Changing the State of State-Level Energy Programs: Policy Diffusion, Economic Stimulus, and New Federalism Paradigms

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ABSTRACT

This article will pose the question: What led to the climate and clean energy policies in Massachusetts, Minnesota, Texas, and Utah (four states for which current or former governors ran for president in the 2012 election) and around the country since 2001? It will highlight the role of governors and the $3.1 billion investment of federal resources into state-level clean energy activities through the Recovery Act as a foundation for assessment and will provide a framework for analyzing policy decision-making. Public policy theory, including the policy diffusion model, will provide background to understand the influences on state-level policy adoption. With the primary goal of the Recovery Act to improve a struggling economy, this article will explore the critical connection between economic development and clean energy resources that impacted these choices under expedited procedures. In addition, the approach to clean energy policy will show changes in American federalism and the potential of polycentric governance. While it is a unique confluence of events that led to the current policy environment, the results of further study will provide generalizable information on state-level learning, policy-motivations, economic decision-making, procedures in environmental policy, and the relationships of actors at multiple levels of governance. In a dissenting Supreme opinion in 1932, Justice Louis Brandies wrote, "A single courageous state may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country. … " This article and proposed research program will analyze the policy experiments in states across the country—often led through gubernatorial initiative—in tackling the interrelated challenges of climate change and energy security in the twenty-first century.

INTRODUCTION

Competition in the federalist system was a key driver of climate and clean energy policy innovation in the United States from the inauguration of President Bush through the end of the Recovery Act period (2001 to early 2012). State governments competed with one another, the federal government, and in the global arena during a tumultuous period for this policy subsystem. In the Federalist #46, James Madison asked with regards to locally-minded politicians, "And if they [state officials] do not sufficiently enlarge their policy to embrace the collective welfare of their particular state, how can it be imagined that they will make the aggregate prosperity of the union, and the dignity and respectability of its government, the objects of their affections and consultations?" [1] Looking out on the vast wilderness of North America, the future President Madison did not envision a future where politicians and bureaucrats in state governments would lead beyond their own borders in an issue not just of national interest but also of international importance. The procedures and division of responsibilities in the constitution that President Madison fathered, however, have afforded the flexibility to state governments to innovate in clean energy and climate policy in the absence of strong federal action. In a dissenting Supreme Court opinion last century, Justice Louis Brandies wrote, "A single courageous state may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country. … " [2] This research will analyze the policy experiments in states across the country in tackling the interrelated challenges of climate change and energy security at the start of the twenty-first century.

Gubernatorial decision-making and internal and external factors of state policies are a vibrant area for research and analysis. Governors, as policy entrepreneurs, staked their political futures in this area, often challenging the federal government as states sought prosperity and leadership through climate and clean energy policies. While each governor's office and its occupant are unique, governors are policy leaders and internal and external advocates for their states. [3,4,5,6] Stone notes that all politicians must meet the dual goals of successful policy and successful politics. [7] This article will provide insight into many of the most prominent politicians and political ideas of the era, as well as improving the theoretical framework for the inner workings of the interstate policy process. It will focus on four states that saw their

current or former governor run for president in 2012 to glean further insight about those who sought and continue to seek to lead the country: Massachusetts (Former Governor Mitt Romney), Minnesota (Former Governor Tim Pawlenty), Texas (Governor Rick Perry), and Utah (Former Governor John Huntsman). In addition, it will expound upon the academic literature in federalism, diffusion, and policy tools for carbon mitigation to go beyond the rhetoric and simple lists of policies to see why and how the states and federal government arrived in this competitive federalist environment.

The American Recovery and Reinvestment Act of 2009 (ARRA) is a significant condition for understanding state actions within the United States in this time period. The bill provided $3.1 billion in formula funding to the state energy program (SEP) for energy efficiency and renewable energy among other related expenditures, up from $40 million in annual formula funding appropriations in the previous fiscal year (FY '08). Although the Recovery Act is a one-time event, this windfall exposes how the states envision their clean energy portfolio, and analysis will show that some of these resources will have financially self-sustainable implications. SEP is not a new program; it came into existence in 1996 as a consolidation of the state energy conservation program and the institutional conservation program of the 1970s and 1980s, but in FY 2008 Congress appropriated only $34 million in formula funding, down only slightly from previous years. [8] The 50 states, five territories, and the District of Columbia receive funding through a formula in the 10 CFR Part 420, with approximately one-third of funding divided based on population, one-third based on energy consumption, and one-third divided equally by state. To receive the annual funding, each state must submit a state energy plan and provide 20% cost-share through state resources—although the Recovery Act removed this requirement for ARRA accounts—in addition to further intergovernmental regulations. The funding is flexible, allowing for programs that promote energy efficiency, renewable energy, energy security, transportation efficiency, energy education, and other relevant activities. There were, however, limitations on the ARRA funding. Each of the governors accepting the money needed to sign a letter assuring the secretary of energy that his or her state would adopt more stringent building codes, ensure that the utility incentive structure in the state encouraged energy efficiency investments from utilities through decoupling or similar mechanisms, and prioritize existing energy efficiency and renewable energy pro-

grams, a contentious provision that to which every state eventually acceded despite some concerns. [9]

The justification for including SEP in ARRA was jobs, particularly "green jobs." Economic development has become a key rationale for clean energy policies. "Green jobs" have been on the policy agenda throughout the past several years. Vice President Joseph Biden defined green jobs as careers that "provide products and services that use renewable energy resources, reduce pollution, and conserve energy and natural resources." [10] President Barack Obama has framed climate change and energy security as economic matters. [11] Green Recovery, an economic white paper from the Center For American Progress, provided a rationale justification for the clean energy titles of the Recovery Act. [12] The report's input-output model predicted that a $100 billion national investment in energy efficiency and renewable energy could create two million green jobs. According to the authors, shifting consumer expenditure from fossil energy costs, putting financial resources towards industries that have limited employment opportunities, to more cost-effective and labor-intensive energy technologies can improve the American economy.

This article is part of a broader research program and will begin to answer the question: What led to Massachusetts, Minnesota, Texas, and Utah to choose their climate and energy policies through the decisions about SEP activities with the ARRA funds? It will trace a decade of policy history to see how the states and the leaders developed competitive climate and clean energy policies that aimed to achieve desirable economic and environmental outcomes. Issues internal and external to climate and energy challenges changed during this period. During the administration of President George W. Bush, however, there was a relative certainty of inaction at the federal level, while the Democratic takeover of Congress and the subsequent election of President Barack Obama led to an uncertainty of potential action that has since failed to fully materialize. The global financial crisis focused economic considerations and green jobs became a political buzzword and justification for public sector intervention. In the age of the Tea Party and Occupy Wall Street, partisan politics have shifted in Washington and state capitols. A purpose of this research is to see how governors reacted to these adjustments in the political landscape and the diffusion patterns for state and regional policies in light of the policy environment, particularly the shift from climate change policy as leadership to climate change policy

for economic development and the implications for politics and public policy.

The 2000s was a busy decade in this policy subsystem. Three major pieces of climate and energy legislation were under consideration in Congress. The Energy Policy Act of 2005 (EPACT 2005) and Energy Independence and Security Act (EISA) of 2007 became law, while the American Clean Energy Security Act (ACES) of 2009, also known as the Waxman-Markey Bill, passed the House of Representatives but failed to come to the floor in the Senate. In addition, ARRA offered billions in grants, subsidies, and incentives to stimulate the clean energy industry. In fact, its authors consider ARRA the biggest energy bill in history and the first step of a national carbon mitigation strategy. [13] In the judicial branch, the Supreme Court ruled in 2007 that the Environmental Protection Agency (EPA) could regulate greenhouse gases as posing a danger to human health under the Clean Air Act. Climate science also progressed, with the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) of 2007 serving as a peer-reviewed scientific consensus for the field. Economists, on the other hand, continued to debate the costs and benefits, but several prominent reports, most notably the Stern Review that the British government had commissioned in 2006, concluded that the benefits of early action to prevent long-term climate-related damages outweighed significant upfront costs of carbon mitigation. [14, 15] While controversy and skepticism still exist, climate change emerged on the policy agenda.

LITERATURE REVIEW

There is agreement in the academic and public discourse that state governments in the United States have led the way on carbon mitigation strategies and policies. [16, 17, 18] The federal government imposed national standards through the Clean Air Act and Clean Water Act in the 1970s because states were undercutting one another in environmental regulation in a perceived "race to the bottom" to avoid economic disadvantages. [19, 20, 21] Three decades later, with Washington failing to develop a comprehensive climate policy, the states took actions that far exceeded minimum standards.

Competition is a driver of politics and economics in capitalistic democracies. Success, progress, and prosperity arise through wins, losses,

and adjusting strategies to meet the challenges of partners and rivals, whether it is competing for votes or competing for money. In a federalist system, competition between the states and the federal government and amongst the states is part of the institutional structure. Buchanan, in a conservative polemic, describes federalism as an "ideal political order" in allowing states to challenge the central governing authority. [22] In a seminal article, Tiebout argues, "The consumer-voter may be viewed as picking that community which best satisfies his preference pattern for public goods." [23] Although this article will not address individual choices for moving into a desirable community, it will explore how states and their governors develop policies that meet the preferences of the population and the economic development needs through interaction.

Federalism, distinct from simple decentralization and devolution, was an American creation, which has evolved throughout the history of the country. Proponents of views from across the political spectrum have used the institution to push their agendas. [24] Shannon and Kee employ analysis of public expenditures to divide the history of American federalism: "constitutional federalism" from 1789 to 1929 with limits on government; the post-new deal order of "centralizing federalism" after 1929 and World War II; and "competitive federalism" starting in 1978. In this regard, the authors are describing a federalist system whereby there is competition between the state and federal governments as they argue that due to fiscal constraints, "The essence of competitive federalism is that now Washington policymakers, as well as state and local officials, must go back, hat-in-hand, to a common source—the nation's taxpayers—when additional tax revenue is needed." [25]

Rabe highlights the history of climate change federalism. From 1975 to 1997, both federal and state policies for mitigating greenhouse gas emissions were largely "symbolic," lacking in useful action toward handling this problem. For the decade afterwards, however, there was state domination in this subsystem with regional compacts and other policy mechanisms. With the Supreme Court decision about greenhouse gas regulation in 2007 and changes in Congress and the White House, the current situation in Rabe's typology is "contested federalism," as the different units of government explore different governing mechanisms. [26] Derthick uses the term "compensatory federalism" for the preferred system in environmental policy. She declares, "Federalism works when governments at one level of the system are able to compensate for weak-

nesses or defects at another level." [27] Posner says that through vertical diffusion, state-level policy adoptions are spurring federal action. [28] The roles of the state and federal governments are in flux, not just in the academic literature, but in the public policy discourse of political leaders at all levels of government. There is competition in the policy arena for the state and federal governments.

The constraints of policymakers also drive the diffusion of policy innovations in the competitive environment. Walker's highly influential 1969 paper defines a state-level policy innovation as something that is new to the particular state, regardless of whether or not other states have this policy on their books. He distinguishes between policy adoption, as the focus of his study, and policy creation or invention. [29] Both adoption and invention are internal governmental actions, but adoption can arise out of external diffusion and competition. Governors, legislators, and administrators do not have the time, resources, or need to reinvent public policies. Boundedly rational decisions result from the heuristics required to act with imperfect information in a quick and decisive matter. Weyland, in a generalizable, qualitative study of policy diffusion in Latin America, concludes, "The wave-like spread of bold, neat policy models is shaped by cognitive shortcuts." [30] He shows that external pressures on boundedly rational actors have shaped pension reform and health care in this region. Karch, in studying the United States, also notes the importance of heuristics with the pressures of time and electoral challenges. [31] In fact, Boushey's data reveal that there is a strong relationship between the level of innovation and the level of internal political competition in the state. [32] Polsby also traces the source of policy, looking at both diffusion and the internal determinants. [33] It is necessary not only to look at the policy, but the ambitious policymakers and their political calculus in designing a course of action to address climate and energy, [34] something that to date is lacking in the academic literature.

While competition and diffusion in federalism have existed for centuries, the 21st century energy and environmental challenges are a modern consternation for American society. The energy challenges today are "wicked problems," in that they lack simple, clearly correct solutions to the on-going dilemmas requiring action under conditions of uncertainty. [35] The IPCC for the United Nations and the Stern Review [36] for the government of the United Kingdom note the global anthropogenic causes and global risks to the health, welfare, and the

economy of the planet and human society from energy consumption of carbon-emitting fuels. The additional dimensions of energy prices and energy security add to this vexing global challenge beyond just the environmental impacts. [37] Finally, the co-benefits of clean energy policy, such as the potential for positive employment impacts, [38] add to the competition to become a leader in this area.

The prisoners' dilemma, a key theoretical concept in a rational choice approach to comparative politics, is a major research consideration when analyzing state-level and national-level decisions in energy and environmental matters. Revesz, in an often-cited law review article, argues that the race-to-the-bottom was a form of the prisoner's dilemma in its mechanisms for strategic interaction that lead to suboptimal outcomes in economic and environmental issues for the society. [39] Although his argument is lucid, Revesz does not consider that a prisoner's dilemma economic game generally relies on an assumption of non-communication between the players in leading towards a poor result for each individual, firm, or state, and the society as a whole. In environmental regulation, states can and do communicate. Federal intervention, however, does place limitations on the game that, at its best, forces the players to cooperate for the greater good of the economy and environment of the United States, but can also serve as an impediment to innovation in state and local governments.

The race to the bottom thesis requires reconsideration in light of state-level energy policy leadership. While New Jersey led the way on climate change in the 1990s, [40] scholars and practitioners alike point to California as a current world leader in this policy subsystem, with its policies establishing an economy-wide cap on carbon, efforts to curb tailpipe emissions, mandates on renewable energy technologies, decoupling of electricity prices from utility sales to incentivize energy efficiency, and energy performance standards. California is in this position because of public opinion, potential to suffer from adverse climate impacts, its political environment, and because these policies are good for the internal state economy. [40] In signing a climate change pact with California to "commit to urgent action to reduce greenhouse gas emissions and promote low carbon technologies" in the summer of 2006, British diplomats emphasized the leadership of Sacramento and noted that their goal was not to negotiate around the federal government, even after talks between then Prime Minister Blair and then President George W. Bush failed at the Group of Eight (G8) Summit earlier in 2006.

[41, 42] The United Kingdom, in fact, also signed climate pacts with Florida, Wisconsin, and Michigan, in addition to other foreign-state agreements across the globe on this issue. [43] That said, however, the United Kingdom and other countries began to look to the states after the federal government indicated that it would not take action in this area under the political leadership in the Bush White House and Republican Congress. [44]

There is established evidence that states do interact with one another in the energy and environmental arena. Frederiksson and Millimet developed a model to understand the role of strategic actions with states as the actors within the environmental policy arena, particularly within regions. They found that these strategic interactions are particularly prominent in the Northeast and West. There is also interaction between states and the federal government. [45]

While Frederiksson and Millimet focused on the environmental outcomes as the rational goal of environmental policy, the potential economic benefits can drive the strategic interaction and diffusion. Rabe shows for example, a state that does not produce automobiles may implement fuel economy standards because its citizens would benefit from lower fuel costs, while businesses in another state would be saddled with the compliance costs. [46] Not every economic development opportunity through energy is climate friendly. Geri and McNabb proclaim, "They [state regulators] are pinned between conflicting pressures to protect the environment, but also to say 'yes' to energy projects that offer badly needed economic development to cash-strapped communities." [47] The hydraulic fracturing (fracking) technological advancements to access natural gas reserves and the Keystone Pipeline debate of recent years have shaped the dialogue. As Daniel Yergin recently editorialized, "This new reality requires a new way of thinking and talking about America's improving energy position and how to facilitate growth in an environmentally sound way. …" [48] Although the focus of this analysis is on energy efficiency, renewable energy, and alternative carbon mitigation techniques, advances in fossil fuel access are certainly part of this policy story.

This gubernatorial and state-level leadership falls under the umbrella of competitive activities in the federalist system. One challenge for governors involved in vertical competition is achieving credit for innovations and accomplishments in the federal system. [49] As an example, the debate over the stimulus bill in 2009 revealed tensions between

federal and state elected officials, particularly from the Democratic Congress and Republican governors. [50] State and local governments chose climate and energy as an area of opportunity for legislation, litigation, and action in part due to a lack of federal policy adoption. [51] State and local intervention into pollution prevention and ecological conservation pre-date federal efforts and the creation of the U.S. Environmental Protection Agency (EPA) and U.S. Department of Energy (DOE) in the 1970s. Rabe notes that most analysis of American climate policy focuses on the failure of the Senate to ratify the Kyoto Protocol and the lack of significant proposals to reduce greenhouse gas emissions from the Administration of George W. Bush. The contemporary wisdom focusing on the United States' climate policy exclusively at the federal level misses significance of the "bottom-up" efforts of the states, with the leadership of almost every state passing or at least proposing significant actions. These include state-level RPS legislation, regional emissions trading schemes, and energy efficiency financing opportunities. [52]

The next section of this article will focus on the politics of the situation through the statements of governors of the states under consideration. It will then explore the policies adopted during this time period, focused on the relationship between state and federal policies and the diffusion of the policies. Finally, it will discuss the Recovery Act and implications for the future of American climate and energy policy in light of the past decade.

STATE OF THE STATES: THE GOVERNORS' AND STATES' WORDS AND POLICY ACTIONS

Words in carefully crafted speeches matter in American politics. To understand what the governors of these four states had to say, a content analysis categorized energy and climate related statements in the state of the state addresses of these governors from 2001 to 2012. The state of the state is a key moment in which the governor presents his or her legislative priorities for the year ahead and a useful resource for political science research into policy agendas. [53, 54] The author of this article collected the state of the state address transcripts from state websites and reliable aggregators of the prepared text for the speeches. While not a perfect measure of the goals of the executive administration, it provides important insight into how and where the leader plans to expend

political capital. This section will also provide national perceptions and data on the successes, failures, and leadership of Massachusetts, Minnesota, Texas, and Utah in climate and energy.

Massachusetts

Massachusetts is a noted leader in climate and clean energy policies. It is a founding member of the Regional Greenhouse Gas Initiative (RGGI), a collaboration of nine Northeastern and Mid-Atlantic states to place a behavior-adjusting price on carbon dioxide emissions through a cap-and-trade system in the utility sector. It is the first multi-state economic mechanism for pricing greenhouse gas emissions to encourage mitigation. The bay state currently ranks as the top state for energy efficiency policies in the United States according to the methodology of the American Council for an Energy Efficient Economy (ACEEE). [55] It was the lead plaintiff in the landmark 2007 Supreme Court case that allowed the EPA to regulate greenhouse gases under the Clean Air Act, and its research and development operations in the route 128 corridor and beyond are working towards significant energy breakthroughs. Massachusetts currently gets over 6% of its electricity from renewable resources and has lower-than-average residential electricity consumption due to its mild summers with low demand for cooling. [56]

The governorship of the Commonwealth of Massachusetts has had four occupants since the start of the Bush administration, with Republicans holding office through the end of 2007 and Gov. Deval Patrick, the incumbent Democrat, taking power in 2008. Table 1 shows the governors and how often at least one reference to climate or clean in the annual state of the commonwealth address. The only reference

Table 1. Massachusetts Governors' Climate And Clean Energy References in The State of The Commonwealth Address 2001-2012

Years Delivering the State of the State	*Governor*	*Party*	*Percentage of State of the State Addresses with Climate or Clean Energy References*
2001	Paul Celluci	Republican	0%
2002	Jane Swift	Republican	0%
2003-2007	Mitt Romney	Republican	25%
2008-2012	Deval Patrick	Democrat	100%

to clean energy in a Republican state of the commonwealth occurred in 2006 when Gov. Mitt Romney declared, "We will create a long-range state energy plan that includes conservation, renewable generation, and sites for new facilities." Gov. Romney devoted significantly more time over his four years of addressing the legislature and people of Massachusetts at the beginning of the calendar and legislative year on matters of health care reform and education in the state.

Since taking office, Gov. Patrick has touted his state's proven leadership in energy efficiency. Every one of these speeches has touched on the theme of climate or clean energy, with four of the five arguing for the economic development potential but none of them building the case for the environmental benefits. Gov. Patrick has served primarily in the period of the current recession. Gov. Patrick was short on specifics in his clean energy statements, but makes a commitment for Massachusetts to lead in these areas, at one point criticizing political opponents for arguing against RGGI participation and hampering controversial offshore wind projects near Cape Cod. Despite its reputation and successes, governors of Massachusetts did not devote as much time in their annual speeches to this issue as occurred in the other states with 2012 presidential candidates.

Minnesota

Minnesota has also had a strong record on matters of climate and energy. Rabe notes that Minnesota had both a high level of policy adoption on innovative measures but also an above average emissions growth rate among the American states. [57] This state, however, also has a strong record on conservation, rating in the top 10 in the most recent ACEEE energy efficiency scorecard. [58] Targeting its largest investor-owned utility, Xcel Energy, the state also has an aggressive policy to encourage renewable energy deployment [59] and currently rates fourth in the nation in both wind generation and ethanol production. [60]

Table 2 shows that Minnesota had three governors, all from different parties, during this time period, with Republican Tim Pawlenty in office for the majority of these years. While Gov. Pawlenty did not address climate or clean energy in every speech, he discussed those issues in relative depth in terms of their environmental, economic, and national security implications throughout the course of his term. Based on the coding of his addresses, Gov. Pawlenty made eight energy-related references to environmental issues, eight references to economic devel-

opment through climate or clean energy, and five references to national security with regards to energy. He was a strong proponent of biofuels, employing the widely-used Saudi Arabia comparison in 2005, "I would much rather have the fuel in our cars come from the Midwest than from the Middle East. Let's make Minnesota the Saudi Arabia of Renewable Fuels." [61] Three years later, he further pushed the foreign policy implications in declaring, "Minnesota should continue to lead efforts to "Americanize" energy production. We must help keep America from becoming an energy hostage to hostile and unreliable leaders like Hugo Chavez, Vladimir Putin, and Mahmoud Ahmadinejad."

Table 2. Minnesota Governors' Climate And Clean Energy References In The State of The State Address 2001-2012

Years Delivering the State of the State	*Governor*	*Party*	*Percentage of State of the State Addresses with Climate or Clean Energy References*
2001-2002	Jesse Ventura	Independent	50%
2002-2010	Tim Pawlenty	Republican	75%
2010-2012	Mark Dayton	Democrat	33%

Gov. Pawlenty made clear that his state and his office were leaders in this public policy subsystem, noting this leadership nine times over his eight annual addresses. He was particularly critical of the federal government as he tried to push Minnesota towards becoming the "renewable fuel capital of America" (stated in 2005), saying in 2006, "Let's face it. Washington has been slow to lead on this issue. But we can't afford to wait for them. Let's lead the way and set a strategic goal of "25-by-25"—so that 25% of all types of our energy will come from renewable sources by 2025." The state then adopted that particular policy. In 2007, introducing his "next generation energy plan" the same year, he led the national governors association's "securing our clean energy future" initiative, he told his state: "Our nation has been asleep at the switch on energy policy for decades. The good news is that while much of the country has just begun to hear the energy wake-up call, Minnesota has been an early riser. While others slept in on renewable energy, we got up early, we made the coffee, we cooked the breakfast, we read the paper, we did some chores and we took the dog for a walk." He took personal initiative and aimed at a bipartisan effort, noting, "I look forward to

working with the Democrats and the Republicans to pass and sign comprehensive historic renewable energy legislation this session." A year later he spoke of successes in ethanol production and other forms of renewable energy. His Democratic successor, however, has spoken little of these clean energy issues in recent years.

Texas

Texas is the only state in the union to have only one governor since George W. Bush left that very office to become president, his former lieutenant, Gov. Rick Perry (See Table 3). In a state known for its oil and gas reserves, and which currently produces and consumes the most energy of the American states, [62] Gov. Perry has encouraged wind power, plug-in hybrid electric vehicles, and nuclear energy in his biannual state of the state addresses (the legislature in Texas meets biannually). He has also criticized the Federal Energy Regulatory Commission and encouraged innovation to reduce air pollution. Texas is the only state with its own electricity grid and has made inroads in renewable energy technology deployment. Gov. Perry has also criticized and sued the EPA for taking action on climate change through its endangerment finding on greenhouse gas emissions. [63]

Table 3. Texas Governor's Climate and Clean Energy References in The State of The State Address 2001-2012

Years Delivering the State of the State	*Governor*	*Party*	*Percentage of State of the State Addresses with Climate or Clean Energy References*
2001-2012*	Rick Perry	Republican	50%
(*Address delivered in odd-numbered years only).			

Utah

Utah has advanced its energy policy over the past decade. Utah rated in the top 20 in ACEEE's energy efficiency scorecard in 2011. [64] While it has the fifth-lowest electricity prices in the nation, almost 5% of its electricity came from renewable resources. [65] Utah's Republican governors (listed in Table 4) have addressed clean energy in all but two of the state of the state addresses since 2001. Mike Leavitt, who would leave office to become the EPA administrator, focused on energy supply security in light of troubles in his region due to the situation in Califor-

nia that led to blackouts and energy crises on the over-burdened and mispriced electricity grid. He criticized the source of the problem in telling his state's lawmakers and citizens in 2001, "California consumers cannot be shielded from the true cost of power while major utilities are allowed to perish in bankruptcy and consumers in other western states are left to pick up the tab." He went on to warn, "There are few things that could kill an economy or life quality like a lack of reliable electric supply. Due to complex economic, environmental and regulatory issues, the West has not kept up in developing energy resources."

Table 4. Utah Governors' Climate and Clean Energy References in The State of The State Address 2001-2012

Years Delivering the State of the State	*Governor*	*Party*	*Percentage of State of the State Addresses with Climate or Clean Energy References*
2001-2003	Mike Leavitt	Republican	100%
2004	Olene Walker	Republican	0%
2005-2009	John Huntsman	Republican	80%
2010-2012	Gary Herbert	Republican	100%

The next governor to come to office through electoral victory, Gov. Jon Huntsman, drew on Utah's interest in natural resources in arguing in 2007, "On the energy front, Utah is uniquely positioned to assist in meeting the future needs of our state and nation. My 2006 energy efficiency plan, one of the most aggressive in the nation, calls for an increase in efficiency of 20% by 2015 and we are rigorously working to that end." In 2008 he argued from an environmental perspective, "We must improve the air we breathe and capitalize on technology to ensure the long-term viability of our abundant natural resources, like coal, oil and natural gas, while developing renewable alternatives." His successor, Gov. Gary Herbert, has continued to address these issues in depth in his state of the state addresses.

Political Trends

In 2007, Gov. Jon Huntsman appeared in a television commercial with California Gov. Arnold Schwarzenegger and Montana Gov. Brian Schweitzer set in a natural background, noting the successes in climate

policy in the states, and urging Congress to take action to mitigate greenhouse gas emissions. It was a direct competitive federalist challenge from the states to the federal government on climate change, urging the "top" to follow the bottom-up efforts. In the 42 state of the state addresses analyzed in these states, 26 mentioned a clean energy topic and potential solutions to energy and environmental challenges, but not one directly addressed anthropogenic climate change.

Figure 1 shows the context of clean energy references in these speeches. Over one-third mention clean energy in the context of economic development, particularly since the onset of the global financial crisis. Both Democrats and Republicans mention environmental considerations, doing so in 26% of all the speeches. Energy security, including energy reliability came up in five speeches, while governors argued for the national security benefits of clean energy policy in four of the 42 addresses.

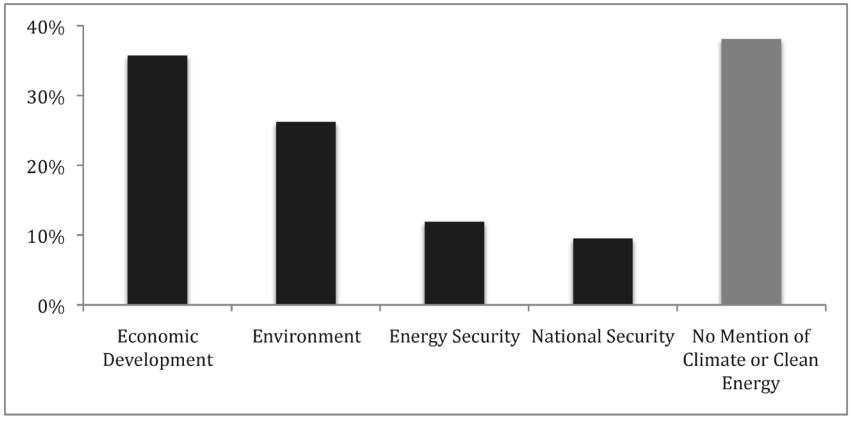

Figure 1. Percent of State of the State Addresses Referencing Clean Energy Issues by Type in Mass., Minn., Texas And Utah From 2001-2012

It is noteworthy that each of the leading 2012 Republican presidential candidates who served as governor addressed energy efficiency or renewable energy in a State of the State Address. Each state's governor put his or her own state's spin on the efforts. In 2008, for example, Gov. Pawlenty argued, "Clean energy will help our environment and outdoors, and that is a good thing. Enjoying the outdoors is part of who we are as Minnesotans." This sample, however, does not fully reflect na-

tional trends. In a comprehensive analysis of state of the state addresses from 2012, the National Governors Association notes that 15 governors discussed renewable energy and seven speeches mentioned energy efficiency. This was almost always in the economic development context, with job creation through energy and other means being a primary focus of these speeches across the nation. [66]

While these governors addressed their specific state-level concerns, they also worked to impact the nation's climate and energy policies. Gov. Pawlenty chose this topic as his initiative, "securing a clean energy future," while chairing the National Governors Association in 2007 and 2008. This was unique in the history of the NGA, as typical annual chairpersons' initiatives focused on the economy, education, and healthcare. He introduced his program by noting that, "America is at a tipping point. As some of this country's leading policymakers, my colleagues and I have a unique opportunity to move the United States toward a cleaner, more independent, more secure energy future." [67] Through the NGA network with a bipartisan cohort of task force members, his goals in this leadership position were to:

- Use our energy resources better through efficiency and conservation
- Promote non-petroleum based fuels such as ethanol and biodiesel
- Take reasonable steps to reduce greenhouse gas emissions
- Accelerate research and development of advanced clean energy technologies [68]

Intergovernmental organizations play a role in policy diffusion. Policy diffusion scholars anecdotally mention the role of these organizations in their seminal studies of the spread of policy innovations without providing background data on their importance or effectiveness. One of the primary purposes of the intergovernmental associations is policy diffusion. Balla, in a study of National Association of Insurance Commissioners (NAIC), found that participation of insurance commissioners in relevant NAIC committees was a significant factor in state-level adoption of the Health Maintenance Organization Model Act. [69] A recent study in this policy subsystem related to green buildings found that state and local officials engage organizations as "knowledge brokers" in the diffusion of best practices, including in the adoption of popular Leadership in Energy and Environmental Design (LEED) stan-

dards. In this case the organization was an industry association, the U.S. Green Building Council (USGBC), but the results of the study emphasized its role in the exchange of technical information and the diffusion of a "low salience policy. " [70] Through the NGA Center for Best Practices and other organizations, policy action through policy diffusion has continued to improve the American climate and clean energy landscape across the states.

Policy Trends in these States

Table 5 shows a brief summary of some of the most significant policies in these four states. Massachusetts has adopted all four of these successful practices. It is a founding member of the regional greenhouse gas initiative, has legal standards to require energy efficiency and renewable energy, and funds clean energy through a public benefits fund on utility bills. In addition, Minnesota has taken all of those actions besides RGGI. While Texas has a renewable portfolio standard, Utah has yet to mandate any of these four policy measures beyond voluntary programs. This is certainly not a comprehensive list of actions, but these are widely adopted policies that show Utah lagging—despite claims of governors in policy addresses of leadership in this arena.

With so much opportunity for "low-hanging fruit" clean energy measures that can benefit the environment and the economy, researchers and policymakers have attempted to identify the reason for this market failure. Brown and Chandler provide a list of barriers that hinder the ability of the federal, state and local levels of government to deploy cost effective energy efficiency measures with available technologies. Fiscal barriers, regulatory barriers, and statutory barriers hinder the adoption and implementation of clean energy programs in the public and private sectors. [71] Information barriers also exist for consumers, businesses, and the public sector in identifying energy efficient products and services in the marketplace. [72] However, there is often a lag between the costs and benefits of these policies, and other long-term struggles loom larger in the public discourse than issues of climate and energy. While the Recovery Act did not remove all barriers to clean energy deployment, this federal cash infusion was a driver for these states and others to make clean energy-based economic development decisions with a windfall of resources.

Table 5. Summary of Four Key Clean Energy Policies in Four States

Policy	Massachusetts	Minnesota	Utah	Texas	Total States with Policy
Regional Cap and Trade Program	RGGI	No	No	No	9
Renewable Portfolio Standard	22.1% by 2020	25% by 2025 (30% for Xcel)	Goal of 20% by 2025	5,880 MW by 2015	29
Energy Efficiency Resource Standard	Yes	Yes	No	Goal only	20
Public Benefits Fund	Yes	Yes	No	No	18

Source= Database of State Incentives for Renewables and Efficiency

THE RECOVERY ACT

ARRA included $3.1 billion dollars for the state energy program through the U.S. Department of Energy's office of weatherization and intergovernmental programs, as reauthorized in the EISA 2007. While it is too soon to tell whether this has caused or will cause a policy punctuation in which there is a disruption of the usual incremental change in the policy process leading to a completely new governing paradigm, [73] it brought new attention and focus with the rapid increase in SEP size and scale. Figure 2 shows the scale of the additional SEP funding, as well as the related energy efficiency and conservation block grant program, which received funding for the first and thus far only time under ARRA. In addition, $5 billion in ARRA funds went to the low-income weatherization assistance program for state-level implementation as well as $400 million for state designed and administered appliance rebate programs.

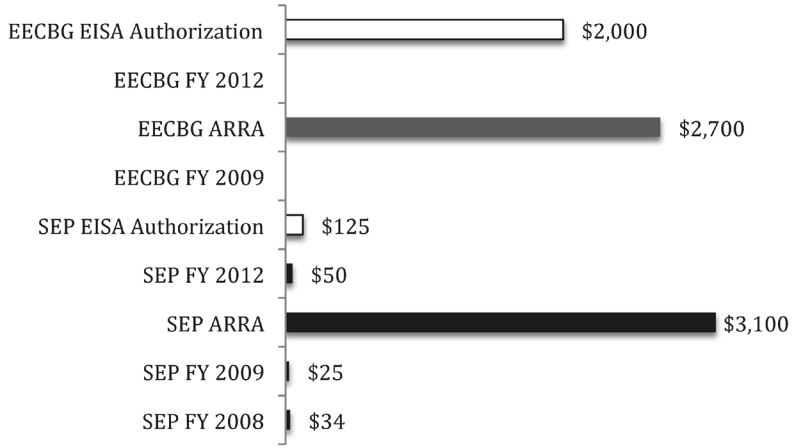

Figure 2. Formula Funding And Current Authorizations for SEP and EECBG in Millions of Dollars

The DOE highlights the goals of SEP, which apply to both annual appropriations and ARRA funding:

- Increase the energy efficiency of the U.S. economy
- Reduce energy costs

- Improve the reliability of electricity, fuel, and energy services delivery
- Develop alternative and renewable energy resources
- Promote economic growth with improved environmental quality
- Reduce our reliance on imported oil [74]

Immediate job creation was the key rationale and metric for the Recovery Act, regardless of the state, policy arena, or office. The administration campaigned for ARRA as a step towards resolving the financial crisis and mitigating a "jobless recovery." The Recovery Act Board lists the goals of ARRA:

- Create new jobs and save existing ones
- Spur economic activity and invest in long-term growth
- Foster unprecedented levels of accountability and transparency in government spending [75]

Congress and the president also added regulations on SEP under the Recovery Act related to building energy codes and utility incentive structures to promote energy efficiency that aim to nationalize successful practices. This helped to drive the Administration's environmental agenda by forcing states and territories to accept these intergovernmental requirements. [76] Every eligible SEP jurisdiction signed off on the policy changes, which are on the record but lack a long-term enforcement mechanism. Understanding the implications of the Recovery Act is difficult because there is no counterfactual information; all states accepted the SEP funding.

Multiple studies show opportunities for macroeconomic expansion through energy efficiency programs. Deitchman, Brown, and Baer use an input-output calculation to show that implementation of nine long-term energy efficiency policies in the residential, commercial, and industrial sectors in the South can grow jobs in the region over 20 years. This model not only accounts for direct employment from clean energy products and services, but also job growth from reinvestment of utility bill savings. [77] The New York State Energy Research and Development Authority (NYSERDA) projected that although their Energy $mart Program will only run from 1999 to 2012, it will continue to create or maintain jobs through energy savings through 2027. [78] Programs with short payback periods, and even programs with no-upfront

capital costs, can initiate economic development through reductions in the cost of energy operations. With energy savings performance contracts (ESPCs), a state (or city, company, or other entity) can enter into contracts with an energy service company (ESCO) to improve building performance using future savings to pay for upfront costs. The ESCO industry shows that $10 million in energy-efficiency expenditures in federal buildings with ESPCs can support 95 jobs. State governments have been leaders in implementing this mechanism, [79] and developed or expanded programs during and beyond the ARRA implementation. Different clean energy technologies, however, have different levels of macroeconomic and employment impacts on a region.

While several governors, such as Rick Perry, criticized the federal intervention into state policy, every state eventually approved the ARRA SEP resources and conditions. While Gov. Perry's concerns related more to federal regulatory overreach, there is also concern that too much federal intervention could, in fact, hamper the existing stringent state and local energy and environmental programs. In a law review article, Rose delves into the implications of a policy shift at the top of the federalist structure, which could be beneficial, detrimental, or mixed towards the capabilities and capacity of sub-national actors. [80] The national level government, however, also provides important financial support to state and local energy and environmental programs. In addition, qualitative research indicates that the diversity and incongruence of state and local policies can have a negative impact on the deployment of low carbon technologies. [81] For example, while state energy appliance standards have yielded significant benefits, it is a challenge for firms in the market when the companies have to meet multiple standards. The academic and public policy communities require more efforts to link politics, policy, and the multiple scales of the twenty-first century economic and environmental challenges of climate and energy.

CONCLUSIONS AND FURTHER RESEARCH

Every level of government has a role and responsibility related to overcoming barriers and the environmental and economic concerns of their constituents, particularly in a federalist system. The neoclassical economic theory of environmental policy and regulation, however, does not provide a universal answer on centralization versus

decentralization. [82] Polycentrism is an approach to get the benefits of centralization and decentralization. Andersson and Ostrom discuss polycentricity as "the relationships among multiple authorities with overlapping jurisdictions." They argue against decentralization as the sole answer to common pool resource issues, such as climate challenges, and state that, "Many policy reforms attempt to streamline government organizations—a strategy that often make the resulting governance structure less able to deal with complexity of resource problems." [83] A problem as "wicked" as climate change, with its implications from local to global, requires flexible actions at multiple scales. Brown and Sovacool build a case for a polycentric approach to climate change and global energy security through case studies and other analysis. They argue that polycentrism can provide dialogue, redundancy, accountability and economies of scale. [84]

This research article presents a preliminary attempt to explore the politics and policy of state level climate and clean energy policies over the course of the past decade. A more rigorous and comprehensive analysis building from this basis will attempt to answer the questions of why U.S. states became leaders with innovation through competition in federalism throughout an extremely active decade for climate and energy. To achieve a low carbon future where the United States utilizes energy resources—both what's in the ground and the human capital of energy engineers—to the fullest potential, policy makers at all levels of government will need be strategic in their goals in mixing the politics and policy of the situation to achieve the optimal outcomes. The laboratories of democracy have changed the paradigms of American climate and energy policy; whether they will continue to lead or press the federal government into greater intervention is the ongoing challenge for the competitive federalist institutions and actors. As we move beyond the past decade in policy dialogue and action, the United States and the global community will continue to seek to build an effective polycentric approach to one of the twenty-first century's most significant policy problems.

References

[1] Madison, J. (1788). Federalist #46, *The Federalist Papers*.
[2] Brandeis, L.D. (1932). New State Ice Company v. Liebmann (Dissenting Opinion). U.S. Supreme Court 285 U.S. 262.
[3] Brooks, G.E. (1961). *When Governors Convene*. Baltimore: The Johns Hopkins Press.

[4] Ransone Jr., C.B. (1982). *The American Governorship*. Westport, CT: Greenwood Press.
[5] Beyle, T.L., & Munchmore, L.R. (1983). Governors and Intergovernmental Relations: Middlemen in the Federal System. In T.L. Beyle & L.R. Munchmore (Eds.), *Being Governor*. Durham, NC: Duke Press Policy Studies.
[6] Harrigan, J.J. (1988). *Politics and Policy in States and Communities* (6th ed.). New York: Longman.
[7] Stone, D. (2002). *The Policy Paradox* (3rd ed.). New York: W.W. Norton and Company.
[8] United States Department of Energy. (2011). State Energy Program. Retrieved December 1, 2011, from www.doe.gov/recovery.
[9] Grunwald, M. (2012). *The New New Deal*. New York: Simon and Schuster.
[10] Biden, JR. (2009, February 27). Green Jobs are a Way to Aid the Middle Class. Originally published in the *Philadelphia Inquirer*, 2/27/2009.
[11] Rosencranz, A. & Conklin, R. (2010). National Policy. In *Climate Change Science and Policy*. Schneider, S., Rosezcranz, R., Mastrandrea, M., & Kuntz-Duriseta, K, eds. New York: Island Press.
[12] Pollin, R., Garrett-Peltier, H., Heintz, J., & Scharber, H. (2008). *Green recovery: A program to create good jobs and start building a low-carbon economy*. Center for American Progress: Washington DC.
[13] Grunwald 2012.
[14] Stern, N.H., Peters, S., Bakhshi, V., Bowen, A., Cameron, C., Catovsky, S., et al. (2006). *Stern Review: The economics of climate change*. London: HM Treasury.
[15] Nordhaus, W.D. (2006). The" Stern Review" on the *Economics of Climate Change*: National Bureau of Economic Research Cambridge, Mass., U.S.A.
[16] Gulliver, J.W., & Wheeler, K.A. (2008). Diversified Leadership for Moving beyond the Carbon Economy in the United States. In D.N. Zillman, C. Redgwell, Y.O. Omorogbe & L.K. Barrera-Hernandez (Eds.), *Beyond the Carbon Economy*. Oxford, England: Oxford University Press.
[17] Lutsey, N.P., & Sperling, D. (2008). America's Bottom-Up Climate Change Mitigation Policy. *Energy Policy*, 36(4), 673-685.
[18] Rabe, B. (2008). States on steroids: The intergovernmental odyssey of American climate policy. *Review of Policy Research*, 25(2), 105-128.
[19] Revesz, R. (1992). Rehabilitating Interstate Competition: Rethinking the Race-to-the-Bottom Rationale for Federal Environmental Regulation. *NYUL Rev.*, 67, 1210.
[20] Fredriksson, P., & Millimet, D. (2002). Strategic interaction and the determination of environmental policy across U.S. states. *Journal of Urban Economics*, 51(1), 101-122.
[21] Brown, M., & Sovacool, B. (2011). *Climate Change and Global Energy Security*. Cambridge, MA: MIT Press.
[22] Buchanan, J.M. (1995). Federalism as an ideal political order and an objective for constitutional reform. Publius: *The Journal of Federalism*, 25(2), 19-28.
[23] Tiebout, C.M. (1956). A pure theory of local expenditures. *The Journal of Political Economy*, 64(5), 416-424.
[24] Nathan, R.P. (2008). Updating Theories of American Federalism. In T. J. Conlan & P. Posner (Eds.), *Intergovernmental Management in the 21 Century*. Washington, DC: Brookings Institution.
[25] Shannon, J., & Edwin Kee, J. (1989). The rise of competitive federalism. *Public Budgeting & Finance*, 9(4), 5-20.
[26] Rabe, B. (2011). Contested Federalism and American Climate Policy. *Publius: The*

Journal of Federalism, 41(3), 494.
[27] Derthick, M. (2010). Compensatory Federalism. In B. Rabe (Ed.), *Greenhouse Governance*. Washington, DC: Brookings Institution Press.
[28] Posner, P. (2010). The Politics of Vertical Diffusion: The States and Climate Change. In B. Rabe (Ed.), *Greenhouse Governance*. Washington, DC: Brookings Institution Press.
[29] Walker, J. (1969). The diffusion of innovations among the American states. *The American Political Science Review*, 63(3), 880-899.
[30] Weyland, K. (2006). *Bounded Rationality and Policy Diffusion*. Princeton, NJ: Princeton University Press.
[31] Karch, A. (2007). *Democratic Laboratories*. Ann Arbor, MI: University of Michigan Press.
[32] Boushey, G. (2010). *Policy Diffusion Dynamics in America*. New York: Cambridge University Press.
[33] Polsby, N.W. (1984). *Political Innovation in America*. New Haven, CT: Yale University Press.
[34] Schlesinger, J.A. (1966). *Amibition and Politics*. Chicago: Rand McNally and Company.
[35] Rittel, H. W.J., & Webber, M. M. (1973). Dilemmas in a general theory of planning. *Policy Sciences*, 4(2), 155-169.
[36] Stern et al. 2006
[37] Brown & Sovacool 2011
[38] Deitchman, B., Brown, M., & Baer, P. (2011). Green Jobs from Industrial Energy Efficiency. Energy Productivity in Industry: Partners and Opportunities, 2011 American Council for an Energy Efficient Economy (ACEEE) Summer Study on Energy Efficiency in Industry. Washington, DC: ACEEE.
[39] Revesz, R. (1992). Rehabilitating Interstate Competition: Rethinking the Race-to-the-Bottom Rationale for Federal Environmental Regulation. *NYUL Rev.*, 67, 1210.
[40] Derthick 2010
[41] Rabe, B. (2009). Governing the Climate from Sacramento. In S. Goldsmith & D.F. Kettl (Eds.), *Unlocking the Power of Networks*. Washington, DC: Brookings Institution Press.
[42] British Broadcasting Corporation (BBC). (2006, August 1). California and UK in climate pact. BBC News.
[43] Selin, H., & VanDeveer, S.D. (2010). Multilevel Governance and Transatlantic Climate Change Politics. In B. Rabe (Ed.), *Greenhouse Governance*. Washington, DC: Brookings Institution Press.
[44] Hollis, D.B. (2010). Unpacking the Compact Clause. *Texas Law Review*, 88(4), 741-806.
[45] Frederiksson &Millimet 2002
[46] Rabe 2011
[47] Geri, L.R., & McNabb, D.E. (2011). *Energy Policy in the U.S.* Boca Raton, FL: CRC Press.
[48] Yergin, D. (2012, June 9). America's New Energy Reality. *The New York Times*.
[49] Nicholson-Crotty, S., & Theobald, N. (2011). Claiming credit in the U.S. federal system: Testing a model of competitive federalism. *Publius: The Journal of Federalism*, 41(2), 232-256.
[50] Grunwald 2012
[51] Engel, K. (2009). Whither Subnational Climate Change Initiatives in the Wake of Federal Climate Legislation? *Publius: The Journal of Federalism*, 39(3), 432.

[52] Rabe 2008
[53] Herzik, E.B. (1991). Policy agendas and gubernatorial leadership. Gubernatorial leadership and state policy, 25, 37.
[54] Heidbreder, B. (2012). Agenda Setting in the States: How Politics and Policy Needs Shape Gubernatorial Agendas. *Politics & Policy*, 40(2), 296-319.
[55] Sciortino, M., Neubauer, M., Vaidyanathan, S., Chittum, A., Hayes, S., Nowak, S., et al. (2011). *The 2011 State Energy Efficiency Scorecard*. Washington, DC: American Council for an Energy Efficient Economy (ACEEE).
[56] Energy Information Administration (EIA). (2012). State Energy Data System. Retrieved September 1, 2012, from http://www.eia.gov/state/seds/.
[57] Rabe 2008
[58] Sciortino et al. 2011
[59] Database of State Incentives for Efficiency and Renewables (DSIRE). (2012). Database of State Incentives for Efficiency and Renewables (DSIRE). Retrieved September 1, 2012, from www.dsire.org
[60] EIA 2012
[61] Galbraith, K. (2009, July 1). Contest: Replace the 'Saudi Arabia' Trope! *The New York Times*.
[62] EIA 2012
[63] Texas Office of the Governor. (2010). Texas Takes Legal Action Against Federal Government Over EPA CO2 Mandates. Retrieved September, 2012, from http://governor.state.tx.us/news/press-release/14253/
[64] Sciortino et al. 2011
[65] EIA 2012
[66] National Governors Association. (2012). The Governors Speak: A Summary of the 2012 State of the State Addresses. Washington, DC: National Governors Association.
[67] National Governors Association. (2008). Securing a Clean Energy Future. Washington, DC: National Governors Association.
[68] Ibid.
[69] Balla, S. (2001). Interstate professional associations and the diffusion of policy innovations. *American Politics Research*, 29(3), 221.
[70] Koski, C. (2010). Greening America's Skylines: The Diffusion of Low Salience Policies. *Policy Studies Journal*, 38(1), 93-117.
[71] Brown, M., & Chandler, S. (2008). Governing Confusion: How Statutes, Fiscal Policy, and Regulations Impede Clean Energy Technologies. *Stanford Law and Policy Review* (19), 3, 472-509.
[72] Stavins, R.N. (2000). Market-Based Environmental Policies. In P.R. Portney & R.N. Stavins (Eds.), *Public Policies for Environmental Protection* (2nd ed.). Washington, DC: Resources for the Future Press.
[73] True, J.L., Jones, B.D., & Baumgartner, F. R. (2007). Punctuated-equilibrium theory: Explaining stability and change in American policymaking. In P.A. Sabatier (Ed.), *Theories Of The Policy Process* (2nd ed.). Boulder, CO: Westview Press
[74] DOE 2012
[75] American Recovery and Reinvestment Act Board. (2011) Recovery Act Homepage. Retrieved November 25, 2011 from www.recovery.gov.
[76] Grunwald 2012
[77] Deitchman, Brown, & Baer 2011
[78] New York State Energy Research and Development Authority (NYSERDA). (2008). New York Energy $mart Program Evaluation and Status Report, Year Ending December 31, 2007. NYSERDA, Albany, NY.

[79] National Association of Energy Service Companies (NAESCO). (2008). Using Energy Efficiency delivered through Energy Savings Performance Contracting as a Direct and Immediate Stimulus to Economic Recovery. NAESCO: Washington, DC.
[80] Rose, C. (2008). Federalism and Climate Change: The Role of the States in a Future Federal Regime-An Introduction. *Ariz. L. Rev*., 50, 673.
[81] Brown & Chandler 2008
[82] Baumol, W.J. and W.E. Oates. (1988). *The Theory of Environmental Policy*. Cambridge, UK: Cambridge University Press.
[83] Andersson, K. and Ostrom, E. (2008). "Analyzing decentralized resource regimes from a polycentric perspective," *Policy Science* 41(1).
[84] Brown & Sovacool 2011

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