



Original research article

Energy democracy and social movements: A multi-coalition perspective on the politics of sustainability transitions

David J. Hess

Department of Sociology, Vanderbilt University, PMB 351811, Nashville, TN 37235-1811, United States

ARTICLE INFO

Keywords:

Coalitions
Social movements
Sustainability transitions
Energy democracy

ABSTRACT

This study develops research on social movements, political coalitions, and sustainability transitions with a multi-coalition perspective. The perspective begins with a typology of coalitions based on two pairs of goals—general societal change versus the sociotechnical transition of an industry or technological system, and sunrising versus sunseting of systems and structures. Mapping the diversity of energy-transition coalitions makes it possible not only to identify the various wings of a broader industrial transition movement in a specified time and place but also to show the dynamics of how coalitions interact and change over time. Drawing on case studies of four energy-transition coalitions in New York State that approximate the four ideal types, the study shows differences in the goals, strategies, organizational composition, and frames of the coalitions. The study then shows the mechanisms that enable integration across coalitions, including the role of bridge brokers and new frames. As the networks of the energy-transition coalitions become more connected, the organizations make use of a wider set of frames, including the newer frame of energy democracy. Thus, the study develops an approach to the study of energy democracy that shows how it can serve as a frame that bridge brokers use to integrate coalitions.

1. Introduction

In some countries incumbent actors in the energy sector have opposed climate-mitigation policies and done so with increasing effectiveness. Incumbents such as electricity utilities sometimes raise legitimate concerns about technical and economic difficulties associated with the scaling up of renewable energy; however, in other cases they demonstrate “regime resistance” [1] based more on the perceived threat of an energy transition to profits and to business as usual. In several countries, most notably the U.S., incumbents in the energy sector have formed alliances with conservative political parties in order to oppose climate-change mitigation policies and environmentally oriented policies in general [2]. Resistance by incumbent industrial actors to sustainability transitions poses an important problem in the study of energy research and social science: to determine the conditions under which governments will strengthen their support for sustainable-energy transition policies. Although this issue is highly salient in the United States, where one of the major parties has opposed climate-mitigation policies, it is also prominent in other countries, including Australia, Canada, the Netherlands, and the U.K. [3–5].

A wide range of factors can lead to increased political support for energy-transition policies, among them an exogenous shock such as an extreme weather event, concern with the security of imported energy,

reductions in the prices of low-carbon energy sources, and pressure to join international climate-change agreements. However, these factors are not enough to motivate support in countries such as the United States, where there is substantial, organized resistance from incumbent industrial actors and allied political leaders. In this context, strong energy-transition coalitions are needed to overcome resistance from regime coalitions. The coalitions consist not only of environmentalists, other civil society actors, and allied political leaders but also of private-sector actors such as renewable energy and energy efficiency (REEE) industries. Other sectors that see opportunities in energy transitions, such as the technology and finance sectors in the case of distributed solar energy, may also join the coalitions [6,7].

Although the field of research on sustainability transitions has increasingly recognized that they are political processes, research on the role that social movements and energy-transition coalitions can play in overcoming regime resistance remains undeveloped, and researchers in the sustainability transitions field recognize the need for more work on this topic [8]. This study contributes to the literature on the politics of sustainability transitions by providing a framework for analyzing the diversity of coalitions and their mechanisms of integration over time. The integration adds strength to the coalitions by bringing in new partners outside traditional alliances among environmental, labor, and sustainable business organizations. As the integration occurs, the frame

E-mail address: david.j.hess@vanderbilt.edu.

<https://doi.org/10.1016/j.erss.2018.01.003>

Received 28 July 2017; Received in revised form 2 January 2018; Accepted 3 January 2018

Available online 13 January 2018

2214-6296/ © 2018 The Author. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

of “energy democracy” becomes more salient as a way to bridge diverse goals and strategies. Although focused on a case in a single state in the U.S., the typology of energy-transition coalitions within a broader industrial transition movement, together with the processual analysis of how coalitions become integrated, has general applicability.

2. Background

2.1. Social movements, coalitions, and the politics of energy transitions

Researchers who study energy transitions recognize that policy guidance plays an important role in the pace and outcome of transitions. Government policy can provide a protective space for niche technologies until they reach a point where they are competitive in existing markets, and government regulations also affect the marketplace competitiveness of different energy sources [9]. Because policy is so important for guiding the form and pace of energy transitions, they are inevitably a combination of political, economic, and technological processes. Research on the politics of transitions has now emerged from a nascent state to have several lines of developing approaches, among them the study of power and agency [10], institutional politics and power [11], and reflexive and democratic governance problems associated with transition management (e.g., [12]). Researchers have also shown that incumbent actors can reverse or slow transition policies [13,14] and form coalitions with political parties or otherwise directly influence governments [7]. In other words, where the niche-regime relationship is not symbiotic and involves potential or actual conflict, the relationship becomes one of challengers and incumbents in an industrial field, and this relationship interacts with conflicting positions in the political field.

This study adopts a theoretical framework to the politics of energy transitions derived from social movement theory in sociology [15]. This approach draws attention to three main elements of the political process: an opportunity structure for policy reform, which can be relatively open or closed and can change in response to mobilization; the agency of movement actors, including their efforts to build coalitions both among other advocates and among industrial and policy elites; and the importance of frames and cultural repertoires that advocacy groups and activists use to gain support from policymakers, the media, industry, and the public. This study focuses on a type of movement termed the “industrial transition movement,” that is, a sustained, multi-organizational, multi-campaign network of mobilizations that seeks to bring about a fundamental transition in an industry when the incumbent organizations are resistant to change [16]. Within these movements the study focuses on the role of policy coalitions that form to develop specific campaigns that target corporate practices and/or government policy. These mobilizations can be characterized as “green-transition coalitions” or, more specifically for the energy field, “energy-transition coalitions.”

The processual approach in social movement theory is broadly consistent with similar approaches in political science, such as the advocacy coalition framework [17]. However, social movement theory can offer some additional insights and a somewhat broader perspective on policy coalitions. First, it recognizes that coalitions can mobilize not only with public policy as the target of change but also with corporations and technological design choices as the target [18–20]. For example, advocates of industrial transitions may mobilize directly against fossil-fuel companies and also create new community solar and low-income weatherization organizations. These interconnections of action in both the political and industrial fields provide a broader scope of analysis than “policy subsystems” in the advocacy coalition framework. Second, social movement theory includes extrainstitutional repertoires of action, such as street protest, that tend to emerge where there are blocked political opportunities and strong inequalities of power between incumbents and challengers. Third, social movement theory also draws attention to strategic framing, cultural repertoires, and mobilized

public opinion rather than the more cognitive dimension of core beliefs and learning. These differences suggest the value of having an analytic framework that examines both the coalition activity within a policy field and the broader dimensions associated with social movement mobilizations.

2.2. The multi-coalition perspective on the politics of energy transitions

This study advances research on the politics of transitions by developing a multi-coalition perspective, which has two main elements: a comprehensive typology of energy-transition coalitions, and an analysis of the mechanisms by which diverse coalitions can become more (or less) integrated over time. The first step of this approach, the typology, is to break down the concept of a broad industrial transition movement (for example, the movement to transition to low-carbon energy in New York State) and to recognize that it is often splintered and divided across multiple coalitions, each of which has its own set of goals, strategies, and organizational partners [16]. One major division involves whether the coalitions are positioned as oppositional or alternative. In other words, do they focus more on the sunset of specific industries and sociotechnical systems (such as coal and natural gas), or do they focus more on developing support for the sunrising of alternative industries and sociotechnical systems (such as renewable energy and energy efficiency, REEE)? Although these categories are typological, they can serve as guideposts when attempting to understand differences among coalition goals and organizational composition. The differences in goals become evident in very different repertoires of action, such as heavy reliance on protest and other forms of extra-institutional action in the oppositional type and greater reliance on more institutionalized policy processes and entrepreneurship in the sunrising type.

The second major division involves the relative emphasis on the goal of sociotechnical change versus societal change. The fields of transition studies and technology studies have drawn attention to the interplay of technological, organizational, regulatory, and consumer changes under the rubric of “sociotechnical” analysis (e.g., [21,22]). In much of transition studies, this approach tends to focus the “socio” on meso-level institutional and technological changes within an industrial sector. The term “societal change” is used here to refer to attempts to transform broader patterns of structural inequality characterized by disparities of class, race, gender, geographical location, and global position. This second dimension is not absent from the transitions literature, and it is suggested by terms such as “inclusive transitions” [23] and “just transitions” [24]. However, it is valuable to distinguish the narrower type of goal that focuses on change within an institutional sector with the broader goal of general societal change that addresses issues of inequality and justice.

In the niche-regime-landscape terminology of the multilevel perspective transition studies [21], the distinction between the two goals of sociotechnical and societal change is similar to the distinction between, on the one hand, changes in the niche-regime or challenger-incumbent relations within an industrial field and, on the other hand, attempts to bring about broader changes involving structural inequality that to some degree can be accommodated under the rubric of the “landscape.” No matter how one characterizes the distinction, it is important to take the distinction into account when studying social movements because differences between narrower sociotechnical change goals and broader societal change goals can be a constraining factor in the integration of coalitions and organizations. For example, there are frequently tensions within environmentalism between social justice orientations and sustainability orientations [25].

Thus, the first main contribution of this study to research on the politics of energy transitions is to develop a multi-coalition perspective on the problem of social movements and sustainability transitions. Based on the pair of goals of sunset-sunrising and societal-sociotechnical change, this approach generates a 2×2 set of typological

categories that enables researchers to look for diverse campaigns and coalitions that might otherwise be ignored in an analysis that focuses only on one type of energy-transition politics. For example, a researcher may focus entirely on an opposition movement (such as mobilizations against mountaintop removal for coal extraction or natural-gas fracturing technologies), and doing so can cause the researcher to miss connections across different types of energy-transition coalitions.

Applying the set of typological distinctions, energy-transition coalitions can be categorized into four basic ideal types of goals:

1. **Alternative industry development.** This sociotechnical change goal focuses on developing and scaling up (sunrising) new industries and technologies, such as REEE. Social movement organizations, public-interest advocacy organizations, businesses associated with the challengers in the industrial field, and sometimes incumbent industrial organizations in neighboring industries (e.g., finance and information-technology companies that support REEE such as third-party solar) can play an important role, especially during early stages of these coalitions.
2. **Industrial opposition.** This sociotechnical change goal focuses on ending (sunsetting) unwanted industrial technologies and practices such as the use of fossil fuels in energy. Mobilizations are often localized and may take the form of environmental justice struggles, and they typically involve a mixture of extrainstitutional repertoires of action (e.g., protest) and intrainstitutional repertoires of action (e.g., advocacy of stronger regulation).
3. **Industrial democratization.** This societal change goal can involve restructuring an industry to enable the sunrising of “new economy” organizations associated with more just and democratic forms of ownership. Examples include support for small community-oriented businesses, community-oriented nonprofits, public ownership, cooperatives, and public benefit (or “B”) corporations. It can also involve advocacy for improved democratic decision-making processes in government regulatory policy, such as greater public participation, transparency, and accountability.
4. **Industrial access.** This societal change goal focuses on alleviating or ending (sunsetting) fundamental economic injustices associated with an industrial field. Examples include ending energy poverty and ending unemployment with programs for energy-related job creation. As with the industrial opposition movements, these mobilizations may involve a mixture of extrainstitutional repertoires of action (e.g., street protest over cutbacks to low- and moderate-income (LMI) support policies or over price increases) and intrainstitutional repertoires of action such as advocacy for policy reforms and the mobilization of private and public support for LMI service programs that create green jobs.

This study will address the problem of how these ideal types play out in concrete examples of mobilizations through a comparative analysis of cases in New York State. In doing so, it will provide an example of how the multi-coalition perspective can be used to guide empirical research.

2.3. Energy democracy and the process of coalition integration

The multi-coalition perspective has value beyond providing guidance for constructing a relatively comprehensive survey of an energy-transition movement in a specified place and time. The perspective can also enable new insights into how coalitions form, develop, merge, and achieve outcomes. Thus, the second main theoretical contribution of this study is to examine how these diverse coalitions can become integrated over time. In other words, the study seeks to examine mechanisms that enable energy-transition coalitions to move beyond siloed campaigns that have historically generated tensions across the coalitions.

To answer this question, the study draws on the literature on bridge

brokers and framing in social movement studies [26,27]. Bridge brokers are people or organizations that bring disparate groups together and adjust goals and frames in the process. At an individual level, bridge brokers often have a biographical background and split habitus that allow them to translate across coalition divisions. Although this level is important, it may be more important for brokers to have familiarity with the issues and frames of the different coalition partners, and new organizations may also need to be developed that can serve an integrating function [28]. The task of building bridges involves more than coordinating activities and communication across organizations. Frequently, it requires negotiations over goals and priorities, and doing so may involve the construction of new frames and the alignment of existing ones [29].

This study will further argue that in the case of building bridges across energy-transition coalitions, the idea of “energy democracy” serves as a frame that helps to connect diverse goals and strategies under one umbrella. Thus, this study integrates the emerging literature on energy democracy with the study of the politics of sustainability transitions and social movement theory. In the emerging literature on energy democracy, various definitions of and approaches to energy democracy have already been articulated. For example, Becker and Nauman [30] discuss energy democracy as including decentralized generation, collective ownership, and/or energy sovereignty of a state; Szulecki [31] views it as new form of governmentality; Burke and Stephens [32] approach it as a set of political and policy goals, such as resisting, reclaiming, and restructuring; and Angel [33] describes it as a social movement with a specific imaginary. The concept of energy democracy is also similar to that of energy justice, but there are significant differences. Surveys of the concept of energy justice have mapped out a wide range of underlying principles (e.g., [34,35]), and some researchers have argued that most approaches to energy justice can be subsumed under a few general principles, such as justice as procedure, distribution, or recognition [36,37]. Although the concepts of energy democracy and energy justice overlap, the focus of energy democracy tends to be on the effects of structural inequality on energy politics and the need for societal change. Remedies to these effects include low-income access to affordable energy and good jobs, reforms of energy governance to enable grassroots and public perspectives to be heard over the objections of incumbent actors such as the utilities, and the development of policy support for local control and ownership of REEE.

The diversity of approaches to energy democracy, like the diversity of approaches to energy justice, suggests that there is no widely accepted standard definition. Furthermore, it might be better not to impose a single, standard definition on political conflicts that vary considerably across regions of the world, let alone across different coalitions in a single region. Thus, this study adopts a methodological strategy that begins with the question of how actors in energy-transition coalitions actually use the term “energy democracy” while working to build coalitions and bridges. The approach adopted here does not involve rejecting a priori theorizations of energy democracy; indeed, they provide useful overviews of different ways to approach the topic. Nevertheless, this study seeks to ground those theorizations in the actual uses of the term “energy democracy,” thus addressing the call of Burke and Stephens [32] for research on energy democracy in practice and in specific communities. To that end, the approach begins with an “emic” perspective in the tradition of cultural, linguistic, and frame analysis [38,39]. The emic or cultural perspective begins with the question of how actors in specific circumstances use energy democracy to guide or frame action. As LaBelle [40] points out, concepts such as justice and democracy have great variation in meaning across different contexts, and researchers need to be wary of imposing their own categories on local meanings.

However, the approach developed here does not end with a cultural or emic perspective that is limited to the analysis of situated meanings. As social science research, the emic method is the basis for developing an explanation of the conditions under which more robust and

Table 1
Energy-Transition Coalitions in New York and Ideal Types.

Energy-Transition Coalition in New York	Relationship to Ideal Typical Categories
Regional Greenhouse Gas Initiative	Alternative industrial development (sunrising of REEE) but also the industrial opposition goal of sunseting fossil-fuel sources of electricity
Green jobs Natural gas moratoria	Industrial access (to jobs and affordable energy) but also including the alternate industrial development of REEE technologies (industrial opposition but also attention to the need to improve democratic decision making and corporate accountability (industrial democratization) and the need for the alternative industrial development of REEE
REV reform	Industrial democratization through attention to local control and ownership of energy generation and better public participation in the policy process, but with support for sunrising REEE, access to jobs and affordable energy, and opposition to natural gas development

integrated energy-transition coalitions can be developed. Thus, the argument developed here is that the frame of energy democracy can have particular value in the context of energy-transition coalitions when there are attempts to bridge differences across the various types of coalitions.

2.4. Research questions

The research questions follow from the two main theoretical contributions. With respect to the typology of energy-transition coalitions, the study will examine four energy-transition coalitions that roughly approximate the four ideal types. It will ask the following question:

- 1 What are the goals and strategies of each coalition?
- 2 What is the organizational composition of each coalition, and how did the coalition affect policy?

To address the processual issue of how the coalitions change over time, the following questions will be asked:

- 3 What frames do the coalitions deploy, and under what conditions does the frame of energy democracy become salient?
- 4 To what extent do the coalitions become more integrated over time, and what organizations emerge as bridge brokers?

2.5. Empirical background

To show how the four types operate and how they can become integrated, the study focuses on four energy-transition coalitions in a single region, New York State. Although the focus on a single state in the U.S. may appear to be methodologically limited, there are several reasons why this focus is justified. First, in the U.S. energy-transition policies have tended to be developed at the state-government level, and New York's energy-transition policies have gained a national reputation as some of the most forward-thinking in the country. Furthermore, because the gross state product of New York is approximately the size of that of Russia or Australia, in many ways the scope of analysis is equivalent to that of a country study. As home to the United Nations and headquarters of the global finance industry, there are also pathways for diffusion of the state's policy innovations to other parts of the country and world.

New York State is also an important site in the U.S. because after President Trump indicated that he would withdraw the U.S. from the Paris Accord on climate change, the state joined with the states of California and Washington to form the United States Climate Alliance, which provided ongoing policy innovation and greenhouse-gas reductions for a population of 68 million people and a collective GDP equivalent to that of Germany. The alliance was subsequently extended to other states with a combined population of over 100 million people, in effect continuing the Obama administration's policies for a significant part of the country. New York's continued leadership, especially in the wake of retrenchment at the federal government level, is partly due to its vibrant and well-organized civil society sector, which

has developed the frame of "energy democracy" and played a central role in the state's energy-transition policies. Thus, the state government's politics and policies provide a good laboratory for the investigation of energy-transition coalitions and the emerging place of energy democracy.

The unit of analysis for the first research question is the energy-transition coalition for a significant policy issue during the period 2000–2017, when New York State developed its extensive body of energy-transition policies. The four cases are as follows and will be presented roughly in chronological order:

1. The Regional Greenhouse Gas Initiative (2003-present), the landmark cap-and-trade policy that supported the development of low-carbon energy alternatives in New York State and the Northeastern region of the country.
2. Legislation for and implementation of the green jobs and on-bill financing laws (2009-present), which sought to reduce societal inequality by gaining better access to energy resources for LMI communities and to create green jobs.
3. Moratoria on various aspects of natural gas development (2013-present). Advocates opposed the expansion of hydraulic fracturing technologies in the state, and they also opposed the construction of natural gas infrastructure such as pipelines and a liquid natural gas terminal.
4. The coalition to improve the implementation of the "Reforming the Energy Vision" (REV) policy (2014-present). This coalition sought greater local control over energy ownership and greater public influence on decision-making, but it also sought support for REEE, LMI access and green jobs, and an end to natural-gas development.

As is generally the case for analyses that utilize the concept of ideal types, the concrete historical examples are often an amalgam of ideal types. The relationship between the historical examples of energy-transition coalitions and the broader ideal typical categories is shown in [Table 1](#).

3. Methods

The four case studies are based on a variety of sources: coalition members' reports, media coverage of the policy and coalitions in the *Albany Times-Union* and *New York Times*, testimony before governmental bodies, and videos of conferences and meetings. The study also draws on the author's background knowledge based on living in the state capital and following environmental policy there for many years, and it draws on a multi-year research project that used interviews and quantitative analysis to examine the conditions that affect REEE policy adoption in U.S. state governments, including in New York.

For the first research question, the goals and strategies were determined from the sources described above, and for the second and fourth research questions, the organizational composition of the coalitions was determined from participation in hearing processes and lists of the core member organizations of the four coalitions (For more details, see [Appendix 1](#)). For the third research question, frames were

identified and coded based on statements by organizations associated with the four coalitions. For the RGGI coalitions, frames were categorized based on comments on the model rule and auctions (2004–2006) by environmental organizations and green business organizations associated with the RGGI Stakeholder Group (N = 18). For the REV reform coalition, the analysis focused on statements on the web sites of the main organizations in the “Make REV R.E.A.L.” campaign and on the comprehensive initial comments for the Public Utilities Commission for the first year of the REV proceeding in 2014 (N = 18). The other two campaigns did not have records of official public commentaries. For the anti-fracking coalition, statements about fracking on the web sites of the most prominent organizations (N = 11) were used. For the green jobs coalition, searches were conducted of the web sites of all LMI implementation group members, but only PUSH Buffalo had a significant statement about the Green Jobs—Green New York law. Consequently, the analysis focused on the frames used in the long policy document issued by the Working Families Party and Center for American Progress [41], which initiated the campaign for the law. Frames were categorized based on an iterative process that began with frames identified in previous research on energy policy in state governments in the U.S. [52]. Frames that appeared together in most statements were collapsed (e.g., health risk and environmental risk became health and environmental risk).

Case studies are presented in the mode of theory-driven, small-N comparative research. In other words, the goal is not to develop detailed historical research on each case but instead to present selectively material that answers the research questions. The cases are structured to provide information in response to the first three research questions, with each case having a similar set of subsections: background, goals, and strategy (question 1); coalition composition and outcome (question 2); and the frames used to advance the goal (question 3). The fourth research question is addressed in the comparative analysis.

4. Results

Results are presented in two parts. The first part provides descriptive case studies of the four coalitions. Overall, seven frames were identified in statements that coalition actors used to justify their political positions: climate-change mitigation, health and environmental risks of fossil fuels, economic and social harm from conventional energy (mostly fossil fuels), corporate power of the fossil-fuel corporations and utilities, economic and community benefits of REEE, remediation of inequality, and energy democracy. The second part of the results section summarizes the results for the first three research questions and provides an analysis in response to the fourth question.

4.1. Description: the four cases

4.1.1. The regional greenhouse gas initiative

Background, Goals, and Strategy. The Regional Greenhouse Gas Initiative (RGGI, pronounced “Reggie”) is the leading example of energy-transition policy support in New York and the wider Northeast region of approximately 50 million people. Advocacy in this policy field approximates the ideal type of alternative industrial development because the policy goal was to support a transition to a much higher level of REEE in the electricity mix. In 2000, the conference of New England Governors and Eastern Canadian Premiers decided to develop a climate action plan, and in 2001 Republican Governor George Pataki of New York established the Greenhouse Gas Task force. A particular conjuncture of events in New York led to an opening of political opportunities. Pataki’s decision reflected his lack of satisfaction with progress at the national level, his aspiration to become the presidential candidate representing the moderate wing of the Republican Party, and broad support for the policy among voters in this moderate-to-progressive state. In 2003, Pataki’s Greenhouse Gas Task Force recommended an in-state cap-and-trade program, and he asked other

states to join [42]. Partly because of the history of cooperation among Northeastern states on related issues, the other governors devoted staff to assist in the development of the proposal.

In response to the recommendation of the task force, Governor Pataki established the Staff Working Group, which met from 2004 through 2007 and was comprised of government agency representatives from each state. A substantial issue in the Working Group was the percent, if any, of the allowances for greenhouse-gas emissions from electricity power plants that would be auctioned rather than given away, as had occurred with similar programs in the past. Auctioning allowances offered state governments access to a substantial revenue stream to support the REEE transition. The Staff Working Group proposed a goal of 25% auctions, the utilities pushed back against the auctions, and a debate ensued. An energy-transition coalition emerged to support the goal first of having a 25% level of auctions for the emissions allowances and then of having 100% auctions rather than allocating some of the allowances free of charge. At the time this goal was a substantial innovation from a global perspective for greenhouse-gas mitigation policies. The primary strategy of the coalition was participation in the complex rule-making process; thus, this mobilization did not involve street protest or similar repertoires of action.

Coalition and Outcome. REEE business associations and environmental groups were the primary supporters of this energy-transition coalition, with Environment Northeast playing a leadership role among the environmental groups. The American Council for an Energy-Efficient Economy, a REEE industry association, participated in the Stakeholder Group that advised the Staff Working Group on the RGGI design process, and other industry organizations (notably the Business Council for Sustainable Energy and the American Wind Energy Association) provided comments on the model rule [43]. The Stakeholder Group included the following environmental and public interest organizations: Environmental Defense, Environment Northeast (later renamed the Acadia Center), the Natural Resources Defense Council, the Public Interest Research Group, and the Union of Concerned Scientists. Environmental Advocates of New York and the Nature Conservancy participated as observers [43]. Thus, this was a broad coalition primarily of mainstream environmental organizations, several of which had a national scope.

These groups coordinated efforts through weekly conference calls and divided up their work. By 2005 seven states had agreed to a Memorandum of Understanding that included auctions for 25% of the allowances, and in 2006 the Staff Working Group issued a model rule for implementing the memorandum. Several of the coalition organizations also provided public comments on the model rule. The groups coordinated comments and cosigned statements defending the proposal for allocating up to 100% of allowances by auction.

Although the utility industry opposed the RGGI plan and auctions, it was divided because the presence of auctions could enable facilities with generation based on non-coal sources to have a competitive advantage over coal [44: 97]. Crucially, large industrial consumers also supported auctions, albeit with rebates rather than a government green fund, and their support provided countervailing industrial power to the utilities [44: 110]. As the regime coalition fractured, the debate shifted from whether or not to have auctions to how to spend the auctions. The energy-transition coalition favored spending the auctions for REEE projects to assist consumers through a green fund rather than for direct rebates.

In December, 2006, Governor Pataki responded positively to the coalition’s goals and lobbying led by the Natural Resources Defense Council when he announced that he supported having 100% of emissions auctioned. Other states followed, and when the first auctions were held in 2008, most states were at 100% or well above the 25% floor. As Raymond notes [44: 123], other greenhouse-gas emissions trading schemes in Asia, California, Canada, and Europe emulated the RGGI model by including 50–100% auctions. He argues that although the idea of auctions was itself not new with RGGI, the successful

achievement of a 100% level was an important event in the global development of greenhouse-gas emissions trading.

After implementation of the policy began, several of the organizations continued to monitor it, with public information available from the Acadia Center, Clean Water Action, Environmental Advocates of New York, Environmental Defense, the Natural Resources Defense Council, and the Union of Concerned Scientists. The coalition has also encouraged deepening of the RGGI policy. For example, Environmental Advocates of New York supported the expansion of RGGI to all sectors of the economy, including transportation and buildings, and in 2017 discussions were in place to reduce the cap on emissions, which environmental organizations supported.

Frames. Comments on the model rule and auctions by the RGGI coalition framed the proposal for auctions based on climate-change mitigation and economic and community benefits. The latter appeared when defending emissions auctions and arguing that the revenue should be used to support consumers. Raymond [44: 94] argues that the use of a consumer benefit frame was new in comparison with previous, failed auction proposals. General consumer economic benefits also appeared in framings that invoked cost savings (e.g., [45]). The energy-transition coalition members argued that auctions would not increase costs for consumers and would instead benefit consumers broadly by shifting utility profits to public benefit spending. Frames involving risks and harm from fossil fuels, remediation of inequality, corporate power, and democracy were not evident.

4.1.2. Green jobs and on-bill financing

Background, Goals, and Strategy. The second energy-transition coalition, which approximates the ideal type of industrial access, emerged to support a law to develop green jobs and weatherization. In this case the legislature was the main site of policy development. The timing of the campaign coincided with an opening of political opportunities at the federal-government level after the inauguration of President Barack Obama in 2009. The federal government's 2009 American Recovery and Reinvestment Act had included various provisions to support energy-transition programs while also creating green jobs, and state and local governments across the country responded to the new opportunity for federal funds by creating programs to support green job development and other REEE initiatives.

The goals of the campaign were to combine support for LMI electricity consumers in two ways: to provide access to financing, in order to make it easier to make energy-efficiency improvements to the home or business, and to create green jobs. The creation of green jobs would presumably benefit the many households facing unemployment and financial pressure in the wake of the recession, and the original proposal included job training and living-wage goals. The strategy for achieving the goals was lobbying the legislature and the governor to build support for the law. The strategy also involved linking the initiative to federal-government support under the Obama administration for REEE and green-jobs.

Coalition and Outcome. The primary supporter of the proposed law for green-jobs development was the Center for Working Families, a think tank associated with New York's Working Families Party [46]. This progressive-left political party had been formed in 1998 from a coalition of community organizations and labor unions, and it played a non-trivial role in the state's politics. In 2009 the Center for Working Families joined with the Center for American Progress, a national progressive organization, to develop a plan for the law [41]. Labor unions, such as the International Brotherhood of Electrical Workers, and community-based organizations, including the Northwest Bronx Community and Clergy Coalition and People United for Sustainable Housing (PUSH) Buffalo, also played a role in the legislative campaign to get the law passed.

Mainstream environmental organizations were less involved in this specific campaign, but the New York coalition was aligned with a broader national "blue-green" (labor-environmental) coalition that had

emerged to support the candidacy of Barack Obama in 2008 and that President Obama embraced in his economy recovery policies. At the national level Anthony Van Jones led the advocacy organization Green For All and for a while served in the White House as the Special Advisor for Green Jobs, Enterprise, and Innovation. The BlueGreen Alliance, a labor-environmental coalition, also supported green jobs policies at the national level. Thus, state and city governments were open to proposals like the "Green Jobs/Green New York" law because the initiatives responded to policy signals in support of green jobs from the federal government at this time, especially President Obama's attempt to implement his campaign promise to create 5 million green jobs.

Given the opening of political opportunities, the campaign was relatively welcome in the legislature, and the coalition achieved success quickly. In October, 2009, New York's Democratic Party Governor David Paterson signed the "Green Jobs/Green New York" law (A8901/S5888), which authorized \$112 million from RGGI funds for the program's energy-efficiency measures for homes, non-profit organizations, and small businesses. It also authorized an additional \$2-4 million for green-jobs training programs. The aim was to create 14,000 jobs while also greening one-million homes.

Although there was broad support for the law in the legislature, the coalition did not achieve all of its goals. One casualty of the legislative process was on-bill financing, a provision that would have allowed households to finance energy-efficiency improvements with gradual repayments on their utility bills. When implemented successfully, customers could find that their energy savings were equivalent to the repayment amount, with no net change in the utility bill. Utilities frequently push back against such proposals because they require changes to billing processes and reduce electricity demand. However, the goal of on-bill financing was later achieved as part of the Power NY Act of 2011 (S5844). A second area of shortfall occurred because the building contractors' industry opposed the proposal to include job standards (colloquially known as "good green jobs"), and the law was passed without the standards. The New York State Energy Research and Development Authority (NYSERDA), which was charged with implementation of these and other energy-transition policies, later developed an option for organizations to aggregate customers in a neighborhood to work with a contractor who meets the standards.

Implementation of the law involved the creation of a more extensive energy-transition coalition of "constituency-based organizations." Thus, the coalition did not go into abeyance after achieving success but instead expanded through participation in the implementation network. The implementation of the law used funds from the RGGI auctions administered by NYSERDA to support a network of organizations and companies that were charged with motivating energy-efficiency improvements and green jobs for LMI households. This funding, coupled with participation in the Green Jobs Green NY Advisory Council and the Green Jobs Green New York LMI Working Group, created a statewide network of organizations. For example, PUSH Buffalo had been an active supporter of the proposed law and later became an implementation organization. The non-profit organization had originally focused on low-income energy access and racialized shut-offs of energy supplies, but it subsequently diversified into energy-efficiency improvements and green-jobs training. This organization later became an important player in the energy-democracy coalition. The NYSERDA implementation program also motivated other community-based organizations to diversify their programs and goals to include LMI energy issues and REEE.

Despite the significant investment of funds into the program, subsequent analyses of the green jobs programs indicate that implementation was disappointing. The total number of jobs created was estimated in the hundreds to one thousand rather than the 14,000 originally envisioned [47]. Factors for the low implementation level include consumers' lack of willingness to invest in energy-efficiency improvements in the midst of the recession, the delayed implementation of on-bill financing, paperwork requirements that made contractors hesitate before becoming involved, and the general problem of

lack of follow-through from customers after receiving energy assessments of homes [48]. Similar problems plagued green-jobs programs nationally.

However, the network of constituency-based organizations became an important part of the state's overall energy-transition movement by advocating for additional policies to support LMI customers as part of the state's energy policy. For example, in 2016, the state government approved the "Climate and Community Protection Act" (A 10342), which called on the state to reduce greenhouse gas emissions from large sources to zero by 2050 and also mandated that 40% of funds from new market schemes be dedicated to green jobs and REEE for LMI households. The coalition NY Renews supported this law, and its steering committee included groups active in the green jobs mobilization and implementation.

Frames. With respect to the frames used, the green jobs coalition focused on the economic benefits of energy-efficiency improvements and the need to remediate inequality. However, the type of economic benefit was different from that of the RGGI coalition. Whereas the RGGI coalition was focused more on general economic benefits for the state's economy and population as a whole, the green-jobs coalition drew attention to targeted benefits for LMI households. For example, the Working Families' proposal began by drawing attention to how "the burden of energy-inefficient housing falls heavily on middle- and lower-income New Yorkers" [41: 1]. The proposal also amplified the economic benefits frame from providing affordable energy to LMI households to green job creation that meets community-benefit standards and helps employment in "distressed communities" [44: 71]. Unlike the RGGI coalition, where the climate mitigation frame was prominent, in this coalition the climate-mitigation frame appeared tangentially with recognition that green jobs would also address climate change.

4.1.3. *Moratoria on natural gas infrastructure and development*

Background, Goals, and Strategy. The third energy-transition coalition approximated the industrial opposition type by mobilizing against new, high-volume hydraulic fracturing technologies and infrastructure development for the natural gas industry. The campaign focused on the state government's response to the proposed expansion of hydraulic fracturing ("fracking"). In 2010 the Assembly (the lower house of the bicameral state legislature) voted for a moratorium on fracking until studies were completed, and in 2012 the neighboring state of Vermont, with no known natural gas reserves, pre-emptively banned fracking. Later in 2012 Democratic Party Governor Andrew Cuomo of New York disappointed his progressive supporters when he did not follow-up with a similar ban and instead called for a public health study. By 2014 he was developing an initiative in support of solar energy and other energy-transition initiative programs, and many voters saw his lack of opposition to increased natural gas development as a failure to have a consistent energy-transition policy. Thus, political opportunities were relatively open because of the governor's overall support of energy-transition policies and his decision to await further study on the issue of high-volume fracking. However, because the natural-gas industry had aligned with some rural landowners who wanted revenue from natural gas development, and because the developing of fracking could increase revenues for the state government, there was also some pressure on the governor to allow high-volume fracking to proceed. initiative

The goal of the energy-transition coalition, which consisted primarily of community-based organizations and environmentalists, was to convince the governor to declare a moratorium on new hydraulic fracturing technologies. The citizens of the New York City area, which represent the bulk of the state's population, were also generally opposed to any potential threats to their water supply, which comes primarily from reservoirs in the Catskill Mountains. Thus, there was enormous potential to mobilize a majority of the state's population in opposition to the technology. Strategies included protest, passing local bans on fracking, and conducting research about the risks of the

technology to water supplies.

Coalition and Outcome. New Yorkers Against Fracking was founded in 2012 and brought together 250 organizations. Founding members were Food & Water Watch, Frack Action, United for Action, Catskill Mountainkeeper, and the Working Families Organization. Citizen Action of New York, Concerned Health Professionals of New York, Environment New York, and Sane Energy Project also provided support, and the New York State Sustainable Business Council, which represented 1600 businesses, also supported the moratorium.

The large coalition engaged in a long campaign, and some groups mobilized protests at the public appearances of Governor Cuomo (known as "bird-dogging the governor"). Furthermore, over 180 communities passed anti-fracking bans. Further indication of the broad public support for a ban on fracking came during the 2014 primary campaign, when Governor Cuomo encountered a surprisingly strong challenge from Zephyr Teachout, a law professor who had strong support from the state's anti-fracking coalition. She won about a third of the Democratic Party primary vote for governor, a challenge that indicated to Governor Cuomo the weakening of his support among the progressive base of his party.

In December, 2014, the governor announced a ban on high-volume, horizontal hydraulic fracturing in the state. The decision occurred after the New York State Department of Health [49] released a study that concluded that health concerns for high-volume hydraulic fracturing were sufficient to recommend that the state should not allow further development, but the governor's decision also occurred only a few months after the primary vote that had revealed the electoral strength of the opposition coalition. Implicitly, he recognized that public opinion in the state, itself led by the relentless messaging of the energy-transition coalition, had turned against fracking.

After this victory, the energy-transition coalition turned its attention toward natural-gas infrastructure. In response to the coalition, the New York City Council adopted a resolution against the proposed Port Ambrose Liquid Natural Gas facility, and the governor vetoed the proposed siting in December, 2015. Environmentalists and community organizations also mobilized against the Constitution Pipeline for natural gas, which was proposed to transport natural gas extracted in Pennsylvania to a northern-tier network of pipes in upstate New York and New England. Pennsylvania is a more conservative state to the south of New York that had allowed hydraulic fracturing to proceed. In April, 2016, the New York State Department of Environmental Conservation denied Willams-Cabot a water quality permit. The next month the company Kinder Morgan also decided not to pursue the parallel Northeast Energy Direct pipeline because of concern with capacity. Thus, the coalition continued to be active but with a shift of focus to natural-gas infrastructure.

Frames. The most prominent frames were health and environment risk and economic and social harm from fossil fuels. For example, Concerned Health Professionals of New York played an important role in bringing together research on health risks, which influenced the crucial report by the New York State Department of Health [49]. Economic and social harm appeared as arguments about the loss of value to property, higher costs for local communities associated with the use of infrastructure, long-term remediation costs, and higher crime rates in areas with extensive deployment of natural gas extraction. The coalitions against natural-gas development also frequently mentioned corporate power, specifically when they discussed how communities were destroyed without their permission, how governments had caved in to industry pressure on regulations, and why the federal government had limited disclosure of information about the chemicals in fracking fluid. The energy democracy frame appeared implicitly in discussions of how the rights of community control were violated, including some discussion of home rule and the need to have more local bans on fracking. Climate-change mitigation appeared more tangentially, mainly in references to the negative effects of fossil fuels on greenhouse-gas emissions, including methane emissions. The frames of economic and

community benefits of REEE and of the remediation of inequality, which had been prominent in the green jobs campaign, were not evident or rarely articulated.

4.1.4. The REV implementation coalition

Background, Goals, and Strategy. The fourth energy-transition coalition has elements of all four types but is used here as an example of the industrial democratization goal via the “Make REV R.E.A.L.” campaign [50]. The acronym stands for renewable, equitable, accountable, and local, a set of goals that is consistent with the effort to build a broad mobilization to influence state policy. Governor’s Cuomo’s energy-transition policy had three main elements that built on the initiatives of previous governors (e.g., Pataki for the RGGI policy and Paterson for the green jobs policy). In April, 2012, Governor Cuomo announced the New York Sun Initiative, which set a goal of quadrupling solar energy installations during the next year. The governor claimed that the initiative would establish the state as a leader in the industry, create green jobs, and reduce energy costs. The next year he announced the plan to develop the New York State Green Bank to support financing for renewable-energy projects. In April, 2014, the governor followed up with the third element, the broader REV initiative, which involved modernizing the electricity grid to improve innovation, to open up marketplace transactions, and to increase the capacity to develop distributed energy. More than a policy to support the development of low-carbon energy, the REV initiative expressed the governor’s sense that the electricity regime of centralized, baseload generation was outmoded. The power outages suffered after Hurricane Sandy in October, 2012, had revealed the vulnerability of the state’s electricity system to extreme weather events.

The goal of the REV energy-transition coalition was complicated because environmental and other civil society organizations generally applauded the governor’s efforts, but they also expressed concern that regime actors would dominate the REV implementation process and tilt the reforms away from broad public benefit goals. The governor’s decision to appoint Richard Kauffman, who had a background in Wall Street finance, as the energy czar indicated the governor’s desire to bring innovation and investment to the state’s electricity industry similar to innovations that had occurred in the financial and technology sectors. However, the appointment also alerted leaders of the energy-transition movement that the “vision” of REV could be that of Wall Street and insider policymakers rather than the broad public interest and LMI communities. Thus, principal goal was not to oppose REV but to “Make REV R.E.A.L.” In bringing together the four goals of renewable, equitable, accountable, and local, the sociotechnical transition goals of the sunset of fossil-fuel reliance and the sunrising of renewable energy were combined with the access goals of “equitable” or just transition politics, as well as the goals of ensuring that the REV process was democratically accountable. The latter included not only the policy process but also the opportunities to develop community-controlled electricity generation. In this coalition, the frame of energy democracy is both explicit and much more salient than in the other coalitions. As of 2017, the strategies to date for the “Make REV R.E.A.L.” campaign were limited mainly to participation in the rule-making process and public advocacy for greater public participation and more public hearings, but it has also included some protest at REV-related events.

Coalition and Outcomes. In response to the REV initiative, the Alliance for a Green Economy (AGREE) and 38 organizations developed a public comment that asked the state government’s Public Service Commission to include the goals of “energy democracy, environmental sustainability, affordability, consumer protections, and economic and racial justice into the goals and vision of the REV project” [50]: 3). The New York Energy Democracy Alliance (NYEDA) worked to gain more public hearings, to slow down the REV process to enable greater public participation, to include community-based organizations in the LMI Proceeding, and to call for rules that favored the development of locally

owned or controlled renewable energy.

The NYEDA coalition described itself as “the coming together of two previously separate constituencies: the network of community-based organizations involved in implementing the state’s Green Jobs—Green New York program, and the loose network of grassroots organizations fighting a variety of dirty energy industries, including fracked gas, nuclear power, and coal” [50: 3]. As of 2017 the NYEDA [51] listed 16 core organizations as members, but many others participated or signed letters in support of the alliance’s goal and initiatives. (See Appendix 1). Of the 16 organizations, four were community-benefit organizations associated with the implementation of Green Jobs—Green New York, and four others had a social justice or LMI advocacy orientation. Other organizations in this diverse coalition were associated with fossil-fuel opposition, the state’s progressive politics, green businesses, and community-controlled energy. However, for the most part, the big national environmental organizations that had been so prominent in the RGGI coalition were not evident. Other than the absence of the national organizations, the REV coalition was the most diverse energy-transition coalition yet to form.

Because the REV process was still underway in early 2018, the discussion of outcomes is necessarily limited. The discussion here will focus on one leading example of the “Make REV R.E.A.L.” campaign: the NYEDA’s advocacy of shared renewables, which the Public Service Commission approved in July, 2015. The term “shared renewables” has come to replace the older terms “community solar” or “solar gardens” because it is more inclusive of different ownership models and different types of renewable energy. Nevertheless, support for this type of energy is based on the democratic goal of having greater community control over electricity generation and the access goal of making the benefits of solar ownership more widely available to renters and others who do not have the physical or financial access to owning their own rooftop solar. This policy came about with support from the Shared Renewable Energy Coalition, led by the industry advocacy group Vote Solar. The NYEDA advocated for inclusion of support for LMI households in the shared renewables policy, and the Public Service Commission responded by fast-tracking projects for interconnection that had at least 20% LMI participation. The NYEDA also created the Community-Owned Shared Renewables Task Force to provide information on community ownership.

In summary, in this case the NYEDA organizations tried to democratize the rule-making process through public participation. Their goal was to create the conditions for channeling some of the tide of investment flowing into shared solar in order to increase the potential for at least some of the projects to be locally owned and controlled and accessible for LMI customers. This aspect of the REV process provided an opportunity to address LMI concerns while also creating some potential for the local democracy goal of greater community control over renewable energy.

Frames. In this mobilization, a wide range of frames was evident. The general campaign slogan that the organizations frequently used, “Make REV R.E.A.L.,” included a list of detailed goals that involved all of the seven major frames that this study has identified for energy-transition coalitions: for the renewable goal of 100% renewable energy, the frames of climate mitigation, health and environmental risk, economic and social harm, and economic benefits were evident; for the equitable goal, inequality remediation, corporate power, and energy democracy were evident; and for the accountable and local goals, corporate power and energy democracy were evident. On the web sites of the primary organizations that were supporting the Make REV R.E.A.L. campaign, the prominent frames were energy democracy and inequality remediation. In the REV commentaries, which came from a broader group of organizations, the two most prominent frames were climate-change mitigation and the economic benefits of REEE. Following these two frames, energy democracy, inequality remediation, and health and environmental risk were also prominent, appearing about half as frequently.

Table 2
Goals, Strategies, and Organizational Composition of the Energy-Transition Coalitions.

Coalition	Goal	Strategy	Organizational Composition
Greenhouse-gas mitigation (RGGI)	100% auctions	Rule-making process and rule changes	Large environmental organizations and REEE industry
Green jobs & on-bill financing	Passage of green jobs law	Lobbying legislators	Working Families Party, unions, community-based organizations
Anti-fracking	Moratorium	Protest rallies at governor’s public events, local ordinances, research	Large number of environmental and community groups, New York Sustainable Business Council
Make REV Real	Reforming the REV process	Rule-making process and rule changes, having more public hearings	Green jobs and associated LMI organizations, fossil-fuel opposition organizations, some REEE advocacy organizations

4.2. Comparative analysis of case studies

Table 2 summarizes the results for the goals and strategy and for the organizational composition in response to research questions 1 and 2, and Appendix 1 shows in more detail the organizational composition of the coalitions. The data indicate that the different goals and strategies are associated with a markedly different organizational composition for the four coalitions. In other words, the same group of organizations does not appear as the basis of the four energy-transition coalitions. Thus, we can think of the broader energy-transition movement in the state as comprised of separate wings, each of which has a different organizational composition, with some overlap. Furthermore, the RGGI coalition was the most separate from the other three; in general, the organizations associated with it were often national environmental organizations, and they did not meet the criteria used here (see Appendix 1) to be classified as active participants in the other three coalitions. The organizations opposed to natural-gas pipelines and hydraulic fracturing also tended to be focused on that policy issue.

With respect to the third research question, the four coalitions relied on different but overlapping frames. Frame frequency is categorized as an ordinal variable: prominent if the frame appeared multiple times across various organizations and statements, evident if the frame appeared only a few times, or not evident (See Table 3). There was a diversification of frames from the RGGI coalition to the REV coalition, and the frame of energy democracy became more prominent in the more diverse REV coalition. The set of goals associated with the energy democracy frame suggests that it has meaning not only in the narrow context of the “Make REV R.E.A.L.” coalition but also in the broader historical context of the ongoing diversification, expansion, and integration of energy-transition coalitions, especially the alliance forged with LMI organizations.

Table 3
Frames Used by Energy-Transition Coalitions.

	RGGI	GJ	NG	REV
Climate change mitigation	Prominent	Evident	Evident	Prominent
Health and environmental risks of fossil fuels			Prominent	Prominent
Economic and social harm from conventional energy			Prominent	Evident
Corporate power of the fossil-fuel corporations and utilities			Prominent	Prominent
Economic and community benefits of REEE	Prominent	Prominent		Prominent
Remediation of inequality		Prominent		Prominent
Energy democracy		Evident*	Evident*	Prominent

KEY (from left to right): RGGI (RGGI coalition), GJ (green jobs coalition), NG (natural-gas opposition coalition), and REV (Reforming the Energy Vision coalition). An asterisk indicates that concerns with democracy were evident but not explicitly depicted with the phrase “energy democracy”.

With respect to the fourth research question, the coalitions have become more integrated over time, but mainly through participation in the fourth energy-transition coalition that mobilized in support of reforms to the REV process. Only a few organizations served as active bridge brokers across the coalition types; they are identified in Appendix 1 as organizations participating in most of the coalitions. These organizations fell into three main categories: political organizations with a general progressive mission (the Long Island Progressive Coalition and the Working Families Party), general environmental organizations with a state or regional focus (Catskill Mountainkeeper, Citizen Action of New York, Environmental Advocates of New York, and Sierra Club Atlantic Chapter), and an LMI organization (PUSH Buffalo) that broadened its mission as part of the coalition participation. In other words, the task of building bridges through participation in multiple coalitions is limited to a few organizations.

The green-jobs coalition (the second of the four energy-transition coalitions) represented a substantial broadening of the state’s energy-transition movement because it recruited organizations that historically were concerned with economic inequality issues such as affordable housing and the quality of life of neighborhoods. The “Make REV R.E.A.L.” campaign provided an even broader integration of different groups by including state-level environmental, labor, and anti-fracking organizations with the LMI organizations of the green-jobs coalition. Thus, the REV coalition, which is the “youngest” of the four energy-transition coalitions, showed efforts to integrate across previous energy-transition coalitions.

In summary, the analysis suggests that the relatively siloed coalitions—the distinctive set of goals, strategies, organizational composition, and frames—associated with the RGGI, green jobs, and anti-natural gas coalitions tended to become more integrated with the formation of the “Make REV R.E.A.L.” coalition. The integration was embedded in a small set of bridge-broker organizations that deployed a diverse set of frames that could attract a range of organizations in the energy politics field. Although concerns with local control and power and with public participation occur in the other coalitions, it is in this context of the more integrated coalition represented by the “Make REV R.E.A.L.” campaign that the frame of energy democracy becomes salient.

By viewing “energy democracy” as a frame and locating its use in a particular context, this study provides an approach to energy democracy that situates its meaning in a particular historical conjuncture. Rather than beginning with a single, universal definition of an “energy democracy movement,” the emic approach opens the way to a consideration of diverse “energy democracies.” This perspective makes it possible to understand how energy democracy comes to life as a frame that can integrate action and cooperation across coalitions. In the context of New York State energy-transition politics in the early twenty-first century, energy democracy has a particular meaning that integrates coalitions and their goals: a sociotechnical transition to a low-carbon energy system; access to affordable energy and good, green jobs; community control over local environments when threatened by fossil-fuel extraction and infrastructure; and enhanced public participation in the policy process as well as greater local control over energy generation.

5. Conclusion

This study contributes to research on the politics of energy transitions by developing a multi-coalition perspective on energy-transition coalitions as part of a broader industrial transition movement in the energy field. The multi-coalition perspective has two central dimensions.

The first dimension is to show that energy-transition coalitions have diverse goals that can be classified and studied in a systematic way. The multi-coalition perspective can help researchers to avoid focusing on one specific type of energy-transition coalition and thereby missing the broader context of related mobilizations and the interactions across coalitions. The multi-coalition perspective is developed through two classifications of the primary orientation or goal of the mobilization: a narrower goal of a sociotechnical transition and the broader goal of societal transition, and a sunseting orientation (ending unwanted practices, policies, social inequalities, and technologies) and a sunrising orientation (supportive alternatives such as REEE and local ownership). The 2×2 typology provides a more comprehensive picture of what is meant by an energy-transition coalition than one associated only with sociotechnical change for a technological system or industry. This multi-coalition perspective on energy-transition coalitions makes it possible to track the different goals, strategies, organizational structures, outcomes, and frames comparatively across a political field with diverse energy-transition coalitions.

The case of energy-transition coalitions in New York State is used to exemplify these four types of orientation. The resulting data and analysis show evidence of siloization; in other words, the energy-transition coalitions tend to operate as relatively separate endeavors. The existence of siloization across the energy-transition coalitions suggests that a limited approach that focuses on one type of coalition may not provide a full perspective on the politics of energy transitions in a region.

The second main theoretical contribution uses the multi-coalition perspective to examine the conditions under which cross-coalition integration appears. Using the case of New York State, the analysis shows the importance of bridge-broker organizations that have been able to pull together the previously disperse coalitions into a more unified mobilization for the Make REV R.E.A.L. campaign. Furthermore, the integration of coalitions has involved extensive use of the frame of energy democracy, which is a broad banner that can bridge the diverse goals of the energy-transition coalitions: ongoing development of REEE and sunseting of fossil-fuel sources; support for LMI households and good green jobs in the energy sector; an end to or restrictions on unwanted energy-infrastructure development; and public participation and control over energy generation and over the policy-making process that governs the reform of the energy industry. Thus, energy democracy as a collective action frame helps advocates to find a common ground for participation in and modification of the government's energy-

Appendix 1. Coalition participation by organization and by type of coalition

Government agencies and individual businesses are not included, but business associations and labor unions that meet the selection criteria are included. The list for the RGGI group is based on participants in and observers of the Stakeholder Group and organizations that submitted comments to the RGGI rule-making process. For the green jobs coalition, the list is based on organizations identified from media reports as originators and primary supporters of the law and those listed as part of the Green Jobs—Green New York LMI Working Group. These organizations are listed with an “x,” and steering committee members of the subsequent NY Renewals coalition are included as “a” for additional participants. For the anti-fracking coalition, the leaders of the coalition are identified from media reports with an “x,” and an “a” indicates other members of long list of members for New Yorkers Against Fracking and/or organizations that list opposition to natural gas infrastructure projects as a campaign on the organization's web site. For the REV implementation coalition, an “x” indicates that the organization was on the list of members on the NYEDA's web site as of 2017, and an “a” indicates that the NYEDA listed the organization in a 2016 membership list or that the organization participated in the initial REV commentary process in 2014 [51].

KEY (from left to right): RG (RGGI stakeholder members, observers, and primary commentators), GJ (original supporter of green jobs legislation or member of LMI Working Group), NG (founding member of NYAF, New Yorkers Against Fracking), and REV (for Reforming the Energy Vision implementation campaign).

transition process.

As discussed at the outset, the multi-coalition perspective relies on an “emic” approach to the study of energy democracy. Rather than beginning with an a priori definition of energy democracy that is developed from broader theoretical principles, the emic approach begins with the problem of what energy democracy means on the ground to participants in a coalition. The approach begins with the set of frames and political goals, and it shows how they differ across coalitions. As bridge brokers among the energy-transition coalitions attempt to integrate diverse campaigns with a range of goals, the frame of energy democracy becomes more prominent. Although the meaning of energy democracy varies across organizations within the NYEDA and will likely continue to be infused with local and situational meanings in other areas of the world, the New York case suggests that the energy-democracy frame has potential to provide a broad banner that bridge brokers in other contexts may also use to facilitate the integration of coalitions.

Finally, the multi-coalition perspective on energy transitions has practical and policy implications. For policymakers and communities alike, there are benefits to opening up the policy process by having greater participation from energy-transition coalitions and other green-transition coalitions in decision-making and in policy implementation. It was impressive to read the depth of insight from coalition organizations, including highly technical peer review, in the rule-making process. As the case studies above indicate, in New York policymakers have generally been fairly open to the perspectives of environmentalists, the REEE industry, and LMI advocacy organizations, and often the policymakers included the insights of these groups in final policy guidelines and implementation. Conversely, ignoring the perspectives of transition coalitions can be perilous. The coalitions are capable of mounting significant challenges in elections and of mobilizing extensive street protest, as Governor Cuomo discovered with the surprising turn-out for his primary election challenger and with the anti-fracking mobilization's relentless appearances at his speeches across the state. Furthermore, by including the vision of energy democracy in energy-transition politics, political leaders who support energy-transition policies may be perceived as more broadly legitimate and may enjoy greater public support. This is especially important in a country such as the United States, where incumbent organizations in the energy industry have built powerful regime coalitions to contest and weaken policies supportive of energy transitions and energy democracy.

Acknowledgements

This paper was originally presented at the conference “Energy Democracy: Creating a Research Agenda,” held at the University of Utah, July 12–13, 2017. Conference participants are acknowledged for their comments.

Organization	RG	GJ	NG	REV	Additional Cross-Coalition Connections
<i>Anti-Fracking & Pipeline Organizations:</i>					
Clean Water Action	x		a		Opposition to oil and gas development (national)
Food and Water Watch			x		
Fossil Free Tompkins			a	x	
Frack Action			x		
Sane Energy Project			a	x	NYAF coalition
United for Action			x		
<i>Environmental Justice Organizations:</i>					
New York City Environmental Justice Alliance		a			NY Renew's steering committee
Sustainable South Bronx		x		a	Also a 2016 member of NYSEDA
WE ACT for Environmental Justice			a	x	NYAF coalition
<i>Environmental Organizations (National):</i>					
Acadia Center	x				
Environmental Defense	x			a	REV 2014 commentary
Natural Resources Defense Council	x			a	REV 2014 commentary
Nature Conservancy	x			a	REV 2014 commentary
Union of Concerned Scientists	x				
Wilderness Conservancy	x				
<i>Environmental Organizations (Regional):</i>					
Alliance for a Green Economy			a	x	NYAF coalition member
Binghamton Regional Sustainability Coalition		x		x	
Catskill Mountainkeeper		a	x	x	NY Renew's steering committee
Citizen Action of New York		a	a	x	NY Renew's steering committee
Citizens Environmental Coalition			a	x	NYAF coalition member
Citizens for Local Power			a	x	NYAF coalition member
Environmental Advocates of NY	x	x	x	a	NY Renew's steering committee; 2014 REV commentary
Environment New York			a		NYAF coalition member
Hudson River Sloop Clearwater			a	x	NYAF coalition member
Sierra Club Atlantic Chapter	x	a	a	a	NY Renew's steering committee; anti-Constitution pipeline; 2014 REV commentary
<i>Industry & Professional Organizations:</i>					
American Council for an Energy-Efficient Economy (ACEEE)	x			a	REV 2014 commentary
American Wind Energy Association	x				
Business Council for Sustainable Energy	x				
Concerned Health Professionals of NY			a		Active in anti-fracking campaign research
Coop Power				x	
New York State Sustainable Business Council			a	x	Opposed fracking
Vote Solar		a		a	General support for green jobs; 2016 member of NYSEDA; REV 2014 commentary
<i>Labor Organizations:</i>					
Intl. Brotherhood Electrical Workers		x			
Teamsters Joint Council 16			a		NY Renew's steering committee
SEIU (Service Employees Intl. Union)		a			NY Renew's steering committee
<i>LMI and Social Justice Organizations:</i>					
Affordable Housing Partnership (AHP) Home Ownership Center		x		x	
Center for Social Inclusion				x	
Community Voices Heard				a	Also a 2016 member of NYSEDA
Emerald Cities Collaborative		a		a	Green job development; also a 2016 member of NYSEDA
Good Old Lower East Side				x	
Grid Alternatives		x			
Make the Road New York		x,a			NY Renew's steering committee
New York Communities for Change		a			NY Renew's steering committee
Nobody Leaves Mid-Hudson				x	

Northwest Bronx Community Clergy Association	x			x	
Pathstone	x				
PUSH Buffalo	x, a	a		x	NY Renew's steering committee, NYAF coalition
RUPCO	x				
Solstice					x
Sullivan Alliance for Sustainable Develop.					x
Syracuse United Neighbors					x
UPROSE	x, a				NY Renew's steering committee
Voices of Community Activities and Leaders				a	Also a 2016 member of NYSEDA
<i>Progressive (General) Organizations:</i>					
Alliance for a Greater New York (ALIGN)	a			a	NY Renew's steering committee; also a 2016 member of NYSEDA
Center for American Progress	x				
Long Island Progressive Coalition	x, a	a		x	NY Renew's steering committee, NYAF coalition member
Public Interest Research Group			x		a
Public Policy and Education Fund of NY			x		a
Working Families Organization & Party	x, a	x, a		a	NY Renew's steering committee; NYAF coalition; supports energy democracy

References

- [1] F. Geels, Regime resistance against low-carbon energy transitions: introducing politics and power into the multi-level perspective, *Theory Cult. Soc.* 31 (5) (2014) 21–40.
- [2] A. McCright, C. Xiao, R. Dunlap, Political polarization on support for government spending on environmental protection in the USA, 1974–2012, *Soc. Sci. Res.* 48 (2014) 251–260.
- [3] N. Carter, B. Clements, From greenest government ever to get rid of the all the green crap: David Cameron, the conservatives, and the environment, *Br. Politics* 10 (2) (2015) 204–225.
- [4] P. Johnstone, A. Stirling, B. Sovacool, Policy mixes for incumbency: exploring the destructive recreation of renewable energy, shale gas fracking, and nuclear power in the United Kingdom, *Energy Res. Social Sci.* 33 (2017) 147–162.
- [5] N. Young, A. Coutinho, Government, anti-reflexivity, and the construction of public ignorance about climate change: Australia and Canada compared, *Global Environ. Politics* 13 (2) (2013) 89–108.
- [6] D. Hess, *Good Green Jobs in a Global Economy*, MIT Press, Cambridge, U.S., 2012.
- [7] J. Markard, M. Suter, K. Ingold, Socio-technical transitions and policy change: advocacy coalitions in Swiss energy policy, *Environ. Innov. Soc. Trans.* 18 (2016) 215–237.
- [8] J. Köhler, F. Geels, F. Kern, E. Onsongo, A. Wieczorek, *A Research Agenda for the Sustainability Transitions Research Network*, (2017) https://transitionsnetwork.org/wp-content/uploads/2017/12/STRN_Research_Agenda_2017.pdf.
- [9] A. Smith, R. Raven, What is protective space? Reconsidering niches in transitions to sustainability, *Res. Policy* 41 (6) (2012) 1025–1036.
- [10] F. Avelino, J. Wittmayer, Shifting power relations in sustainability transitions: a multi-actor perspective, *J. Environ. Policy Plann.* 18 (5) (2016) 628–649.
- [11] B. Turnheim, F. Geels, The destabilization of existing regimes: confronting a multi-dimensional framework with a case study of the British coal industry (1913–1967), *Res. Policy* 42 (2013) 1749–1767.
- [12] G.-P. Voss, A. Smith, J. Grin, Designing long-term policy: rethinking transition management, *Policy Sci.* 42 (4) (2009) 275–302.
- [13] V. Lauber, S. Jacobsson, The politics and economics of constructing, contesting, and restricting socio-political space for renewables, *Environ. Innov. Soc. Trans.* 18 (2016) 147–163.
- [14] D. Hess, The politics of niche-regime conflicts: distributed solar energy in the United States, *Environ. Innov. Soc. Trans.* 19 (2016) 42–50.
- [15] D. McAdam, S. Tarrow, Introduction: dynamics of contention ten years on, *Mobilization* 16 (1) (2011) 1–10.
- [16] D. Hess, *Undone Science: Social Movements, Mobilized Publics, and Industrial Transitions*, MIT Press, Cambridge, U.S., 2016.
- [17] P. Sabatier, C. Weible, The advocacy coalition framework: innovations and clarifications, in: P. Sabatier (Ed.), *Theories of the Policy Process*, Westview Press, Boulder, CO, 2007, pp. 189–220 (2007).
- [18] A. Smith, M. Fersoli, D. Abrol, E. Around, A. Ely, *Grassroots Innovation Movements*, Routledge, London, 2017.
- [19] S. Soule, *Contention and Corporate Social Responsibility*, Cambridge, 2009.
- [20] I. Vasi, *Winds of Change: The Environmental Movement and the Global Development of the Wind Energy Industry*, Oxford University Press, New York, US, 2011.
- [21] F. Geels, J. Schot, Typology of sociotechnical transition pathways, *Res. Policy* 36 (3) (2007) 399–417.
- [22] T. Hughes, The evolution of large technological systems, in: W. Bijker, T. Hughes, T. Pinch (Eds.), *The Social Construction of Technological Systems*, MIT Press, Cambridge, U.S., 1987, pp. 45–76.
- [23] J. Schot, Confronting the second deep transition through the historical imagination, *Technol. Cult.* 57 (2) (2016) 445–456.
- [24] P. Newell, D. Mulvaney, The political economy of the just transition, *Geogr. J.* 179 (2) (2014) 132–140.
- [25] J. Agyeman, D. Schlosberg, L. Craven, C. Matthews, Trends and directions in environmental justice: from inequity to everyday life, community, and just sustainabilities, *Annu. Rev. Environ. Resour.* 41 (2016) 321–340.
- [26] B. Mayer, Cross-movement coalition formation: bridging the labor-environmental divide, *Sociol. Inquiry* 79 (2) (2009) 219–239.
- [27] F. Rose, *Coalitions Across the Class Divide: Lessons from the Labor, Peace, and Environmental Movements*, Cornell University Press, Ithaca, NY, 2000.
- [28] B. Obach, *Labor and the Environmental Movement: The Quest for Common Ground*, MIT Press, Cambridge, MA, 2004.
- [29] D. Snow, R. Benford, Ideology, frame resonance, and participant mobilization, in: B. Klandermans, H. Kriesi, S. Tarrow (Eds.), *From Structure to Action: Social Movement Participation Across Cultures*, JAI Press, Greenwich, CT, U.S.A., 1988, pp. 197–217.
- [30] S. Becker, M. Naumann, Energy democracy: mapping the debate on energy alternatives, *Geogr. Compass* 11 (8) (2017) 1–13.
- [31] K. Szulecki, Conceptualizing energy democracy, *Environ. Politics* 27 (1) (2017) (forthcoming).
- [32] M. Burke, J. Stephens, Energy democracy: goals and policy instruments for sociotechnical transitions, *Energy Res. Social Sci.* 33 (2018) 35–48.
- [33] J. Angel, Toward an energy politics in-against-and-beyond the state: Berlin's struggle for energy democracy, *Antipode* 49 (3) (2017) 557–576.
- [34] B. Sovacool, M. Dworkin, *Energy Justice: Problems, Principles Practices*, Cambridge University Press, 2014.
- [35] B. Sovacool, M. Burke, L. Baker, C. Kotikalapudi, H. Wlokas, New frontiers and conceptual frameworks for energy justice, *Energy Policy* 105 (2017) 677–691.
- [36] K. Jenkins, D. McCauley, R. Heffron, H. Stephan, R. Rehner, Energy justice: a conceptual review, *Energy Res. Social Sci.* 11 (2016) 174–182.
- [37] T. Lappe-Osthege, J.-J. Andreas, Energy justice and the legacy of conflict: assessing the Kosovo C thermal power plant project, *Energy Policy* 107 (2017) 600–606.
- [38] C. Geertz, *The Interpretation of Cultures*, Basic Books, New York, 1973.
- [39] K. Pike, *Language in Relation to a Unified Theory of the Structure of Human Behavior*, 2nd edition, The Hague, Mouton, 1967.
- [40] M. LaBelle, In pursuit of energy justice, *Energy Policy* 107 (2017) 615–620.
- [41] E. Gelman, *Green Jobs, Green Homes New York*, (2009) https://cdn.americanprogress.org/wp-content/uploads/issues/2009/05/pdf/green_jobs_ny_exec_summ.pdf.
- [42] B. Huber, How did RGGI do it? Political economy and emissions auctions, *Ecol. Law Q.* 40 (2013) 59–106.
- [43] *Regional Greenhouse Gas Initiative, Regional Greenhouse Gas Initiative Stakeholder Group Meeting Process*, (2004) (April 2). http://www.rggi.org/docs/rggi_ms_4-2-04-final.pdf.
- [44] L. Raymond, *Reclaiming the Atmospheric Commons: The Regional Greenhouse Gas Initiative and a New Model of Emissions Trading*, MIT Press, Cambridge, MA, 2016.
- [45] National Association of State PIRGS, *Energy Efficiency: the Smart Way to Reduce Global Warming Pollution in the Northeast*, (2005) https://www.rggi.org/docs/rggi_energy_8_24_05.pdf.
- [46] Working Families Party, *Green Jobs, Green Homes*, (2009) (<https://web.archive.org/web/20090618072442/http://www.workingfamiliesparty.org/issues/green-jobs-green-homes/>).
- [47] J. Bal, P. Donachie, Albany Debate Hemmed Hopes for a Green Work Revolution, City

- Limits, 2016 (January 26. <http://citylimits.org/2016/01/26/albany-debate-hemmed-hopes-for-a-green-work-revolution/>).
- [48] R. Itzcovitz, Why a Green Jobs Program Produced so Few Jobs, *City Limits*, 2018, pp. 21–41 (January 26. <http://citylimits.org/2016/01/26/why-a-green-jobs-program-produced-so-few-jobs/>).
- [49] New York State Department of Health, A Public Health Review of High Volume Hydraulic Fracturing for Shale Gas Development, (2014) https://www.health.ny.gov/press/reports/docs/high_volume_hydraulic_fracturing.pdf.
- [50] New York Energy Democracy Alliance, Formation, Organization, and Moving Our Agenda: A Report from Our First 18 Months, (2017) http://energydemocracyny.org/wp-content/uploads/2015/12/EDA_Phase_1_report_final.pdf.
- [51] New York Energy Democracy Alliance, Members, (2017) <http://energydemocracyny.org/members>.
- [52] D. Hess, K. Brown, Green tea: clean-energy conservatism as a countermovement, *Environ. Sociol.* 3 (1) (2017) 64–75.

David J. Hess is the James Thornton Fant Chair in Sustainability Studies and Professor of Sociology at Vanderbilt University, where he is also the Associate Director of the Vanderbilt Institute for Energy and Environment and the Director of the Program in Environmental and Sustainability Studies (www.davidjhess.net).