powerful coal-mining industry, and its electricity system is powered nearly entirely by coal. By 2017 employment in the industry had fallen from a peak of 400,000 to approximately 100,000, but the industry remained important politically. Support for continued coal production was motivated by the need to support domestic coal-industry jobs, to address international security considerations such as dependence on Russian supplies, and to provide for rapid demand growth that is more characteristic of a developing economy than an advanced European economy. To some degree both major parties supported continued reliance on coal, but they also endorsed increased energy diversity to enable energy security and reduced dependence on Russian supplies. The political economy of energy put the country on a collision course with decarbonization directives from the European Union, and the country sought and gained approval for lower goals and a slower transition pace.

During the 2007-2017 period, control of the office of prime minister alternated between two parties: the Law and Justice Party (Prawo i Sprawiedliwość, PiS, 2006-2007, right), the Civic Platform Party (Platforma Obywatelska, PO, 2007-2015, center-right, governing with the Polish People's Party), and again the Law and Justice Party (2015-present). Both parties have opposed the EU policies on energy transitions, but the Civic Platform's opposition was more moderate. The Civic Platform Party attempted to reduce foreign energy dependence by continuing the use

of coal and by developing energy efficiency, nuclear energy, natural-gas pipelines, and domestic natural gas. At a 2013 United Nations climate change conference hosted in Poland, Prime Minister Donald Tusk of the center-right Civic Platform Party supported greenhouse-gas emissions reductions provided that they did not threaten economic growth [27]. Under the Civic Platform Party, the government twice vetoed the 2012 EU energy roadmap and conceded only when further resistance was futile. Members of the Civic Platform Party also opposed the Renewable Energy Act of 2015, which included stable feed-in tariffs to small-scale RE producers [28]. The law was eventually approved with support from other parties. Furthermore, Civic Platform member and former Polish President Bronislaw Komorowski also tried to impose stricter limitations on wind farms [29].

The transition of power to the Law and Justice Party after the 2015 elections did not entail a dramatic shift in energy policy. Like Civic Platform, Law and Justice highlighted the need for energy security, supported natural gas infrastructure development, and advocated for continued reliance on the country's coal industry [30]. However, the Law and Justice Party more strongly supported reliance on domestic coal, and in 2016 the government approved a law that severely curtailed new wind-energy production by increasing the distance that windmills could be located from homes [28]. Because the Law and Justice Party was associated with far-right anti-immigrant and Euroskeptic positions, it provides a suitable comparison party to the more center-right Civic Platform Party. The analysis focuses on the 2015 election, which was the last election during the 2007-2017 period.

### 3.4.2 Comparison of Party Goals in the 2015 Election

In its 2015 party program statement, Civic Platform noted that the party would “continue to secure effectively the interests of Poland in the EU's climate policy in 2007,” but it added, “We’re realistic” [31]. It noted that the EU process could not be stopped and that the party would “pursue the realities of the EU's climate policy so that it does not undermine the competitiveness of the Polish economy” [31]. Likewise, during the campaign party leader Konrad Niklewicz, Managing Director of the Citizens Institute, commented, “We believe that climate policy is a fact. We must live with it, and we must find such a place in this European context in order to ensure, above all, energy security for citizens, for the Polish economy, but also to strive to pursue the overriding objectives of climate policy” [32].

With respect to fossil fuels and REEE, Civic Platform emphasized the need for a diffuse future energy mix that includes more investments in coal, natural gas, and nuclear energy [32]. It also emphasized European infrastructure development to improve the security of energy supply [32], and it stated plans to double the number of natural gas transportation pipelines and to increase natural gas storage capacity [32]. The party platform did not discuss REEE development, which is consistent with its policy positions described above.

The far-right Law and Justice Party adopted a much more strongly oppositional stance on EU climate policy as part of its more general Euroskeptic position. Its program statement called the Paris Agreement a “fatal decision” brought on by political corruption and interference of other European nations into Poland’s affairs [33]. The party opposed EU climate policy and emissions trading, citing the “risk of lowering GDP, increasing unemployment, and impeding energy production” [33]. The party promised to renegotiate the 2007-2008 EU Climate and Energy Package in order to exempt Poland from all requirements.

Like the Civic Platform Party, the Law and Justice Party advocated expansion of energy sources in order to improve energy security, and it also advocated fossil-fuel development. The party claimed that carbon-rich energy resources are Poland's greatest economic asset and that domestic fossil-fuel extraction will "ensure the competitiveness of the Polish economy" and form "the basis of the country's energy security" [33]. The party pledged to expand state investment in coal and to use coal as the "primary Polish energy source" [33]. It also planned to "strengthen domestic liquid fuel production potential" by opening new supply routes for crude oil, to invest in shale gas extraction to create jobs and to guarantee stable income, and to reduce the tax rate on all fossil-fuel investments [33].

The Law and Justice Party rejected the "dogmatic" principles behind RE development and proposed that "funds wasted on non-productive energy experiments will be directed towards investments aimed at reducing energy losses and investment in conventional energy" [33]. The party noted numerous problems with wind energy, including nuisance when located near residences, risks to grid stability, and the expense of supporting complementary baseload power [33]. However, it indicated support for on-site RE such as solar, biomass, municipal waste, and hydropower.

In summary, both parties claimed that the EU directives were inappropriate for the Polish economy, but the parties differed on how to respond to the directives. Both parties were also strongly supportive of the coal industry and of natural-gas development and infrastructure. The center-right Civic Platform party was silent on REEE, but its policies indicated lack of support, and the Law and Justice Party was strongly critical of wind power but supportive of some other forms of REEE.

### 3. 5 Spain

#### 3.5.1 Background

Spain's energy policy is conditioned by its limited fossil-fuel resources. Natural gas is available, but extraction has been controversial, and domestic coal is of low quality and more expensive than imported coal. This situation has facilitated support for a decarbonization transition, and by 2015 69% of the country's electricity came from nuclear and RE sources.

During the 2007-2017 period Spain was governed by two political parties: the Spanish Socialist Workers Party (Partido Socialista Obrero Español, PSOE, 2004-2011, social democratic) and the People's Party (Partido Popular, PP, 2011-, center-right). Under the Socialist Workers Party in 2007, Spain approved policies in support of RE targets and a feed-in tariff. These policies and the National Renewable Energy Action Plan, which established a target of 20% RE by 2020, set the stage for Spain's high growth for RE [34].

Under the center-right People's Party, the Spanish government had a more mixed record on energy-transition policies. In 2012 the government ruled that the feed-in tariff no longer applied to new solar installations, and in 2015 it approved a controversial solar tax. In 2013 the People's Party changed regulations to support natural-gas fracking technology, and in 2014 it also overturned multiple regional moratoria on natural-gas fracking, citing the "exclusive competence of the state to regulate the management of the energy sector" [35]. In 2015 the People's Party amended Spain's hydrocarbon law to facilitate investment in shale gas extraction and to overcome social resistance to the practice. Despite these moves toward a recarbonization transition and against decarbonization, in 2015 party leader and Spanish Prime



Minister Mariano Rajoy praised the “historic” Paris climate agreement [36], and he promised to introduce a law that would facilitate climate mitigation while preserving economic growth [37]. Moreover, in 2016 People’s Party Climate Spokesperson Belén Bajo conveyed her party’s continued support for the Kyoto Protocol, the European 2020 and 2030 emissions targets, and the Paris Accord [38].

Spain does not have an influential far-right political party that voices Euroskepticism and anti-immigration politics. However, the marginal party Vox, which was formed in 2013 by disaffected members of the People’s Party, has policy positions that are analogous to some far-right populist parties, and it developed ties with the National Front Party of France. Energy is not a central concern of Vox; instead, the party opposes separatism and European immigration policies, and it supports a strong central government and traditional values. It achieved only 1.5% electoral vote for the European Parliament elections in 2014 and also failed to win seats in the Spanish parliament. The comparison that follows draws primarily on party documents from the 2016 election.

### 3.5.2 Comparison of Party Goals in the 2016 Election

In its 2016 election program, the center-right People’s Party emphasized the importance of rapid climate mitigation and compared the threats posed by climate change to those of terrorism, global pandemics, and instability in the Middle East [39]. The party promised to comply with international emissions agreements, to reduce carbon emissions, and to “participate actively and constructively” in future international negotiations to “lead the fight against climate change” [39].

With respect to fossil fuels and RE, the party remained consistent with previous policies described above. It pledged to finance reactivation of the coal-mining districts in northern Spain and to establish an energy system in which domestic fossil fuels continue to play a role [39]. Despite the party's support for natural gas development, it called for a shift from fossil-fuel electricity generation to a nuclear and renewable-based energy system. It promised to "maintain our commitment to sustainable energy" [39]. The platform included tax exemptions for RE installations and promised to reduce administrative burdens to encourage rapid implementation of sustainable technologies. The People's Party also laid plans for electric-vehicle charging stations and incentives for electric and biofuel-powered transportation [39].

The People's Party portrayed energy efficiency as a "central pillar" of its 2016 platform because it "saves costs, reduces imports, improves competitiveness, and contributes to environmental sustainability" [39]. The party pledged to invest more than €1800 million over four years to improve the efficiency of desalination, outdoor municipal lighting, and public and private transportation [39]. It also planned to "facilitate audits and energy certification" for small businesses and to "develop a market for energy efficiency certificates" [39]. The party supported household installation of smart meters to "facilitate the consumer's availability of information... so one can better manage one's energy" [39].

For the far-right party Vox, climate change and environmental policies in general were not a priority. Its relatively sparse official statements are broadly consistent with the policies of the People's Party. In the 2016 platform statement "Hacer España Grande Otra Vez" (Make Spain Great Again), the proposals on energy focused on economic efficiency, competitiveness, and other approaches based on economic liberalism [40]. The party recognized the need to

mitigate greenhouse gases but also voiced concern for energy security and affordability, and it called for better infrastructure connections with Europe and more energy-efficiency measures. Unlike the overt rejection of climate science in some of the other far-right European parties, the focus was on economic liberalization and price containment. For example, the party warned that leadership by the E.U. on climate-mitigation policies without similar commitments from other world regions could hurt domestic businesses.

With respect to fossil fuels and REEE, there were no explicit statements in Vox's 2016 platform regarding fossil fuels, but Vox's support of economic liberalization and security of supply is consistent with the People's Party's support for continued development of domestic natural gas supplies. Party leader Santiago Abascal also supported natural-gas fracturing technologies to develop domestic energy resources. In its 2016 party platform, Vox advocated support of energy efficiency, and it proposed to eliminate fees on electricity that is both produced and consumed by a consumer. The change would mean modifying the unpopular provision of the People's Party's 2015 "solar tax" that imposed fees on solar energy produced for self-consumption.

In summary, the differences between the two parties in Spain were modest. Vox was not as explicitly supportive of climate mitigation agreements as the People's Party, but both parties were broadly supportive of domestic energy development, including natural gas, and they highlighted the importance of energy efficiency.

## 3.6 The United Kingdom

### 3.6.1 Background

The U.K.'s electricity system is heavily reliant on fossil fuels with some nuclear energy [41]. Since the early 1990s the electricity sector underwent a fossil-to-fossil transition with a phase-out of petroleum and a reduction in coal coupled with increased reliance on natural gas. During the 2007-2017 period political power oscillated between the Labour Party (1997-2010, center-left) and the Conservative Party (2010-, center-right). The Labour Party's signature policies in this area were the 2008 Climate Change Act, which established a target of 80% reduction in greenhouse-gas emissions by 2050, and the 2009 Low Carbon Transition Plan. The subsequent Conservative government under Prime Minister David Cameron began with policies favorable to decarbonization, such as the 2011 Carbon Plan and 2012 Green Deal program. However, under pressure from the party's right wing, Cameron retreated from his promise to be the "greenest government ever" [8] and steadily unwound support for a decarbonization transition [10]. The Conservative Party cut subsidies for solar and wind energy, ended its Green Deal program, ended its zero-carbon home initiative, and cut subsidies for green automobiles [42]. In 2016, Cameron's successor, Prime Minister Theresa May, abolished the U.K. Department for Energy and Climate Change and transferred its functions to the Department for Business, Energy, and Industrial Strategy. In 2017, the party also ended tax breaks for small-scale solar producers and increased rates for businesses with rooftop solar installations.

The comparison that follows is based on campaign documents for the center-right Conservative Party and the far-right United Kingdom Independence Party (UKIP) for the 2017 election.

### 3.6.2 Comparison of Party Goals in the 2017 Election

The Conservative and Unionist Party's 2017 platform asserted the importance of combatting climate change, hailed Britain as a leader in climate policy, and pledged to "continue to take a lead in global action against climate change" [43]. Attention was drawn to Conservatives' roles in passing the 2008 Climate Change Act, ratifying the 2015 Paris Agreement, and seeing Britain halfway to its 2050 emissions reduction goals. Climate action, along with aiding development and combatting human trafficking, was portrayed as evidence of Britain's "influence for good around the world" [43].

With respect to fossil fuels, the Conservative Party supported continued investment in North Sea fossil-fuel extraction, which it claimed resulted in "more than £300 billion in tax revenue and...thousands of highly-skilled jobs" that the industry provides [43]. The party pledged to "ensure that the sector continues to play a critical role in our economy and domestic energy supply, supporting further investment in the UK's natural resources" [43]. The Conservatives also supported exploration of shale gas, pointing to the "revolution" that discovery of shale gas brought to the United States [43]. Their rationale included lower consumer prices, independence from foreign oil supplies, and emissions reductions because shale is "cleaner" than coal [43].

With respect to REEE, the party avoided explicit targets; instead, it proposed to "form our energy policy based not on the way energy is generated but on the ends we desire—reliable and affordable energy" [43]. New RE technology was promoted as an "industrial opportunity" for growth while fulfilling international climate commitments, but government intervention to promote RE was downplayed [43]. Although the party's 2017 manifesto opposed onshore wind, it promised to "maintain our position as a global leader in offshore

wind and support the development of wind projects in the remote islands of Scotland” [43].

The manifesto advocated energy efficiency as a route to lower energy prices and a more competitive economy, proposing an “industrial energy efficiency scheme to help large companies install measures to cut their energy use and their bills” [43].

In its 2017 manifesto, the far-right UKIP adopted significantly different positions. It promised to repeal the 2008 Climate and Energy Pact, which it claimed has “no basis in science,” and to withdraw the country from both the 2015 Paris Agreement and the E.U. emissions trading scheme [44]. UKIP emphasized the “eye-watering” costs of climate policies and claimed that RE and emissions reduction goals were “unachievable” [44]. Climate policy, UKIP argued, created high commercial energy prices, forced materials manufacturers to relocate to countries with lower environmental standards, and cost Britain “jobs and investment” [44]. Repealing climate policy would halt this process, keeping manufacturers in Britain and strengthening the domestic economy.

With respect to fossil fuels and REEE, UKIP supported fossil-fuel power generation as part of “a diverse energy market based on coal, nuclear, shale gas, conventional gas, [and] oil” [44]. The party advocated an end to the United Kingdom’s 20 percent value added tax on fossil fuels, and it supported increased investment in fracking technologies for shale gas, which it claimed was safer than coal and would create jobs and increase domestic energy security [44]. UKIP supported RE initiatives only “when they can be delivered at competitive prices” [44]. It pledged to remove “taxpayer-funded subsidies from unprofitable wind and solar schemes” [44]. These measures, UKIP claimed, would reduce household energy bills and ensure a more

internationally competitive manufacturing industry. UKIP did not address energy efficiency but did voice support for a nationwide transition to zero-emission motor vehicles [44].

In summary, even though the center-right party had shifted to much less supportive positions on decarbonization than at the beginning of the Cameron administration, there were sharp differences in the U.K. between the Conservative Party and UKIP. The latter rejected climate science and was opposed to existing RE support policies.

Table 2. Summary of Party Positions on Energy-Transition Policies

|                               | <b>France</b>   | <b>Germany</b>   | <b>The Netherlands</b>   | <b>Poland</b>                                      | <b>Spain</b>  | <b>United Kingdom</b>   |
|-------------------------------|---|--|--|--|---|---|
| <i>Climate Policy</i>         |   |  |  |  |   |   |
| Moderate Conservative Parties | Strongly supportive                                   | Supportive but with denuclearization   | Supportive but some roll-backs                                 | Supports climate mitigation but opposes EU rules   | Broadly supportive of the need for decarbonization                    | Supports climate mitigation but some roll-backs in policy       |
| Far-Right Parties             | Ambivalent  | Rejection of climate science, critical of financial burdens of decarbonization | Rejection of climate science and opposition to decarbonization | Opposes Paris agreement and EU climate policy      | No rejection of climate science but focus on costs and liberalization | Rejection of climate science and opposition to decarbonization  |
| <i>Fossil-Fuel Policy</i>     |   |  |  |  |   |   |
| Moderate Conservative Parties | Zero-carbon goal, close coal plants, opposes fracking | Continued use of coal, long-term phase out, ban on fracking                    | Continued use of coal amid modest REEE transition              | Continued use of coal, supports gas infrastructure | Supports fracking and northern coal districts                         | Support for continued oil extraction and more fracking          |
| Far-Right Parties             | Opposes fracking                                      | Supports coal and fracking   | Continued use of fossil fuels                                  | Continued use of coal, increased natural gas       | Supports fracking   | Strong support for fossil fuels and fracking                    |
| <i>REEE Policy</i>            |   |  |  |  |   |   |
| Moderate Conservative Parties | Supports REEE   | Supports REEE but some roll-backs  | Modest support for REEE  | Roll-backs on solar and wind support               | Roll-backs on solar but support for efficiency                        | Roll-backs for solar but support for off-shore wind, efficiency |
| Far-right Parties             | Supports REEE except wind power                       | Opposes REEE on cost grounds   | Opposes REEE subsidies, wind                                   | Some REEE support except wind                      | End to sun tax, support for efficiency                                | Opposes REEE subsidies  |



#### 4. Analysis

This review reveals a general pattern in which support for climate mitigation policy and REEE is higher in the moderate conservative parties, and support for fossil fuels is higher in the far-right parties. This finding is not surprising, but the review also reveals differences in the divergence of party positions across the countries. (See Table 2.) Whereas the far-right and center-right parties diverge sharply in the northern European countries of Germany, the Netherlands, and the U.K., there are several convergences between the center-right and far-right parties in Spain and France. As a coal-based country with a rapidly growing economy, the Polish parties show strong consistency with each other and substantial differences from the EU policy guidance.

##### 4.1 Climate-Climate Mitigation

Of the six center-right parties, official statements and those of party leaders did not question the existence of climate change or its connection to anthropogenic greenhouse gas emissions. Climate mitigation was seen as a public responsibility and policy priority because rising levels of atmospheric carbon dioxide and the associated warming trend were seen to threaten development (German Christian Democrats), public health (French Republicans), and coastal cities (Dutch People's Party for Freedom and Democracy). All parties expressed support for international mitigation policy except Poland's Civic Platform Party, which opposed EU mitigation regulations as inappropriate for Poland but accepted them as a political reality that had to be accommodated. All but the Civic Platform also supported *national* emissions

regulation, although the Dutch People's Party for Freedom and Democracy stressed the importance of international agreements over national commitments. The moderate conservative parties emphasized the compatibility of climate mitigation with continued economic prosperity, and they portrayed technological innovation in clean energy production as central to mitigating climate change without hampering economic growth.

Of the six right-wing parties, four expressed at least some skepticism of climate science, climate mitigation agreements, or both. The exceptions were Law and Justice of Poland, which did not mention climate science in its official manifesto or public statements, and Vox of Spain, which focused more on energy costs and liberalization.

#### 4.2 Fossil Fuels

The center-right parties had mixed views on fossil-fuel extraction, use, and/or infrastructure development. The Polish Civic Platform, Spanish People's Party, and UK Conservative Party proposed expanding domestic fossil-fuel infrastructure and natural gas extraction to create jobs, to stimulate investment, and to secure energy independence. In contrast, the German Christian Democrats embraced the aspirational goal of transitioning away from reliance on fossil fuels, but the effect of simultaneously winding down nuclear energy with an increase in RE and a ban on natural-gas hydraulic fracturing technology was an increase, at least in the near term, of reliance on coal. The Dutch People's Party for Freedom and Democracy equivocated on fossil fuels in its platform statement, and as the governing party it took steps to move away from coal, but it backtracked on its commitments and allowed new coal plants to open. The French Republicans had the most clearly oppositional policies to fossil

fuels: they advocated closing coal-power plants, opposed fracking for natural gas, and supported reliance on nuclear energy, which was France's primary power source.

All six right-wing parties supported continued or increased use of fossil fuels, which were viewed as necessary to ensure reliable, affordable power and domestic energy security. The French National Front, Dutch Party for Freedom, and UKIP opposed existing taxes on hydrocarbon fuels on grounds that they hurt the poor and stymie economic competitiveness and growth. The National Front, Alternative for Germany, Vox, and UKIP supported exploration and extraction of shale gas, while the Dutch Party for Freedom and Polish Law and Justice Party also focused on maintaining and even expanding the existing use of coal and natural gas reserves.

#### 4.3 REEE

As with climate mitigation, the center-right parties generally expressed some support for REEE, but several parties also supported limitations and, in some cases, roll-backs of REEE support. They generally argued in favor of RE development based on compatibility with the goals of energy independence and innovation, and they viewed efficiency improvements as desirable for cost savings. Policies advocated by the French Republicans, the German Christian Democrats, and the Dutch People's Party for Freedom and Democracy included RE subsidies and tax breaks. The Dutch People's Party for Freedom and Democracy, the Spanish People's Party, and the British Conservative Party also proposed programs for energy efficiency. However, when in government the center-right parties have had mixed records on REEE: the German Christian Democrats, Spanish People's Party, and British Conservative Party cut the RE

subsidies and tax incentives often in the name of economic liberalization and competitiveness. The Polish Civic Platform party also opposed a feed-in tariff.

Four of the six right-wing parties opposed RE outright, whereas France's National Front and the Spanish Vox expressed limited support for some forms of RE. Across the board renewables were framed as expensive or cost prohibitive. Five parties (the National Front, Alternative for Germany, Dutch Party for Freedom, Polish Law and Justice, and UKIP) opposed policies favoring RE and aimed to reduce energy costs by scrapping RE tax breaks and subsidies. Vox supported some solar tax breaks but opposed other subsidies in the name of economic liberalization. The National Front, Alternative for Germany, Party for Freedom, Law and Justice Party, and UKIP advocated restricting or banning wind development. These parties tended to have more strongly oppositional statements regarding wind power than they did for distributed solar or energy efficiency. However, only the National Front and Vox were strongly supportive of energy efficiency. Alternative for Germany explicitly opposed efficiency programs for being expensive and for making buildings unsafe.

## 5. Conclusion

The anti-globalization and anti-immigration policy positions characteristic of far-right, European populist parties have been accompanied by opposition to energy-transition policies, but the opposition varies considerably across parties. Types of opposition include rejection of climate science or skepticism of it, lack of support for decarbonization policies adopted by the EU or international bodies, and opposition to REEE (especially wind energy), whereas there is more support for continued use of fossil fuels and increased use of natural gas through

hydraulic fracturing technologies and pipeline infrastructure. However, the review shows that the linkage between far-right parties and opposition to energy-transition politics is not uniform across countries. The French and Spanish far-right parties were much more supportive of REEE, especially energy efficiency. Although the review excluded the Italian parties for reasons given above, this pattern of support for REEE policy also appears in an election program statement for the major far-right Italian Party, which indicated support of RE and carbon-neutral cities [45]. Thus, the far-right parties of linguistically and culturally similar countries of France, Spain, and Italy have more modest positions in comparison with the northern far-right parties of Germany, the Netherlands, and the U.K. The review suggests caution with attempts to paint the far-right parties' energy politics with a single, broad brush stroke. Furthermore, it suggests that some areas of REEE policy may be more palatable to the far-right parties than others. For example, wind energy received the sharpest criticism, whereas distributed solar energy and energy efficiency received more support.

There is also substantial variation among the moderate-conservative parties. In France, Germany, the Netherlands, Spain, and the U.K., center-right party leaders have continued to voice support for the decarbonization transition, although in practice these parties have wavered on some issues and rolled back some decarbonization policies. At the other extreme, Poland's center-right Civic Platform Party has positions that are similar to those of the far-right populist parties although without the rejection of climate science and with grudging recognition that Poland has little choice but to accept EU policy directives.

These differences suggest the value of thinking about the connections between conservative politics and energy-transition policy through the lens of "divided conservatism,"

which draws attention to divisions between moderate and far-right conservative politics and divisions within moderate and far-right parties. Where conservative parties are politically dominant, this approach may help to identify policy issues that may be more fertile ground for building political support for energy-transition policy. Specifically, a focus on energy-efficiency policy in combination with economic innovation and consumer cost savings frames may be palatable across a wide range of conservatives. Likewise, although onshore wind energy accompanied by government subsidies draws sharp opposition, other types of RE, such as distributed RE, receive more support.

The analysis has limitations that point to areas for future research. First, it focuses on party platform statements, which are aspirational and may not be implemented when and if a party comes to power or is returned to power. There are many other ways to measure party differences, such as public opinion polls of voters who identify with a particular party or party-line votes on important legislative actions, and these other approaches might be used to complement analyses of party platforms. A second limitation is that the review of party positions does not provide an explanation of the linkage between far-right parties and opposition to energy-transition policies. Natural resource endowments, market conditions, the general EU policy environment, as well as broader structural conditions and ideologies that are spurring the development of far-right politics, have been used for this kind of explanatory project [3; 28].

Notwithstanding its limitations, the review draws attention to the importance of studying opposition to energy-transition policy on the conservative side of the political spectrum. If such opposition continues to gain ground, researchers who study REEE policy will

need to pay greater attention to the divisions within conservative politics. The connection between far-right parties and opposition to energy-transition policies is not universal, as is indicated by the relatively moderate energy politics of the far-right parties in some countries and by the tendency for far-right parties to be supportive of some types of REEE policies. Additional comparative analysis could facilitate better understanding of the conditions under which far-right parties may adopt more moderate positions on energy-transition policies. Although there is need for ongoing research on more technical topics in the field of REEE policy research, these important strands of research tend to assume a supportive policy environment. The many good policy proposals developed in this literature will remain on the shelf if the political will for ongoing policy support is drying up.

#### References:

- [1] Beck U. Climate for change, or how to create a green modernity? *Theor Cult Soc* 2010;27(2-3):254-66.
- [2] Schreurs M. Is Germany really an environmental leader? *Curr Hist* 2016;115(779):114-16.
- [3] Lockwood M. Right-wing populism and the climate change agenda: exploring the linkages, *Environ Polit* 2018;27(4):712-732.
- [4] Markard J, Suter M, Ingold K. Socio-technical transitions and policy change: advocacy coalitions in Swiss energy policy. *Environ Innov and Soc Transit* 2016;18:215-37.
- [5] Geels F. Regime resistance against low-carbon energy transitions: introducing politics and power into the multi-level perspective. *Theor Cult Soc* 2014;31(5):21-40.

- [6] Lauber V, Jacobsson S. The politics and economics of constructing, contesting, and restricting socio-political space for renewables. *Environ Innov and Soc Transit* 2016;18:147-63.
- [7] Rosenbloom D, James M. The journey towards decarbonization: exploring socio-technical transitions in the electricity sector in the province of Ontario (1885–2013) and potential low-carbon pathways. *Energy Policy* 2015;65:670-9.
- [8] Carter N, Clements B. From “greenest government ever” to “get rid of the all the green crap”: David Cameron, the conservatives, and the environment. *Brit Polit* 2015;10(2):204-25.
- [9] Dunlap R; McCright A. Organized climate change denial. In: Dryzek J, Norgaard R, Schlosberg, D, editors. *The Oxford handbook of climate change and society*, Oxford: Oxford University Press; 2011, p. 144-60.
- [10] Gillard R. Unravelling the United Kingdom’s climate policy consensus: the power of ideas, discourse, and institutions. *Glob Environ Chang* 2016;40:26-36.
- [11] Jeffries E. Nationalist advance. *Nat Clim Change* 2017;7:469-71.
- [12] Young N, Coutinho A. Government, anti-reflexivity, and the construction of public ignorance about climate change: Australia and Canada Compared. *Global Environ Polit* 2013;13(2):89-108.
- [13] Hess D, Mai QD, Brown KP. Red states, green laws: ideology and renewable energy legislation in the United States. *Energy Res Soc Sci* 2016;11:19-28.
- [14] World Resources Institute. CAIT climate data explorer, <https://www.climatewatchdata.org/countries>; 2018 [accessed 6 October 2018].



- [15] Gemenis K, Katsanidou A, Vasilopoulou S. The politics of antienvironmentalism: positional issue framing by the European radical right, <https://ris.utwente.nl/ws/portalfiles/portal/6153509>; 2012 [accessed 6 October 2018].
- [16] Les Républicains. Majorité pour la France: projet de l'union de la droite et du centre, <http://www.astrid-online.it/static/upload/lr-e/lr-elections-legislatives-projet.pdf>; 2017 [accessed 6 October 2018].
- [17] Fillon2017. Environnement et transition énergétique, <https://www.actu-environnement.com/media/pdf/news-28621-fillon-environnement-energie-transport.pdf>; 2017 [accessed 6 October 2018].
- [18] Front National. 144 Engagements présidentiels: Marine 2017, <https://www.rassemblementnational.fr/pdf/144-engagements.pdf>; 2017 [accessed 6 October 2018].
- [19] Timperley J. French election 2017: where the candidates stand on energy and climate change. Carbon Brief. 3 July, <https://www.carbonbrief.org/french-election-2017-where-candidates-stand-energy-climate-change>, 2017 [accessed 6 October 2018].
- [20] Christlich Demokratische Union und Christlich-Soziale Union. Für ein Deutschland in dem wir gut und gerne leben. Regierungsprogramm 2017-2021, <https://www.cdu.de/regierungsprogramm>; 2017 [accessed 6 October 2018].
- [21] Alternative for Germany (AfD). Manifesto for Germany: the political programme of the Alternative for Germany, [https://www.afd.de/wp-content/uploads/sites/111/2017/04/2017-04-12\\_afd-grundsatzprogramm-englisch\\_web.pdf](https://www.afd.de/wp-content/uploads/sites/111/2017/04/2017-04-12_afd-grundsatzprogramm-englisch_web.pdf); 2016 [accessed 6 October 2018].

- [22] Veerhees B, Raven R, Kern F, Smith A. The role of policy in shielding, nurturing, and enabling off-shore wind development in the Netherlands (1973-2013). *Renew and Sustain Energy Rev* 2015;47:816-29.
- [23] Volkspartij voor Vrijheid en Democratie (VVD). Zeker Nederland: VVD verkiezingsprogramma 2017-2021, [http://www.vvd.nl/content/uploads/2016/11/vvd\\_verkiezingsprogramma\\_pages.pdf](http://www.vvd.nl/content/uploads/2016/11/vvd_verkiezingsprogramma_pages.pdf); 2016 [accessed 6 October 2018].
- [24] Partij Voor de Vrijheid. Duurzame energie als sluipmoordenaar van de economie, <http://www.pvv.nl/index.php/component/content/article?id=6563:duurzame-energie-als-sluipmoordenaar-van-de-economie>; 2017 [accessed 6 October 2018].
- [25] Global Warming Guide. Wilders over klimaatverandering, <https://www.youtube.com/watch?v=FfDV5Kt86Wc>; 2015 [accessed 6 October 2018].
- [26] Avery, Laurel. Renewable energy in the Netherlands lagging. *DutchReview*, <https://dutchreview.com/news/dutch-news/renewable-energy-in-the-netherlands-lagging>; 2016 [accessed 6 October 2018].
- [27] Chancellory of the Prime Minister. Prime Minister at the climate summit: we cannot play for time when it comes to the climate. Kancelaria Prezesa Rady Ministrów, <https://www.premier.gov.pl/en/news/news/prime-minister-at-the-climate-summit-we-cannot-play-for-time-when-it-comes-to-the-climate.html>; 2013 [accessed 6 October 2018].
- [28] Szulecki K. Poland's renewable energy policy mix: European influence and domestic soap opera. Working paper 2017: 01, Center for International Climate Research, University of

- Oslo, <https://www.cicero.oslo.no/en/publications/internal/2861>; 2017 [accessed 6 October 2018].
- [29] Derski B. President Duda—little promise of change for energy policy lines. WysokieNapiecie, <http://wysokienapiecie.pl/energy-poland/777-energy-policy-poland-president-duda-law-and-justice>; 2015 [accessed 6 October 2018].
- [30] Labelle M. A state of fracking: building Poland’s national innovation capacity for shale gas. *Energy Res and Soc Sci* 2015;23:26-35.
- [31] Program Platformy Obywatelskiej RP. Polska przyszłości, <https://mamprawowiedziec.pl/file/22970>; 2015 [accessed 6 October 2018].
- [32] Chojnacki, Ireneusz. 2015. PO i PSL: polityka energetyczna urzeczywistnia się w polityce rządu, <http://www.wnp.pl/parlamentarny/gospodarka/po-i-psl-polityka-energetyczna-urzeczywistnia-sie-w-polityce-rzadu,312.html>; 2015 [accessed 6 October 2018].
- [33] Prawo i Sprawiedliwość. Program Prawa i Sprawiedliwości 2014, [http://www.pisblonie.pl/image/files/program\\_pis\\_2014.pdf](http://www.pisblonie.pl/image/files/program_pis_2014.pdf); 2014 [accessed 6 October 2018].
- [34] Government of Spain. Spain’s national renewable energy action plan, 2011-2020, [http://pvtrin.eu/assets/media/PDF/EU\\_POLICIES/National%20Renewable%20Energy%20Action%20Plan/202.pdf](http://pvtrin.eu/assets/media/PDF/EU_POLICIES/National%20Renewable%20Energy%20Action%20Plan/202.pdf); 2010 [accessed 6 October 2018].
- [35] Planelles M. El Gobierno rechaza las moratorias autonómicas contra el “fracking.” *El País*. 15 December, [https://politica.elpais.com/politica/2014/12/15/actualidad/1418671947\\_398848.html](https://politica.elpais.com/politica/2014/12/15/actualidad/1418671947_398848.html); 2014 [accessed 6 October 2018].

- [36] Duggan J. Mariano Rajoy gives seal of approval to Paris climate change agreement. The Olive Press, 14 December, <http://www.theolivepress.es/spain-news/2015/12/14/mariano-rajoy-gives-seal-of-approval-to-paris-climate-change-agreement>; 2015 [accessed 6 October 2018].
- [37] Fresneda C. Cumbre del clima de París: Rajoy promete una ley de cambio climático y descarta 'impuestos verdes,' El Mundo. 30 November, <http://www.elmundo.es/ciencia/2015/11/30/565c5cd4268e3e3f708b4593.html>; 2015 [accessed 6 October 2018].
- [38] Partido Popular. La lucha contra el cambio climático es uno de los objetivos prioritarios de la política medioambiental del gobierno. Populares. 24 November, <http://www.pp.es/actualidad-noticia/lucha-contra-cambio-climatico-es-uno-objetivos-prioritarios-politica>; 2016 [accessed 6 October 2018].
- [39] Partido Popular. Seguir avanzando 2016-2020: programa electoral para las elecciones generales de 2016, <http://www.pp.es/sites/default/files/documentos/programa2015.pdf>; 2016 [accessed 6 October 2018].
- [40] Vox. Hacer España grande otra vez, <http://www.voxespana.es/wp-content/uploads/2015/12/Programa-electoral-VOX-26-J.pdf>; 2016 [accessed 6 October 2018].
- [41] Geels F, Kern F, Fuchs G, Hinderer N, Kungl G, Mylan J, et al. The enactment of socio-technical transition pathways: a reformulated typology and a comparative multi-level analysis of the German and UK low-carbon electricity transitions (1990-2014). *Res Policy* 2016;45(4):896-913.

- [42] Vaughan A, MacAlester T. The nine green policies killed off by Tory government. The Guardian. 24 July, <https://www.theguardian.com/environment/2015/jul/24/the-9-green-policies-killed-off-by-tory-government>; 2015 [accessed 6 October 2018].
- [43] Conservative and Unionist Party. Forward together: our plan for a stronger Britain and a prosperous future, <http://www.conservatives.com/manifesto>; 2017 [accessed 6 October 2018].
- [44] United Kingdom Independence Party. Britain together: UKIP 2017 manifesto, [https://d3n8a8pro7vhmx.cloudfront.net/ukipdev/pages/3944/attachments/original/1495695469/UKIP\\_Manifesto\\_June2017opt.pdf?1495695469](https://d3n8a8pro7vhmx.cloudfront.net/ukipdev/pages/3944/attachments/original/1495695469/UKIP_Manifesto_June2017opt.pdf?1495695469); 2017 [accessed 6 October 2018].
- [45] Fratelli d'Italia. Il voto che unisce l'Italia. Il programma in 15 punti, <http://www.fratelli-italia.it/programma.pdf>; 2017 [accessed 6 October 2018].