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Green tea: clean-energy conservatism as a countermovement

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Environmental politics in advanced industrialized countries have been characterized as a dynamic interaction of two opposing movements: an original movement of progressive environmentalism and a countermovement of conservative opposition to environmental and energy-transition policies. This study analyzes an additional dynamic based on the emergence of clean-energy conservatism in the United States. We develop an explanation of the emergence of this additional dynamic and examine the reasons conservatives give for supporting clean energy, the variety of their frames, differences from comparison organizations and policy outcomes. Clean-energy conservatism has emerged, in part, as a dissenting response to the alignment of conservatism with support for fossil fuels. Although clean-energy conservatives seek to redefine clean energy policy according to conservative ideology, they differ from comparison conservative organizations over climate change and air quality. Clean-energy conservatives can claim some policy victories, but because they work in broad coalitions with environmentalists and others, it is difficult to assess their influence. The case of clean-energy conservatism is used to develop the theory of environmentalism and social movements by deepening the conceptualization of 'counter-countermovements,' and we also suggest the general value of considering the varieties of conservatism in future environmental sociology research.

Keywords: social movements; conservatism; renewable energy; environmental policy; countermovements

Introduction

There are various benefits that arise from transitioning energy sources to cleaner and low-carbon alternatives: the creation of local jobs, increased local control over energy sources, reduction of dependence on imported energy, improvements in air quality and mitigation of greenhouse gas emissions. Notwithstanding the benefits, progress has been slow, and in some countries there is concerted resistance to energy-transition policies. For example, significant partisan disagreements over energy-transition policies were salient after 2000 in Australia, Canada and the United Kingdom (Carter and Clements 2015; Young and Coutinho 2013). In the United States, the lack of bipartisan agreement on energy and environmental issues has become increasingly pronounced, and a conservative countermovement has emerged to challenge both climate science and energy-transition policies (Antonio and Brulle 2011; McCright, Xiao, and Dunlap 2014). Research on the movement-countermovement dynamic for both environmentalism and social movements in general has drawn attention to polarization and conflict; in this study, we contribute to the theorization of the dynamic by showing that it can operate in a more dialectical way by spawning new iterations and combinations.

We focus on the movement-countermovement dynamic for environmental politics in the United States, a country where this dynamic is longstanding and well-developed. We describe and explain the emergence of clean-energy conservatism, which has emerged in response to the trend within the country's conservative party, the Republican Party, toward increased support for fossil fuels and toward hardened opposition to energy-transition policies. Although research on the movement is itself important because of potential policy strategy implications for advocates and policymakers, we also argue that the case is theoretically important because it can contribute to the general understanding of the movement-countermovement dynamic in environmental sociology and political sociology.

Theoretical background

This study builds on and develops a theoretical and empirical contribution to approaches within environmental and political sociology that have drawn on the concept of countermovements (Jacques, Dunlap, and Freeman 2008; McCright and Dunlap 2003). During the 1960s and 1970s, American environmentalism diversified from its historical focus on preservation and conservation to include opposition to industrial pollution, and, in so doing, the movement achieved significant support for environmental legislation. In response, by the 1980s, opposition to environmental policy became manifest in a conservative 'countermovement' that supported neoliberal policies and responded to the progressive coalitions of the 1960s and 1970s (Jacques, Dunlap, and Freeman 2008). When conservatives gained control of

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Congress and state governments, they sometimes reduced environmental regulations deemed to be excessive, and they stopped proposals to support clean-energy technologies.

During the 1990s, a second wave of environmental reform responded to scientific research on anthropogenic greenhouse gases and their effect on global warming. Again, conservatives mobilized as a countermovement, but in this case, some conservatives also questioned the validity of climate science research (McCright and Dunlap 2011). These developments led to a second type of conservative countermovement, which Brulle (2014) described as climate change countermovement organizations. Likewise, in the religious field, similar dynamics of movement and countermovement have appeared as some evangelicals embraced climate change mitigation, and others have opposed it (Clements, Xiao, and McCright 2014, Danielsen 2013; Zaleha and Szasz 2015).

By viewing environmental politics as a relationship between movements and countermovements, environmental sociology draws on a political sociological literature on opposing social movement mobilizations (Zald and Useem 1987). When countermovements emerge and are sustained, the ongoing relationship between the movement and countermovement leads to the two 'opposing movements,' which exert mutual influence on each other (Meyer and Staggenborg 2008). These relationships are linked to conflicts between political parties or coalitions of parties. In the United States, the difference between the two parties on the need for energy-transition policies to a low-carbon future is evident in many ways, most notably in the disagreements between Republican and Democratic candidates in the presidential elections of 2012 and 2016. But we argue that evident polarization coincides with more complex developments, among which is the emergence of a movement among conservatives in support of clean-energy policy that has led to divisions among conservatives and within the Republican Party.

These clean-energy conservatives are not a monolithic group, but they all advocate the value of greater policy support for renewable energy and energy efficiency (REEE). Some also highlight the importance of nuclear energy and cleaner forms of fossil fuels such as natural gas, combined heat and power and carbon capture and storage. Thus, their goal is not identical to that of progressive environmentalists, who often seek to end nuclear power and to transition as quickly as possible away from all fossil fuels, but their goal is also at odds with the trend within the Republican Party to dismantle policies in support of REEE and to question the need for an energy transition if not the science of climate change.

In this study, we make a general theoretical contribution to the environmental sociology literature. First, by analyzing the reasons given for forming clean-energy conservative organizations, we draw attention to the role of scientific knowledge about environmental change as a divisive force within the conservative countermovement. We suggest that in the context of environmental sociology, the analysis of movements and countermovements cannot rest solely on political dynamics and opportunities. Rather, environmental change and conditions as mediated by contention over scientific knowledge also play a significant role in these dynamics. In other words, we investigate the limitations of climate denialism and anti-environmentalism in the conservative countermovement. Second, we also contribute to the theorization of conservative countermovements in environmental sociology by developing the thesis of divided conservatism with respect to energy politics and by contributing to a theory of counter-countermovements (CCMs) in environmental politics. Although Zald and Useem (1987) recognized the existence of CCMs, they did not develop a general theory of CCMs. We develop three aspects of a theory of CCMs as they appear in environmental politics.

First, we examine the conditions for the emergence of countermovements. Meyer and Staggenborg (1996, 1635) identified three conditions: '[F]irst, the [original] movement shows signs of success; second, the interests of some population are threatened by movement goals; and third, political allies are available to aid oppositional mobilization.' These general conditions apply to clean-energy conservatism because anti-fossil-fuel conservatism has shown political success, environmentally concerned Republicans and conservatives are threatened by the success, and there are donors who support a more pro-environmental position within conservative politics. But we also analyze a fourth element, the role of scientific knowledge, and examine the extent to which it is relevant in statements about the mission and motivation of clean-energy conservative organizations. Although there is an extensive conservative mobilization against climate science and other environmental research (McCright and Dunlap 2003), it has not led to a monolithic pattern of science denialism among conservatives. For example, in the United States, beliefs related to global warming have become more favorable among Republicans after a low point in 2010, even though favorable beliefs have also increased among Democrats and the gap between the two parties has not diminished (Dunalp, McCright, and Yarosh 2016). Furthermore, there are important differences among conservatives; for example, 53% of non-Tea Party Republicans agree that global warming is happening, but only 34% of Tea Party members agree (Leiserowitz et al. 2011). Thus, the survey data are consistent with the argument that climate science denialism is divisive among conservatives even in a broader context of issue and party polarization. But we do not know how important recognition of science and knowledge of environmental degradation is as a motivating factor in the development of clean-energy conservatism, and we do not know if this factor is given as an explanation when conservatives describe the founding principles of their organizations. Thus, our first research question is the following:

1. What are the reasons given for the founding of organizations or the shift of missions of existing organizations to support clean-energy conservatism?

The second important aspect of a theory of CCMs is the question of how much a CCM is part of the countermovement and how much it undermines the

countermovement. The literature on countermovements and framing suggests that there will be sharply opposing frames and that the frames may express deep value cleavages in society (Meyer and Staggenborg 1996). The dynamic relationship of a movement and countermovement can also result in compromise and synthesis, but in the case of environmental politics in the United States, the result has been polarization and hardening of positions (McCright, Xiao, and Dunlap 2014). Although the primary relationship of the environmental movement and antienvironmental countermovement has followed a pattern of polarization, we do not know if a similar pattern of polarization will occur with the relationship between the countermovement and the CCM. Clean-energy conservatism could follow a pattern of compromise and work largely within the frames of the conservative countermovement, or the CCM could undermine the countermovement frames. We focus on frames to address the following research question about the relationship between the countermovement and CCM:

2. What frames do clean-energy conservatives use to defend their views?
3. Are the frames different from those of comparison conservative organizations?

The third theoretical issue regarding CCMs is their effectiveness. The problem of social movements and outcomes has long been discussed in the literature, and there is no general agreement about how to define success and how to evaluate it (e.g. Giugni 1998). Does a CCM end up being swamped by the broader divisions of movements and countermovements, or can it end up having some political effects? These effects will likely vary by policy arena. For example, conservative Republicans support, in declining order, net metering (89%), third-party ownership of distributed energy (85%), renewable portfolio standards (80%), government research funding (71%), a carbon fee for utilities (68%), tax credits for renewable energy (60%), and nuclear energy (49%; ClearPath Foundation 2015). As we show (Hess, Mai, and Brown 2016), these divisions are convergent with research on the variable levels of support in state legislatures for different REEE policies. Conservatives show higher support for net metering and solar tax credits and lower support for renewable portfolio standards and carbon taxes. Whereas the former can be made consistent with conservative political frames, there is more resistance to attempts to do so with policy instruments that appear to be associated with government mandates and taxes.

An analysis that we conducted as background research for this study provides additional evidence that Republican-controlled legislatures may be willing to support some clean-energy policies (see Tables 1 and 2). We examined all laws related to solar energy passed in the years 2013, 2014, and 2015 in state legislatures in which at least one chamber was split or controlled by Republicans[1] (see Tables 1 and 2). The sample identified 11 bills that passed both houses that weakened support for solar energy, which all occurred in legislatures where both houses were controlled by Republicans, and the sponsor or sponsors were all or mostly Republican. The one exception, HB 2201 of West Virginia, suggests a Democratic Party countermaneuver to a Republican-sponsored bill in the senate (SB 1). Thus, there is clear evidence for a pattern in some Republican legislatures of a roll-back of support for REEE. However, we also identified 30 approved bills that strengthened support solar energy, and approximately half had bipartisan sponsorship (not counting companion bills shown in parentheses). Republicans were the plurality of sponsors or lead sponsors mostly in legislatures where Republicans controlled both houses, and bipartisan sponsorship occurred in equal levels in split and all-Republican legislatures. This background analysis suggests that rather than view the Republican Party as uniformly opposed to clean-energy policy; it can work in bipartisan agreement on some REEE policies, especially in state governments. In turn, this situation creates opportunities for clean-energy conservatives to build a constituency within the Republican Party.

Thus, background research shows evidence both for roll-backs of REEE policy sponsored by Republicans and for some continuing support of REEE policy. If the CCM of clean-energy conservatism is politically unimportant and ineffective, then there would be no evidence for its role in such policy conflicts. However, there might also be evidence that the CCM is having some impact on policy outcomes. This leads to our fourth research question:

4. What evidence is there of the effectiveness of clean-energy conservatives in the policy process?

In summary, this study provides two general contributions to the environmental sociology of conservatism. We suggest the need to attend to the thesis of the varieties of conservative environmental politics and divisions among conservatives over environmental policy and environmental science. We develop this general thesis by also developing a theory of CCMs as part of the general discussion of countermovements in political and environmental sociology.

Research methods and analytic strategy

Because the analysis of clean-energy conservatism is new and because the theory of CCMs is undeveloped, we employ a qualitative research method. We recognize its limitations, both perceived and actual, with respect to quantitative methods, but we argue that qualitative research is appropriate when the goal is to describe a new and unstudied phenomenon that may challenge existing assumptions in a research field, and it is a good choice of methods for developing theory in a new terrain.

The analysis that follows builds on a research project on conditions for achieving political consensus for energy-transition policies in US state legislatures. The project was based on interviews with state legislators and on the quantitative analysis of factors that lead to bipartisan

Table 1. State bills that weaken support for solar energy and net metering (2013–2015, Republican and Split legislatures).

State	Party control	Year	Bill	Sponsor	Description	House vote	Senate vote
AR	HR SR	2015	HB 1004	1R	Allows payment to net metering customers at avoided cost rate	83–1	24–4
AZ	HR SR	2015	SB 1465	4D, 21R	Adds requirements for solar financing contracts (opposed by solar industry)	54–0	26–2
KS	HR SR	2014	S Sub for HB 2101	Judiciary Comm.	Payment to new DG customers reduced to avoided cost, authorizes interconnection fee, but existing net metering customers extended to 2030 (compromise legislation)	112–12	39–0
LA	HR SR	2013	HB 705	1R	Restrictions on and sunset of solar tax credit	84–8	39–0
LA	HR SR	2015	HB 779	1R	Additional restrictions on solar tax credit	91–9	34–5
MT	HR SR	2015	SJR 12	2R	Authorizes study of costs and benefits of net metering	69–31	42–6
NV	HR SR	2015	SB 374	1R	PUC authorized to allow fees and end transfers from non-DG to DG customers, but cap on solar increased (compromise legislation)	41–0	21–0
OK	HR SR	2014	SB 1456	2D, 9R	Authorizes monthly charge for DG energy and prohibits 'subsidization' of DG customers by non-DG customers	83–5	41–0
TN	HR SR	2013	HB 62 (SB 1000)	1R 2D, 1R	Adds property tax to solar- and wind-generating facilities (some compromise with solar industry)	85–1	31–0
UT	HR SR	2014	SB 208 SS	2R	Authorizes study of DG connection fee	65–0	26–0
WV	HR SR	2015	HB 2201 (SB 1)	7D, 4R (4D, 15R)	Limits 'cross-subsidization' of DG by non-DG customers; orders PUC to investigate net metering (House amendment passed after governor veto)	75–11	25–6

Note: HR: Republican control of House; SR: Republican control of Senate; DG: distributed generation; PUC: public utilities commission; party sponsor is coded for the number of sponsors and party (e.g. 2D, 9R means that the bill had nine Republican and two Democratic sponsors).

votes among state legislators (Hess 2016; Brown and Hess 2016). In the course of research on the broader project, we became aware of the activity of clean-energy conservatives in certain state-government policy issues. Based on this previous research and on wide reading on the topic, we selected the following organizations: Christian Coalition of America, ClearPath Foundation, ConservAmerica, Conservatives for Clean Energy (North Carolina), Conservatives for Energy Freedom/Green Tea Coalition, Evangelical Environmental Network, Michigan Conservative Energy Forum, Ohio Conservative Energy Forum, the RepublicEN community, Tell Utilities Solar Won't Be Killed (TUSK), and Young Conservatives for Energy Reform. This list approximates the universe of clean-energy conservative organizations and advocacy networks in the United States at present. It does not include think tanks and individuals who have supported a revenue-neutral carbon tax as the best conservative solution to climate mitigation policy.

This study addresses the four research questions based on the systematic analysis of documents. For the first research question, we relied on organizational history and biographical statements of organization leaders. For the second question, a preliminary analysis was conducted of media reports of the organizations based on a search in the ProQuest news database for articles written from 2009 through 2015 (N = 286). This background analysis enabled us to develop a list of frames that clean-energy conservatives used in the media. Then, a second analysis used this list of frames and systematically sampled all energy-related statements on all organizations' web sites. The statement received a code of 1 if the frame appeared at least once. The search began with general documents, such as statements of mission or principles, then it analyzed press releases or blog statements beginning with the most recent and working backward until the sample N of 20 was reached for the organization or until all statements had been reviewed ($N < 20$).

Table 2. State laws that strengthen support for solar energy and net metering (2013–2015, Republican and Split legislatures).

State	Party control	Year	Bill	Sponsor party	Description	House vote	Senate vote
AR	HR SR	2013	HB 2019	1R	Allows a limited amount of net excess generation to roll over to the next month on a net metering customer's account	91–0	34–0
AZ	HR SR	2014	HB 2403	SE	Clarifies depreciation law for solar equipment; reduces tax liability of solar firms that use federal stimulus funds	58–1	25–2
AZ	HR SR	2014	SB 1484	3R	Tax credit for manufacturing companies with on-site renewable energy (mainly aimed at recruiting a firm and allowing solar)	34–21	27–1
CO	HD SR	2015	HB 1284	17D, 2R	Expands eligibility for participation in community solar gardens	38–26	26–9
CO	HD SR	2015	SB 254	19D, 12R	Extends deadline for solar renewable energy credits for municipal utilities	64–0	34–0
FL	HR SR	2013	HB 277 (SB 1064)	3D, 2R (1R)	Allows property tax exemption for solar panels; partially implements 2008 ballot initiative	119–0	39–0
GA	HR SR	2015	HB 57	1D, 5R	Authorizes third-party financing for solar	155–0	51–0
IA	HD SR	2014	SF 2340	Ways and Means	Increases amount of solar tax credit and triples size of the program	90–4	46–0
IN	HR SR	2013	HB 1374	1R	Provides additional tax options for net metering customers	97–0	46–0
ME	HD SR	2015	LD 1652	16D, 3R	Sets goals for solar energy development and authorizes a report on the value of solar	103–39	NR
ME	HD SR	2015	LD 1263	5D, 5R	Directs PUC to develop stakeholder process for determining value of solar as successor program to NM	119–28	32–3
MO	HR SR	2013	HB 142	1R	Exempts solar energy not held for resale from property tax but phases out solar rebates (partly favorable to solar)	147–4	31–2
NE	U	2013	LB 402	1D	Adds solar, landfill gas, and biomass to sales tax exemption previously for wind for community-based economic development	43–0	NA
NE	U	2015	LB 424	4D, 1R	Adds solar, landfill gas, and biomass to property tax exemption previously for wind and replaces with nameplate capacity tax	47–0	NA
NH	HD SR	2013	SB 98	8D	Establishes virtual or group net metering	VV	VV
NH	HD SR	2014	HB 1600	1D	Facilitates reporting requirements for small net metering generators	VV	VV
NM	HR SD	2015	HB 296	1R	Expands solar market tax credit to leased systems	63–0	35–6
NM	HR SD	2015	SB 391	1D	Solar market tax credit	39–24	37–5
SC	HR SR	2013	HB 3644 (SB 525)	7D, 8R 5D, 3R	Renames 'renewable' to 'clean' energy tax credit, extends, and facilitates access to the credit	78–18	34–7
SC	HR SR	2014	SB 1189	6D, 10R	Utilities must have 2% from solar by 2021 with cost recovery provisions, new NM to be replaced with value of solar, leasing allowed	86–0	42–0
UT	HR SR	2014	SB 166	2R	Amends 'renewable energy source' in renewable energy contracts definition to require it to be located within the state (favors local wind and solar)	69–1	27–0
UT	HR SR	2014	SB 224	2R	Extends renewable energy tax credit to commercial systems using solar energy	67–6	28–0
TX	HR SR	2015	SB 1626 (HB 3539)	1D (1D)	Allows homeowners to purchase solar panels during the development stage of if the housing development has more than 50 houses	136–8	28–2
VA	HT SR	2013	HB 1695	12D, 12R	Establishes net metering program for eligible agricultural customers	94–3	40–0
VA	HT SR	2013	HB 1917	2D, 2R	Expands renewable thermal electricity to include solar	93–2	33–7
VA	HT SR	2013	HB 2334 (SB 1023)	3R (2D)	Develops pilot program for third-party financing	96–1	40–0
VA	HR SR	2014	HB 1239 (SB 418)	6D, 5R (2R)	Exempts from property tax solar equipment, facilities, and devices by classifying as pollution control devices	93–6	40–0
VA	HR SR	2014	SB 222	2D	Clarifies and restricts ability of community association from prohibiting a property owner from installing solar devices	95–4	37–0
VA	HR SR	2015	HB 1950 (SB 1395)	5D (2D)	Increases maximum capacity for nonresidential net metering producers	92–6	38–0
VA	HR SR	2015	HB 2267 (SB 1099)	3D, 4R (1D, 1R)	Creates the Virginia Solar Development Authority	81–17	38–1

Note: Party control.
HT: House tie control; HD: Democratic control of House; HR: Republican control of House; SD: Democratic control of Senate; SR: Republican control of Senate; U: unicameral; NA: not applicable; NR: not reported on the state government bill tracker; SE: strike everything amendment makes initial sponsors irrelevant; VV: voice vote.

For the third question, a matched-pairs design used this same method to compare clean-energy conservative organizations with similar conservative organizations that do not self-identify as supportive of clean energy. For the evangelical organizations, the matching organization is the Cornwall Alliance because of its opposition to the Evangelical Environmental Network. For the ClearPath Foundation, the Heritage Foundation was selected as an important conservative foundation with opposing positions on energy and environmental issues. For ConservAmerica, Americans for Prosperity was selected partly because conservatives associated with the former have criticized the latter as not representing true conservatism (Jenkins 2015), but also because Americans for Prosperity has attacked clean-energy conservatives. Young Conservatives for Energy Reform was matched with Young Conservatives, two groups with a similar demographic but with different views on energy policy. For the solar groups, the best match was between Floridians for Solar Choice, which the clean-energy conservatives support, and the pro-utility organization Consumers for Smart Solar. For the state-level organizations, we selected the Republican Party of North Carolina as a comparison for Conservatives for Clean Energy because both organizations had the largest number of statements that met the selection criteria. Only descriptive statistics are presented because of the small *N* and nesting of observations within organizations.

For the fourth research question, we focused on solar policy because the background research (Tables 1 and 2) shows that the political opportunity structure is relatively open in Republican-controlled and split legislatures. Furthermore, clean-energy conservative organizations have been most actively involved in this issue. We focus on case studies where the research for the previous questions identified clean-energy conservatives who were involved in policy conflicts.

Results

Reasons for the development of clean-energy conservatism

The review of organizational histories demonstrates that clean-energy conservatism has emerged for diverse reasons but that scientific knowledge is relevant in some organizations. Some organizations based their support for clean-energy policies on scientifically documented environmental problems such as the health risks of poor air quality and global warming, and in this sense, there is evidence for the importance of recognition of objective conditions and environmental science in the emergence of the CCM. However, the organizations also cite other reasons for their support for clean energy. We review the results in four groups: older organizations that predate concerns with clean-energy conservatism, state policy organizations, national reform organizations, and solar-oriented advocacy.

Three organizations were founded during the 1989–1995 period and did not have an original focus on clean-energy conservatism: ConservAmerica, the Evangelical Environmental Network, and the Christian Coalition of America. ConservAmerica was founded in 1995 as Republicans for Environmental Protection, and it was originally concerned with attempts to roll-back the Endangered Species Act in 1996. It subsequently became more involved in energy issues, and as of 2014, it endorsed a combination of nuclear, natural gas, and renewable energy and also explicitly recognized climate change (ConservAmerica 2014). The Evangelical Environmental Network, which was founded in 1993, also opposed attempts to weaken the Endangered Species Act and subsequently diversified its efforts into energy and climate issues. In 2004, it became part of the Sandy Cove Covenant and Invitation, which called on evangelical leaders to discuss climate change. In 2006, the Evangelical Climate Initiative was launched to connect evangelicals with global warming and its mitigation, and in 2007, the National Association of Evangelicals, which represents more than 45,000 churches, produced a statement in support of actions to mitigate global warming (Ball, Bouma-Prediger et al. 2007). The Christian Coalition of America, founded in 1989, was once wealthy and powerful, but it lost revenue during the late 1990s and early 2000s, and some of the state chapters left the national organization because of its drift away from its focus on traditional family values. In recent years, the organization has received grants from the progressive Energy Foundation and has adopted pro-REEE positions, such as support for an extension of the federal tax credit for solar energy. However, it did not explicitly discuss climate change and instead provided other reasons for supporting clean energy.

The state-level organizations have opposed efforts by Republican legislators to undermine existing REEE policies, but they consistently avoid recognition of climate change as a motivating factor for the founding of the organization and for their policy positions. For example, the Michigan Conservative Energy Forum discusses its organization's goals in terms of creating jobs, enhancing national security, and improving air quality. Conservatives for Clean Energy (2015) of North Carolina and the Ohio Conservative Energy Forum emerged to support renewable energy laws, and they also discuss their rationale in economic terms. Although none of the organizations denied climate science, they also avoided discussing it. The organizations also are motivated by their sense that opposition to clean energy is a tactical mistake for Republicans and conservatives. For example, at the founding event for Ohio Conservative Energy Forum, the chair of the Ohio Young Republicans, Zach Upton, stated: 'If conservatives continue to sit on the sidelines of clean energy, we will lose this issue. An entire generation of voters will tune out conservative elected leaders when they talk about energy' (Ohio Conservative Energy Forum 2015).

The third group of clean-energy conservative organizations has a more ambitious agenda of national policy reform. In 2012, Michele Combs, the Director of Communications for the Christian Coalition, founded

Young Conservatives for Energy Reform, which hosted a national Conservative Clean Energy Summit. This organization has developed chapters in various states, and Combs has the goal of getting a comprehensive energy reform bill passed in Congress. However, another leader of the organization explained that 'climate change shouldn't be a litmus test for Republicans,' and the organization explicitly avoids this divisive issue (Galluci 2012). In 2012, Bob Inglis, a former Republican Congressman from South Carolina who lost his seat in 2010 to a Tea Party challenger, launched the Energy and Enterprise Initiative at George Mason University. His 'RepublicEN' community proposes a carbon tax with an offsetting income tax cut as the best solution to the problem of climate change mitigation, and it clearly recognizes climate change and climate science. Jay Faison, a conservative entrepreneur from Charlotte, North Carolina, announced in 2015 that his foundation, ClearPath, would spend $165 million to educate the public about climate change from a conservative perspective. Thus, the RepublicEN community and ClearPath openly discuss climate change, whereas the organization Young Conservatives for Energy Reform focuses on the benefits of clean energy and avoids confronting climate denialism.

The issue-specific organizations were founded in response to attempts by utilities to stop the development of distributed solar energy. Utilities have attempted to end the net metering regime, which pays the retail rate for solar energy that is fed into the grid, and in some states, they have also opposed third-party solar (Hess 2016). As the background analysis suggested, in some cases conservatives have supported the utilities' attempts to weaken solar energy policy, whereas in other cases, they have continued to support solar energy. In 2013, a Tea Party cofounder, Debbie Dooley, joined with the Sierra Club to found the Green Tea Coalition in an effort to support solarization in Georgia. She subsequently founded Conservatives for Energy Freedom, which supported a solar ballot initiative in Florida. Likewise, in 2013 former Congressman Barry Goldwater, Jr., joined with former Arizona Republican Party Chairman Tom Morrissey to become the cochair of TUSK. The organization emerged in the context of a battle between the utilities and the solar industry in Arizona over net metering policy, but it has since become active in the multistate battle between the two industries. These organizations do not discuss climate science and global warming.

In summary, clean-energy conservative organizations have emerged for a variety of reasons. We find some evidence for the argument that the scientific knowledge of global warming and air quality appear as motivating factors for the formation of these organizations. However, only four of the organizations explicitly and extensively refer to climate change and greenhouse gas emissions (ClearPath Foundation, ConservAmerica, Evangelical Environmental Network, and the RepublicEN community). The other organizations focus more on the economic benefits of clean energy and the strategic benefits of reclaiming the issue from Democrats.

Frames of clean-energy conservatives

The analysis of frames resulted in three main categories: general policy frames; conservative political frames; and science-and-religion frames (see Table 3). The general policy category was the most widely used, and within this category frames that support clean energy because of job creation, economic benefits, and consumer choice and freedom were prominent. Clean-energy conservatives point to the benefits of local renewable energy for job creation and argue that the cost of renewable energy is rapidly declining. They also emphasize innovation and the general economic benefits of maintaining a national competitive advantage in the clean-energy sector. Prosolar conservatives – such as Barry Goldwater, Jr., of TUSK and Debbie Dooley of the Green Tea Coalition and Conservatives for Energy Freedom – stress the importance of consumer choice and the right to own rooftop solar. The special interest frame is also prominent in the prosolar organizations, which stress the threats that the 'monopoly' utilities pose to consumer rights.

The second group of frames, classified as conservative, includes national security, small government, and free markets. Although energy independence could be classified as a general policy frame, frequently the clean-energy conservatives use the phrase 'national security.' They sometimes talk about the risks to American soldiers from defending access to foreign energy, and they discuss the security implications of funding terrorism through foreign energy purchases. Although this frame was more prominent than the small government and free market frames, clean-energy conservatives also use the latter frames especially when arguing that a conservative approach to energy-transition is possible and desirable. When they discuss the need for climate mitigation policy, they generally defend a carbon tax as a free-market approach instead of government mandates in the form of renewable portfolio standards or emissions caps. A good example is a statement from ConservAmerica:

> The truth is that the best approach to the problem *of climate change* is one rooted in deeply held conservative ideas. The right kind of approach will build on the tried policy of economic growth rather than the untried policy of carbon rationing and pricing schemes. It will recognize that society as a whole, working through its *free institutions*, is more adaptable and more inventive than regulators with limited imaginations tend to expect (ConservAmerica 2015).

The prosolar organizations also argue in favor of free-market competition from the solar industry in contrast with the utility monopoly.

We found no evidence of climate denialism among the science-based frames, but as noted in the previous section, only four of the organizations extensively discussed global warming. Several of the other organizations discussed the air quality and health benefits of clean energy, a strategy that allows the organizations to discuss fossil-fuel emissions without wading into the crossfire of climate science

Table 3. Common frames of clean-energy conservatives.

Category of frame	Percent	Description
General policy frames		
JE	36	Job creation, economic innovation and competitiveness, and general economic benefits such as local tax revenue
AC	41	Affordability (consumer and business), consumer protection and choice, reliability of electricity grid
SI	24	Opposition to the power of the special interests, specifically the utilities and the fossil-fuel sector
Conservative frames		
NS	24	Promote national security and energy independence, including for the military
SG	11	Reduce government spending, taxation, size, bureaucracy, and mandates
FM	20	Support the private sector, competition, and market-based policy instruments
Air quality and climate-related frames		
AH	25	Benefits from reducing the pollution associated with fossil fuels
CC	22	Explicit mention of climate change and/or the need to reduce greenhouse gas emissions
Average (all 3 frame types)	25	

Note: Percent is of all statements analyzed from clean-energy conservative organizations ($N = 152$) in which the frame or group of frames appeared at least once.
JE: Jobs and economy; AC: affordability and consumer interests; SI: special interests of the opposing side; NS: national security; SG: small government; FM: free market; AH: air quality and health-related benefits from clean air; CC: climate change; CS: climate skepticism.

denialism. Religious frames appeared only in the religious organizations. Evangelicals frequently describe their environmental ethic as 'creation care,' but in the context of clean-energy policy there is a greater focus on health benefits, which enables a linkage between a scientific frame based on air quality and health research and religious frames. For example, Mitch Hescox, president of the Evangelical Environmental Network drew attention to how 'pollution harms the vulnerable, especially children and the unborn' (Kleinmaier 2015, 42). Likewise, in testimony before the Michigan legislature, Keith den Hollender, a board member of the Michigan Conservative Energy Forum and the Chairman of the 120,000-member Christian Coalition of Michigan, argued that clean energy is 'prolife' because it can improve health and avoid the loss of lives in foreign wars (Ward, den Hollender, and Jim 2015).

In summary, clean-energy conservatives share with progressive environmentalism the general policy frames of jobs, economy, affordability, consumer choice, and opposition to monopoly power. These frames are especially prominent in the prosolar organizations, which have formed coalitions with progressive environmentalists. However, the CCM organizations also articulate conservative, market-based, small-government approaches to the problem of energy-transition policy; and some of the organizations favor the frame of healthy, clean air over climate change. The religious organizations also draw on frames of religious stewardship and the links among air quality, health, and prolife values. Unlike progressive environmentalists, who tend to link air quality issues to environmental justice and disparities, these issues are presented as consistent with conservative religious values. This pattern of framing suggests that clean-energy conservatism is primarily oriented by conservative values and is a movement within the conservative countermovement.

Comparison organizations

This section provides a systematic analysis of the frames of clean-energy conservatives and those of comparison organizations (see Table 4). The categories of frames are the same as those discussed in the previous section with some exceptions. The 'special interest' frame is expanded to include allegations by comparison organizations that their opponents are beholden to environmentalist and special interests. The latter include phrases such as 'big green' and depictions of solar and wind lobbies as powerful special interests. We also added a frame of climate skepticism and denialism (CS), which includes skepticism about green-energy policy and/or the promotion of disinformation about climate science. The religious frames are not included because they are mostly limited to the evangelical organizations.

Both clean-energy conservative organizations and matched comparison organizations rely heavily on general policy frames and less heavily on conservative frames. In the solar organizations, the targeted audience is all possible voters, and general policy frames would resonate more across a broad political spectrum than conservative and environmental frames. In general, the clean-energy conservative organizations tend not to emphasize the small government frame, especially the bureaucracy and mandates aspects of it, in comparison with the nonclean-energy organizations. This makes sense because the clean-energy conservative organizations more readily acknowledge the value of government policy intervention, but they often qualify their support by explaining that the interventions should strengthen the private sector and should preserve free-market competition.

The striking result from the table is the strong differentiation on air quality and climate frames for some of the

Table 4. Frames of clean-energy conservative and comparison organizations.

		General policy frames			Conservative frames			Air quality and climate frames		
Organization type and name	*N*	JE%	AC%	SI%	NS%	SG%	FM%	AH%	CC%	CS%
Evangelical										
Evangelical Environmental Network	20	25	0	15	5	0	15	40	60	0
Cornwall Alliance	20	10	15	0	0	0	0	0	0	90
Foundations										
ClearPath Foundation	20	40	55	0	30	10	15	30	15	0
Heritage Foundation	20	25	35	5	5	40	40	0	0	45
National										
ConservAmerica	20	20	10	0	5	5	25	20	75	0
Americans for Prosperity	20	55	65	10	0	30	10	0	0	10
National Youth										
Young Conservatives for Energy Reform	20	80	40	0	80	5	5	75	20	0
Young Conservatives	20	0	5	0	0	10	5	0	0	100
Solar										
Floridians for Solar Choice	11	27	100	73	0	9	9	18	0	0
Consumers for Smart Solar	14	7	86	79	0	7	0	0	0	0
State-level										
Conservatives for Clean Energy (NC)	8	63	50	13	25	0	38	0	0	0
North Carolina Republican Party	10	60	50	40	20	10	0	0	0	0
Total										
Clean-energy conservatives	99	41	36	12	26	5	16	35	34	0
Comparison Conservatives	104	24	39	17	3	17	11	0	0	46

Note: Percentage of documents (*N*) in which the frame appears at least once. The clean-energy conservatives appear in Roman, and the comparison organizations are in italics.
JE: jobs and economy; AC: affordability and consumer interests; SI: special interests of the opposing side; NS: national security; SG: small government; FM: free market; AH: air quality and health-related benefits from clean air; CC: climate change; CS: climate skepticism.

organizations. The evangelical and national youth organizations are strongly differentiated on this dimension. In both cases, the clean-energy conservatives defend the importance of climate change as a central issue, whereas the comparison organizations have many statements denying the validity of climate science. (For the clean-energy evangelical organizations, the Evangelical Environmental Network rather than the Christian Coalition is the primary source of statements in favor of climate science.) The Heritage Foundation and Americans for Prosperity show skepticism of the effectiveness of climate policy without attacking climate science. In either case, the attacks on climate science or climate mitigation policy, especially the Obama administration's Clean Power Plan, are often acerbic and sarcastic, although less so in the more intellectual Heritage Foundation.

In summary, there is a great deal of variation among clean-energy conservative organizations and among their comparison counterparts. Both rely heavily on general policy frames, and both invoke conservative frames of national security, small government, and free-market ideals. However, the strongest differentiation is the tendency for clean-energy conservatives to underscore environmental benefits of clean energy, either in the form of air quality and health benefits or in the form of climate mitigation benefits. This finding is consistent with the idea that CCM is a countertrend *within* the countermovement: it rejects climate denialism and energy-transition opposition, but it does so in a conservative way.

Political effects

We identified five main cases where clean-energy conservatives were actively involved in policy conflicts, all of which involved solar energy: Arizona, Georgia, Florida, Indiana, and Michigan. Arizona was one of the first major sites of the battle between the utilities and the solar industry over net metering policies. After widespread public opposition to the utilities' proposed charge of approximately $50 per month for grid connection services for distributed solar customers, the state's public services commission rejected the utility's proposal and allowed only a minor charge of $5 per month. Clean-energy conservatives associated with TUSK were active in the campaign to defend solar energy, and they played an important role by framing the issue as consistent with conservative values. The resulting decision was a victory for the prosolar coalition; however, it is not possible to separate out the effects of TUSK from the broader coalition that included the solar industry, angry solar consumers, and environmentalists. Furthermore, in other policy conflicts over solar energy policy in Arizona, the utilities were more successful. For example, in 2015 TUSK opposed a bill (SB 1465) that made solar leasing more difficult, but the bill became law.

In Georgia, the Green Tea Coalition was successful even when confronted with the opposing 'Keep the Lights on in Georgia' campaign led by Americans for Prosperity. In response to the prosolar coalition, in 2013 the public

utilities commission increased the role of solar production in Georgia Power's integrated resource plan to 525 MW by 2016. The coalition also supported successful legislation (HB 57) that authorized consumer access to third-party solar, although the final law limited consumer solar production to 10 kW. This case is arguably the clearest example to date of clean-energy conservatism having an effect on state policy outcomes, but even in this case, the crucial actor was the 'Green Tea Coalition,' which included the Sierra Club.

Floridians for Solar Choice assembled a broad coalition that included the solar industry, environmental organizations, retailers, faith organizations, the state's Libertarian Party, and the Republican Liberty Caucus of Florida. The president of the Evangelical Environmental Network, Mitchell Hescox (2015), presented to Governor Rick Scott of Florida a petition of over 63,000 signatures of Floridian evangelicals calling on the governor to support solar energy and to allow consumer access to third-party solar. However, the prosolar group did not acquire enough signatures to be placed on the ballot, whereas the utility-backed organization won court approval for its anti-solar initiative that was dubbed 'Yes on 1 for the Sun.' Because the utility-backed organization used nearly identical frames of special interests and consumer choice and benefits, the dueling signature drives created massive confusion among voters, and this outcome was a clear defeat for clean-energy conservatives and the broader prosolar coalition.

In Indiana, opposition to the anti-net metering bill (HB 1320, 2015) included a broad coalition of environmentalists, faith organizations, consumer groups, the NAACP (National Association for the Advancement of Colored People), and the solar industry. Prosolar conservative leaders Combs, Dooley, and Goldwater wrote letters and made public statements against the bill. Several pastors also spoke publicly about the negative effects that the bills would have on the rooftop solar that they had installed on their churches. Although the house committee passed the bill, the house speaker later withdrew it amid the public protest. This case was a victory for the solar industry and solar consumers, but conservatives were only one group in a broad coalition.

In Michigan, clean-energy conservatives were among the many groups that opposed proposed legislation to end net metering and the state's renewable portfolio standard (SB 438, 2015). A bipartisan group of state representatives developed alternative bills (HB 4878–4881) that were more favorable to clean energy.

In summary, clean-energy conservatives can point to some victories, but these victories occur in the context of broad-spectrum mobilizations that include environmentalists, the solar industry, rooftop solar consumers, and other groups. The participation of conservatives in broad coalitions may be politically important because it helps to neutralize the frames of powerful profossil-fuel conservative organizations such as Americans for Prosperity and pro-utility organizations. An important factor that will affect the capacity of clean-energy conservatives to exercise political influence is the ability to gain support from wealthy donors. In general, our background analysis (Table 2) suggests that solar energy policy, when configured as supporting consumer choice and not as a mandate, can gain widespread support among Republicans in state legislatures. However, this finding is also in the context of growing battles over net metering led by the utilities.

Conclusion

The dynamic interplay of opposing movements provides a good framework for analyzing the constantly changing landscape of environmental politics, especially in countries where sharp partisan divisions have emerged. Clean-energy conservatism meets the three criteria for a countermovement (Meyer and Staggenborg 1996): conservatives who are supported by the utilities and profossil-fuel donor organizations have shown signs of success by reversing state policies in support of REEE; the REEE industry and proenvironmental conservatives are threatened by REEE roll-backs; and there are political allies who can aid oppositional mobilization, including donors (e.g. Jay Faison and Andy Sabin), senior Republican leaders (e.g. Barry Goldwater, Jr.), and emergent industries (e.g. solar, wind, and high technology). However, a fourth factor – recognition of scientific knowledge that is at odds with the countermovement's views – also played a role for some of the CCM organizations.

With respect to the four research questions, the range of motivations for the emergence of clean-energy conservatives is diverse, and the way they frame clean energy is also variable. Some of the organizations are very open about climate change, whereas others prefer to justify their support for clean energy based on economic, consumer, national security, and health benefits. The use of core conservative frames – such as support for free markets and opposition to taxes and government mandates – suggests that clean-energy conservatism is best understood as a movement within conservatism rather than as an embrace of progressive environmentalism. Although the CCM organizations share with the countermovement the use of conservative frames, there are sharp differences with comparison conservative organizations over climate science and other science-related frames involving health and air quality. Finally, the organizations can point to some policy victories and signs of change, but there are only a few cases to date, and they occur mainly where there are broad coalitions from across the political spectrum.

This study has two general theoretical implications. First, the growth of clean-energy conservative organizations suggests some potential limitations, which are not yet visible with quantitative methods, to the linkage between conservative ideology and opposition to energy-transition policies and climate science. Our 'varieties of conservatism' thesis also has implications for understanding the political opportunity structure for REEE reform. Second, the research provides an opportunity to integrate political sociology and environmental sociology through the theory of movements and countermovements. Although the

existence of CCMs has been recognized (Zald and Useem 1987), the dynamics have not been systematically studied. One cannot develop a general theory of CCMs based on the analysis of one example in one country, but a single case can offer theoretical dividends by providing propositions for future research. We conclude with several suggestions as follows:

- *A condition that supports the emergence of a CCM is the referent countermovement's denial of scientifically documented knowledge*, such as climate science and the health effects of poor air quality, that leads to conflicts within the countermovement over its rationality and legitimacy. Especially in the context of environmental sociology, we suggest the limits of scientific denialism and its potential to fracture a countermovement.
- *A CCM will view itself as part of the countermovement and tend to utilize countermovement frames, but it will seek to move the countermovement's goals in the direction of the original movement*. For example, clean-energy conservatives define themselves as conservative, use conservative frames, and seek conservative solutions to the problem of an energy transition, such as a carbon tax instead of government mandates.
- *In order to achieve success, a CCM must balance the need to work in broad political coalitions that include recruits from the countermovement and the need to maintain alliances with the original movement*. By building political coalitions with environmental and prosolar organizations, clean-energy conservatives must use general policy frames that allow bridges to be built to other coalition members, but they must also reaffirm their conservative values by using national security, small government, and free-market frames.

In summary, we are able to use the case of clean-energy conservatism to suggest the outlines of a general theory of CCMs, which would have to be developed through additional studies of both clean-energy conservatism and other CCMs. Clean-energy conservatism is part of the conservative movement, not a synthesis of conservatism and progressive environmentalism. Clean-energy conservatives recognize the value of energy-transition policies, but they want market-friendly and small-government policy instruments. Thus, clean-energy conservatives call for a transformation of conservative energy politics but not a transformation of conservative ideology. They can point to survey data (some of which they have funded) that shows support for their position among Republicans and conservatives, and they point to some policy successes and some general openness of conservative lawmakers to this approach to energy-transition policy. But if they are to have the historical importance that they desire, they will also need to recruit donors who can make the goal viable in a political system that is deeply affected by high levels of spending on election-related politics.

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Note

1. The analysis was based on a search of the Advanced Energy Legislation Tracker of Colorado State University. Nebraska, which has a unicameral legislature, is included as a split legislature. Searches were conducted for the categories 'electricity generation' and 'financing and financial incentives + solar.' The search was restricted to laws that passed both chambers regardless of gubernatorial approval. This method resulted in 117 electricity generation bills and 34 financial incentives. The results were cross-checked with other databases, and additional laws were added. Exclusions were for the following reasons: not sufficiently related to solar (e.g. solar is included in a general energy bill); a technical or minor change, technical regulation of installation and licensing, and the regulation of solar energy credits.

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