

Christian Downie*

Ad hoc coalitions in the U.S. energy sector: Case studies in the gas, oil, and coal industries

Abstract: In the field of business and politics, research on the role of business actors in individual fossil fuel industries that contribute to climate change has been sparse. At the same time theorising the role of ad hoc coalitions has been limited even though they appear to be an important vehicle for business actors seeking to shape contemporary policy contests. This paper attempts to address these understudied areas by drawing on a rich empirical dataset to examine the role of three ad hoc coalitions in the U.S. energy sector. In doing so, it builds on the existing literature to establish a theoretical basis for identifying the defining elements of ad hoc coalitions and the conditions under which business actors decide to establish them. Further, it sheds light on how business actors use ad hoc coalitions in three key fossil fuel industries—gas, oil, and coal—to shape policy outcomes, and in turn shape the path to a clean energy transition.

Keywords: ad hoc coalitions, business actors, United States, energy, climate

doi:10.1017/bap.2018.18

1. Introduction

In recent decades mounting scientific evidence has highlighted the contribution of business actors to the problem of climate change. For example, one study estimates that two-thirds of global greenhouse gas emissions are the result of less than one hundred companies, many of which operate in the energy sector,

Acknowledgements: Thank you to the editors and three anonymous reviewers for their very thoughtful comments on the paper. I would also like to acknowledge feedback from colleagues at the International Studies Association Annual Conference 2018 and I am grateful to the participants who agreed to be interviewed for this project. Alexis Farr provided helpful research assistance.

***Corresponding author: Christian Downie**, School of Regulation and Global Governance (RegNet), The Australian National University, Canberra ACT, 2601, Australia; Email: christian.downie@anu.edu.au; Tel.: +61 2 6125 4438

principally, the oil, gas, and coal industries.¹ This has been matched by growing interest in the political behavior of business actors in these fossil fuel industries, and their attempts to shape policy outcomes, and in turn, affect the path to a clean energy transition. However, growing interest has not been matched by scholarly enquiry, and the behavior of business actors in individual fossil fuel industries remains understudied.²

At the same time, in the field of business and politics, there is also limited theorizing of the role of “ad hoc coalitions,” despite the fact that such informal coalitions have been used by business actors since the 1970s and continue to be used today, including in the energy sector.³ For example, recent policy contests in the United States suggest that firms in the gas, oil, and coal industries have established ad hoc coalitions to advance or oppose regulations in ways that complement or contradict the positions taken by formal industry associations that have historically represented firms in these industries. Accordingly, given that policy outcomes in the energy sector will shape the development of clean energy technologies—the focus of this special issue—and that such outcomes will be influenced by business behavior this coalition type appears significant and worthy of attention.

This paper attempts to address these understudied areas in the literature by examining the role of ad hoc coalitions that were created by business actors in the gas, oil, and coal industries during President Obama’s second term (2013–17) when contests over climate and energy policy were at the fore. So, who are the business actors in these industries? In the U.S. oil and gas industries the principal business actors are the so-called “supermajors.”⁴ Shell is the largest oil and gas corporation operating in the United States based on annual revenues, which totalled \$421 billion in 2014,⁵ followed by ExxonMobil, BP, Total, and Chevron, among others, including ConocoPhillips, which has the largest share of domestic oil production.⁶ In addition, many of these firms are fully integrated, which means that they produce oil and gas, but also refine crude oil into products such as gasoline and diesel fuel oil. Other corporations that dominate the refining industry, such as Valero Energy, only operate refineries.⁷

In the coal and utility industries, the principal business actors between 2012 and 2016 were Peabody Energy, Arch Coal, and Alpha Natural Resources, which

1 Heede (2014).

2 Levy and Folk (2002); Meckling (2011); Skjaerseth and Skodovin (2003); Newell and Paterson (1998); Kim et al. (2016); Hart (2004).

3 Barley (2010).

4 Sampson (1975).

5 Shell (2015).

6 Witter (2015a).

7 Ibid. (2015b).

made up the top three coal companies based on production, and they are followed by well-known companies including Cloud Peak Energy, Rio Tinto, Murray Energy, and Westmoreland Coal, among others.⁸ Alongside the coal producers are the electric utilities that burn coal to generate electricity. Among the investor-owned utilities, Duke Energy is the largest based on market capitalization, followed by NextERA Energy, Dominion Resources, and Southern Company, among many more.⁹

One of the principal ways that business actors in these industries seek to engage in policy contests is via coalitions and the most prominent are formal industry associations, which are based around shared industrial preferences. For example, in the oil and gas industries the major industry associations are the American Petroleum Institute (API), the American Natural Gas Association (ANGA),¹⁰ and the Independent Petroleum Association of America (IPAA), while the principal industry association for refiners is the American Fuel and Petrochemical Manufacturers (AFPM). The American Coal Council (ACC) and the National Mining Association (NMA) have been the main industry associations for coal producers, and the principal industry association for investor-owned utilities is the Edison Electric Institute (EEI), which has over 250 members operating across the United States.¹¹ Many of these associations and the firms that comprise them are also members of the peak organizations that represent business interests across the economy, notably the Business Roundtable, U.S. Chamber of Commerce, and the National Association of Manufacturers.

While such formal business associations are easy to identify given that many have been around for decades, with permanent buildings and staff, ad hoc coalitions are not. In part, this derives from their characteristics as temporary coalitions, established to fight a single policy contest, which typically disband once the policy contest is over.¹² In addition, in some cases they are created in secret with names that obscure their agendas.¹³ This may explain why such coalitions are often overlooked in the literature and why few studies have considered what defines an ad hoc coalition.¹⁴ Further, there is no scholarly work on the role of ad hoc coalitions in the U.S. energy sector, despite the fact that they appear to exist across a number of industries.

8 EIA (2015)

9 EEI (2014).

10 In November 2015, it was announced that ANGA would fold into the API to form a single trade association.

11 EEI (2014).

12 Berry (1984).

13 Barley (2010).

14 Pijnenburg (1998); Mahoney (2007).

Accordingly, this paper aims to contribute to the existing literature on informal coalitions by improving the conceptual clarity around two questions: first, what are ad hoc coalitions? And second, why do business actors establish them? This paper seeks to answer these questions by examining the creation and operation of three ad hoc coalitions in the U.S. energy sector, namely America's Energy Advantage, the CRUDE Coalition, and the Partnership for a Better Energy Future. These cases were selected because they have important characteristics that are similar. First, the ad hoc coalitions were all established at similar times—the period of the Obama administration—to contest policy contests at the Federal level. Second, they were all attempts to maintain the status quo. In other words, they were established to oppose new policies. This is important because previous research has shown that the choice of business strategy is often determined by the decision to support or oppose the status quo.¹⁵ Third, given that the decision to lobby individually or collectively can also be affected by the size of the firm, each case involved large multinationals. These were not coalitions of small businesses.¹⁶ Further, the cases were selected to vary across three incumbent fossil fuel industries that will be vital to future efforts to achieve a clean energy transition, namely oil, gas, and coal. Accordingly, these cases allow high levels of internal validity, and while the findings will not be applicable to business behavior everywhere, they will be generalizable to cases that meet similar conditions.

Data were collected from primary sources, such as coalition websites, testimony, and interviews, and from secondary sources including newspaper articles and published works. However, given the limited publicly available data on these coalitions, I primarily relied on semi-structured interviews to understand the operation of the coalitions and the reasons behind their creation. Between 2014 and 2015 I conducted seventy-one interviews the vast majority of which were face-to-face with senior executives and lobbyists from energy corporations and industry associations. I targeted respondents either directly intimate with the actors engaged in the policy contests or with the coalition themselves. Although there are always risks of bias with such elite interviews,¹⁷ these were mitigated by cross checking against other primary and secondary sources.

Drawing on this rich data set, this paper makes a theoretical and empirical contribution. First, it builds on the existing literature to establish a theoretical basis for identifying the defining elements of ad hoc coalitions and the conditions under which business actors decide to establish them. Second, it sheds light on

15 Baumgartner et al. (2009).

16 Hillman et al. (2004, 1999); Figueiredo et al. (2014).

17 Berry (2002).

how business actors use ad hoc coalitions in three key fossil fuel industries—gas, oil, and coal—to shape contemporary policy contests. Because the outcome of such contests will be vital to shaping the trajectory of the clean energy transition, including the development of clean energy technologies, a better understanding of coalition building in these industries will be of importance to scholars and policymakers.

The paper proceeds as follows. The next section develops a theoretical basis for considering the role of ad hoc coalitions. The empirical section that follows documents three ad hoc coalitions and focuses on the elements that define each as an ad hoc coalition and the factors that explain their creation. The article concludes with a discussion of the broader theoretical and empirical implications of the findings.

2. Understanding ad hoc coalitions

2.1 What are ad hoc coalitions?

In the fields of political science and public policy there is a rich literature on coalition building.¹⁸ Much of the scholarly work has focussed on the role that coalitions of state and non-state actors play in determining outcomes. For example, by examining the role of advocacy coalitions,¹⁹ discourse coalitions,²⁰ or transnational advocacy networks.²¹ Scholars have also looked specifically at coalitions of business actors. Over recent decades, numerous studies have documented the growth in business mobilization and the increased amount of resources business actors devote to national politics, especially in the United States.²² Within this literature, coalitions are generally considered to be sets of actors who coordinate efforts to some degree to advance common policy agendas.²³ However, the form they take and the means by which they coordinate varies considerably from formal coalitions to informal coalitions.

At the formal end of the spectrum are coalitions that maintain durable relationships among their members, coordinate their activities, and often do so across multiple issues. In the United States, formal business coalitions have

18 Schattschneider (1960).

19 Sabatier (1988).

20 Hajer (1993).

21 Betsill and Bulkeley (2004); Keck and Sikkink (1998).

22 Shaffer (1995); Vogel (1989); Figueiredo et al. (2014).

23 Baumgartner et al. (2009).

been pervasive with industry, sectoral, and economy wide business associations a common feature of the landscape.²⁴ The rise of these types of coalitions occurred in the 1960s and 1970s when business actors' growing political engagement led to the establishment and reinvigoration of an array of business associations to represent their interests. For example, between 1960 and 1987 the number of industry specific associations with offices in Washington, D.C. doubled.²⁵ Peak associations, such as the U.S. Chamber of Commerce, went from an organization with tens of thousands of members in the 1960s to one with hundreds of thousands in the 1990s, and today it remains one of the most important non-government actors in the United States.²⁶

At the informal end of the spectrum are coalitions that are less durable, coordinated, or broadly focused. While such coalitions have received less attention in the literature, in part, because they are not as easy to identify, they are typically referred to as "ad hoc coalitions." So, what are they? Building on the work of Berry (1984), Pijenburg (1998), and Mahoney (2007), ad hoc coalitions can be identified by four defining elements, that is their informal structure; temporary duration; single-issue focus; and the autonomy of their members—see [table 1](#).

First, and arguably most importantly, is their informality. Typically, ad hoc coalitions do not establish a formal organizational structure or have a fixed membership, and membership carries limited obligations. For example, members of an ad hoc coalition are unlikely to be required to devote significant resources to the coalition. The firm or association that helped to establish the coalition will often act as the leader and members will meet on a semi-regular basis to share information, discuss preferences, and negotiate their strategy.

Second, ad hoc coalitions are designed to be temporary and are often established for a short period of time, such as several months or years. As a result, in many cases they do not have permanent buildings or staff. Instead they tend to operate out of the offices of existing law firms that lobby on behalf of business actors and their presence is only discernible via their online presence and public activities. Once the policy contest is over, their reason for being ceases, and they typically disband.

Third, ad hoc coalitions are almost always established to contest a single legislative or regulatory issue. In other words, ad hoc coalitions are single-issue coalitions. For example, rather than focusing on a policy domain, such as oil and gas in the same way that the API does, or focusing on the utility sector in the same way

²⁴ Vogel (1989).

²⁵ Ibid.

²⁶ Barley (2010), 783–84.

Table 1: Identifying ad hoc coalitions

Primary elements	Informal structure Temporary duration Single-issue focus Autonomy of members
------------------	---

that the EEI does, ad hoc coalitions instead focus on a single issue, such as the export of oil, or restrictions on coal-fired power plants.

Fourth, while the membership of an ad hoc coalition may be homogenous, involving firms and associations from the same industry, or it may be heterogeneous, involving firms and coalitions across multiple industries, the members of the coalition will have considerable autonomy. For example, members of an ad hoc coalition that agree on a common policy issue may choose to pursue different strategies to achieve that policy objective using the individual resources of their firm or other associations to which they belong.

These four elements are considered the primary elements of an ad hoc coalition because if a coalition is not informal and temporary, it quickly resembles the characteristics of a formal coalition, such as an industry association. Likewise, if a coalition focuses on multiple issues, and membership carries specific obligations, such as all members must pursue a particular strategy, then again it is unlikely to be an ad hoc coalition. Other elements that are sometimes associated with ad hoc coalitions, such as limited public visibility,²⁷ may be characteristic of an informal coalition, but they are not a defining feature. In reality, it will not always be possible to distinguish between the precise characteristics of a coalition, and these four elements will be more useful as a guide than a rule for identifying coalitions.

2.2 Why do business actors establish ad hoc coalitions?

Once the defining characteristics of an ad hoc coalition have been established, the question that follows is why do business actors create them? Before answering this question, it is useful to first consider the interests that underpin the actions of business actors, and second, to consider the alternative options business actors have at their disposal. First, the role of interests is well established in the literature.²⁸ Business actors are generally considered to be instrumentally rational actors that use the available information and resources to pursue their commercial interests.

²⁷ Berry (1984).

²⁸ Woll (2008).

This is the assumption of most studies in political science and related fields, which assume firm preferences are a function of their commercial interests and managers will be concerned about the distributive effect government regulation will have on firm profitability.²⁹ While some studies emphasize the collective interests of business, such as when all firms in an industry or a sector face a common threat, since the 1950s, business unity in the United States has been relatively uncommon.³⁰ Instead, in most cases, legislative or regulatory debates will have different costs and benefits for different industries and different firms within the same industry.³¹

Second, business actors' decision to establish an ad hoc coalition will be made in the context of the alternative options available. In essence, business actors have three options: lobby individually; lobby collectively via a formal coalition (be it a new or existing one); or lobby via an ad hoc coalition, which can be considered an intermediate option between the first two. I will consider each option in turn.

On option one, the traditional view in the literature is that firms will lobby individually when they can secure unique benefits or benefits that accrue exclusively to individual firms.³² The classic example is trade policy. Firms are expected to lobby individually when they target a tariff on their own product that directly increases their profits, rather than when they target tariff protection for the entire industry.³³ For example, Kim et al. (2016) argue, in the context of emissions trading, that individual utilities on the winning side have strong incentives to engage in individual lobbying to shape the details of the legislation in ways that increase their own profits, such as users of renewable energy preferring specific provisions to promote renewables.³⁴

On option two, it is expected that firms will lobby collectively when they can overcome the problem of collective action. It is generally assumed, based on Olson's (1965) theory, that firms will not lobby collectively if it is costly to lobby and firms cannot localise the benefits of their lobbying efforts. This is because firms will have incentives to free ride on the efforts of others if the coalition is supporting a policy that, for instance, provides benefits across a sector.³⁵ Accordingly, firms will be more likely to lobby collectively when the net benefits of doing so exceed those of lobbying individually, or doing nothing.³⁶ For example, coal producers may be

29 Boddewyn and Brewer (1994); Shaffer (1995); Stigler 1975.

30 Smith (2000); Hart (2004).

31 Keohane et al. (1998).

32 Figueiredo et al. (2001).

33 Bombardini et al. (2012).

34 Kim et al. (2016).

35 Olson (1965); Figueiredo et al. (2001).

36 Figueiredo et al. (2001); Hansen et al. (2005).

willing to act collectively to block new restrictions on coal-fired power plants if they are unable to prevent them on their own, yet all will benefit from such action.³⁷

In this context, why do business actors establish ad hoc coalitions? In what follows, I suggest four factors that help to explain why business actors take the third option and establish an informal coalition rather than lobbying individually, or collectively through a formal coalition. Each of the factors is directly related to the primary elements of an ad hoc coalition.

- (i) Business actors create an ad hoc coalition because existing coalitions adopt a position they do not support.

Business actors join coalitions to represent their interests.³⁸ However, if an industry association takes a position that is at odds with the position of some members of the association, those firms may choose to create a new coalition. Indeed, if a subset of firms believe that an existing industry association does not represent their interests across a range of issues, they will likely create a formal coalition to represent their position. For example, while the EEI represents investor-owned utilities, those utilities that have significant nuclear power in their generation portfolios are also members of a second coalition, the Nuclear Energy Institute, which is a formal coalition that focuses on the interests of nuclear utilities. This scenario is more common when the largest firms in a particular industry association persuade the coalition to take a position in line with their commercial interests, but which is at odds with smaller firms that do not have the clout to affect the position of the industry association.³⁹

However, in the context of a particular policy contest, such a sub-set of firms may instead establish an ad hoc coalition. First, the informal structure of an ad hoc coalition, including the limited obligations for members, means they can typically be established more easily and more quickly than a formal coalition allowing members to lobby collectively once it becomes apparent that existing coalitions have taken a position contrary to their interests. In part, this reflects the fact that ad hoc coalitions by definition rarely require members to commit significant resources, and hence the costs of lobbying that are often an impediment to collective action by firms are ameliorated.⁴⁰ Second, because ad hoc coalitions have a single-issue focus, they are well-suited to scenarios where a formal coalition takes a position on a specific issue that some members cannot support. For

³⁷ Kim et al. (2016).

³⁸ Martin and Swank (2012); Barley (2010).

³⁹ Hillman et al. (2004).

⁴⁰ Olson (1965); Gray et al. (1998).

example, if the EEI, which represents electric utilities, decides to support regulations on coal fired-power, utilities that oppose the regulations may choose to create a new informal coalition to represent their position. Yet, as noted, if the existing formal coalition does this across a range of issues then a new formal coalition may be established in the long term.

- (ii) Business actors create an ad hoc coalition because existing coalitions are not sufficiently engaged on a particular issue.

This scenario is likely to reflect one of two dynamics. Either the existing coalition deems that the issue is not a priority issue worth devoting scarce resources to. Or alternatively, the existing coalition is unable to reach a common position on the issue because of the diversity of member interests and therefore decides to take no position, rather than risk drawing the ire of many of its members.

Consequently, firms that have a stake in such a contest may decide to establish an ad hoc coalition specifically designed to engage on the issue. Again, such a decision is likely to be directly related to the primary elements of an ad hoc coalition. First, the single issue focus of an informal coalition permits a collection of firms to double-down on an issue, thereby demonstrating to policymakers the depth of support for the issue, which, as others have argued, can be vital for success.⁴¹ Second, the temporary duration of ad hoc coalitions means that firms that establish the coalition will limit the risks of jeopardizing their relationship with existing formal coalitions.⁴² This is because once the policy contest is over, such an informal coalition can be quickly disbanded making it easier for firms to return to the fold.

- (iii) Business actors create an ad hoc coalition when there is an entrepreneurial leader.

One of the problems for ad hoc coalitions is the coordination problem, namely mobilizing the actors, structuring the coalition, and managing it, even if only informally.⁴³ An entrepreneurial leader can help to ameliorate these costs if it is willing to take on the role of coordinating the coalition. An entrepreneurial leader can be a large well-resourced single firm, or it can be an existing grouping that has the capabilities to help establish a new coalition for the purposes of a specific contest.

In this case, an ad hoc coalition will be an attractive proposition to an entrepreneurial leader. First, this is because the coordination costs will always be lower

⁴¹ Mahoney (2007), 368.

⁴² Pijenburg (1998), 308.

⁴³ *Ibid.*, 307.

for a coalition with an informal structure that gives significant autonomy to its' members, than for a formal coalition that does not. Hence, the net benefits of collective lobbying through an ad hoc coalition may be higher than via a formal coalition in this particular scenario.⁴⁴ Second, because ad hoc coalitions typically operate for a few months or years; in other words, they are temporary—any costs that will be incurred by the leader will be temporary, too. There will be little expectation from other members that the firm or grouping should maintain this responsibility over the long-term.

- (iv) Business actors create an ad hoc coalition to coordinate their activities when an issue cuts across firms and industries that are not normally aligned.

Business actors typically form coalitions around shared interests and preferences, which is why firms in the same industry normally have their own industry association, such as the ACC for coal, or the NMA for mining. However, some legislative or regulatory debates cut across firms and industries that do not typically coordinate their activities because of their divergent commercial interests. For example, policies to establish an emissions trading scheme, may affect not just firms in the coal industry, or even the fossil fuel industries, but may also affect industries as varied as cement and agriculture depending on the design of the scheme.

In this context, business actors may decide that establishing an ad hoc coalition to coordinate their activities across these industries is the most effective way to promote their position. Scholars of regulation and governance often refer to these actors as “brokers” or “governing nodes” because they can act as a command center bringing together members of different organizations to pool resources, share information, and mediate conflicts to achieve a common purpose within a wider network.⁴⁵ There are several reasons why an ad hoc coalition is well suited to this role. First, as discussed, their informal structure can be attractive to firms because it limits the costs that typically impede such collective action.⁴⁶ Second, given that business actors are seeking to coordinate across firms and industries because of a specific contest, then a single-issue coalition rather than a formal industry association is seemingly most appropriate. And third, the temporary duration of an ad hoc coalition will be attractive to firms that have little reason to participate in such a coalition once the contest is over given their divergent interests.

⁴⁴ Figueiredo et al. (2001).

⁴⁵ Burris et al. (2005); Hervé (2014); Kauffman (2017).

⁴⁶ Olson (1965); Gray et al. (1998).

3. Three cases of ad hoc coalitions in the U.S. energy sector

In what follows three ad hoc coalitions are considered in the U.S. energy sector, one each from the gas, oil, and coal industries. That is, the creation of America's Energy Advantage in 2011, the CRUDE Coalition in 2014, and the Partnership for a Better Energy Future in 2015. The cases will be outlined in turn by focussing on the elements that define each as an ad hoc coalition and the factors that explain why business actors chose to establish them. Together they show how ad hoc coalitions are an important vehicle for business actors in the fossil fuel industries seeking to shape contemporary policy contests. [Table 2](#) provides an overview of the three cases.

3.1 America's Energy Advantage

The United States is now the largest producer of natural gas in the world as a result of the so-called shale revolution.⁴⁷ In 2011, the sharp increase in natural gas production led producers to lobby for restrictions on natural gas exports to be eased to make it easier to export to markets in Europe and Asia where prices for natural gas were as high as \$17 per million Btu compared to less than \$2 per million Btu domestically.⁴⁸ This sparked a bitter contest across the energy sector, especially from petrochemical manufacturers that benefited from the abundance of domestic gas supplies and did not want it exported.

At the time, the major gas producers, as well as the principal industry associations, namely the API, ANGA, and the IPAA, supported gas exports.⁴⁹ They were strongly supported by firms, such as ExxonMobil, Chevron, and ConocoPhillips, along with prospective gas exporters, including Cheniere Energy, Dominion Resources, and Sempra Energy.⁵⁰ Further, the peak business associations also championed the campaign for gas exports. In January 2013, the U.S. Chamber of Commerce came out in support of natural gas exports and it was joined by the National Association of Manufacturers, which represented manufacturers across the country, including petrochemical manufacturers.⁵¹

⁴⁷ EIA (2017).

⁴⁸ Ibid. (2016; 2011).

⁴⁹ Interview 40.

⁵⁰ Interviews 19 and 40; Ebinger and Avasarala (2013).

⁵¹ USCC (2013); Dempsey (2013).

Table 2: Three ad hoc coalitions

Ad Hoc Coalition	Primary Elements				Why established?
	<i>Informal structure</i>	<i>Temporary duration (approx.)</i>	<i>Single-issue focus</i>	<i>Autonomy of members</i>	
<i>America's Energy Advantage</i>	Yes	2013–2015	Natural gas exports	Yes	<ul style="list-style-type: none"> Existing coalitions adopt a position business actors do not support. Other existing coalitions are not sufficiently engaged on the issue. Entrepreneurial leader present.
<i>CRUDE Coalition</i>	Yes	2014–2016	Crude oil exports	Yes	<ul style="list-style-type: none"> Existing coalitions adopt a position business actors do not support. Other existing coalitions are not sufficiently engaged on the issue.
<i>Partnership for a Better Energy Future</i>	Yes	2014–2017	Clean Power Plan	Yes	<ul style="list-style-type: none"> To coordinate activities on an issue that cuts across firms and industries not normally aligned. Entrepreneurial leader present.

According to respondents, the decision of the Chamber of Commerce and the National Association of Manufacturers to support natural gas exports triggered a “food fight” in the business community.⁵² The resistance to the gas industry was led by Dow Chemical, one of the largest chemical and plastics manufacturers in the world, which relied on gas as a feedstock for its manufacturing plants. Dow argued that historically low gas prices had spurred a “manufacturing renaissance” in the United States with manufacturers planning to invest billions of dollars in new production facilities for the first time in over a decade. Yet Dow also argued that unrestricted exports could generate price increases and volatility that would threaten this renaissance.⁵³

It was in this context that in early 2013, Dow Chemical helped to establish America’s Energy Advantage. It was joined by other petrochemical manufacturers including, Alcoa, Eastman Chemical and Huntsmen Chemical, in establishing the coalition.⁵⁴ According to executives involved, the aim of America’s Energy Advantage was to “‘slow down’ the approval process for new [gas] export terminals” because they were enjoying the bounty of natural gas.⁵⁵ The longer gas exports were restricted, in their view, the longer domestic gas prices would remain low and their profit margins high.⁵⁶

America’s Energy Advantage had the defining elements of an ad hoc coalition. According to industry representatives it was a loose, informal coalition of petrochemical manufacturers established specifically to oppose the push to lift natural gas export restrictions.⁵⁷ The coalition established an online presence and Dow Chemical, which several respondents described as the “ringleader,” led the lobbying campaign against gas exports and other members participated at various points in the contest, lobbying the Obama administration and challenging the findings of economic studies that supported gas exports.⁵⁸ In other words, firms appear to have had autonomy and membership carried no significant obligations. Finally, when the restrictions on gas exports were ultimately eased permitting exports to Europe and Asia, the coalition was largely disbanded. For example, there is no longer any active public or online presence.

The evidence indicates that several of the factors that can help to explain the creation of ad hoc coalitions were present in the case of America’s Energy

⁵² Interview 20.

⁵³ Dow Chemical Company (2013).

⁵⁴ Interviews 10 and 20.

⁵⁵ Ibid.

⁵⁶ Interviews 10, 20 and 42.

⁵⁷ Interviews 19, 20, 35.

⁵⁸ Ibid.

Advantage. First, existing coalitions of which petrochemical manufacturers were members adopted a position they did not support. The National Association of Manufacturers, which includes petrochemical manufacturers among its members, could be expected to represent their commercial interests but failed to do so and instead came out in support of natural gas exports. The position of the association appears to have reflected the fact that some of its largest members, including ExxonMobil, were eager to increase natural gas exports.⁵⁹

Second, other coalitions, of which petrochemical manufacturers were members, did not engage on the issue. The AFPM, which represents oil and gas producers, refiners, and petrochemical manufacturers, did not take an active role in the policy contest because it was unable to establish a coherent common position given the diversity of its members' interests. For example, in a statement on gas exports the President of the AFPM, attempted to appease both camps within the association—gas producers and petrochemical manufacturers—by arguing that:

Rather than debating whether or not we should limit exports, U.S. policy should focus on fostering the opportunity provided through our abundant natural gas resources to create more jobs and strengthen American manufacturing.⁶⁰

Accordingly, without an industry association to represent its commercial interests, a decision was made to establish America's Energy Advantage as an ad hoc coalition. As one industry executive explained:

If it is an issue that is divisive, particular members take the issue out of the industry association and create "paid to play" lobbyists.⁶¹

Third, Dow Chemical took on the role of coalition leader. Having withdrawn as a member of the National Association of Manufacturers,⁶² Dow was willing to act as the entrepreneurial leader helping to mobilise other petrochemical manufacturers and manage the coalition informally.⁶³ As one of the largest petrochemical manufacturers in the world its willingness to do so reduced the costs of the coalition for other firms, however limited they may be in an ad hoc coalition.

3.2 The CRUDE Coalition

The boom in shale gas has been replicated in oil in the United States.⁶⁴ However, for forty years the United States had in place an effective ban on the export of crude

⁵⁹ Interview 35.

⁶⁰ AFPM (2013).

⁶¹ Interview 35.

⁶² *The New York Times*, 15 August 2013, "Foreseeing Trouble in Exporting Natural Gas."

⁶³ Interviews 10 and 20.

⁶⁴ EIA (2017).

oil. Oil produced domestically was to be consumed domestically. With the shale oil boom and surging production, much like gas, a price spread developed between the domestic price for crude oil—the West Texas Intermediate—and the international price—the Brent. Between 2011 and 2014 the price of the WTI averaged \$14 per barrel lower than the Brent.⁶⁵

Once again producers pushed to overturn the ban in order to access higher prices for their products on international markets. Many of the same business actors supported oil exports because it was in their commercial interests, including Shell, Exxon Mobil, and Chevron. And so too did the relevant industry and peak business associations. For example, in January 2014, the API called for an end to the “arbitrary” and “unfair limits” on oil exports. It was supported by the Chamber of Commerce and the National Association of Manufacturers.⁶⁶

However, further up the supply chain some oil refiners were opposed. The shale oil boom had “breathed new life” into refineries, which had been shutting down excess capacity until 2011. In addition to increased production, lower oil and gas prices also increased the international competitiveness of these operations.⁶⁷ As a result, according to oil refiners, an increase in the domestic oil price from “lifting export restrictions and sending our crude overseas” would mean that U.S. “refineries would lie dormant once again.”⁶⁸ Valero Energy was one of the first refiners to oppose lifting the ban, with its head William Klesse, arguing that unfettered exports of oil and gas will raise costs.⁶⁹

Consequently, in March 2014 in the midst of a series of Congressional hearings on energy, four independent refiners—Philadelphia Energy Solutions, Alon USA Energy, PBF Energy, and Monroe Energy—launched the CRUDE Coalition (Consumers and Refiners United for Domestic Energy) to oppose lifting the ban.⁷⁰ The CRUDE Coalition recognized that it was in a “David vs Goliath” battle with the oil industry and as a result, the aim was to slow down the push to lift the export ban.⁷¹ Its members, such as Monroe Energy, engaged in the types of inside and outside lobbying that would be expected, such as testifying before Congress and running advertising campaigns, though importantly, they also worked “to enlist additional allies” in their efforts to resist crude oil exports.⁷²

⁶⁵ GAO (2014), 7.

⁶⁶ Gerard (2014); USCC (2013).

⁶⁷ Warmann (2015); Khan (2013).

⁶⁸ Warmann (2015).

⁶⁹ Klesse (2013).

⁷⁰ *The Wall Street Journal*, 12 March 2014, “Refiners form coalition to fight exports of crude oil.”

⁷¹ *Business Industry and Connections Magazine*, 1 December 2015, “CRUDE Coalition wages ‘David vs. Goliath’ exports battle.”

⁷² *Ibid.*

Much like America's Energy Advantage, the CRUDE Coalition had the characteristics of an ad hoc coalition. It was informally organized, in other words, it did not have the formal organizational structure of a traditional industry association, and its single purpose was to oppose crude oil exports and this "galvanized the group."⁷³ The coalition set up temporary offices in Washington, D.C., with a very small staff led by the Executive Director Jay Huack, a public affairs consultant.⁷⁴ Membership carried few obligations and instead the CRUDE Coalition served as the focal point for the campaign, signaling to policymakers the depth of business opposition in the refining sector to crude oil exports. Other refiners, such as Valero Energy, worked alongside the CRUDE Coalition to oppose oil producers, though they did not join. In the end, the U.S. Congress overturned the ban on crude oil exports in December 2015, and the coalition disbanded closing their office space, shutting down their online presence, with lobbyists moving onto other policy domains.⁷⁵

The decision by oil refiners to establish the CRUDE Coalition reflected two main factors. First, the refiners' main existing coalition, the API, adopted a position they did not support. In fact, the API, which is the principal industry association for the oil industry, was leading the campaign for oil exports given it was dominated by large oil producers, such as ExxonMobil and Chevron, with independent refiners only comprising a minority of its membership.⁷⁶

Second, and paralleling the contest over gas exports, the AFPM decided not to actively engage on the issue because its membership was split, with actors, such as ExxonMobil, which produce oil and refine it, strongly supporting oil exports, while independent refiners opposed. As a result, as one representative of the refining industry put it, the AFPM "took a Pontius Pilate approach" because its position was compromised.⁷⁷ The AFPM's attempt to reconcile the conflicting interests of its members was evident in its submissions to Congress.

While we do not oppose lifting the existing restrictions on U.S. crude oil exports, we believe Congress should... [take] ... a holistic approach in such a way will ensure policies are not advanced in a manner that would not only disadvantage domestic refiners in a global marketplace, but could ultimately result in severe economic disruption. ...⁷⁸

73 Interview 16.

74 *Business Industry and Connections Magazine*, 1 December 2015, "CRUDE Coalition wages 'David vs. Goliath' exports battle."

75 *The Wall Street Journal*, 20 December 2015, "End of Oil-Export Ban Provides Blueprint for Bipartisan Compromise."

76 Interview 16.

77 *Ibid.* and 4.

78 AFPM (2014).

Accordingly, the creation of the CRUDE Coalition enabled independent refiners to actively engage in the policy contest in way that the AFPM was unable to. The CRUDE Coalition was not bound by the constraints of an industry association, and as a single-issue coalition it could devote all its efforts to defeating the push to permit crude oil exports. As one representative argued,

trade associations are tied down, they can't put enough lead on the target because of the diversity of their membership. So, we are creating these informal ad hoc coalitions.⁷⁹

3.3 The Partnership for a Better Energy Future

In 2013, President Obama launched the Clean Power Plan to address coal's contribution to climate change. The Environmental Protection Agency (EPA) was directed to establish carbon pollution standards, with the aim to reduce emissions from power plants by 30 percent from 2005 levels by 2030.⁸⁰ In response, much of the coal industry, the utility industry, and, for that matter, the broader business community mobilized to fight the regulations. For example, many of the largest coal producers, such as Peabody Energy and Alpha Resources, opposed the regulations, as did electric utilities that relied heavily on coal, such as Southern Company. In addition, the major industry associations, such as the ACC and the NMA, opposed the Clean Power Plan and, for the most part, so did the EEI, which represents electric utilities.⁸¹

It was in this context that, in January 2014, the Chamber of Commerce and the National Association of Manufacturers launched the Partnership for a Better Energy Future.⁸² It was established to lead the "business and industrial community in support of a unified strategy and message in response to the Administration's greenhouse gas (GHG) regulatory agenda."⁸³ It did so by tying together more than 200 coalitions including state and national associations from the mining, manufacturing, transport, farming, oil, and gas sectors, not to mention dozens of state chambers of commerce.⁸⁴ In the months that followed, members and industry associations under the umbrella of the Partnership actively fought the Clean Power Plan. For example, the Chamber of Commerce released analysis estimating that the EPA's plan would cost the economy \$51 billion a year by 2030 and almost a

79 Interview 16.

80 The White House (2013).

81 Downie (2017).

82 Interviews 14 and 35.

83 PBEF (2015).

84 Ibid.

quarter of a million jobs.⁸⁵ Other associations, such as the NMA, launched radio and online advertisements in key states warning of the impacts on the coal industry.⁸⁶ The Partnership also worked with other groups, such as the American Legislative Exchange Council (ALEC), a conservative not-for-profit organization, to develop model legislation to frustrate the implementation of the Clean Power Plan at the state level.⁸⁷

The Partnership had all the hallmarks of an ad hoc coalition. It had a very informal structure and carried few obligations for members, who had considerable autonomy in how they decided to oppose the Clean Power Plan. As one member explained: “It is informal ... we just get together now and again and divvy up tasks. If it’s too formal it’s too hard to get stuff done.”⁸⁸ As another industry representative described, “what we do is facilitate regularized interaction ... we don’t all agree on the minutiae, but that’s not the point.”⁸⁹ In response to the opposition from business, including the Partnership, in 2015, the Obama administration agreed to delay the implementation of the regulations,⁹⁰ and in February 2016, the U.S. Supreme Court granted a stay, stopping the implementation of the Plan.⁹¹ While the Partnership maintains a public website, it appears to have largely disbanded given that the Clean Power Plan was dead with the election of President Trump.

Unlike America’s Energy Advantage or the CRUDE Coalition, the main factor behind the creation of the Partnership as an ad hoc coalition was to coordinate the activities of business actors across firms and industries that do not normally align. In order to do so, the Partnership for a Better Energy Future acted like a command center tying together industry associations across almost every sector of the U.S. economy, including in the energy, mining, manufacturing, construction, and farming sectors. And, it helped to coordinate the business community’s response to the Clean Power Plan by facilitating regular interaction, sponsoring studies, and discussing strategy.⁹²

Further, by acting as the command center, the Partnership was able to “focus like a laser beam” on the target.⁹³ Single-issue ad hoc coalitions confer the

85 *The Guardian*, 31 May 2014, “Partnership for a Better Energy Future.”

86 *E&E News*, 20 May 2014, “Mining group rolls out ads in key states ahead of EPA climate rule.”

87 *The Washington Post*, 7 August 2015, “Shell Oil Will Drop Its Membership in ALEC, Citing Differences over Climate Change”; ALEC (2015).

88 Interview 23.

89 Interview 10.

90 *The New York Times*, 28 July 2015, “Later deadline expected on Obama’s climate plan.”

91 EPA (2015); *The Washington Post*, 9 February 2016, “Supreme Court puts the brakes on the EPA’s Clean Power Plan.”

92 Interview 10.

93 *Ibid.*

advantages associated with specialization because their narrow agenda permits more effective advocacy compared to that by an existing business association with competing objectives.⁹⁴ In other words, the Partnership enabled business actors to double-down on this issue and signal to policymakers the depth of opposition to the regulations.

Second, the evidence suggests that the Chamber of Commerce and the National Association of Manufacturers adopted the role of coalition leader. Whereas a single well-resourced firm took on this role in the case of America's Energy Advantage, namely Dow Chemical, here the role was played by the Chamber of Commerce and the National Association of Manufacturers. This is likely because together they had the necessary convening power to bring together different actors from a wide variety of industries.⁹⁵ As one respondent noted, while the Partnership had no permanent offices, participants met "every other week" in the offices of the Chamber of Commerce.⁹⁶

4. Conclusion

In the field of business and politics, the role of ad hoc coalitions and the role of business actors in the energy sector have been understudied. This paper has attempted to address these gaps by providing a rich empirical account of three ad hoc coalitions in the U.S. energy sector—America's Energy Advantage, the CRUDE Coalition, and the Partnership for a Better Energy Future—and using these to improve our conceptual clarity of the elements that define ad hoc coalitions and the factors that explain why business actors establish them.

First, the empirical case studies highlight the defining elements of an ad hoc coalition, namely their informal structure, temporary duration, single-issue focus, and autonomy of the members. Indeed, each of the ad hoc coalitions examined were characterized by their informality. For example, none of the coalitions had a formal organizational structure and membership carried limited obligations. This was perhaps most evident in the case of the Partnership for a Better Energy Future, which was simply a loose coalition of multiple actors across multiple industries that met regularly in the offices of the Chamber of Commerce to share information and discuss strategy. They were also temporary and single-issue coalitions. To the extent that they had offices and staff, these were disbanded within two or three years along with any online presence. This was because once

⁹⁴ Ibid.

⁹⁵ Interview 14.

⁹⁶ Interviews 4, 10, and 14.

the single regulatory or legislative issue they had been created to contest was over, their reason for being ceased. For example, America's Energy Advantage and the CRUDE Coalition were both disbanded shortly after the decision had been made to lift restrictions on gas exports and overturn the ban on oil exports. Further, to the extent that it is observable from the interview data, each of the three ad hoc coalitions appear to have set few limits on the behavior of members, who were free to pursue different strategies to pursue their common policy goal. For example, members of the Partnership for a Better Energy future simply agreed to oppose the Clean Power Plan, rather than sign up to a declared set of principles that required particular actions.

Second, the empirical cases also highlight the factors behind why business actors decide to establish ad hoc coalitions. Four factors appear to be present. One is that business actors create an ad hoc coalition because existing coalitions adopt a position they do not support. This was evident in both the case of America's Energy Advantage and the CRUDE Coalition. Key industry associations had taken a position in both contests that was at odds with some of its members. In the contest over gas exports, the National Association of Manufacturers championed exports and as a result petrochemical manufacturers, such as Dow Chemical, withdrew their membership in protest. Similarly, in the contest over oil exports, the API led the campaign for overturning the crude oil export ban despite the fact that some of its members, namely independent refiners, opposed this position. A second factor behind the creation of ad hoc coalitions was that existing coalitions were not sufficiently engaged on the issue, because they could not reach a common position given the conflicting interests of their members. The position of the AFPM, which typically represents the commercial interests of petrochemical manufacturers and refiners, was a classic example in both cases, as evident in the language of its submissions to Congress.

A third factor was that there was an entrepreneurial leader willing to take on the coordination role of the new coalition, which likely helped to overcome the costs of collective lobbying for other firms. In the first policy contest this was Dow Chemical and the in the third policy contest it was the Chamber of Commerce and the National Association of Manufacturers. In both cases these actors helped to mobilize other firms and associations and coordinate the coalition, albeit informally. A final factor that explains why business actors create ad hoc coalitions is to coordinate their activities when an issue cuts across firms and industries that are not normally aligned. For example, in the contest over the Clean Power Plan, the Partnership for a Better Energy Future was established precisely for this purpose, drawing together firms and business associations from numerous sectors of the U.S. economy, it acted as a command center facilitating

business actors to share information and negotiate strategies to oppose the EPA regulations.

These four factors suggest that business actors choose to establish ad hoc coalitions as an intermediate option between individual lobbying and collective lobbying via a formal coalition, because they confer specific advantages that are rooted in the defining elements of this coalition type. For example, their temporary duration and single-issue focus, as respondents in all three cases were quick to point out, allow firms to zero in on one issue and devote resources accordingly in a way that existing business associations with competing objectives cannot. This has the added advantage of demonstrating to policymakers the support within the business community of this position, which may have otherwise been less visible.⁹⁷ Another advantage for example, is that their temporary duration permits firms that establish the coalition to limit the risks of jeopardising their relationship with existing formal coalitions. This is because once the contest is over such an informal coalition can be quickly disbanded making it easier for firms to return to the fold. This has certainly been the case with Dow Chemical, which withdrew its membership from the National Association of Manufacturers to establish America's Energy Advantage, only to return to the industry association once the contest over gas exports was over.⁹⁸

While these are not the only advantages discussed in this paper, what they demonstrate is that ad hoc coalitions are likely to be an important vehicle for business actors in incumbent fossil fuel industries seeking to shape contemporary policy contests, and therefore, shape the path toward a clean energy transition. Several respondents claimed that while ad hoc coalitions are not new, they "are happening more now,"⁹⁹ in part because the information age and modern communication technologies enable business actors to establish such coalitions quickly and easily at little cost.¹⁰⁰ Future research should consider whether this proposition is correct by systematically studying the creation of ad hoc coalitions. Indeed, the findings presented here are likely to be generalizable to cases that share similar characteristics, such as industries populated by large firms, contesting policy at the federal level in the United States, with a preference to support the status quo, i.e., opposing new policies, such as the U.S. pharmaceutical or finance industries. However, further empirical work is needed to consider whether the factors behind the creation of ad hoc coalitions are the same in different contexts, such as small firms operating at the state level. In addition, the cases analyzed here

⁹⁷ Interview 10, 16, 40.

⁹⁸ Interview 20, 35.

⁹⁹ Interview 16.

¹⁰⁰ Interview 10, Castells (2000).

are all cases where ad hoc coalitions were established, future work could also consider the cases where such coalitions fell over and were not created.

References

- AFPM. 2013. Letter to U.S. Department of Energy Re: 2012 LNG Export Study. American Fuel and Petrochemical Manufacturers. (Accessed on 30 August 2018) https://fossil.energy.gov/ng_regulation/sites/default/files/programs/gasregulation/authorizations/export_study/drevna.pdf.
- AFPM. 2014. "The Energy Policy and Conservation Act of 1975: Are We Positioning America for Success in Era of Energy Abundance?" Submission to the Energy and Power Subcommittee Hearing, American Fuel and Petrochemical Manufacturers. (Accessed on 30 August 2018) http://www.afpm.org/uploadedfiles/Content/News/News_Releases/Attachments/AFPM-Letter-to-House-EC-on-Crude-Exports.pdf.
- ALEC. 2015. "Act requiring approval of state plan implement EPA's carbon guidelines." American Legislative Exchange Council.
- Barley, Stephen R. 2010. "Building an Institutional Field to Corral a Government: A Case to Set an Agenda for Organization Studies." *Organization Studies* 31 (6): 777–805.
- Baumgartner, Frank R., Jeffrey M. Berry, Marie Hojnacki, David Kimball, and Beth Leech. 2009. *Lobbying and Policy Change: Who win, who loses, and why*. Chicago: University of Chicago Press.
- Berry, Jeffrey M. 1984. *The Interest Group Society*. Boston: Little Brown.
- Berry, Jeffrey M. 2002. "Validity and Reliability Issues in Elite Interviewing." *PS: Political Science and Politics* 35 (6): 679–82.
- Betsill, Michele, and Harriet Bulkeley. 2004. "Transnational Networks and Global Environmental Governance: The Cities for Climate Protection Program." *International Studies Quarterly* 48 (2): 471–93.
- Boddewyn, Jean J., and Thomas L. Brewer. 1994. "International-Business Political Behavior: New Theoretical Directions." *The Academy of Management Review* 19 (1): 119–43.
- Bombardini, Matilde, and Francesco Trebbi. 2012. "Competition and Political Organization: Together or Alone in Lobbying for Trade Policy?" *Journal of International Economics* 87 (1): 18–26.
- Burris, Scott, Peter Drahos, and Clifford Shearing. 2005. "Nodal Governance." *Australian Journal of Legal Philosophy* 30: 30–58.
- Castells, Manuel. 2000. "Materials for an exploratory theory of the network society." *The British Journal of Sociology* 51 (1): 5–24.
- Dempsey, Linda. 2013. "Banning LNG Exports Will Hurt Jobs and Economy National Association of Manufacturers." (Accessed on 30 August 2018) <http://www.shopfloor.org/2013/01/banning-lng-exports-will-hurt-jobs-and-economy/27328/>.
- Dow Chemical Company. 2013. "Statement for the Record to the Senate Energy and Natural Resources Committee Hearing on Opportunities and Challenges for Natural Gas." http://www.energy.senate.gov/public/index.cfm/files/serve?File_id=100c46f6-fac8-4b9f-85cf-bd5c6683992e

- Downie, Christian. 2017. "Fighting for King Coal's Crown: Business Actors in the US Coal and Utility Industries." *Global Environmental Politics* 17 (1): 21–39.
- Ebinger, Charles K., and Govindra Avasarala. 2013. "The case for U.S. Liquefied Natural Gas Exports." Brookings Institute.
- EEL. 2014. "Stock Performance: Q4 2014 Financial Update. Quarterly Report of the U.S. Shareholder-Owned Electric Utility Industry." Edison Electric Institute.
- EIA. 2011. "Global Natural Gas Prices Vary Considerably." Washington, D.C.: U.S. Energy Information Administration. (Accessed 25 August 2016) <https://www.eia.gov/todayinenergy/detail.cfm?id=3310>.
- EIA. 2015. "Annual Coal Report 2013." Washington, D.C.: U.S. Energy Information Administration.
- EIA. 2016. "Henry Hub Natural Gas Spot Price." Washington, D.C.: U.S. Energy Information Administration. (Accessed 25 August 2016) <https://www.eia.gov/dnav/ng/hist/rngwhhdm.htm>.
- EIA. 2017. "International Energy Statistics" Washington, D.C.: U.S. Energy Information Administration. (Accessed 20 June 2018) <https://www.eia.gov/beta/international/>.
- EPA. 2015. "Clean Power Plan Final Rule." Washington, D.C.: Environmental Protection Agency, 3 August.
- Figueiredo, John M., and Emerson H. Tiller. 2001. "The Structure and Conduct of Corporate Lobbying: How Firms Lobby the Federal Communications Commission." *Journal of Economics & Management Strategy* 10 (1): 91–122.
- Figueiredo, John M., and Brian Kelleher Richter. 2014. "Advancing the Empirical Research on Lobbying." *Annual Review of Political Science* 17 (1): 163–85.
- GAO. 2014. "Changing crude oil markets: Allowing exports could reduce consumer fuel prices, and the size of the strategic reserves should be reexamined." Washington, D.C.: U.S. Government Accountability Office.
- Gerard, Jack. 2014. "Jack Gerard delivers State of American Energy address." American Petroleum Institute. (Accessed on 10 January 2015) <http://www.api.org/news-and-media/testimony-speeches/2014/jack-gerard-delivers-soae-address>.
- Gray, V., and D. Lowery. 1998. "To lobby alone or in a flock – foraging behavior amongst organized interests" *American Politics Quarterly* 26: 5–34.
- Hajer, Maarten. 1993. "Discourse Coalitions and the Institutionalisation of Practice." In *The Argumentative Turn in Policy Analysis and Planning*, edited by Frank Fischer and John F. Forester. Durham, NC: Duke University Press.
- Hansen, Wendy L., Neil J. Mitchell, and Jeffrey M. Drope. 2005. "The Logic of Private and Collective Action." *American Journal of Political Science* 49 (1): 150–67.
- Hart, David M. 2004. "'Business' Is Not an Interest Group: On the Study of Companies in American National Politics." *Annual Review of Political Science* 7 (1): 47–69.
- Heede, Richard. 2014. "Tracing anthropogenic carbon dioxide and methane emissions to fossil fuel and cement producers, 1854–2010." *Climatic Change* 122 (1): 229–41.
- Hervé, Adrienne. 2014. "Roles of brokerage networks in transnational advocacy networks." *Environmental Politics* 23 (3): 395–416.
- Hillman, Amy, and M. Hitt. 1999. "Corporate political strategy formulation: A model of approach, participation and strategy decisions." *Academy of Management Review* 24 (6): 825–42.
- Hillman, Amy, Gerald D. Keim, and Douglas Schuler. 2004. "Corporate Political Activity: A Review and Research Agenda." *Journal of Management* 30: 837–57.

- Kauffman, Craig. 2017. "Grassroots Global Governance: Local watershed management experiments and the evolution of sustainable development." Oxford Scholarship Online. Oxford, United Kingdom: Oxford University Press.
- Keck, Margaret, and Kathryn Sikkink. 1998. *Activists Beyond Borders: Advocacy Networks in International Politics*. Ithaca, NY: Cornell University Press.
- Keohane, Nathaniel, Richard Revesz, and Robert Stavins. 1998. "The Choice of Regulatory Instruments in Environmental Policy." *Harvard Environmental Law Review* 22 (2): 313–67.
- Khan, Faisal. 2013. Testimony to U.S. Senate Committee on Energy and Natural Resources by Faisal Khan, Managing Director, Citi Research.
- Kim, Sung E., Johannes Urpelainen, and Joonseok Yang. 2016. "Electric utilities and American climate policy: lobbying by expected winners and losers." *Journal of Public Policy* 36 (2): 251–75.
- Klesse, William R. 2013. Testimony of William R. Klesse, Chairman of the Board and CEO, Valero Energy Corporation before the U.S. Senate Committee on Energy and Natural Resources.
- Levy, David, and Ans Kolk. 2002. "Strategic Responses to Global Climate Change: Conflicting Pressures on Multinationals in the Oil Industry." *Business and Politics* 4 (3): 275–300.
- Mahoney, Christine. 2007. "Networking vs. Allying: the decision of interest groups to join coalitions in the US and the EU." *Journal of European Public Policy* 14 (3): 366–83.
- Martin, Cathie J. and Duane Swank. 2012. *The Political Construction of Business Interests: Coordination, Growth, and Equality*. Cambridge, United Kingdom: Cambridge University Press.
- Meckling, Jonas. 2011. *Carbon Coalitions: Business, Climate Politics, and the Rise of Emissions Trading*. Cambridge, MA: MIT Press.
- Newell, Peter, and Matthew Paterson. 1998. "A climate for business: global warming, the state and capital." *Review of International Political Economy* 5 (4): 679–703.
- Olson, Mancur. 1965. *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge, MA: Harvard University Press.
- PBEF. 2015. "Reliable and Affordable Energy." Partner for a Better Energy Future. (Accessed 7 September 2015) <http://www.betterenergyfuture.org/>.
- Pijnenburg, Bert. 1998. "EU lobbying by ad hoc coalitions: an exploratory case study." *Journal of European Public Policy* 5 (2): 303–21.
- Sabatier, Peter. 1988. "An advocacy coalition framework of policy change and the role of policy-oriented learning therein." *Policy Sciences* 21 (2–3): 129–68.
- Sampson, Anthony. 1975. *The Seven Sisters: The Great Oil Companies and the World They Shaped*. New York: Viking Press.
- Schattschneider, Elmer E. 1960. *The Semisovereign People: A Realist's View of Democracy in America*. New York: Holt, Rinehart and Winston.
- Shaffer, Brian. 1995. "Firm-level responses to government regulation: Theoretical and research approaches." *Journal of Management* 21 (3): 495–514.
- Shell. 2015. "Annual Report 2015: Selected Financial Data." (Accessed 25 August 2016) <http://reports.shell.com/annual-report/2015/strategic-report/selected-financial-data.php>.
- Skjaereth, Jon B., and Tara Skodovin. 2003. *Climate Change and the Oil Industry: Common problem, varying strategies*. Manchester, United Kingdom: Manchester University Press.
- Smith, Mark. 2000. *American Business and Political Power: Public opinion, elections and democracy*. Chicago: Chicago University Press.
- Stigler, George. 1975. *The Theory of Economic Regulation: Citizen and the State*. Chicago, IL: University Chicago Press.

- The White House. 2013. "Presidential Memorandum: Power sector carbon pollution standards." Washington D.C.: Office fo the Press Secretary.
- USCC. 2013. "State of American Business, Remarks by Thomas J. Donohue President and CEO, U.S. Chamber of Commerce." (Accessed 25 August 2016) <https://www.uschamber.com/speech/state-american-business-remarks-thomas-j-donohue-president-and-ceo-us-chamber-commerce>.
- Vogel, David. 1989. *Fluctuating Fortunes*. New York: Basic Books.
- Warmann, Jeffrey. 2015. "Testimony of Jeffrey Warmann, CEO Munroe Energy Inc, on behalf of the CRUDE coalition to the U.S. Senate Energy and Natural Resources Committee Crude Export Policy Hearing."
- Witter, David. 2015a. "IBIS World Industry Report 21111: Oil drilling and gas extraction in the US." Melbourne: IBIS World.
- Witter, David. 2015b. "IBIS World Industry Report 32411: Petroleum refining in the US." Melbourne: IBIS World.
- Woll, Cornelia. 2008. *Firm Interests: How governments shape business lobbying on global trade*. Ithaca, NY: Cornell University Press.