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Policy Shifts toward an Energy System Transition The Dynamics of Advocacy Coalitions and New York State's Renewable Portfolio Standard



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Abstract

Using the New York State Renewable Portfolio Standard (RPS) policy process as a case study, this paper combines two existing policy theories, Transition Management and the Advocacy Coalition Framework, to explain how actors work together in coalitions and influence state-level policy makers in the passage of policies that target renewable energy technology. It is a qualitative assessment that explores the role of trust, belief systems, leadership and the exercise of power in determining the efficacy of coalitions when linking with policymakers. It also considers how the implementation of the RPS could fit into an overall energy system transition for New York State.

Keywords: Sustainable Development, Governance, Advocacy Coalitions, Transition Management, Renewable Energy policy, Renewable Portfolio Standard

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And then the day came,
when the risk
to remain tight
in a bud
was more painful
than the risk
it took
to Blossom.
Anais Nin

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Abbreviations

ACENY	Alliance for Clean Energy New York
ACF	Advocacy Coalition Framework
AWEA	American Wind Energy Association
CCAP	Center for Clean Air Policy
CO ₂	Carbon Dioxide
DOE	United States Department of Energy
DSIRE	Database for State Incentives for Renewable Energy
EANY	Environmental Advocates of New York
FERC	Federal Energy Regulatory Commission
GHG	Greenhouse Gas
KW	Kilowatt
LSE	Load Serving Entity
MI	Multiple Intervenors
NRDC	Natural Resource Defense Council
NUG	Nonutility generators
NYISO	New York State Independent Service Operator
NYLCV	New York League of Conservation Voters
NYS	New York State
NYSERDA	New York State Energy Research and Development Authority
PACE	Pace Law School Energy Project
PSC	New York State Public Service Commission
PE	Punctuated Equilibrium Theory
PURPA	Public Utility Regulatory Policy Act
RETEC	Renewable Energy Technology and Environment Coalition
RGGI	Regional Greenhouse Gas Initiative (RGGI)
RPS	Renewable Portfolio Standard
SBC	System Benefits Charge
TM	Transition Management
U.S.	United States
WTE	Waste-to-Energy

Acronyms

The Standard Renewable Portfolio Standard

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1 Introduction

1.1 Motivation

Upon the completion of an undergraduate degree in Environmental Planning, I contemplated how I could best fulfill my lifelong dream of “helping the environment”. I was struck by the idea of working to influence policy in the energy field, specifically for electricity. After all, modern societies could not function without a reliable electrical generation and distribution system, including all of the infrastructure and ensuing regulations and practices. Yet, the current system is heavily dependent upon fossil fuels and their extraction and combustion is having significant negative environmental impacts.

These impacts include the destruction of ecosystems caused by extreme extraction methods such as mountaintop mining for coal, off-shore oil drilling and tar sands production. In addition, emissions from power plants are acidifying forests and waterways, creating human health problems and increasing the risks of serious planetary changes from climate change. This information leads me to ask what has been done, or can be done, to promote the use of renewably sourced electricity. As one of the largest CO₂ emitters in the world (EIA 2010), how is the United States (U.S.) acting to reduce its use of fossil fuels?

In order to mitigate the worst effects of fossil fuel use, energy systems will require restructuring on a vast level. This promises to be a daunting task and needs “an unprecedented and persistent commitment to rapid change” (Smil, as quoted in Blair et al. 2011:12). Policymaking will play an important role in this transition. Policy can be an instrument of transition if it is intended to cause structural change particularly in one of the socio-technical sectors that provide basic supports to society (Chappin and Dijkema 2010) such as the electricity sector.

In the U.S., the deployments of emerging energy technologies have been inconsistent and slow (Stephens et al. 2008). This may be related to the lack of a comprehensive national climate change policy. Therefore, understanding what is happening at the sub-national level regarding energy technology deployment is a “critical component for predicting and planning/.../greenhouse gas emissions reductions” (Stephens et al. 2008: 1225) and for understanding the progress toward a more widespread diffusion of renewables. In fact, most relevant US policies for renewable energy diffusion have been enacted at the state level, including financial and planning options for almost two decades (Byrne et al. 2007). Yet, there is a significant difference in the amount of ‘green’ electricity production from state to state.

Some U.S. states are regarded as clean energy pioneers while others are not (Carley 2009; Delmas & Sancho 2011). This circumstance dates back to the late 1990s and continued into the early 21st century. It was during this time that several states defined themselves by developing and implementing innovative policies to promote renewable energy for electricity use.

Exploring electricity policy on the state level in the U.S., led me to wonder what circumstances contributed to the diffusion of renewable energy policy in some states and not in others? How are renewable energy proponents working for the implementation of policies that will stimulate the use of technologies such as wind solar, tidal, and other renewables?¹ In what capacity are they linking with policymakers? This thesis examines these questions by using Paul Sabatier's Advocacy Coalition Framework (ACF) as well as the Dutch theory of Transition Management (TM) to frame suppositions related to advocacy coalition building and their use of power at the state level.

It takes time to build sustainable societies, including sustainable energy systems. The decisions and behaviors of today will continue to impact our social and environmental systems for decades or longer. Electricity plays a large role in how our societies function and the impacts that we have upon the environment. Clearly, now is the time to make the changes that are necessary to shift electricity use toward sustainability. The greater understanding we have of the factors and conditions that will lead us in this direction, the better chance we have of being successful.

1.2 Outline

This thesis will first introduce the concepts of Sustainable Development and Governance and then present the relevance of transitioning primarily to the use of renewable energy technologies and building sustainable societies. Next, a central research question is posed and the research objectives are stated. This is followed by the depiction of a research framework and its elaboration. After the framework, a literature review of relevant theories is discussed and followed by a conceptual model with an explanation of the variables selected for analysis. Finally, sections on Policy Landscape, Methodology, Findings and a Discussion of the findings lead us to the concluding chapter.

¹ This paper will not discuss nuclear energy because it is not considered a desired alternative to fossil fuels. Nuclear energy has its own significant set of issues relating to environmental harm and public health risks in every part of the cycle. The lack of technical ability to deal with the disposal of radioactive waste and the fact that the technology is based on the extraction of finite minerals eliminates nuclear energy from consideration as a 'renewable' fuel source. This research will focus on policy related to energy provided by sources such as wind, solar, biomass, small hydro-power, tidal and geothermal.

1.3 Study Context

1.3.1 Sustainable Development

A quarter century after the Brundtland Commission issued the benchmark definition of 'sustainable development'² in *Our Common Future* we are still attempting to distill and refine what this idea means to human societies. The definition offers a notion of development based upon balancing the interrelated social, environmental and economic systems of our world (Brundtland Commission, 1987). This conception also gave rise to the idea of "people, planet and profit" as the three pillars of sustainability.

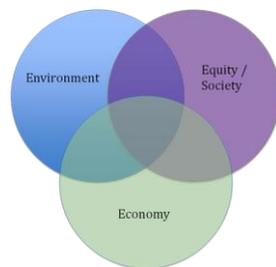


Figure 1: People, Planet, Profit view

Objective sustainability criteria are inextricably forged to normative and institutional factors, creating a complex "real world" conception of sustainable development that links the human and natural worlds. This complex interface can lead to different interpretations when defining sustainable development. In addition to differing definitions and goals, there are various ideas of how to approach these goals. Thus, there is no right or wrong answer because conflicting values, incomplete knowledge, long time horizons, multi-scalar activities and complex linkages amongst actors will create a range of solutions. We do know, however, that if human activities are to exist within ecological boundaries (Rockstrom 2009; Barnosky 2012), socio-technical systems such as energy systems must be transformed (Meadowcroft 2009).

1.3.2 Governance

When individuals and segments of society become involved in the decision making process to create sustainable systems for humanity, solution-making becomes a political activity. In a *strong state* model of steering society, the concentration and centralization of political power was deemed necessary to effectively deal with urgent societal problems (van Kersbergen and van Waarden 2004) such as finding solutions for the provision of societal support systems. To

² "...development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on the Environment and Development 1987)

manage the challenges of these issues, the authority of the government allowed the state to mobilize relevant stakeholders in public problems (Glasbergen 22.11.2010).

However, this creates a class of actors external to the policy process that may have expert knowledge and a means of assisting in policy implementation but for whom opportunities to participate in formal processes are limited. Excluding expert knowledge and human capital for complex sustainability issues is a hazard of centralized, top-down decision-making that can take place under governments.

An alternative form of steering society is governance. Governance encompasses governmental institutions *and* more informal, non-governmental mechanisms (Evans and Newnham 1998). It also reflects more extensive concern with norms and processes (McLean and McMillan 2009). Actors concerned with specific issues may strategically address these issues by creating problem-solving collaborations outside of a central authority within this interactive governing process (Stoker 1998).

Many issues of sustainable development are multi-scalar, temporal, and interspatial and demand more complex problem-solving approaches. Governance has the capacity to take effect at various geographic and administrative levels and across the bounds of society. By creating more participatory opportunities, governance offers a broader palette of ideas from which to draw and implement creative solutions for the environmental and social issues related to creating sustainable societies. Innovation in the development and implementation of new technology, infrastructure and policy will be necessary to transition to a clean energy society and governance will play an important role in this process.

2. The Paradigm of Electricity and Fossil Fuel Use

One of the biggest sustainable development challenges of our time is the transition of energy from a system that relies primarily upon fossil fuels to one that relies primarily upon renewable technologies and sources. If human activities are to exist within ecological boundaries, *socio-technical systems*, such as energy systems, must be transformed.

Socio-technical systems are those that support production and consumption in core sectors. These systems have physical elements, such as infrastructure, that are rooted in a social network of institutions and actors. As a result, the system changes cannot be forecasted based on scientific and engineering principles alone (Chappin et al. 2007). Thus, managing technological system changes and understanding how such a changeover can happen is an important challenge for policymakers (Meadowcroft 2005). If we do not successfully support a transformation at this time, societies could be in danger of a carbon lock-in created by investing in a new round of fossil fuel based generation facilities that would fail to create paths for system change (Meadowcroft 2009).

A sustainable future will be dependent on a series of fundamental shifts in energy generation and the underlying policies, so that fossil-fuel based societies can smoothly transition to systems sustained by renewably sourced low carbon energy (Adams et al. 2011:2550). The specific reasons for this shift include decreasing greenhouse gas emissions (GHGs) to avoid the worst effects of climate change (including biodiversity loss, ecosystem collapse and significant societal disruptions), fostering regional and national energy security and the avoidance of air and water pollution and their attendant public health problems. In addition, generating electricity from renewable sources, such as solar and wind, is increasingly looked upon as a method for providing employment in areas that are often lacking economic opportunities, particularly in rural areas.

As one of the largest emitters of greenhouse gasses (GHGs) per capita and overall (USEIA 2012a), primarily due to energy consumption, the United States is an important location to support transitions toward renewably sourced energy generation. Electricity accounts for forty-one percent of primary energy consumption in the United States (USEIA 2012b) and, as of 2010, eighty-nine percent of this electricity was generated from fossil fuels and nuclear power (USEIA 2012c). Increasing the use of renewable energy technologies in this mix will be an important part of the solution to reduce GHGs and other harmful emissions.

Electricity, in many ways, defines modern ideas of social and economic progress. Once a society has become “electrified”, lifestyles and economies become increasingly dependent on the technology, including the operation of nearly all of their infrastructure and communication

systems. However, it is difficult for people to grasp the importance of changing these systems because electricity is an “invisible” technology.

The very reliability of the system, particularly in developed nations, can create apathy toward making meaningful changes in the system that supplies the electricity. Under a centralized energy system, power is usually generated far from the where it is being used. Thus, the effects of particulate matter or other harmful emissions are unseen and unfelt by the majority of electricity users. We enter a room and turn on a switch or appliance and the power is there. How it is generated and delivered are details with which many people do not concern themselves.

Additionally, the complex nature of energy provision makes wide-scale changes to energy systems a significant challenge. The electricity system, for example, not only consists of the physical infrastructure for electricity production (power plants), transportation and distribution (grids), but also spans electricity producers, network operators, a variety of consumers, financial institutions, and knowledge and service providers. The social component of the system is under the control of a regulatory regime and market competition. Actors must decide on the operation of their assets, acquire fuel at an appropriate price, defer or make investment decisions and select the technology they want to utilize in order to survive and make satisfactory profits. How the continuously operating, interconnected systems operate and evolve relies upon distinct events and decisions by agents who may not be completely informed or who may act irrationally (Chappin&Dijkema 2009).

Currently in the United States, there are no federal mandates (Delmas&Montes-Sancho 2011) to cap GHG emissions per state, which could significantly contribute to the diffusion of renewable energy technologies. However, state-level policies have been shown to have a decisive effect upon energy technology deployment (Wilson&Stephens 2009).

Historically, the generation, sale and distribution of reliable electricity have been controlled by state governments, although they were still subject to federal rules and regulations related to the national grid transmission system. The passage of The Public Utility Regulatory Policy Act (PURPA) in 1978 marked the first major federal renewable energy policy and a few states actively engaged in promoting renewable energy by using it, notably California. However, circumstances changed when the liberalization of electricity markets began in the 1980s.

A decentralization of the generation and distribution of electricity occurred and allowed market players to participate in the provision of services. By the early 1990’s, the PURPA mandate had run its course and no new federal policy was created to replace it. Renewable energy policy at

the state level lagged and there was a significant decline in both the installed capacity of renewables and policy initiatives related to their promotion (Hirsh 1999).

Yet, by the end of that decade and into the 21st century, there was a renewed interest in renewable electricity, and policy innovations at the state level flourished in some cases (Martinot et al. 2006; Delmas&Montes-Sancho 2011; Fischlein et al. 2010). What factors or conditions promoted this revival of innovation?

This paper will examine how one frontrunner state, New York, successfully transitioned toward a more sustainable electricity system by examining the relationship amongst actors promoting renewable energy policy and their relationship to state level policymakers at a time of prolific renewable policymaking. I expect to find the presence of an organized group of renewable energy proponents applying consistent pressure through various types of interactions with state policy-makers. Determining if these relationships were significant in terms of policy development and implementation at the state level may lead to a deeper understanding about how to apply collaborative action toward policy-making.

This research will look at some of the political implications of how energy policy is made at the sub-national level in the United States, using New York State (NYS) as a case study. It will view policymaking for energy systems from the perspectives of TM and the ACF. TM, developed primarily by Dutch researchers, is a model of environmental governance that aims to guide system transitions over the course of several generations. It seeks to produce more socially and environmentally resilient societal support systems. ACF, pioneered by Sabatier and Jenkins-Smith foundations, believes that changes in policy occur in time spans of a decade or more through the efforts of coalitions. Coalitions are groups of individuals with the same core beliefs that coordinate activities around a particular issue (Sabatier&Jenkins-Smith 1999). This thesis will create a model of change based on these ideas and then compare the reality of policymaking to this model. The next section will explain why it is worthwhile to explore this topic.

2.1 Knowledge Gap

When examining approaches to changing energy policy, we see the emphasis has primarily been on modifying the economic and technological aspects, while giving less consideration to the political ramifications of energy reforms, especially the “capacity of states to design long term policies that are publicly legitimate” (Hendriks 2009).

In addition, how power effects the development of niches in transition management has not been well documented in the literature and no published case study has been conducted in NYS

relating this idea. This is an interesting question to explore because some European case studies question “whether niches can become powerful enough to overturn an existing energy regime as radical niches have enormous difficulties to be translated into regime practices” (Kern&Smith 2008). Thus, it is important to understand the mechanisms that facilitate this movement.

2.2 Societal Relevance

Real and potential impacts of continuing reliance upon fossil fuels are numerous and varied. They include the depletion and degradation of natural resources and significant environmental damage from extreme extraction practices such as deep sea drilling and tar sands mining. The extraction of newly accessible reserves of fossil fuels from environmentally sensitive areas such as the Boreal Forest and the Arctic will potentially devastate unique global ecosystems that are important for the overall functioning of the planet’s life systems (WWF 2010). Further, exploiting some of these resources has the potential to increase political instability and can place limitations on the efficacy of foreign policy and human rights campaigns. Finally, the continued reliance upon fossil fuels will largely contribute to GHG emissions and significantly raise the risks of harsh impacts from climate change.

Other types of air pollution, including particulate matter, are created by fossil fuel burning plants, which create risks for public health. It is estimated that nearly 24,000 premature deaths every year in the U.S. are caused by fine particulate pollution from power plants. Asthma and other pollution-induced illness cause thousands more to suffer ill health and lose millions of workdays. More than \$160 billion annually is spent for medical expenses caused by air pollution from power plants (Clear the Air 2004).

In addition, increasing renewable energy capacity can lead to job creation and investment opportunities. For each dollar spent and unit of energy produced, renewably sourced energy creates more jobs (than fossil fuel technologies), providing opportunities in a sagging economy. This includes opportunities in rural areas and for farmers, who are amongst the hardest hit during economic downturns (Pollin et al. 2008). Other positive economic effects would be stabilizing energy prices, reducing consumer costs and driving major capital investment. A more diverse bulk power supply, including greater amounts of distributed generation (DG), the grid could offer greater reliability and fewer chances of rolling blackouts (US DOE 2012b). Finally, becoming less reliant on foreign sources of oil could also offer more expansive diplomacy and security opportunities for the federal government.

Thus, the matter of providing large-scale electricity crosses the geographical and temporal boundaries. Currently, the particulate matter and other emissions from fossil fuel systems are negatively impacting our environmental and human health. In addition, some of the GHG that

are being emitted today will remain in the atmosphere for up to, or more than, one hundred years and have the potential to drastically alter the global climate. Considering that the energy technology infrastructure has a lifetime of approximately fifty years, we begin to appreciate that current energy-related policy and energy technology investment choices will affect emissions rates (and their effects) for decades to come (Stephens et al. 2008). This could have far lasting consequences for the diversity and quality of life on earth.

It is of utmost importance to human society that the nations most dependent upon fossil fuels, including the U.S., make significant strides in transitioning towards the use of renewable energy sources at this time. The U.S. has moved slowly and hesitantly toward an energy system transformation (Stephens et al. 2008), despite the escalating urgency related to the societal need for this transformation. As the world's second largest emitter of Carbon Dioxide (CO₂) (USEIA 2012) and one of the highest per capita emitters (UN Statistics Division 2012), helping to understand the conditions that will promote the transition toward increased reliance on low-carbon emitting energy sources in this country could be an important contribution toward greater global sustainability.

"Bottom-up" approaches for energy policy could illuminate important types of policy innovations that may prove to be more acceptable and durable in the political arena (Byrne et al. 2007). The states play an integral role in this area and state-level variation in factors controlling emerging energy technology deployment have not been researched enough to offer a clear understanding or characterization of the barriers to the wide-spread diffusion of these technologies (Stephens et al. 2008). What makes some states "frontrunners" in renewable energy policy? And how can renewable energy proponents impact policy processes at the state level? Please refer to the section 5.3 for an elaboration of the criteria used to determine 'frontrunner' states.

2.3 Research Question

The question that my work attempts to answer is:

What are the conditions and factors that promote renewable electricity policy at the state level?

Sub-questions

1. Among frontrunner states, what is a specific example of policy development that would illuminate these conditions and factors?
2. What analysis and assessment must be performed in order to make this example instructive towards promoting renewable electricity policy in other states?

Objectives

This analysis intends to:

1. Provide an overview of a theoretical framework from which to examine the issue
2. Identify a set of variables that can be assessed based on this framework
3. Create assessment tools that will allow a better understanding of the selected variables;
4. Develop a criterion by which frontrunner states can be distinguished and an appropriate case can be chosen to analyze;
5. Apply assessment tools of variables to the selected example
6. Place the example in the context of statewide policy processes

2.4 Research Framework

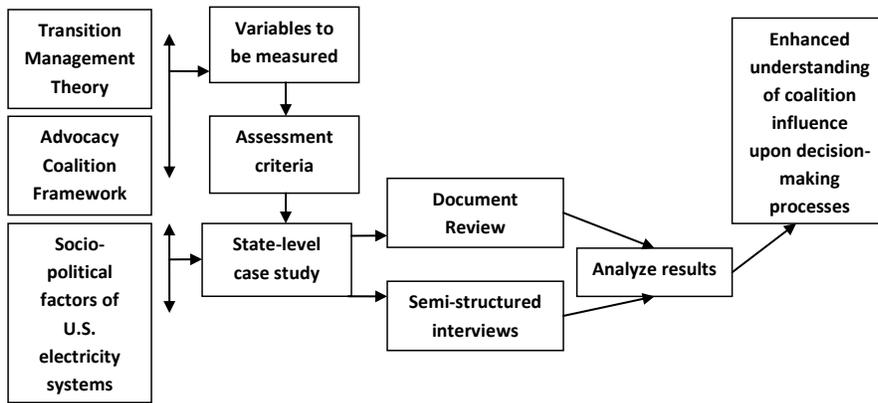


Figure 2: Research Framework

Available scientific literature was surveyed to clarify the research perspective and to determine which experts should be consulted. The literature review establishes four variables determined to be important for understanding the activity of coalitions - *belief systems, trust, leadership and the exercise of power*. I will discuss these concepts in the theoretical framework later in the paper.

Documents that detail the policy landscape in relation to renewable energy in the United States are examined to determine which states are “frontrunners” in policy and which states are “laggards”. In this way a specific state can be selected for study (New York) as well as policy processes (Renewable Portfolio Standard - RPS) in a specific time period (2000-2005).

The research will compare the empirical data and the theoretical concepts for an analysis of the selected variables leading to an enhanced qualitative understanding of how 'outsider' coalitions operate and impact policy change. The development of a particular policy process case study can lead to insights on how to approach these processes in other geographic locations or time frames.

3. Review of Literature

Energy policymaking is complex and participants must work together to solve problems, exert influence upon decision-makers or create other pathways for accomplishing policy goals. This section will provide an overview of the policy perspectives that have been chosen from which to view the analysis. To understand the underlying causes for policy shifts I will use two theoretical approaches: TM theory and the ACF. This theory and framework both work with the governance idea that pathways toward more sustainable societies will involve the collaborative actions of actors from the government, market and civil sectors.

Why Use A Theory and a Framework?

TM theory can offer interesting insights into the complex arrangements of socio-technical systems and how niche actors exercise power to forward innovations. TM, however, has been criticized that it does not pay enough attention to the messy political realities that surround all socio-technical systems (Kearns&Smith 2008; Meadowcroft 2009). There are “political dimensions that the formal mechanisms of transition management are ill equipped to negotiate” (Meadowcroft 2009:335).

Transition Management theory and the Advocacy Coalition Framework (ACF) have some commonalities in their perspectives on policy change. One example is the common desire to synthesize both bottom-up and top-down strategies of change (Sabatier 1998; Rotmans et al. 2001). This can be noted in the mutual appreciation of collective (citizen) learning in addition to policy learning by elites. Citizen learning on the local level by grassroots outreach, the use of media or other strategies can allay fears of new technologies and stimulate the application of pressure by citizens toward policymakers in defense of such technology (Rotmans et al. 2001; Sabatier&Weible 2007).

By incorporating a conception such as the ACF that looks more closely at how the political pathway functions, more variation in policy outcomes can be explained (Sabatier & Weible 2007). The ideas of Sabatier’s ACF develop the interior world of TM niches and how power is exercised in those spaces. It can also illuminate how these clusters of innovators (coalitions) can come together in the first place (mutual belief systems and mutual concern for an issue), why they work efficiently together (trust) and how actions are used to attack the dominant structures and belief systems (leadership).

Studying policy change under a theoretical framework such as ACF could foster a better understanding of the end results of the activities of different types of policy networks and will be valuable for the research objectives described in this paper. I will use the complementary visions contained within both TM theory and ACF to provide the fullest understanding of the

conditions and relationships that existed in the renewable energy policy arena in NYS during the years 2000-2005. In the following sections, TM theory is utilized to explore the exercise of power by coalitions. Then the ideas of the ACF are used to illuminate the significance of belief systems, leadership and trust in advocacy coalition formation and how strategies are implemented.

3.1 Theoretical Framework

3.1.1 Transition Management

Introduction

TM was pioneered by Dutch researchers such as Jan Rotmans, Rene Kemp, Derk Loorbach, Frank Geels and Geert Verbong. Perhaps the theory draws inspiration from Baumgartner and Jones' *Punctuated Equilibrium Theory (PE)*. Proponents of the latter theory posit that, under the right circumstances, sudden and large changes can happen that represent radical departures from the past, as opposed to small incremental changes, that will significantly alter the *status quo* (Baumgartner&Jones 1993).

The genesis of PE Theory could be attributed to a theory in evolutionary biology of the same name, which believes that "bursts" of evolutionary change occur instead of a gradual steady rate of change over time. Both TM and PE believe that the focus should be on approaching change at a fundamental level, instead of modifying existing policies or rules, but TM differentiates itself in the long-term planning aspect and its multi-scalar explanation of system transitions and overall shifts. This theory sees innovators coming together in action-spaces (niches), building acceptance for their ideas, and eventually tipping the balance of prevailing ideas and structures to create fundamental changes in the way that society provides a service.

Since TM is a concept of long-term planning to effect radical change in socio-technical systems, it is suited to the study of renewable energy policy. These theorists are interested in creating broader opportunities for innovation by looking beyond typically short-term policy agendas and attempting to "bring about structural change in a stepwise manner" (Kemp & Rotmans in Meadowcroft 2009).

Shifts from one state, stage or place to another are known as transitions (Merriam-Webster online 2012). Transitions begin when rifts develop between the prevailing system and the larger social or natural environment within which it is located. On a societal level, transitions can refer to movements from one established 'socio-technical regime' (such as energy supply) to another. This means that the manner in which it fulfills its task has changed in an elemental way and can include a change in normative aims, such as extreme changes in sustainability

performance. A transition includes changes in the social (network), institutional and technological aspects of the regime (Loorbach 2007).

Since regimes tend to resist change due to an inherent stability, transitioning to new states is a complex and long-term process (Raven 2006), which combines collective long-term societal goals, the cooperation of a diversity of innovators and shared strategies (Loorbach 2007). Transition theory understands that systemic change is not just an accumulation of incremental changes but also includes radical shifts towards a new state that can happen in punctuated episodes.

The theory of TM looks at how technical and social elements of a sector can be steered or managed. It does not discount the short- and mid-term actions necessary to implement system changes but incorporates an over-arching long-term perspective. This allows for planning on a multi-generational level to support the long-term goals of achieving a more sustainable future in a complex network society (Loorbach 2007).

TM proposes circumventing existing policy networks by creating 'transition arenas'. By concentrating on policy leaders, these public-private networks anticipate overcoming lock-in in current systems, bringing together various societal actors in an automatic and deliberative learning process (Kern&Smith 2008). These altered actor-system dynamics will affect institutional arrangements and power (Kemp et al. 2007).

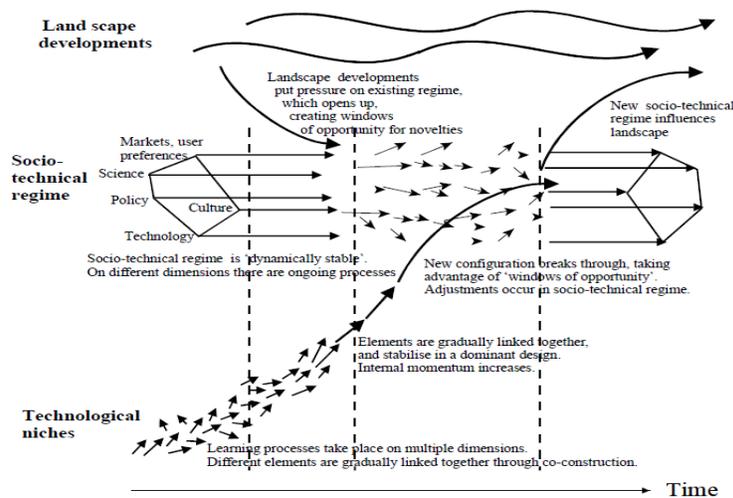


Figure 3:
TM's multi-level and multi-phased perspective on system innovations.

Source: Geels 2005.

How the electricity sector fits into a TM model

TM sees a sector such as electricity as existing on three levels (*regime, niche* and *landscape*) and in three phases (*pre-development, take-off* and *acceleration*). The meso-level of transitions is seen as the prevailing or dominant practices, structure and culture as represented by the physical and institutional infrastructures and is known as a *regime*. This can refer to power grids and power plants but also agent-networks, regulations or power relationships. These accepted and formalized arrangements (the *status quo*) guide the conduct and decision-making of actors and provide stability to a societal sector but are somewhat un-accepting of innovations leading to structural change (Avelino & Rotmans 2009). A transition has occurred when the dominant paradigm in a sector is replaced or transformed by a new one (Avelino & Rotmans 2009).

The societal situation or values in which these processes of operation and transformation occur (macro-level) is known as the *landscape*. This level includes social mores, political cultures, physical capital (power plants, etc.), and economic trends (Loorbach 2007; Avelino & Rotmans 2009).

Importance of the *niche*

When trends between the *landscape* and the *regime* begin to diverge, changes and pulses begin to occur at the *niche* level. The niche is the level at which creativity flourishes and new ideas are tested and diffused. Niches can also be characterized as (networks of) actors who exercise power in attempts to implement new ideas, methods or devices, ranging from technology to infrastructure to policy (Loorbach 2007).

Continuum of change

Initially, these changes are resisted by the regime and this period is known as the *pre-development phase* of a transition. As the macro- and micro- levels begin to change and interact, a new model emerges which competes with the dominant regime. Niches may cluster together and become more powerful, eventually attacking the incumbent regime. Structural change occurs and the old regime begins to break down in the *take-off phase*. When structural change becomes noticeable the transition is in the *acceleration phase* and when the emerging regime has replaced the old regime and a new level of status has been achieved the *stabilization phase* has been entered (Loorbach 2007; Avelino & Rotmans 2009).

Focusing on Innovative Power

The use of power by niches – the types of power a niche possesses and how this power is exercised - is an important, yet under-explored concept for explaining policy outcomes in TM studies. Power could be defined as the division, mobilization and deployment of resources and

influence related to who establishes policy outcomes and how they are determined (Arts et al. 2006). Power also involves the capacity of actors to make use of resources and rule-making structures to effect outcomes (Avelino & Rotmans 2009).

Flor Avelino and Jan Rotmans (2009) have devised a Typology of Power that elaborates upon five kinds of power that are used in transitions. Understanding the type of power that is being exercised can further illuminate how change occurs. The five types of power are:

1. Innovative – the capacity of actors to create or discover new resources;
2. Destructive – the ability to destroy or annihilate existing resources;
3. Constitutive – the ability to constitute a distribution of resources;
4. Transformative – the ability to transform the distribution of resources, either by redistributing resources and/or by replacing old resources with new resources; and
5. Systemic – the ‘combined’ capacity of actors to mobilize resources for the survival of a societal system, i.e. a particular continent, region, nation, sector, industry, or business

Innovative Power

The application of Avelino and Rotmans’ typology of power could shed additional light on renewable energy policy processes. The very nature of renewable energy is *innovative* and looks toward creating and discovering new resources. This type of power has not been the focus of most policy research and therefore the capacity of actors to create new resources has not been fully explored.

According to Avelino and Rotmans how this power is exercised relies on the fulfillment of the four following conditions:

(1) Access to resources

(2) Strategies: procedures applied to mobilize resources

(3) Skills to apply strategy methods

(4) Willingness to carry out the first three conditions (Avelino & Rotmans : 557).

The use of power aids in the connection to other niche actors, as well as those outside of the niche space. Thus the exercise of power has important implications for niches because without it, the innovations being fostered in protected niche spaces will not reach other levels of society (Avelino & Rotmans 2009). The ability of innovations to go beyond the niche space is crucial for the success of any transition because studies have demonstrated that “transitions only come about when developments at all three levels (of the socio-technical environment) link up and reinforce each other” (Verbong & Geels 2007: 1026).

3.1.2 Advocacy Coalition Framework

Introduction

This section provides an overview of the ACF and the related concepts that are important to this research. ACF is a theory of policy change developed by Paul Sabatier and Hank Jenkins-Smith and this discussion draws mainly from their works as well as those of Christopher Weible and Edella Schlager.

The ACF explains policy change as something that happens through the collaborated activities amongst a collection of individuals with the same core policy beliefs. These core policy beliefs are part of a larger value system, which is subject to each individual's cognitive limitations (bounded rationality). The ACF looks to find problem-solving structures in order to understand how policies are actually created (Carlsson 2000). Problem-solving structures are created by aggregated collections of "actors from various governmental and private organizations who both (a) share a set of normative and causal beliefs and (b) engage in a non-trivial degree of coordinated activity over time" (Sabatier 1998: 103). These *coalitions* mobilize public resources in an attempt to create public policy from their belief systems.

The ACF was designed to understand "wicked" problems related to policy change: problems distinguished by significant goal conflicts, important technical disputes and that involve multiple levels of government actors (Sabatier & Weible 2007). Much of the early ACF research was focused on U.S. energy and environmental policy. The ACF is a valuable framework for analyzing political systems, partly because it considers how values and beliefs contribute to the formation of coalitions and how political resources are used by coalitions to transform their belief systems into policy (Sabatier 1988; Henry et al. 2010).

The basic tenets of ACF are:

1. Technical and scientific information are placed centrally in the policy process
2. A time period of 10 years or more is required to understand changes in policy
3. The primary unit of analysis is the policy subsystem (determined by policy topic, influencing agents and geographic scope)
4. Policy subsystem agents include scientists, consultants and members of the media in addition to all levels of government officials; and
5. Government programs and policies can be viewed as outcomes of strategically applied beliefs (Sabatier and Jenkins-Smith 1999).

Agents operating under the ACF experience bounded rationality because of limited abilities to process stimuli and a lack of complete information. Therefore these agents are not fully 'rational' in thought and action. These agents tend to remember losses more than gains and can exaggerate the malice and power of political opponents. ACF refers to this tendency as the

'devil shift' and it is important because it can bring policy allies together in coordinated action, although the tendency to mis-estimate the strength of an opponent can lead a coalition to over- or under-allocate resources to counter adversarial strategies (Sabatier et al. 1987; Sabatier&Weible 2007).

The model below offers a general overview of the ACF and depicts how the policy subsystem fits within the larger world of institutional rules and socio-cultural values.

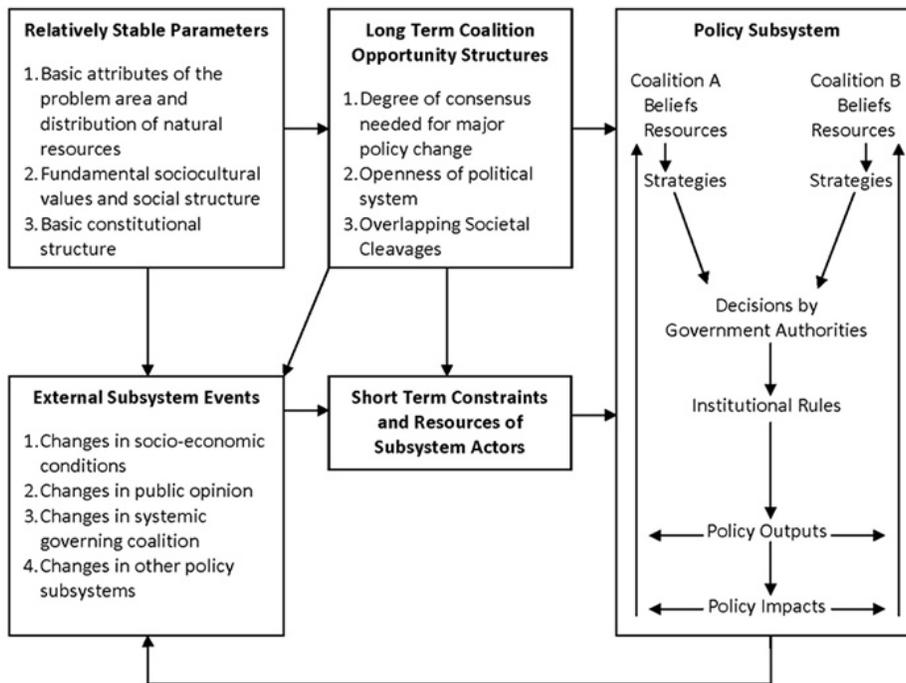


Figure 4: ACF Flow Diagram

Source: Buechner Institute for Governance, University of Colorado, Denver (2012)

When we look at the policy subsystem as the unit of analysis, the space between the Coalitions and the Decisions by Government Authorities seems like an interesting area to explore because what happens in this space will determine the winners and losers when decisions are made. But exactly how do coalitions impact the decision-making space? The variables of belief systems,

trust, leadership and external events were determined to be important in answering this question based on the results of a literature review.

Belief systems

Since policy change is said to occur through the coordinated action of a variety of individuals with the same belief systems, I will examine the components of a belief system. These systems are organized into three structural categories, *core beliefs*, *policy beliefs* and *secondary aspects*, with each successive level less resistant to change from learning.

Core beliefs are fundamentally how we view ourselves and others in the world, our normative and ontological perspective, largely formed through childhood socialization and very resistant to change. We have a tendency to look for information that supports these beliefs while disregarding information that is contradictory. Examples of these beliefs include the role of government, the estimation of social equality versus individual freedom and beliefs about human nature (Sabatier 1988; Sabatier and Weible 2007).

Policy core beliefs represent the normative preferences and causal perceptions across the policy subsystem and provide a structure to prioritize fundamental values, such as weighing the importance of environmental protection versus economic development and supporting various strategies for the integration of core values within a policy subsystem (Sabatier and Jenkins-Smith 1999). They are the foundation for coalition formation, creating alliances and coordinating activity amongst subsystem agents. Though still resistant to change, these beliefs are more open to modification over time by the accumulation of evidence than *core beliefs* because they involve empirical elements in addition to normative and ontological ones (Sabatier 1988; Jenkins-Smith & Sabatier 1994; Sabatier 1998).

The final component of the belief system is *secondary beliefs*, which are narrower than the subsystem in scope, more empirically based and the most prone to change over time when new information is assimilated. Budgetary decisions and detailed rules are examples of secondary beliefs. (Sabatier 1988; Jenkins-Smith & Sabatier 1994; Sabatier 1998).

Trust

Because stakeholder behavior and beliefs are embedded within coalitions, the informal connections between important policy participants can impact policy-making. Coalitions will typically engage in multiple paths for change (e.g., changing public opinion through the media or other means and pursuing legal advocacy), often concurrently to find a fruitful method. Factors such as the existing infrastructure, the distribution of natural resources and a society's structure and fundamental cultural values as well as institutional factors can all play a part in the scope of policy learning that can occur (Sabatier & Weible 2007).

Having a group or network with shared values can positively influence the ability to act in concert because transaction costs are lower amongst stakeholders who hold core beliefs. This is partly due to the phenomenon that trust levels are higher in these settings (Rydin & Holman 2004). Trust can be defined as a readiness to be vulnerable to another person or group (Schoorman et al. 2007) or as having confident positive expectations in relation to another person or groups conduct (Lewicki et al. 1998).

To measure trust, the concepts of reciprocity, repeated interactions, and the presence of cooperative monitoring institutions can be used. When allies come together to support each other in the pursuit of shared policy goals, reciprocity, or the mutual exchanges of social or other type of capital can occur and these exchanges promote trust (Schlager 1995). Repeated interactions contribute to trust because they enable actors to better know each other and who is trustworthy and to better understand their situation. These interactions also provide opportunities for sanctions and rewards based on unacceptable or desired behaviors (Schlager 1995).

Another way of determining if there is a high or a low level of trust is to examine the amounts of resources dedicated to the creation of rules or institutions that are in place to monitor and enforce cooperative behaviors. Lubell argues that “in situations characterized by high levels of trust, fewer resources are required for monitoring and enforcement institutions” (Lubell 2007: 239).

Leadership

Next, let us consider the role of leadership within policy subsystems. So vital is good leadership that failure of leadership can sow the seeds for governance failure (Stoker 1998). “Leadership is widely seen as a critical ingredient in bringing parties to the table and for steering them through the rough patches of the collaborative process” (Ansell and Gash 2008:554). It is fundamental for establishing clarity in rule-making, building trust, encouraging exchange of ideas and discovering and examining mutual gains. Facilitative leadership relies on guidance more than dictates and empowers the individuals and groups involved in the process. “Facilitative power is based on mutuality and synergy, and it flows in multiple directions” (Lashway 1996). This, in turn, nurtures the creation of multiple agents of change within the network and enhances the collective ability to solve problems.

Strong leadership can also aid in rearranging existing power relationships, when necessary, so that power becomes focused in a smaller number of influential coalitions, rather than being extended amongst comparatively weak, unorganized actors. The more apparent force of the coalition and its greater potential to make a significant contribution can facilitate collective action and cultivate consensus, make coordination easier and alleviate the free-rider problem

(Ansari et al. 2009:29f.). Please refer to section 3.1.2 for a more detailed discussion of the types of power and how they can be exercised for policy change.

Conflict

One of the elements of policy oriented learning is the level of conflict between coalitions (Schlager 1995). New information is uncovered in the process of conflict and winners and losers will emerge from this struggle. Thus, having coalitions with opposing policy objectives is a necessity.

External Events

Finally, and examination of events that are external to the policy subsystem will be considered because they can have a significant impact whether change occurs (Sabatier and Jenkins-Smith 1999). Changes in policy take place either as a result of the exercise of power or of events external to the policy subsystem (Sato 1999). These events are important because they often shift public attention (and thus resources) toward or away from a policy subsystem (Weible&Sabatier 2007).

Rapid change in social or economic conditions may present favorable circumstances for an advocacy coalition to have its policies approved by public officials. Or, a political change of the governing administration could indicate a new enthusiasm of public officials to work with an advocacy coalition (Schlager 1995). Although I will not “measure” the significance of these events, I will look to see if any noteworthy external events occurred in relation to renewable energy policy in New York State preceding or concurrent with the process under examination.

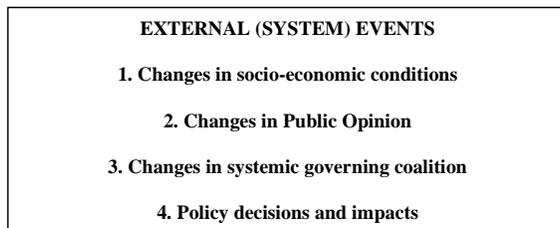


Figure 5

Detail from Diagram of the Advocacy Coalition Framework (Sabatier and Jenkins-Smith 1999)

Conclusion

Now that I have elaborated upon the elements in the ACF that play an important role in this research, I compare the ACF Flow diagram to a model that depicts my conception of the NYS

renewable energy policy system. This conception also contains elements of TM, such as power, niches and system shifts.

3.2 Application of TM theory and the ACF flowchart to the New York State RPS process

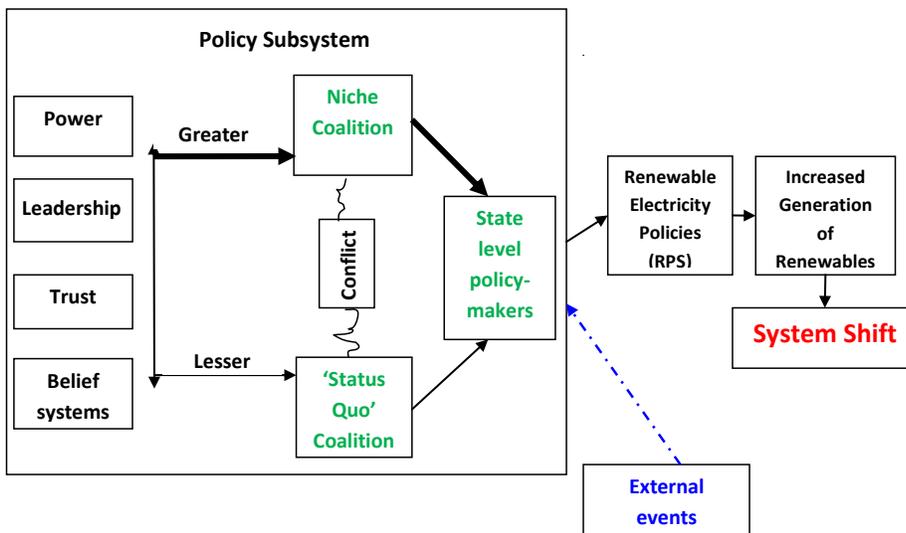


Figure 6: Interpretation of ACF flowchart with TM variables

By enriching a portion of the ACF flowchart with TM concepts to explore an energy policy process, a picture emerges of how the NYS RPS could exist in the transition continuum. This picture details the actions that support the evolutionary movement of the energy sector towards sustainability. The following chapter hones in on a detail of this larger model and offers an explanation of the components. That model will provide the basis for this analysis.

4. Conceptual Model and Variables

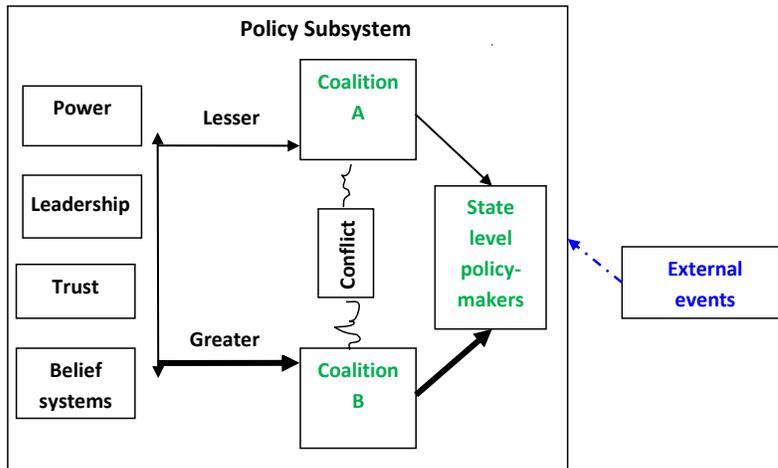


Figure 7: Conceptual Model

Since I am focusing on what happens between the coalitions and the decision-makers I will use a detail from the model in Section 3.2 to illustrate the concepts that will be investigated in this thesis.

The policy subsystem is defined by a substantive topic and the collection of policy participants from interest groups, research institutions, the media, and all levels government who are concerned with that topic. Policy actors continue their participation in a policy subsystem over time to ensure that their goals are realized. This specialization in a policy subsystem also allows participants to effectively work toward goal achievement (Weible&Sabatier 2007).

In the model, the policy subsystem consists of New York State policymakers and conflicting advocacy coalitions. The geographic boundary is the boundary of New York State because that delimits the juridical boundary of policies created at the state level.

4.1 Independent Variables

Belief Systems

Shared core beliefs can act as the initial basis for actors to join forces because these core beliefs are often expressed in policy goals that can be more readily achieved by collective action.

Trust

Trust is important to examine because it can lower the 'transaction costs' for members of a coalition and contribute to increased levels of cooperation. This in turn can contribute to the stability and longevity of a coalition (Schlager 1995; Leach&Sabatier 2005).

Leadership

Peter Northouse characterizes leadership as "a process whereby an individual influences a group of individuals to achieve a common goal" (Northouse 2007:3). I would like to extend this definition to include organizations as well as individuals, with the understanding that organizations are certainly represented by individuals in the policy process, and it is individuals who are conducting the work affiliated with coalition advocacy.

Skillful leaders can help to steer coalitions toward policy successes. These leaders may assist other coalition members in expressing a coherent belief system, increasing their focus and resolve. Leaders can also develop avenues to influence policy and increase strategic choices by attracting additional resources to their coalition (Weible 2007).

Power

Examining the type of power in the policy subsystem is essential to understanding the how a coalition can exert influence on the decision-making process. A typology of the exercise of power developed by Avelino&Rotmans (2009) will guide the analysis of this variable.

Conflict

An advocacy coalition is a group of like-minded people acting collaboratively (in a "non-trivial manner") to achieve policy goals (Sabatier and Jenkins-Smith 1999). Coalitions with differing interests or "orientations on substantive policy conflicts, e.g. environmental protection vs. economic development" (Sabatier 1988) will each have a role in the policy subsystem. Information revealed through these differences can contribute to policy learning. In the model, the niche Coalition A represents renewable energy proponents who are the 'outside' actors and the dominant coalition represents the actors who are vested in maintaining the status quo in the electricity industry.

External Events

A variety of elements outside of the subsystem may present advocacy coalitions with opportunities to achieve their goals and impact the efficacy of the coalition. External events that have relevance to the policy process under examination will be identified.

4.2 Dependent Variable

Decision-making at the state level

The decision-making environment is a space where values, preferences, information and alternatives are considered. Thus, decision-making is an aggregate of these factors (Jones 1994). In the political process preferences can be individual or come from the consideration of laws, rules and other institutional standards as well as other officials who may be more powerful than those making the decision.

Information in the political process can come from a variety of sources. A wealth of information was available to inform the RPS decision-making process including technical, economic and environmental impact studies conducted by government agencies as well as independent studies conducted by academia or market sources. Coalitions can play a valuable role by offering expert opinion and advice to the decision-maker as well as provide a channel for public to opinion to funnel into the decision-making process. The impact of coalitions upon this space will be the focus of analysis.

4.3 Testing the model

The conceptual model reveals relationships between variables that could be tested, and we will focus on the following five.

Supposition 1

Groups with higher levels of congruency in belief systems will be more likely to influence state level policy makers.

The first supposition states that groups who have similar core beliefs are more likely to act in concert to achieve their goals, are more likely to have near core beliefs that represent a common goal, and will act with more motivation toward the realization of their goals. This combination of outcomes from shared belief systems will lead to greater success in influencing policy makers.

Supposition 2

Groups with higher levels of trust will be more likely to influence state level policy makers.

The second supposition states that groups with a higher level of trust are more likely to collaborate and cooperate in the sharing of resources, including information, as well as being more likely to take risks in the pursuit of common goals. This risk taking and greater sharing of resources will make these groups more likely to influence the decision making of policy makers.

Supposition 3

Groups that demonstrate stronger leadership will be more likely to influence state level policy makers.

The third supposition states that coalitions with strong leadership have a greater platform for effective communication, a higher capacity to harness and focus the group's common goals, and a more substantial capacity for strategizing the most effective distribution of the group's resources. This leads to a full and integrated approach to influencing policy makers.

Supposition 4

Groups that demonstrate both higher levels of power and a type of power that are best suited to the group's policy goals will be more likely to influence state level policy makers.

The fourth supposition states that groups that demonstrate strong capacities for the four conditions of the exercise of power are more likely to be able to focus, amass, and allocate resources. Further, groups who seek policy change that relates to the creation of new resources will have access to energy, support, and collaboration from other groups with similar goals. This channeling of resources relates directly to the ability to influence state level policy makers.

Supposition 5

External events can alter the beliefs of policymakers or change a governing coalition altogether, making them more amenable to the message of an advocacy coalition that represents new ideas.

When governing coalitions share beliefs with an advocacy coalition, this increases the likelihood of that coalition to influence those policy makers in support of their own goals. Socioeconomic events can create a change in values for governing coalitions and thus, create this opportunity.

5. Methodology

~~In order to establish a proper methodology, I will first focus on a research perspective from which to begin the analysis. From there I will explain how I approached the work,~~ narrowing down the options to a single case study, and the needs and challenges related to this method. I will detail the process of case selection, from a narrowing of states to the timeline, parameters, and specific choices of coalitions in the research. Once I have narrowed the focus of the study, I will look at the challenge of assessing the coalitions. I will finish by outlining the process I used for data collection.

5.1 Research perspective

Opting for a post-positive perspective

~~This chapter segment will establish the perspective from which the research design has evolved and from which the results will be viewed. A study based solely on quantitative data will fail to suggest the nuances of the coalition- building atmosphere in NYS, and therefore it will be necessary to conduct this research in a framework, where empirical inquiry is sited into the This will be followed by sections that elaborate the research approach and the related methods of data collection.~~

~~The philosophic orientation of this research could best be described as post-positivist, as it attempts to site an empirical inquiry into the~~ broader, more complex fabric of social reality (Fischer 1998).

~~The research perspective, therefore, will be based on acknowledging that Because individuals operate from a rationality limited by incomplete information and our our cognitive abilities. This will impact both the n, our empirical phenomena that we-I seek to measure and my interpretations of the data. Post-positivism sees this interpretation as a complementary to the action of initiating change in a society that has a problematic present to one with an improved future (Fischer 1998).~~

5.2 Research approach

~~Methods provide the mechanism(s) that make hypothesis testing possible and the choice of methods and their application is important to the overall success of the research. This section will discuss the choice of method and why it is deemed fitting for this investigation.~~

Choosing the right research approach was important to establishing a way of testing my hypothesis. This section details the reasoning behind that decision.

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Two potential approaches

The two approaches that I considered were the large-N study and the case study. In the large-N study, I would conduct a survey of renewable energy proponents including environmental groups, politicians, technology businesses, research organizations and non-governmental organizations (NGO's) to reveal patterns of communication and other behaviors amongst these groups.

This approach offered a few limitations. Creating a sufficient sampling of respondents who existed at the time frame of the study proved to be the first challenge. When a respondent was identified, the response rate to the surveys was insufficient for the purpose of meaningful analysis and discussion. A more detailed analysis of the challenges of this approach can be found in section 9.1 "Errors Committed In This Research".

However, even if this approach achieved a fuller response rate, there would still have been difficulty in reconciling it with the overall research perspective. Applying statistical analysis to political situations risks the distortion of interpretations of social actions and institutional structures (Schostak 2002).

Choosing a case study

A case study then became a more viable option to support my analysis, as it provided an opportunity to understand the actors and their expert knowledge to a depth that would not otherwise be possible. I wanted to explore the impact of belief systems, values and the use of power upon political processes and qualitative methods allow for actor perceptions of behavior and insights into values to be more clearly revealed (Verhsuren&Dooreward 1999).

The case study allows for the "development of a nuanced view of reality, including the view that human behavior cannot be meaningfully understood as simply/.../ rule-governed acts" (Flyvberg 2006: 223). Further recommendation of the case study can be found later in this same work, *Five Misunderstandings about Case-Study Research*. Flyvberg states that "the case study/.../ can "close in" on real-life situations and test views directly in relation to phenomena as they unfold in practice" (Flyvbjerg 2006: 235).

Multiple versus a single case study

After considering the comparison of multiple cases, I realized that it would be difficult to account for the high level of unique factors that exist in each state. Demographic factors such

as culture, politics, infrastructure, economics, and even population were so diverse in the potential states that a single state study offered an opportunity to more consistently explore the topic. This will be addressed in more detail in section 5.3 when describing an approach to the case selection.

Finally, within the state of NY, the parameters of the project were so specific as to limit the potential to a single case study, the RPS process. By refining our scope to a single case study, we allow for a complex and detailed analysis of the subject.

Potential challenges to the single case study approach

It may be argued that using only a single case will have consequences regarding the analysis results and their external validity. However, concluding that single-case studies are inferior underestimates the potential for a single study to resonate in multiple situations. As Ragin notes, even single-case studies contain “ideas and evidence (that) may be linked in many different ways” (Ragin as quoted in Flyvbjerg 2006: 235).

Further, there is a concern that case study results are not generalizable. There are two reasons why this should not impact the choice of a single study approach. First, to understate the ‘force of example’ is to deny the potential for a single analysis to have multiple resonances. To deny that a specific analysis would have bearing on renewable collaborations outside of this case study would be to suggest that no specific policy analysis could be applied to other situations.

Second, even if one were unconvinced that the single case study is generalizable, the knowledge acquired from case studies can still become part of the process of collective knowledge accumulation in a particular field. This type of knowledge accumulation has often illuminated the path of scientific innovation (Flyvbjerg 2006).

5.3 Case Selection

This section will begin the discussion of how the research approach was operationalized. Case selection is one of the most important aspects of case studies and we will elaborate firstly why New York State was chosen and then explain why the RPS process was chosen as a primary vehicle for analysis.

Determining which states are currently ‘frontrunners’ in renewable energy policy and then looking back in time will enable an examination of causality in relation to the current status. The criteria I used for determining frontrunner status are as follows:

- **Restructured or liberalized electricity market** - Restructuring means that a monopoly system of electric utilities has been replaced with competing sellers. The liberalization of

the electricity market effectively created a “political system that is open to multiple participants, where authority is shared among actors and institutions, and where there are ample opportunities for losers of one policy battle to strike back against winners later in the policy process”(Weible 2007: 96). De-regulation of electricity markets, in effect, created a more transparent process for the development of energy policy that was open to actors other than the state and the utilities. Policy development became somewhat of an interactive process occurring with the collaboration of a variety of committed stakeholders expressing different interests.

- **Renewable Portfolio Standard (RPS) goal** – The RPS mandates that a certain minimum percentage of electricity must be generated from renewable energy technologies such as wind, solar, some types of biomass and other alternatives to fossil and nuclear electric generation (Hurlbut 2008).
- **Member of a Multi-state GHG emissions reduction Initiative** – These are intra-state or regional policy efforts that are designed to reduce GHG emissions, develop clean energy sources and, in some cases, attain other economic and environmental goals (C2ES 2012).
- **Emissions Caps for Electricity** – These caps require existing and/or new power plants to reduce emissions by employing methods such as Best Available Control Technology (BACT) or other means. Cap and trade is a different option to this regulatory approach. “Cap and trade ensures that total emissions from all covered entities fall below a cap that typically declines over time; it does not mandate limits for individual entities, as is the case for performance standards” (C2ES 2012).
- **A variety of additional innovative policy instruments and schemes** to decrease production costs of renewable electricity have been implemented on a statewide level. These include:
 - **Public Benefit Funds:** These funds are collected from utilities or by placing a small charge on the bills of every electric consumer. The funds are then channeled to support renewable energy technology development or energy efficiency measures (C2ES 2012).
 - **Net metering:** When electricity customers are also energy producers they can sell excess energy to the grid when available and buy energy from the grid when needed. Net metering allows the customer to pay the electric provider only for the electricity consumed (C2ES 2012).
 - **Decoupling policies:** Currently in U.S. energy markets, utilities’ revenues are dependent upon the amount of energy that is produced and delivered to consumers. “Decoupling” eliminates the relationship between revenues and sales volume so that utilities do not feel pressured to sell as much energy as possible. Revenues are separated from sales

States with a renewable portfolio standard

Next we look at which liberalized states also have a Renewable Portfolio Standard. Comparing the two lists offers a more limited group of states. Below the chart are those states that fulfill the first two of my criteria.

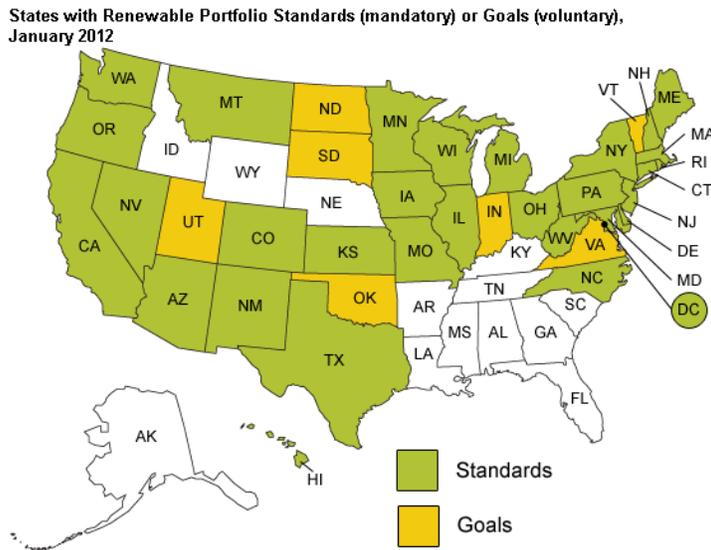


Figure 8

Source: U.S. Energy Information Administration (USEIA) 2012 from the Interstate Renewable Energy Council, Database of State Incentives for Renewables & Efficiency, January 2012.

Note: The map includes West Virginia as a State with a Renewable Portfolio Standard, although the Interstate Renewable Energy Council categorizes it as a goal State rather than an RPS State.

States that have both RPS and restructured utilities

Oregon, California, Nevada, Arizona, New Mexico, Montana, Texas, Illinois, Maryland, Delaware, New Jersey, New York, Connecticut, Rhode Island, Massachusetts, Maine and New Hampshire.

States who are members of a Multi-state GHG emissions reduction Initiative

Now we look at a list of the multi-state initiatives and their members and see which of the above states also take part of one of these initiatives:

- Western Climate Initiative – Oregon, California, Nevada, Arizona, and New Mexico signed an agreement establishing the WCI, a joint effort to reduce GHG emissions and address climate change. Later, the states Utah and Montana, as well as the provinces of British Columbia, Manitoba, Ontario, and Quebec joined as Partners.
- Regional Greenhouse Gas Initiative - The Regional Greenhouse Gas Initiative (RGGI) is the first mandatory US cap-and-trade program for carbon dioxide. The current members are Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, Ontario, New Brunswick, Quebec. RGGI has been successfully running since 2008.
- Transportation and Climate Initiative - The Transportation Climate Initiative (TCI) is a regional collaboration that seeks to develop the clean energy economy and reduce GHG emissions in the transportation sector. TCI includes Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, and Rhode Island. Transportation currently accounts for 30 percent of GHG emissions in the Mid-Atlantic and Northeastern U.S. (C2ES 2012)

States that fulfill all three criteria

Oregon, California, Nevada, Arizona, New Mexico, Montana, Maryland, Delaware, New Jersey, New York, Connecticut, Rhode Island, Massachusetts, Maine and New Hampshire.

States with a form of emissions caps

Next we see which states have a form of emissions caps for electricity that is sector-wide and not just utility based. Those states are Washington, California, Oregon, Montana, Illinois and New York.

States that fulfill all four criteria

Oregon, California, Montana, New York

Applying all remaining criteria

Finally, we examine the other types of policies of the remaining four states. Upon examination of the U.S. Department of Energy (DOE) DSIRE website, the four states appear to be comparable as far as the breadth of additional policies that have been implemented including net metering and interconnection policies (DSIRE 2012).

Unique New York

So, what will make the final determination of the case? Three of the four states are on the west coast or far west of the United States, which suggests that in each of those cases there may be environmental similarities that make certain policies more advantageous. As well, all 3 western states participate in the Western Climate Initiative, which again offers a more diluted and complex analysis if your goal is to understand the specific motivations within a single state. Only New York is outside of this initiative, and its regional variation distinguishes it from the other states.

As well, a closer look at New York revealed several other factors that make it noteworthy. The state has an ambitious goal for its RPS. The original goal of 25% renewably sourced electricity by 2013 was updated in 2010. The current goal is at least 30% of electricity generated from renewable sources by the year 2015 (C2ES 2012). This is one of the highest standards in the nation, according to the United States Department of Energy (US DOE 2012). New York is one of the founding states of the Regional Greenhouse Gas Initiative (RGGI) regional carbon trading scheme, has conducted a state-wide greenhouse gas inventory, developed a climate change state action plan (Peterson & Rose 2006) and imposed a state rule limiting CO₂ emissions from new power plants that is stricter than the new proposed federal rule (C2ES 2012). As of 2010, NYS was generating 30,286 MW from renewables. This represented 22% of the total net generation of electricity, placing it 4th in a comparison of the 50 states (USEIA-b 2012). Thus, having fulfilled all of the standards of this evaluation, New York State seemed like an appropriate case to investigate.

Current New York State Renewable Energy Policies

Third-party Solar PPA Policies, Energy Efficiency Resource Standards, Grant Programs for Renewables, Interconnection Policies, Loan Programs for Renewables, Net Metering Policies, Property Assessed Clean Energy (PACE) Financing Policies, Property Tax Incentives for Renewables, Public Benefits Funds for Renewables, Rebate Programs for Renewables, Renewable Portfolio Standards (RPS) Policies, RPS Policies with Solar/DG provisions, Sales Tax Incentives for Renewables and Tax Credits for Renewables

Figure 10: Current NYS Renewable Energy Policies. Source: (DSIRE 2012).

5.4 Time Frame

To determine a time frame, I communicated with coalition members in the field and reviewed online and literature sources. The years (2000-2010) have been rich in policy development, and as I later found out, in coalition building as well. The years of 2001 -2005 also saw the development of two important renewable energy policies – the state’s RPS and the formation of RGGI.

5.5 Choosing between RPS and RGGI

I examined these processes to determine if either or both would be appropriate for the purposes of this study. These policies need to:

- Be transparent, that is, observable from publicly available documents.
- Demonstrate conflicting positions on the policy and
- Show two or more organized groups or coalitions with conflicting objectives working on the issue.
- Fit within the jurisdiction of the state in question

As a multi-state initiative, RGGI would prove to be somewhat beyond the bounds of this research. The geographic and juridical boundaries of the case are important because they will delimit the policy subsystem, which is the unit of analysis. Thus, the RPS policy was chosen as the policy process to be analyzed. Once the state, the timeframe and policy process were chosen I was able to formulate methods for data collection and assessment tools for the variables being studied.

5.6 Identifying the involved parties

Beginning with an examination of publicly available documents related to the RPS process I identified the 'Active Parties' that were involved in its development (see Appendix I).

Category A and Category B

Two general categories emerged from this evaluation. Category A contained entities that wanted a voluntary, diluted or delayed RPS. Category B contained entities that wanted a mandatory, aggressive RPS goal with swift implementation. This initial assessment was confirmed by Interviewee 12, who described the RPS process as contentious with conflicting parties arguing for very different technologies to be included in the standard as well as other policy differences.

I then divided the active party list among each category by a quick initial assessment recognizable Parties such as well-known environmental organizations or Electric Utilities into a logical category. Unknown entities could be checked quickly on-line to determine their organizational orientation. Category A was populated primarily by Utilities, large energy purchasers and union workers who are currently employed in the fossil fuel industry. Category B members included public health organizations, nonprofit environmental and environmental justice organizations, consumer advocacy organizations, trade associations and private companies that produce or sell renewable energy technologies.

Finding collaborators within each category

Once the categories were created and populated, a determination needed to be made if there was collaboration amongst any of the entities and if the collaborating entities shared common policy goals. Finding groups who collaborated would allow me to analyze coalition formations and behaviors.

To accomplish this determination, I examined related RPS legal documents such as Comments, Reply to Comments, Briefs and Policy Analysis. These documents showed that some entities were engaged in the process of advocacy and jointly offering expert knowledge and opinion to the RPS policymakers. This advocacy was an indication that these agents were part of a coalition.

Jointly submitted comments suggested several groups of collaborating actors in Category A and in Category B. The Comments and their Replies are submitted to the Public Service Commission to critique various iterations of the RPS. These documents not only show which groups are collaborating together, they also express policy themes and objectives. These themes and objectives illustrate differences in belief systems and value priorities between conflicting coalitions.

Comment [M1]: Move to above section under beliefs

The Comment documents indicate self-identified coalitions as well as groupings of two or more organizations that, while not self-identified as coalitions, acted in a manner consistent with coalitions.

Multiple Intervenors and Renewable Energy Technology and Environment Coalition

Studying collaborative groups that submitted comments throughout the RPS process were thought to offer opportunities for more complex analysis. Each category had a group that met this condition. In Category A, the Multiple Intervenors (MI) alliance was selected and in Category B, the Renewable Energy Technology and Environment Coalition (RETEC) was chosen.

MI does not make member names publicly available. However, their website states that they are an “unincorporated association of approximately 55 large commercial and industrial energy consumers with manufacturing and other facilities located throughout New York State” (MI 2012).

In legal filings RETEC membership³ varied between sixteen and twenty-two member organizations. According to Valerie Strauss, legal representation for member organization

³ American Lung Association of NYS, American Wind Energy Association (AWEA), Citizens Advisory Panel (CAP), Community Energy Inc., Natural Resources Defense Council (NRDC), NY Lawyers for Public Interest, New York Public Interest Research Group (NYPIRG), NY Renewable Energy Coalition (NYREC), New York Solar Energy

American Wind Energy Association (AWEA) during these proceedings, RETEC was an unofficial alliance of groups who shared resources to further their common policy goals related to the RPS (Strauss Interview).

Comment [M2]: Ask Valerie if this is o.k. with her; explain that other comments she made will only be identified by an interview #.

5.7 Variable Assessment

Once I identified the coalitions that became the focus of the analysis, I created a system of evaluation that allowed me to assess the independent variables in my conceptual model. The four variables that needed to be assessed were Belief Systems, Trust, Leadership, and Power.

Belief Systems

The Advocacy Coalition Framework understands that policy change occurs through the synchronized activity between a variety of individuals with the same *core beliefs* (coalitions). It is through these beliefs that coalitions perceive societal problems, their level of seriousness and society's ability to solve those problems. The type of solutions that coalitions envision are also an outgrowth of their core beliefs but the ACF terms the policy positions and strategies employed by a coalition as "*near core* (or policy) beliefs". *Secondary aspects*, such as budgetary allocations or administrative rules, are less critical for coalition arrangements (Stachowiak 2009).

Core and near core beliefs

My analysis focused upon *core* and *near-core* beliefs, since they are most important to the formation of a coalition and can contribute to its maintenance. The intent of this analysis is to better understand if a coalition whose members have a high level of overlap in their core and near-core beliefs will demonstrate higher levels of trust. The following paragraphs will explain how I assessed core and near-core beliefs for the RETEC and for the MI.

Sabatier believes that one of the preferable ways of allowing actors to indicate their belief systems is through the analysis of documents (Sabatier 1988). Thus, to determine core beliefs, I searched for key words and thematic elements contained within RPS documents filed by RETEC and MI. The frequent use of key words would be an indication of the values and priorities of the coalition, while the thematic elements are inferred from the content in various RPS filings, and can be contrasted between the two coalitions.

Industries Association, PACE Energy Project, Plug Power Inc., Riverkeeper, Scenic Hudson, Sierra Club Atlantic Chapter, Solar Energy Industries Association, Union of Concerned Scientists (UCS). In 2004 RETEC members also included Fuel Cell Energy, Inc., Hudson River Sloop Clearwater, New York League of Conservation Voters (NY LCV), PowerLight; Public Utility Law Project and Sustainable Energy Developments, Inc. (as of March 2004)

In the same documents I reviewed the stated policy goals for each coalition. Policy goals will provide an insight into the coalition's policy beliefs or near-core beliefs.

Trust

Trust, based on reciprocity and repeated interactions, can support the stability and longevity of coalitions and the willingness of its members to engage in collective actions. If individuals share the same standards for trust they may be more willing to take risks with coordination and cooperation. This offers opportunities to learn about each other and the policy situation, and in turn contributes a coalition's strength and durability (Schlager 1995). Potentially, higher levels of trust could contribute to a willingness to engage in increasing levels of collaboration. This collaboration could offer greater access to resources and other conditions of power, ultimately strengthening the coalition or perhaps leading to additional coalition building. Therefore, trust is an important characteristic to explore.

I created an assessment tool to determine the level of trust that existed in the RETEC. The factors selected as predictors of trust are the presence of reciprocity; a history of repeated interactions; congruence on policy-related beliefs; small and stable groups; and a relatively low level of resources present to monitor and enforce accountability amongst coalition members (Lubell 2007; Leach&Sabatier 2005; Schlager 1995). The presence of four or five of these factors would indicate a high level of trust, two or three factors would indicate a moderate level of trust and none or one of the factors would indicate a low level of trust.

The tool was applied by analyzing information from RETEC documents and from interviewing RETEC members.

Leadership

Leadership can be a powerful tool that can imagine and/or initiate processes, bring conflicting parties to a compromise, facilitate the actions of individuals and even rearrange power relations to create policy change (Ansari et al. 2009). An important element in the development and maintenance of coalition activities is effective core leadership and coalitions are likely to have a few central leaders who dominate coalition activities regardless of coalition size (Butterfoss et al. 1993).

But what are the components of leadership that are possible to evaluate? Leadership is a process and not a character trait. Leadership involves the ability to persuade or convince others to believe or act in a certain manner or towards the attainment of a shared goal and thus, it must occur in group situations. But how is this influence exercised? Leadership is "observable through what leaders do or how they behave" (Rowe 2007:3).

Thus, to assess leadership I first looked at the RPS documents to see if there is evidence of particular members in coalitions who took the lead in the filing of Comments, Replies, analyses or other legal documentation. Then I asked interviewees if they considered these members to be coalition leaders and, if not, who else would be considered a leader?⁴ Were they competent negotiators, were they able to secure resources, did they have a high capacity for conflict resolution and problem solving within the coalition and did they pay attention to the concerns of individual members (Butterfoss et al. 1993)?

Power

Power can be defined as the “ability of actors to mobilize resources to achieve a certain goal” (Avelino and Rotmans 2009: 550), whereas resources are broadly defined in terms of assets and capital. These assets and capital can be human, material or natural. To approach the study of power in the RPS process, I began by exploring how power was exercised by RETEC. In order to assess the exercise of power by RETEC, I used Avelino and Rotmans’ four conditions of power.

The four conditions for the exercise of power:

- (1) Access to resources.*
- (2) Strategies: procedures applied to mobilize resources.*
- (3) Skills to apply strategy methods.*
- (4) Willingness to do so (Avelino & Rotmans : 557).*

Assessing the four conditions

To understand whether groups had access to resources, I interviewed members of the groups to understand the resources available to various parties, evaluated the types of resources that would be most helpful to their mission, and determined whether the resources available matched the desired outcomes for each group.

To evaluate the strategies, the interviews focused on the various lobbying, propaganda, voting, and networking opportunities for the group.

To understand whether groups had the skills to apply strategy methods, the interviews asked questions about specific human competencies within the groups, including language and computer skills, legal or financial education, critical thinking, and public speaking.

⁴ Only possible with RETEC, due to MI anonymity policy

Finally, to evaluate the willingness of the groups, questions were posed as to the will of the actor(s) to obtain more resources, to produce strategies and to acquire skills.

External Events

Two noteworthy external events occurred in relation to renewable energy policy in NYS. The growing awareness of climate change risks in the late 1990s led to a shift in responsibility for implementing emissions control policies to the state level when the U.S. federal government refused to sign the Kyoto Treaty or to legislate for a mandatory emissions control policy. In addition, the destruction of the Twin Towers in New York City by international terrorists on September 11, 2001 shifted public attention toward our significant dependency on foreign oil supplies from the Mid-east. This consciousness set the stage for action to develop renewable energy technologies, particularly in New York State.

5.8 Typology of power

In order to further contextualize statewide energy policymaking, I will also analyze the RPS process in terms of the typology of power exercise elaborated by Avelino and Rotmans in *An Interdisciplinary Framework to Study Power in Relation to Structural Change*. This will provide a further condition that would contribute to NY renewable energy policy.

Typology of Power Exercise

1. Innovative – the capacity of actors to create or discover new resources
2. Destructive – the ability to destroy or annihilate existing resources
3. Constitutive – the ability to constitute a distribution of resources
4. Transformative – the ability to transform the distribution of resources, either by redistributing resources and/or by replacing old resources with new resources
5. Systemic – the ‘combined’ capacity of actors to mobilize resources for the survival of a societal system, i.e. a particular continent, region, nation, sector, industry, or business

While it could be argued that there are multiple types of power demonstrated in the RPS process, my analysis noted the qualities of this process primarily related to the Innovative exercise of power. As noted in Avelino and Rotmans, “debates on power –even the ones addressing possibilities for change –focus on the extent to which actors can or cannot gain access to *existing* resources.”(Avelino and Rotmans 2009; 552) However, this process clearly involves the creation of *new* resources, and my analysis will be to determine how strongly innovative power is indicated as well as to understand the importance of the use of innovative power in the context of the RPS process.

Indicators of innovative power

Three indicators that determine whether innovative power is present are natality (the ability to act in concert), visibility (others must be aware of a new idea or tool in order for it to have power) and plurality (i.e. more than an individual must be involved.)

If a coalition of renewable energy proponents exist and the definition of a coalition is an alliance between 2 or more parties to achieve common goals, then *de facto* plurality is proven. Natality can be shown by the examination of RPS legal documents to see if multiple parties provided commentary on the process. Visibility was operationalized by examining media records from 2000-2005 (media analysis) to determine if there was acknowledgement of the RETEC pro-renewables message outside of the niche arena.

5.9 Data Collection

This section will explain how research data was collected and the reasoning behind the use of these methods. The tasks at hand were threefold: 1) to identify the actors involved in the RPS process policy and determine if there were conflicting coalitions involved, 2) determine core and policy belief systems of each coalition and 3) gain a more in-depth understanding of the process from which to explore the other variables of this inquiry – trust, leadership and the use of power. Two methods of gathering information were utilized – the analysis of public documents and interviews.

Using two different methods can strengthen the interpretations drawn from a qualitative investigation by allowing a cross-check of information. This process is known as triangulation and can diminish bias and enhance the external validity of the results through the convergence of information from various sources, settings or theories (Potter 1996). This research uses two of the three types of triangulation: methods triangulation for data collection through examining documents *and* conducting interviews and theory triangulation by using both the ACF and TM theories as the basis to help interpret and explain the data.

Typically, an ACF study looks at a timeframe of a decade or longer to understand policy change and involves questionnaire and interview data. According to Sabatier and Weible, this can be both costly and time consuming. With limited resources these ACF pioneer researchers recommend a qualitative analysis of a policy subsystem including a few interviews and an analysis of documents and/or reports (Weible&Sabatier 2007). The study of documents, particularly public comment documents related to policy processes that have been made by coalition actors, or those containing their testimony to policy-making bodies can reveal information about beliefs. While actors do not normally state their values before commenting or testifying, often those beliefs can be derived from the proposals that an organization or individual supports or opposes, or from the comments themselves (Toavs 2004). Using this

information as an initial step can increase the reliability of information about beliefs that is offered during informant interviews.

Thus, the initial analysis consisted of analyzing the contents of public documents related to the RPS policy beginning with the 'Active Party List', to identify the names of all involved individuals or organizations. Next 'Comments of Parties' documents from the earliest available (2003) until the end of the initial policy process (2005) were examined as well as other legal filings. This enabled the identification of groups of actors working together toward common objectives, such as the strong support of renewable energy technologies or the support of more traditional or higher polluting technologies. Websites of participating organizations were then checked for mission and objective statements to support inferences made about belief systems from the documents. This is useful information because the alignments of professional tend to continue unchanged over time.

After this, the second stage of interviewing key informants began. Interviews provide a more comprehensive understanding of the subjects and the subject matter. They allow for more complex responses than surveys and polls and limit the possibility of evasive or strategic answers (Vershuren&Dooreward 1999). Thus, they enabled the collection of important information that may not have been available within the policy documents and for the addition of personal perspectives, insights and private knowledge to be incorporated into the analysis.

The interviews were semi-structured consisting of a list of topics and open-ended questions to discuss and the interviewees were asked to offer their recollections with as much detail as they possessed, as well as offer salient points that may not have been covered. The interviews were used to support information found in policy documents and meeting minutes and to gain additional knowledge about how coalition members worked together or expert opinion about the process as a whole.

The interviews covered actors from various groups including those representing particular technologies including business and trade groups, environmental organizations, state agencies that facilitated the process and state-level policymakers. The initial interviewees were identified and selected both from policy documents and from personal contact with actors currently involved in the renewable energy field in NYS. During the course of the data collection, I attended the New York Symposium for Energy in the 21st Century (Syracuse, NY), two renewable energy educational forums (Oneonta, NY) and a New York State Energy Planning Board meeting in the state capital (Albany) introducing myself to speakers and attendees at each venue, gathering contact information and in some cases commitments to participate in the research by interview.

The 'snowball' technique was implemented organically during the course of data collection. Snowball or chain sampling engages actors with extensive knowledge of a topic or event to identify informants who possess a large quantity of information about the circumstance under study. A few key informants may be mentioned multiple times, indicating extra importance. In the course of this research selected interviewees would often recommend other key informants to participate in the research, and in some cases, facilitated their participation.

Not all selected informants could be interviewed. Some selected stakeholders were no longer involved in the organization that participated in the RPS process, some were not available for interviews and some interviewees were not fruitful sources of information. However, the end result was a collection of interviewees from different settings which provided rich sources of information.

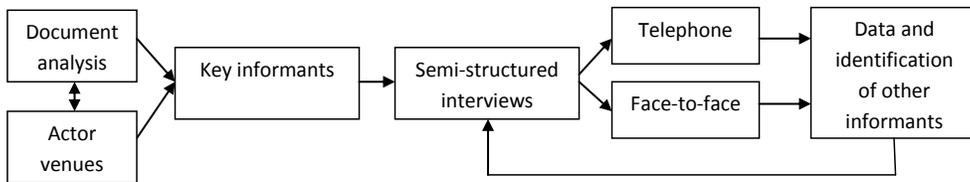


Figure 9: Field research methods

6. Policy Landscape

This chapter provides an overview of electricity policy in the United States (U.S.) and New York State from the mid-1970s onward. This will enable the reader to place the current research in historical and political contexts.

Historically, in the U.S., electricity has been supplied by centralized, vertically integrated monopolies in which none of the primary elements (generation, transmission, distribution and retail supply) were mandated to be competitive models (Agterbosch 2006; Joskow 2008). It was a combination of regulation by state-run agencies (Public Utility Commissions and the Federal Energy Regulatory Commission [FERC]) and production by utilities (Breukers and Wolsink 2003). Utility production plants were powered almost exclusively by fossil fuels (using steam turbine technology) that exploited economies of scale to provide huge amounts of cheap electricity for society-at-large (Hirsh et al. 2005). The exceptions were nuclear power plants (run with processed uranium) and large-hydro power.

These utilities had exclusive rights to provide electricity to industrial, commercial and residential retail consumers within the limits of a delimited geographic area (Joskow 2008). The electric utilities were not compelled to purchase power from third party producers, nor were they particularly interested in producing non-hydro renewable energy themselves (Martinot et al. 2006).⁵



6.1 United States

In any industrialized country, energy is an essential element of economic well-being. Industry cannot function without a secure supply of reasonably priced energy and every resident requires the same assured supply of electricity and fuels to sustain their health, safety and social standards (Carey 1978). This energy flow was so taken for granted as part of everyday activity, and so relatively inexpensive that until the energy crisis of the 1970s, the general public was not aware of the problems and expense related to the procurement and distribution of this energy (Hausgaard 1976).

The tight energy markets of 1971 and 1972 as well as the oil embargo of 1973 acted as an impetus to implement change in the energy systems of the U.S. that were almost solely dependent upon fossil fuels and not striving to increase efficiencies. The energy crisis was a catalyst for some significant changes in U.S. energy policy. President Jimmy Carter's Democratic

⁵ Photo credit: David Silverman, Getty Images

administration (1976 – 1980) crafted a comprehensive energy policy package that was called the National Energy Plan (Laird & Stefes 2009; Hirsh 1999; Hirsh et al. 2005).

Carter's National Energy Plan aimed to conserve energy, increase energy efficiency from existing sources and to expand the use of small-scale renewable energy systems, such as solar and wind power. He also created and staffed a dedicated division for renewables within the Department of Energy and allocated funds for R&D in renewable energy production.

The 1978 PURPA, which compelled utilities to buy energy produced from non-utility sources, was one part of this plan (Hirsh 1999; Jiusto & McCauley 2010). The goal of PURPA was two-fold: to discourage the wasteful uses of electricity by establishing alternative rate structures and to promote small scale renewables by establishing compulsory guidelines for utility payments to nonutility producers (Section 210). In some states, implementation of PURPA corresponded to the first use of the "feed-in" policy, a concept that became popular in Europe and is currently used in thirty seven countries (Martinot et al. 2006). Many more innovative and far reaching ideas were included in Carter's National Energy Plan but those components were largely eviscerated due primarily to the hard work of utility industry lobbyists (Hirsh 1999). Because electricity industry regulation had historically been the territory of states, pro-industry proponents argued that the federal government should not become involved in this arena.

In the end, however, the mandatory guidelines for the purchase of non-utility electricity were established when the U.S. Supreme Court decided that it was legal for the federal government to legislate utilities since they were already involved in interstate commerce and this commerce had already been subject to federal regulation⁶ (Hirsh 1999). Also, the Court declared that the rates of payment to the Qualifying Facilities (producers), known as "avoided-cost rates"⁷, would "serve the public interest by decreasing consumers' reliance on scarce fossil fuels" (Hirsh 1999:63).

The state-level Public Utility Commissions were tasked with determining the price that would be paid to QFs for power. Fossil fuel costs varied from state to state as did the accounting practices of regulated firms, thus setting an "avoided cost" was not a simple calculation and required interpretation and judgment, offering significant leeway to states in the creation of QF pricing policies. Additionally, as state regulatory commissions contended with other contractual issues at the interface of utilities and QFs, pivotal differences between the states emerged (Russo 2001).

⁶ The 1935 Public Utility Holding Company Act (PUHCA)

⁷ Avoided Cost – An incremental cost to the utility that is defined as "the cost to the electric utility of the electric energy which, but for the purchase from such co-generator or small power producer, such utility would generate or purchase from another source" (PURPA, Section 210(d) as cited in Hirsh 1999:62).

Section 210, in effect, created two new categories of members in the electric utility world – “qualifying cogeneration facilities” which produced electricity and heat by burning fossil fuels and “qualifying small power production facilities” which used sources such as wind, solar, waste or biomass to produce electricity. Further, it guaranteed a market for the energy produced by mandating the purchase of this energy at a rate that was both favorable to the small producers and reasonable to the utility consumers. These generators would be regulated by FERC and no more than 50 percent of the facility could be owned by existing electric utilities. This helped to ensure that large power companies would not dominate the market of small power generators (Hirsh 1999). The state and federal regulations issued after PURPA’s enactment further supported the market entrance of independent nonutility generators (NUGs) (Joskow et al. 1989).

Between 1980 and 1995, the unusually successful Section 210 of PURPA (in combination with incentives offered by the federal government and some states) helped reduce the cost of power produced from wind turbines and solar photovoltaic panels by about 70 percent. Also of great significance, some wind and cogeneration plants offered competitive or less expensive prices for power produced compared to conventional utility plants (Hirsh et al. 2005).

These changes demonstrated that the utility system’s momentum had been altered thanks in part to the PURPA-inspired, radical small-scale technologies that enabled NUGs to compete in the electricity generation sector with utilities that were formerly vertically integrated monopolies (Hirsh et al. 2005).

Despite this progress, several factors contributed to United States renewable energy policy suffering major setbacks in the 1980s. Republican President Ronald Reagan took office in 1981, and by this time renewable energy had evolved into a very politicized and partisan issue. Labeling renewable energy policies as ‘liberal policies’ that true conservatives must oppose, President Reagan aggressively reallocated resources away from renewables. As part of a ‘smaller government’ initiative and a commitment to the ‘free market’, he drastically reduced the R&D budget for renewable energy as well as the size and influence of the DOE’s renewable energy division. Many of the divisions most experienced managers were pushed out at this time by the workforce reduction and political pressure from the newly appointed agency heads. This in turn reduced the efficacy of the division (Laird&Stefes 2009).

Concurrent to the activities above, the federal tax credits that had passed in the late 1970s expired. This happened at the same time (1985-86) that oil prices dropped and the outcome was a rapid breakdown of the U.S. solar energy industry and more than half of the firms in the industry went out of business. Further, the lower oil prices depressed avoided costs and altered renewable energy project economics and Congress held hearings on whether or not to amend PURPA (Laird&Stefes 2009; Russo 2001). Despite these harsh adjustments, some states installed

significant renewable capacity in the 1980s, notably California, New York and Maine (Hirsh et al. 2005).

By 1990, expectations for higher energy prices were disappointed. Some nuclear power plants that had been long delayed as well as a number of natural-gas fired plants came on-line and further depressed prices. As wholesale prices declined, power surpluses emerged and reduced avoided cost rates led to a decline in the competitiveness of renewable energy” (Martinot et al. 2009).

It was in this atmosphere that the next major piece of federal legislation for energy policy was enacted, President George H.W. Bush’s Comprehensive National Energy Policy Act of 1992 (EPACT) further opened the market to competitive wholesale generation (Menz 2005; Russo 2001). The ideas of market-based solutions, including electric industry liberalization, were implemented by the Bush administration under the Act. The Act permitted states to initiate competition on the retail level (establish a competitive marketplace for electricity), transformed the transmission network into a common carrier (Hirsh et al. 2005) and unbundled generation, transmission and distribution.

This competitive restructuring of the markets limited the rights of the monopolies and opened the door for independent distribution companies, decentralized producers and other private actors (Breukers and Wolsink 2003). These processes led to new market arrangements (wholesale and retail) and fundamental changes for innovation possibilities and for the role of state involvement (Monstadt 2007; Martinot 2006). As stakeholders such as educators, financiers, and manufacturers saw the policy arena change, they began to shift their commitments to reflect the changes. New stakeholders, such as environmental advocates, began to play a role as well by winning places at negotiating tables that were deciding the terms of restructuring laws and advocating for the inclusion of expenditures of funds for energy-efficiency and renewable energy technologies (Hirsh et al. 2005).

Renewable energy gained advantages from some conditions of state restructuring efforts because they could, and in many cases did, include policy provisions that encouraged renewable generation. These policies were not immediately effective though and renewable investments had to wait for this process to be finished. Because of the uncertainties related to the restructuring process, power market investments of all types declined during this period. Many players choose to delay investments until the conditions stabilized and the final regulations were set (Martinot 2006).

Once the restructuring was finished, various state policies for renewables were enacted and the power markets conformed to the new landscape, a new period began for renewable energy.

Concerns about the environment, high natural gas prices and an intention to support economic development were chief motivators for renewable energy policies (Martinot et al. 2006).

The most significant reform decisions were left to the states, since the U.S. did not enact a mandatory comprehensive federal restructuring and competition law. Consequently, numerous U.S. states have not implemented fundamental electricity sector restructuring and proposed and implemented only limited liberalization reforms in wholesale markets (Joskow 2008). Thus the stage was further set for states to become either frontrunners or laggards in terms of renewable energy policy.

In 1997, the U.S. Congress refused to ratify the Kyoto Protocol and refused to legislate any national standards for GHG emissions reductions in the following years. Since that time, the states have taken a leading role in creating and implementing renewable energy policies (Delmas&Montes-Sancho 2011).

6.2 New York State

The national energy crisis related to the 1973 oil embargo and the severe dislocations and disruptions of energy in the record cold winter of 1976-1977 (Carey 1978) crystallized the reality of New York State energy situation, as it did for much of the United States (Hausguard 1976). However, several unique factors, some pre-dating this time, influenced New York State's approach to energy policy in the 1970s and beyond.

As of 1978, the NYS electricity profile showed significant dependence on outside sources for supply with significantly higher costs than the national average, especially in the New York City Area. Out-of-state sources provided 92% of New York's energy, including 32% supplied by foreign sources. Sixty-five percent (65%) of the total consumption was attributed to petroleum products. This compares to the national figures of 11% and 46% respectively (Carey 1978). New Yorkers were spending an average of 1,000 USD per year out- of-state to procure energy (NREL 1997).

The economy was of paramount consideration at this time and New York State looked toward the development of renewable energy sources as one solution to address declining employment woes (Haley 1977). Unemployment rates were climbing as businesses left the state and its aging industrial capital stock to relocate to the southern part of the country. Energy prices were cheaper and the winters were warmer, further reducing the cost of operation. In the mid-1970s, the economy and the supply of energy that supported it was of primary concern to state political leaders. These factors compelled the architects of state policy to evaluate the ideas of energy efficiency, conservation and renewables very seriously (Carey 1978).

Although lacking in fossil fuel sources⁸, the State was fortunate to have the possibility of a variety of renewable energy sources in addition to large hydro-power from Niagara Falls. New York has adequate solar insolation rates, on- and off-shore wind potential, land suitable for biomass production and manure from farm animals for use in anaerobic digesters to make a diverse portfolio of renewable sources a real option.

NYS was an early adaptor of integrated systems planning for their energy needs. The state realized that even though they were limited to some extent by federal policy that the State had significant opportunities to provide leadership in energy policy initiatives including the conducting evaluations of state energy use, needs, and predicted trends, designing energy planning and management institutions, siting production and distribution facilities, regulating utility operations and rates, promoting energy efficiency and conservation activities, assessing the environmental impacts of energy use, educating the public about energy use and developing the state's native energy resources (Carey 1978).

Under this philosophy, the state began a series of institutional and administrative actions to further their energy agenda. The Atomic and Space Development Authority was re-formed into the New York State Energy Research and Development Authority (NYSERDA) in 1975. Initially tasked to conduct research and development that could lead to reductions in consumption of petroleum, NYSEDA has since grown to become an important contributor toward helping New York meet its energy goals of lowering energy consumption, advancing the use of renewable energy sources and defending the environment (NYSERDA 2012).

A New York State Energy Office was created in 1976 to be the lead state agency in efforts to meet the goals of maintaining an adequate and reliable supply of economic and safe energy sources for the residents and businesses of the State. In the same year an Energy Almanac was created to document the energy usage patterns of New Yorkers since 1960 and to project expected trends in those patterns through 1980 in the major energy consuming sectors (Hausgaard 1976).

In 1977, the first New York State Energy Conservation Plan was published outlining actions intended to decrease energy use in the State by seven percent or more in 1980. The State energy leadership structure was changed to require that the chair of NYSEDA would be the Commissioner of Energy (Carey 1978). Finally that year, an extensive analysis of the employment aspects of renewable energy development and efficiency planning named "Operation Bootstrap" was issued by the Legislative Commission on Energy Systems (Haley 1977).

⁸ This was decades before hydro-fracking technology breakthroughs would make access to the State's shale natural gas deposits economically feasible.

Around this time residents and policy makers in NYS came to realize that their beloved Adirondack Park was being devastated by acid rain. The Adirondack Park consists of six million acres (or 2,428,118 hectares) of protected land which is mainly used for forestry, agriculture and recreation. This land contains globally unique plant species, old-growth forests, thousands of lakes and ponds and tens of thousands of kilometers of brooks, streams and rivers (APA 2012).



Acid rain, a power plant emission by-product formed from the combustion of coal and other fossil fuels, was starting to acidify the lakes and forests of this state treasure and make them unsuitable for life.⁹ Once the problem was identified, residents, environmental groups and politicians, conservative and liberal alike, came together to address the situation. Driven by a coalition of state and national environmental groups, these efforts were very successful. This unified coalition surmounted the opposing state utility companies who suggested action should wait until the situation was addressed at the federal level (Melewski 2003). Several of these environmental groups later were involved with New York's RPS process, including the Natural Resource Defense Council (NRDC).

In 1984, New York passed the first law in the nation to control emissions that contribute to acid rain (Melewski 2003; DEC 2012) and successfully advocated for federal controls on industrial smokestacks. The Clean Air Act was amended in 1990 to reflect these changes. This act created the first national cap and trade system for air pollutants, a system that was already being implemented in NYS (Melewski 2003).

The fight against acid rain and emissions controls may have contributed to New York State's enthusiasm for renewable energy technology. By the year 1992 when NYS issued a report titled "Policy Options for a Clean Energy Future" its commitment to increasing renewable capacity and implementing this capacity through innovative policy initiatives was firmly in place. The policy ideas enumerated in this report include recommendations for Institutional Policy Restructuring, Research, Development and Demonstration and Information and Analysis of renewable energy technologies.

Institutional Policy Restructuring includes policy recommendations such as weighted utility contracts for renewable energy, mandating the use of renewable energy in cost-effective distributed applications, Incorporation of Total Costs and Benefits (highlighting the hidden

⁹ Photo credit: 'Acid rain and a slowly-dying forest in the Adirondacks'. Sierra Club 2012.

subsidies that fossil-based fuels enjoy), phased tax incentives for electricity from renewable sources and 10 year minimum power purchase agreements for energy from renewables and the use of integrated resource planning (IRP) to determine the discount rates and other risk factors used in energy planning (NYS 1992). Thus, by the time Bush's National Energy Policy (1992) came about, NYS already had a solid foundation of planning, assessment and action in the renewable policy arena.

When the restructuring movement began in the U.S., New York was motivated to join the ranks of the deregulated to help address the state's high electricity prices (NYISO 2009). The New York Public Service Commission (PSC) decided to restructure the electricity industry in 1996. They mandated the creation of an independent system operator to administer wholesale electricity markets, the 'unbundling' of power generation and transmission and for the establishment of competitive wholesale and retail markets (NYC Bar Assn 2007). This had the effect of shifting the financial risk of capital investment in the grid from ratepayers to private developers (NYISO 2009).

The creation of the New York State Independent Service Operator (NYISO) was authorized by FERC in 1998. The following year NYISO began its management of the bulk electricity grid and New York State's competitive wholesale electricity markets were opened to utility and non-utility suppliers and consumers (NYISO 2009).



George Pataki¹⁰, a moderate republican described as a 'fiscal conservative' was elected Governor of New York in 1995.

During his twelve years in office he created an award winning legacy of environmentalism. He strengthened acid rain legislation (Melewski 2003) and according to the New York Times, significantly added to the state's protected lands and "created coalitions for cleaner air and alternative fuels" (NYT 31.12.2006). Pataki's presence in the office of the government may have been game changing for the promotion of renewable energy technologies.

In 2001, Governor Pataki, convened a New York Greenhouse Gas Task Force to develop policy recommendations for reducing the state's GHG emissions. After a series of analysis and discussions facilitated by the Center for Clean Air Policy (CCAP) the Task Force recommended the creation of a renewable portfolio standard with 25% goal for renewable electricity production by 2013. This goal was one of several other recommendations made as part of an overall plan for emissions reductions including participation in an inter-state carbon emissions cap and trade system (CCAP 2003). In 2002, the State Energy Plan mandated that NYSERDA analyze and report on the viability of establishing a renewable portfolio standard.

¹⁰ Photo credit: www.cagepotato.com

An RPS is a market-based approach for increasing new sources of renewable electricity generation by mandating electric utilities and other retail electric suppliers to generate a certain minimum percentage of their load from renewable energy sources. Operational benefits include the provision of a long-term target for renewable energy generation that stabilizes the investment field, a reduction in the necessity of continuing government intervention and the spread of compliance costs amongst all customers (EPA 2012).

Ultimately, the RPS is a mechanism to make renewable energy cost competitive with conventional forms of electricity by stimulating market and technology development (EPA 2012). There are usually three means by which electricity suppliers can meet the requirements of an RPS:

- *Owning a renewable energy facility and its output generation.*
- *Purchasing Renewable Energy Certificates (RECs)*
- *Purchasing electricity from a renewable facility inclusive of all renewable attributes (sometimes called "bundled renewable electricity" (EPA 2012)).*

Unsure of success in the legislature, the Governor 'directed' the PSC to initiate proceedings to develop and implement an RPS for New York State's retailed electricity. The fact that the PSC was directed to conduct these proceedings was not a guarantee that it would do so, nor was there a guarantee that the policy would be adopted, although the PSC does listen seriously to the Governor's suggestions (Interviewee 14). In this case the PSC acted upon the Governor's suggestion and on February 19, 2003, the PSC issued an 'Order Instituting Proceeding' to 'facilitate the formulation of a policy statement on retail renewable portfolio standards in New York State' (PSC 19.2.2003).

The RPS was one of the largest processes the PSC has undertaken (Interviewee 14). For sixteen months, Judge Eleanor Stein

presided over an intensive/.../process involving over one hundred parties, which included at least four opportunities to comment, including the opportunity to submit sworn affidavits; several technical workshops, including the opportunity for on-the-record questioning of technical experts; and the preparation of several iterations of cost studies by the Department of Public Service ("DPS"), New York State Energy Research Authority ("NYSERDA") and outside experts on renewables (RETEC 23.6.2004).

The RPS was adopted by the PSC on 24 September, 2004, requiring that 25 percent of the state's electricity come from renewable sources by 2013. The requirement was later expanded to 30 percent by 2015 (NYS PSC 2012; C2ES 2012).

New York State's RPS is somewhat unique in the fact that the Utilities are not mandated to generate or purchase the percentage of renewable electricity specified in the Standard. Further, there are no penalties for non-compliance. Instead, revenues are collected from delivery customers by investor-owned utilities for the purpose of purchasing electricity from renewable sources. These funds are then sent to NYSERDA which acts a centralized management and procurement mechanism for the electricity (UCSUSA 2012).

Three groups are identified as targets to fulfill the Standard. The "Main Tier" is comprised of large scaled generators that sell wholesale power to the grid. This tier is responsible for 93 percent of the standard. Eligible sources include wind, solar, hydroelectric, ocean or tidal power, fuel cells, liquid biofuel, some types of biomass and biogas. The "Customer-Sited" Tier are small scaled generators such as private residences with a photovoltaic (PV) system and is responsible for six percent of the standard. Eligible sources include fuel cells, solar and wind. Finally, "Other Market Activities" are comprised of state agencies that are mandated to purchase a certain percentage of renewable electricity or businesses and individuals that opt to pay a premium on their electricity bill. This activity makes up the final one percent of the standard (NYSERDA 2012; C2ES 2012).

An independent assessment of the RPS in 2009 found that the Main Tier program was "highly cost effective with a benefit-cost ratio exceeding 6 to 1" (KEMA 2009). It seems as though the RPS is unfolding as a successful instrument in NYS to stimulate renewable electricity generation and in providing economic benefits.

Some experts think that renewable portfolio standards have significant potential for increasing renewables in a cost effective manner and could be the key to the large scale expansion of renewables in the electricity sector but that the policy design must be carefully crafted to avoid implementation challenges that can lead to failures in stimulating renewables (Rabe 2007; Martinot et al. 2006; Wiser et al. 2005). Since renewable portfolio standards have the potential to positively impact an energy system transition toward renewables and since the political factors surrounding the development and implementation of an RPS can greatly impact the design and implementation of the policy and its success, these processes are important to study and analyze.

It could be argued that the NYS RPS process is not a suitable candidate for studying coalition dynamics and state level policy making because it went through administrative channels. In some ways this may have made it easier for renewable energy proponents to have a positive impact upon the proceedings while reducing opportunities for the public to access the process. However, this process was a collaborative effort with participation of the market players, consumer advocates, the environmental community, and other affected stakeholders. It was

also a consultative process, which is a legislative-type process that is open and public (Stein 2.5.2003). As such, I think it is a valid process to illuminate the how renewable energy technology policy can be successfully developed and implemented.

7. Findings

The following discussion allows me to complete my objectives in this research, in order to provide a full response to the central research questions. Thus far, I have provided an overview of a theoretical framework from which to examine the issue. I have identified a set of variables that could be assessed based on this framework and have created assessment tools that will allow a better understanding of these variables. Based on the criteria developed, I have chosen the NY RPS process as a worthwhile example, and have focused on RETEC to now apply my assessment tools, as well as analyzing elements of the Multiple Intervenor coalition in order to provide a contrast to the RETEC study.

By assessing the variables of belief systems, trust, leadership and the exercise of power, a clear set of principles will be delineated that were present and instrumental in the NY RPS process. As well, I will be analyzing the typology of power by niche-players to better understand the type of power that was so effective in this example.

7.1 Conflict

Two categories of actors emerged from an initial document analysis with clearly defined differences in policy objectives. From each category I have selected one collaborative group of actors to be analyzed in the following sections. For a detailed discussion of the establishment of conflict between Coalition A and B, refer to section 5.6.

7.2 Belief Systems

Core Beliefs found in key word findings

As a test of consistency in values, all mission statements for each RETEC member organization, as well as the Comment and Reply to Comment documents of the RPS process submitted by RETEC were examined for key words. Key words in the RETEC member mission statements, noted in the chart below, were consistent with the core beliefs of environmental stewardship, energy diversity, human or public health, job creation, emission and pollution reduction and environmental justice.

A complete comparison of member's mission (or value and vision) statements for MI could not be completed because MI does not make its membership publicly known. (Couch White 7.17.2012). However, it was possible to analyze the stated mission of the whole MI group as well as the Comment and Reply to Comment documents submitted by MI, noted in the chart

below. This analysis offered key words consistent with core beliefs of cost control, reliability, fuel diversity and electricity market consistency.

RETEC FREQUENTLY USED WORDS	MI FREQUENTLY USED WORDS
<ul style="list-style-type: none"> • Environment • Public Health • Sustainability • Energy Security • Jobs • Diversity • Economic Benefits • Fair and equitable 	<ul style="list-style-type: none"> • Electricity Prices • Competitive electricity markets • Business • Rising/Increasing Prices • Negative impacts • Reliability • Voluntary • Issue is not yet ripe for resolution

Figure 12. Key words related to belief systems

Underlying the expressed key words are two fundamentally different attitudes about the role of government in energy policy, the degree to which individual freedom in a market economy should be inhibited in order to protect the environment and who should be involved in the decision-making process.

Thematic element findings

Thematic elements, as noted in the below chart, suggests that the MI coalition is more willing to risk environmental degradation in the interests of production and the free market while the thematic elements present in RETEC’s documents, suggests a core belief that the market economy should be constrained to protect the environment (air and water quality, wildlife habitats), public health and social equity and that these protections should be virtually absolute. This is a normative divergence in the Policy Core of the two coalitions and most likely reveals a Deep Core difference in the prioritization of equality versus freedom, an important element that is the basis of many policy disputes (Henry et al. 2010).

RETEC THEMATIC ELEMENTS	MI THEMATIC ELEMENTS
<ul style="list-style-type: none"> • Environmental protection • Public health protection • Environmental Justice • Job creation • Energy Security • Energy diversity 	<ul style="list-style-type: none"> • Controlling electricity prices • Manufacturing profits • Competitive Market Protection • Costs for energy consumers • Business Investment • Many related issues are not ready for resolution

Figure 13. Thematic Elements

Additional evidence to suggest core beliefs

A review of the membership of the organizations further reinforces the core and near core analysis. The MI group was formed in part to protect the anonymity of its members. (Couch White 7.17.2012). This shows that, despite what Member 'vision and value statements' might express, transparency in governance is not highly valued by MI members.

Despite this secrecy, an internet search uncovered the 3.24.2004 document, *Motion Of Multiple Intervenors In Opposition To The Appeal Of The Independent Power Producers Of New York, Inc.* This document revealed the names of five members from that time: Alcoa Incorporated, IBM Corporation, Occidental Chemical Corporation, Praxair Inc. and Xerox Corporation. Thus, I was able to examine the 'values and vision' statements of a representative sampling of member organizations to MI's RPS comments.

The MI member value and vision statements repeatedly mention values such as customer satisfaction, profit-making, innovation and integrity. The first two themes support the ideas of cost control and reliability underlying many of the comments submitted MI but the last two seem ironic since MI would rather stifle innovation in the form of an RPS and its members do not have the integrity to publicly stand for their actions in the policy making arena. The MI mission statement declares that "members of Multiple Intervenors share a common interest in ensuring that New York State's energy markets provide access to reliable, affordable energy supplies" (MI 2012). That statement is concretely consistent with thematic elements of reliability and cost containment enumerated in the Group B Comment Documents.

MI represents market forces almost exclusively. Inclusiveness and participatory opportunities can impact how decisions are made and how innovative a group is likely to be. Just as importantly, membership can indicate who a coalition feels has the right to make decisions which also relates to deeper beliefs about social equity.

The RETEC membership, made up of public health, environmental protection, consumer advocacy, renewable technology industry trade groups and businesses and energy researchers represents a broad section of society, with multiple potential interests and motivations.

Thus far, the examination of documents has identified agents who worked to influence the RPS process, demonstrated that collaboration happened between like-minded agents and revealed the some of the Policy and Core Beliefs of the two categories of actors. Now we will further explore differences in Near Core or Policy Beliefs.

According to Sabatier, Near Core or Policy Beliefs are “Fundamental policy positions concerning the basic strategies for achieving normative axioms of deep core” (1988:145). These are the beliefs that support coalition formation on the most basic level and provide the foundation for establishing alliances in a policy subsystem.

Multiple Intervenor policy goals are clearly stated in their initial comments dated 3.28.2003. These goals include, but are not limited to:

- A RPS, if implemented, must not increase electricity prices in New York State
- A RPS, if implemented, must not impact negatively the continued development of competitive electricity markets in New York State
- A RPS, if implemented, initially should be through voluntary programs
- A broad, inclusive definition of renewable resources be adopted in this proceeding and
- Renewable resources serving New York, but located physically out-of-state, should be included in calculating compliance with any RPS that may be implemented
- Many “threshold issues” identified by the Commission in its Instituting Order are not yet ripe for resolution. The consideration of many of these issues must be postponed pending further analyses. (MI Initial Comments 28.3.2003)

RETEC policy goals are also stated in their initial Comments of March 2003. These goals include, but are not limited to:

- Sustained orderly development of the renewables market to achieve the goal of 25 percent of electric sales from renewables within ten years
- Job creation and other economic benefits through the promotion of renewable energies
- The promotion of renewable resources that will improve the quality of the environment and public health in New York without exporting externalities
- Renewable energy resources should either be sustainable or have the promise of sustainability. Certain technologies should not be included in the definition particularly Waste-to-Energy (WTE).
- The promotion of renewables that enhance energy security for New York by increasing the diversity of our fuel mix, increasing our reliance on local fuels, generating more power at smaller plants, and generating more power where the energy is used. (RETEC Initial Comments 3.2003)

Near-core beliefs underlying policy goals were a factor in bringing groups together who had more limited interactions with each other, such as the Solar Energy Industry Association and other business oriented entities. This collaboration strengthened the positions of every organization involved. Technology and business groups offered economic legitimacy to the stance of environmental and justice organizations and the environmental and justice

organizations offered political experience and power, financial resources, and a history of success in working with the state on these types of policy issues (Interviewee 5).

Though there may have been some different opinions regarding the paramount importance of environment vs. economics, business and industry groups did not necessarily see these ideas as conflicting, but more likely as complementary (Interviewee 5). Shifting toward renewable energy technology was seen as a positive for job creation and profit-making medium and as a positive for the environment and public health. Interviewee 12 indicated that many individuals representing renewable energy industry and business groups at that time shared a deep concern for the environment. Thus, by sharing various types of capital, including reputation, the different entities became stronger as a coalition and more likely to achieve policy goals.

Secondary beliefs, characterized by decisions related to implementation and administration of policy did not seem to play an important role in whether groups came together or how they operated in this phase of the RPS policy.

This section has demonstrated how normative and policy beliefs can dictate who comes together to impact policy change and how this can impact policy objectives. Having shared belief systems can also contribute to the important characteristic of trust because organizations do not have to spend time or resources convincing their allies of normative ideals and these resources can be allocated elsewhere, making transaction costs lower amongst members.

The next section will explore the concept of trust and how it impacted the working process of the RETEC and MI coalitions.

7.2 Trust

In our conceptual model, trust is envisioned as part of the foundation that supports coalition formation. Collaboration is more likely to take place amongst groups who have a level of trust and in political circles trust is a valuable asset. Individuals or organizations who fail to live up to their commitments will not be looked to for future collaborations. 'You only get one chance in politics' (to fulfill an obligation) (Interviewee 2). Trust can also be an element that contributes to more effective collaborations by lowering transaction costs among groups or individuals. When resources do not have to be dedicated to network monitoring they can be utilized in other ways that may be more productive for end goals.

The MI coalition was formed in 1972 and was actively involved in the state restructuring of the electricity industry and represented its members in various other proceedings before the NYS PSC and FERC. In addition, MI has represented the interests of its members in state and federal courts and before other NYS regulatory agencies (Couch White 22.5.2006). All legal filings and

representation in proceedings are transacted by the legal representation of Couch White, so that anonymity may be maintained.

Since membership lists are not publicly released it is not possible to know how stable the group has been over the course of its history. One could speculate that the membership has remained somewhat stable because big energy users such as manufacturers or colleges tend to have long lasting presence but conditions within corporations can vary widely over time. The IBM corporation for example, listed as one of the MI members in a Couch White 24.3.2004 document, has gone from a peak of several thousand jobs at their Endicott, NY facility to several hundred, as manufacturing operations have been terminated (IBM 2012).

It is interesting to note that IBM stopped reporting the precise number U.S. employees and now only report their global workforce numbers. There has been speculation that this is because IBM is outsourcing a large number of jobs to other countries but is not being transparent about the magnitude of this practice (Thibodeau 2010; Kiger 2010). Perhaps it would be bad for their U.S. image. I find this information relevant because it speaks to the level of transparency and accountability that members of MI have to their societies, and perhaps to each other.

The individual member goals of the five corporations named as 2004 members (Alcoa Incorporated, IBM Corporation, Occidental Chemical Corporation, Praxair Inc. and Xerox Corporation) consistently mention customer satisfaction and profitability as individual organizational goals. Their collective goal is a low-cost, reliable electricity supply (MI Initial Comments 3.2003) and I would argue that this pursuit is not sufficient to engender trust amongst the members. Having a common goal such as improving the public health and environmental conditions that is fostered by transparency and frequent communication would seem more likely to build levels of trust.

Further, the frequency of communication amongst members is unknown, as legal efforts are spearheaded by Council that is not a member of the organization and documented information about communication patterns within MI was not readily available. Although Couch White was contacted to request a list of past members (which was refused), I did not ask for information related to specific communication patterns amongst members related to the RPS proceedings or if there had been mechanisms in place to monitor accountability during the proceedings.

Clearly MI has a lengthy history of reciprocity and repeated interactions, two indicators of trust. Further analysis of the level of trust is difficult without access to the businesses and organizations that were members during the RPS process. The most likely majority of members in MI are manufacturers and other competitive-type businesses. Businesses in free-market economies tend to be more withholding of facts that could be relevant or helpful to their

competitors. Even in AWEA, the trade organization with a common goal of promoting wind energy, individual members in competition with each other may withhold information from the group as a whole that may be relevant or helpful to achieve policy goals (Interviewee 12). There is no reason to believe that members of MI would act differently.

In sum, MI members do share congruence on policy-related beliefs, a history of repeated interactions and reciprocity for the achievement of these goals. However, it is not possible to speculate on the size or stability of responsible actors within the group or how many resources are dedicated to monitoring and enforcement of accountability. Thus, I would assess MI to have a moderate level of trust.

Although RETEC did not officially come together until the beginning of the RPS process, the environmental, public health and justice organizations in New York State had a significant history of reciprocity beginning in some cases as early as the 1960s on a variety of issues (Interviewees 6;12;13). However, it was the collaborative efforts to protect the Adirondack mountain range from acid rain damage that solidified a strong relationship amongst many environmental groups operating in New York State, whether local or national in orientation (Interviewees 3; 6; 12).

These groups jointly engaged in aggressive policy advocacy from the early 1980s onward regarding the acid rain issue. Efforts included successfully lobbying the Governor and the State Assembly for strong power plant emissions controls. In cooperation with state policymakers, the coalition of state and national environmental groups propelled related legislation forward and successfully overcame opposition from utility companies (Melewski 2002). (Refer to section 6.2 for elaboration).

Several members of RETEC also worked together as part of the New York Greenhouse Gas Task Force from 2001-2003. These members were: the New York League of Conservation Voters (NYLCV), Natural Resources Defense Council (NRDC), Pace Energy Project, the American Wind Energy Association (AWEA) and Environmental Advocates of New York (EANY). This task force, in cooperation with the Center for Clean Air Policy, ultimately recommended the implementation of an RPS for New York State as one method of reducing GHGs (CCAP 2003).

Thus, environmental groups entered the RPS process with a history of cooperative behavior and joint actions that culminated in achieving policy objectives at the state level. As stated earlier, reciprocity contributes to higher levels of trust because repeated interactions provide opportunities for sanctions and rewards based on others' behaviors (Schlager 1995).

But perhaps the addition of technology or business oriented groups through the RPS process diluted the levels of trust in the network because these groups had a shorter, more limited

history of engagement with the environmental and justice groups, as they were not directly involved in the fight against acid rain.

Levels of trust may also have been affected because of the introduction of differing under-goals within the overarching policy framework. For example, the specific needs of the solar industry are much different than industrial wind power. Solar tends to be smaller, behind-the-meter (or residential) technology and large wind tends to be commercial, grid oriented technology. The fact that wind was much cheaper per kilowatt (KW) than many other emergent technologies combined with the fact that NYS had a reasonable potential (2000-5000 MW) for wind generation meant that policy may have been less supportive of other technologies under the RPS.

Yet, this was not the case. Although industry and business groups may not have been involved in the long history of fighting acid rain, they were involved in the NY GHG Task Force and had the opportunity to work with environmental and public health groups through that process. Also, the overarching policy goal of an aggressive RPS that included only truly renewable, non-polluting sources of energy was granted a primacy that contributed to a positive working relationship amongst RETEC members.

From looking at the legal filings and other process documents, we note that only a few members within the RETEC coalition are principal signatories of the documents such as the NRDC and AWEA. When interviewees were asked about this, there was consensus that these organizations and a few others took were primarily responsible for the majority of the research and administrative work. Concurrently, all of the member-groups worked to keep their members abreast of developments and to continuously apply pressure to the governor's office or other relevant policymakers to meet policy objectives. Thus, a small group within RETEC assumed primary responsibility for the primary tasks and these lead groups had an established history of working together, either on the GHG Task Force or on other initiatives.

The fact that so few groups were responsible for much of the substantive work would eliminate the need for formalized observation to assess accountability amongst the coalition members. As Lubell argues "in situations characterized by high levels of trust, fewer resources are required for monitoring and enforcement institutions" (Lubell 2007: 239). None of the interviewees could recall any type of formal monitoring mechanisms in place at this time. As Interviewee 12 states, "Everyone just did what they needed to do". The fact that there was frequent to very frequent communication amongst the RETEC members may also have provided reassurance that tasks were being responsibly handled.

In the previous section, I demonstrated that the coalition members had both core beliefs and policy beliefs in common and that these were foundational reasons for the coalitions to come

together. In addition, it was illustrated that groups joined forces as a strategy to strengthen their positions in the process, exhibiting a mutual dependence.

Thus, in the RETEC, we see the existence of all five predictors of trust: congruence on policy-related beliefs, a history of repeated interactions, reciprocity, a small and stable group of responsible actors, and few or no resources dedicated to monitoring and enforcement of accountability. This would indicate a high level of trust amongst the members of RETEC. When involved interviewees were asked about trust levels amongst RETEC members, there was consensus that a high level of trust existed between the groups during the RPS process (Interviewees 3; 12).

There is one additional sign of high trust levels in RETEC that is worth examining, although it is not part of the assessment tool. It is how trust contributes to the stability and longevity of coalitions. Since RETEC was a coalition that grew out of a particular policy process, there was no formalized agreement that members would continue to work together after the policy had been instated.

Yet many members of RETEC continued to work together after the decision to establish the RPS had been made. An official coalition was formed in 2006 known as the Alliance for Clean Energy (ACENY) (Interviewee 12) and is open to professional actors that would like to promote the use of renewable energy technology in NYS for the purposes of “increasing energy diversity and security, boost economic development, improve public health and to reduce air pollution” (ACE NY 2012).

As well, the existence of RETEC contributed indirectly to at least two other coalitions, the Biomass Energy Alliance¹¹ and the Apollo Alliance¹². The Biomass Energy Alliance was not formed until 2009, but members participating in the RPS process (although not part of RETEC), observed RETEC’s process were influenced by how RETEC conducted itself in the pursuit of policy goals. This was an influential factor in the formation of the new group (Interviewee 10).

¹¹ “a coalition of individuals, businesses and organizations demonstrating every day that plant material can be used to meet local energy needs while creating local, long-term jobs, reducing greenhouse gas emissions and contributing to state, regional and national energy goals” (NYBEA 2012).

¹² “The New York State Apollo Alliance’s unique coalition is working to advance New York State’s clean energy future through the use of efficiency and renewable sources. We promote energy independence, environmental protection and opportunities for New York State’s businesses and workers through the creation of well-paying new and transitional jobs” (Blue Green Alliance 2012).

The New York State Apollo Alliance, part of the national Apollo Alliance coalition, did not directly evolve out of the RPS, but came into being as the initial RPS process was ending. RETEC members such as the Sierra Club, the NRDC and the UCS became members of the NYS Apollo Alliance. The formation discussions were being held during the RPS process and its development was influenced by the relationships that were being formed at that time (Interviewee 6). In the Apollo Alliance, we see an expansion of the types of groups working together on renewable energy technology issues in New York State. The base has widened from environmental, public health and business groups to incorporate labor organizations demonstrating risk-taking by building relationships with groups representing a broader base of interests.

7.3 Leadership

This section shows evidence of whether leadership existed in either coalition. Examining the assessment criteria for each coalition (MI and RETEC) will allow me to determine the quality and level of leadership within the coalitions.

Leadership in the MI coalition

Was there a lead organization within the coalition?

Within the MI coalition, a review of documents submitted reveals that Couch White, the MI legal counsel submitted every filing. No individual members were listed on the filings or briefs. As a non-member, the fact that the MI legal counsel is the organization of record does not provide insight into the dynamics amongst the membership. However, a review of the MI website reveals that a Board of Directors decides “which matters and what positions counsel takes with respect to representation of the membership” (MI 2012). This board is composed of thirteen annually elected members for a term of one year (MI 2012). Although this information reveals characteristics of the coalition structure, it has limited value for providing the data needed to thoroughly assess the state of leadership within the coalition. Needless to say, if one of our criteria for identifying leadership is the ability of a small number of members to be responsible for meeting legal deadlines, this diffuse and unclear structure of leadership within the MI coalition can be seen as a potential factor in the strength of their leadership.

Were they competent negotiators?

MI participated in the RPS process at each stage by submitting Comments and Briefs when appropriate, which suggests that they took an active role in negotiating throughout the process. However, a primary benchmark for success in the process negotiations is whether or not the coalition achieved their initial goals. That leads us to ask two questions. Firstly, did the end

result match with the original intentions stated in the initial Comment document of MI? Secondly, was MI satisfied with the end-results of the negotiations?

The following MI policy goals are stated in their initial comments dated 3.28.2003. These goals include, but are not limited to:

- A RPS, if implemented, must not increase electricity prices in New York State

Annual retail cost premiums (in 2003 dollars) to achieve the Standard were estimated to be between \$26,916,956 (2006) and \$164,424,968 (2013) (PSC 24.9.2004: Appendix p. 6). To raise the funds for implementation, the Load Serving Entities (LSEs) were authorized to collect a surcharge from each retail electricity customer that pays the System Benefits Charge (SBC). The amount collected is based upon the amount of energy consumed and the total sum authorized for collection was \$741.5 million (KEMA). One could consider this premium to effectively be a rate increase.

- A RPS, if implemented, must not impact negatively the continued development of competitive electricity markets in New York State

A stated goal of the proceedings was to achieve “competitive neutrality...(and to)...develop an RPS compatible with competition in energy markets in New York State” (Stein 2.5.2003: 3). The proceedings were in alignment with this MI goal and this idea is represented in the final design of the policy.

The RPS mandates the use of a central procurement model with NYSERDA acting as the central procurement administrator. NYSERDA “pays a production incentive to renewable electricity generators selected through competitive solicitations for the electricity they deliver for end use in New York” (NYSERDA 2011: 4). To receive the production incentive, all rights and/or claims to the RPS attributes associated with each megawatt-hour are transferred to NYSERDA by the generator. By obtaining the RPS Attributes¹³, rather than the associated electricity, the program makes certain that increasing amounts of renewable electricity will be introduced into the State’s power system, while limiting interference with the state’s competitive wholesale power markets (NYSERDA 2011).

- A RPS, if implemented, initially should be through voluntary programs

Although there is no requirement for utilities to purchase renewable energy as part of their portfolios, LSEs are required to collect a surcharge to fund the Standard and this money must

¹³ “RPS Attributes” include any and all reductions in harmful pollutants and emissions, such as sulfur and nitrogen oxides and carbon dioxide.

be spent on supporting new sources of renewable energy (NYDPS 2012; UCSUSA 2012). Thus, the RPS is mandated and not voluntary.

- A broad, inclusive definition of renewable resources be adopted in this proceeding

A more narrow definition of renewables was used for the Standard. This includes new small-scale and existing large-scale hydro-power¹⁴, wind, PV, fuel cells, specific types of biomass, and particular type of waste (i.e. source-separated refuse-derived fuel (RDF). Nuclear power, natural gas and most types of Waste were excluded from the definition (PSC 24.9.2004).

- Renewable resources serving New York, but located physically out-of-state, should be included in calculating compliance with any RPS that may be implemented

Some out-of-state resources, such as wind, were allowed to be calculated for NYS compliance upon certain conditions.

- Many “threshold issues” identified by the Commission in its Instituting Order are not yet ripe for resolution. The consideration of many of these issues must be postponed pending further analyses.

Overall, the period of sixteen months in which the RPS was developed and instituted is considered a timely manner for an undertaking of its size (Interviewee 14). Additionally, threshold issues were considered during the process, so the goal of delaying the development or implementation of the Standard was not achieved.

Conclusion

The fact that the RPS was instituted in a timely fashion with a mandate to be funded by rate-payers and includes a narrower definition of renewables indicates that four of the six stated objectives were not successfully negotiated by MI. Further, MI was one of the *'Parties Filing Briefs On And Opposing Exceptions'* to the RPS Order of Institution indicating dissatisfaction with at least some of the final product.

Were the leaders able to secure resources?

In the lobbying process, the MI group was successful in securing financial resources by having a paying membership, many of whom were for-profit businesses. However, the lack of transparency of the members also reduced their capacity of individuals to lobby on behalf of the larger group. This lack of social capital could certainly be considered a reduction of resources. Finally, while members might have felt that being seen publicly opposing the RPS

¹⁴ Existing large-scale hydro could be counted toward the overall percentage of renewables but would not be eligible for incentives intended to stimulate new sources of renewable energy.

process would be against their business interests, it also reduced the ability of those organizations to put a public face on their organization's position, which may have also limited the lobbying strength of MI.

Did they have a high capacity for conflict resolution and problem solving within the coalition, and did they pay attention to the concerns of individual members?

Who, if anyone, exhibited internal leadership? Did these party or parties have a high capacity for conflict resolution and problem solving within the coalition and did they pay attention to the concerns of individual members? These are questions that must remain unanswered in relation to MI, as it is unclear whether the MI board members actively strategized during this process. While the board, made up of 13 of 55 members, determined the subject and position of interest, the entire concept of conflicts and conflict resolution is difficult to determine in this organization. Current Board members are listed on the website but there are no records of Boards from previous years making it impossible to ascertain who was providing this leadership during the years of the RPS deliberations (2003 and 2004). What is clear is that important decisions regarding policy goals were made by a section of the membership and these decisions are imposed upon the coalition as a whole. There is no indication that MI members are particularly inspired by their Board of Directors or that every member is in agreement with the decisions made.

Conclusions about MI's leadership

In conclusion, MI has a type of formalized leadership that is more pragmatic than visionary, more related to control and less related to inspiration. Tellingly, when the former Chair of the PSC, William Flynn, was asked to identify parties who(m) exhibited leadership in the RPS process, MI was not among the names mentioned.

Leadership in the RETEC coalition

Was there a lead organization within the coalition?

The NRDC, AWEA and PACE were considered the leaders of RETEC through documentation and personal recollection of coalition members and they fulfilled several mechanisms of leadership determination. This leadership helped to steer RETEC to successful outcomes in the RPS process.

Within the RETEC coalition, there were both individuals and organizations that provided leadership throughout the RPS process. This influence began even before the RPS process was formalized because several members of RETEC were participants of the New York Greenhouse Gas Task Force that recommended an RPS for New York State as a way of reducing emissions.

These members were the NYLCV, NRDC, PACE, AWEA and EANY (CCAP 2003). Although EANY was not officially listed as a part of RETEC on documents, several interviewees stated that they provided support for RETEC throughout the process. As well, other individuals and groups such as Jason Babbie of the New York Public Interest Group (NYPIRG), Anne Wilson of the Sierra Club have also been cited as significant contributors to RETEC and its work. As well, several interviewees noted that Ashok Gupta, working for the NRDC, was a leading force in this effort, someone with “a lot of the big ideas” around this process and “a visionary leader” (Interviewees 2, 12, 14).

When RETEC members were asked to name two or three members who they thought were leaders the names of Kit Kennedy of NRDC, Valerie Strauss of AWEA and Fred Zalcman of PACE Energy Project came up the most often with noted contributions by Annie Wilson of the Sierra Club, Jason Babbie of NYPIRG and David Wooley, the original lead for AWEA who left the process to become a VP for the Energy Foundation. Outside of the RETEC, the then-commissioner of the PSC mentions Ashok Gupta and the NRDC and Fred Zalcman of PACE as two standouts as leaders of the coalition.

When I examined the RETEC RPS-related documents, it became clear that two member-organizations took primary responsibility for filing on behalf of the Coalition, the NRDC and AWEA. The final RPS document in the chart was not actually filed by RETEC, but on behalf of many of the members of RETEC. This document shows that even after the group RETEC was no longer filing the NRDC continued to file on behalf of its members.

RETEC Document	Date	Filed by
Initial Comments	Mar-03	All members
Comments	9.26.2003	NRDC
Reply to Comments	10.31.2003	NRDC
Brief on Exceptions	6.24.2004	NRDC and AWEA
Response to Petitions	11.9.2004	NRDC and AWEA
Comments on Proposed Rulemaking	12.27.2004	NRDC and AWEA
Letter in Response to the Commissioner's Notice Seeking...	4.8.2005	NRDC and PACE

Figure 14: RETEC document filing organizations

Were they competent negotiators?

RETEC, much like MI, participated in the RPS process at each stage by submitting Comments and Briefs when appropriate, which suggests that they also took an active role in negotiating throughout the process. Again using my primary benchmark for determining the success of a negotiator, I reviewed whether the end result matched with RETEC's original intentions and whether RETEC was satisfied with the end-results of the negotiations.

The RETEC goals, as stated earlier, are as follows:

1. Sustained orderly development of the renewables market to achieve the goal of 25 percent of electric sales from renewables within ten years
2. Job creation and other economic benefits through the promotion of renewable energies
3. The promotion of renewable resources that will improve the quality of the environment and public health in New York without exporting externalities
4. Renewable energy resources should either be sustainable or have the promise of sustainability. Certain technologies should not be included in the definition particularly Waste-to-Energy (WTE).
5. The promotion of renewables that enhance energy security for New York by increasing the diversity of our fuel mix, increasing our reliance on local fuels, generating more power at smaller plants, and generating more power where the energy is used. (RETEC Initial Comments 3.2003)

The end result was that NYS created a Standard with the goal of 25% of electricity generation from renewables by 2013 (upgraded to 30% by 2015 in 2010) that promotes technologies such as wind, solar, small-hydro and other sustainable technologies meeting goals 1 and 5. Goals 2 and 3 are by-products of the aforementioned goals.

In regards to goal 4, the Standard excluded most forms of WTE and other polluting sources of energy from being eligible for RPS payments. This was a highly contested issue throughout the process as noted in the RETEC Comments of 10.31.2003. "This hard work has produced substantial consensus in many areas that were once contentious, e.g. biomass, and has focused and narrowed many other remaining areas of difference..."

The complex arrangement of the NYS RPS (multiple tiers, central procurement model) further demonstrates that negotiations were complicated and took a sophisticated understanding of the issues and how to achieve objectives. Clearly, skillful negotiating was necessary to achieve these outcomes. Also, Kit Kennedy of the NRDC has been specifically noted in interviews and email exchanges as an articulate and respected attorney and negotiator.

RETEC demonstrates satisfaction with the outcomes as evidenced by public statements related to the process. In the *Brief on Exceptions to the RD*, issued toward the end of the process RETEC states that, "as "Overall (the recommended decision) is an impressive presentation of well-supported recommendations on the key RPS policy issues..."(Brief 6.23.2004). An NRDC press release issues after the final decision was rendered also expresses satisfaction with the outcome. Kit Kennedy states that "New York's RPS, if implemented properly, will produce more renewable energy and public health benefits than any other State outside of California" and that it is a "huge boost for renewable energy in New York and the United States," (NRDC 2004).

Conclusion

In addition to goal achievement and public expressions of satisfaction with the Standard, RETEC was not one of the 'Parties Filing Briefs On And Opposing Exceptions' to the Instituting Order. This further indicates RETEC's satisfaction with the Standard. Based on these criteria, I conclude that the NRDC, AWEA and PACE were competent and successful negotiators.

Were they able to secure resources?

Resources were provided throughout the process by RETEC's leaders from personnel to funding. The NRDC, AWEA and PACE came to the process with name recognition and a great deal of experience, respect and power in the political arena and money to dedicate to the effort. In addition, some members of AWEA stepped up to provide more funding when needed during the process (Interviewee 12).

The ability of the lead organizations to lobby both for themselves and on behalf of RETEC allowed an additional resource that was lacking from the MI coalition. In addition, the fact that the RETEC members were known to the public allowed for the coalition to have the public face and additional lobbying strength that was lacking in the MI coalition.

Did they have a high capacity for conflict resolution and problem solving within the coalition, and did they pay attention to the concerns of individual members?

There was conflict noted within RETEC from non-wind technologies that felt as though their objectives were not being properly represented. A factor in resolving these conflicts was that RETEC members had frequent communication and strategy discussions with the lead organizations within the coalition. The lead organization participated in working groups that addressed different technologies, allowing them a greater understanding of the concerns amongst a broad base of the membership. These two factors allowed the RETEC leadership to depict a developmental process for renewables that may not immediately reflect every member's goals, but that gave members an assurance that the RPS process was a viable first step toward their goals. In particular, they were able to explain how industrial wind development was the most cost efficient way to increase renewable capacity on a large scale within the timeframe specified for the overall RPS goal (Interviewees 4; 12). Other technologies, such as small and large scale solar, would come in time once the most productive on-shore wind sites were exploited. Solar would then become more cost competitive in relation to less productive on-shore wind or off-shore wind. The fact that these differing factions within RETEC were brought into agreement shows that member concerns were addressed, otherwise they could not have been resolved. The ultimate unity of the members of RETEC is further evidence of the mediation and conflict resolution skills of the group leaders.

Conclusions about RETEC's leadership

In conclusion, RETEC's membership can be described as much more visionary than MI. Since the group was created specifically for the RPS process, there was much more a sense of motivation, for this policy. As well, the leadership evolved out of clear common goals and priorities, and this allowed them to negotiate among members, resolve conflicts, and access resources that would not otherwise have been available. As well, the former chair of the PSC identified multiple members of RETEC as having exhibited leadership in the RPS process.

7.4 The exercise of power

In this section, I will list the four conditions of power and compare MI and RETEC's use of power as it relates to each condition.

(1) Access to resources: the understanding that those resources do or could exist, where they are located or how they could be created and who owns them or will own them;

Both the MI coalition and many members of RETEC are organizations that have existed for decades, engaged in successful policy negotiations at the state level and actively participate in the policy making 'scene' in Albany through various advocacy efforts. They understand who has power and who to approach to get something accomplished, and are adept at locating and securing financial resources.

However, there is an important aspect of resource development where the two groups differ. As the RPS process represents a change in energy infrastructure and rules, any group that opposes that change would be bolstered by all of the existing institutional systems, including rules, norms, and standards. This offers a great deal of resources to the MI coalition. However, the RETEC organization, as a new organization with a very public face, is also allowed to position itself as the organization of positive change. This positioning allows it to raise funds and develop resources from organizations and individuals who have an interest in moving away from the status quo.

(2) Strategies: procedures applied to mobilize resources (e.g. lobbying, propaganda, voting, networking, etc.);

While it's true that RETEC was newly formed, its members have long-term relationships with other advocacy groups as well as with policy-makers in the legislative and administrative branches of government. As an example, many members of RETEC demonstrated that they knew how to strategize successfully during the fight for acid rain legislation. The secrecy involved with the MI coalition reduces their ability to create these long term relationships, rally public opinion behind the views of their members, and create any kind of grass roots organizing to support their mission. Further, MI's members primarily represent private businesses and organizations, which means that their ability to mobilize public support for their advocacy efforts is limited, while many of the members of RETEC have their own membership base, each offering their own level of funding and people power for lobbying, organizing and other types of outreach efforts (Interviewees 4; 6; 12).

RETEC employed a variety of strategies during the RPS process including lobbying, the utilization of media including radio, newspapers and organizational newsletters, and the organization of grassroots efforts on college campuses and other venues. Several members of RETEC were lobbying specialists and well understood the procedures related to this activity. The group as a whole frequently communicated and understood when they needed to work together and when to work individually or even when to work with groups outside of RETEC on specific issues, such as the group 'The Undersigned Companies'. (Interviewees 4; 6).

(3) Skills to apply strategy methods: human competencies including language and computer skills, legal or financial education, critical thinking, public speaking, etc).

As leading business organizations supported by highly successful legal firms, it is clear that the MI group either contained or had the ability to procure representatives with the competencies required to exercise power. While there was a lack of ability to exercise the individual member competencies due to the secrecy of the organization, MI has a public face, through it's legal council, and they are able to fulfill this role. Further, as the MI position is to support the status quo, there is a lack of need for visionary thinking, which suggests that aspects of critical thinking and the creation of new strategies are less necessary exercises of power for the MI coalition.

RETEC was comprised of highly skilled individuals representing reputable organizations known for their intellectual capacity such as the Union for Concerned Scientists, the NRDC and others. RETEC representatives included lawyers, scientists, technologists, businesspeople and entrepreneurs and many had a history of participating in litigation, leading or participating in public venues for policy development, working with academic institutions and communicating with the media as well as with their membership. These skills were frequently utilized.

(4) Willingness: the will of an actor(s) to obtain more resources, to produce strategies and to acquire skills (Avelino & Rotmans : 557).

While again, evaluating this element of power is more difficult with the anonymity of MI, the fact that many of the known members are businesses with a profit motive suggests that their ability to obtain resources will be limited to the potential for profit in the adoption or rejection of any piece of policy. However, their participation in a wide range of policy issues related to electricity demonstrates that they are willing to engage in activities, such as developing strategies and acquiring skills, that may or may not have any immediate profitability.

RETEC, however, has shown a willingness to obtain more resources, as demonstrated when AWEA solicited resources from their own members during the RPS process.

Many of RETEC's members, as representatives of environmental and social justice movements, demonstrated a willingness to acquire resources and develop strategies that their members believe are aligned with these larger initiatives. Further, renewable energy technology businesses, as agents of change, have shown a willingness to develop a myriad of strategies to gain entrance into the marketplace. Finally, the democratic structure of the leadership in RETEC, where members were included in conference calls to strategize, created a sense that change was possible, and further motivated the members to seek new resources from their supporters.

7.5 Innovative Power

This section will attempt to discuss the indicators and usefulness of innovative power in the RPS process, as they are both related to creating new resources. While much of our analysis has focused on both the MI and RETEC coalitions, the fact that the MI's mission is to prevent the creation of these new resources removes them from this discussion.

The indicators that determine whether innovative power is present are natality (the ability to act in concert), plurality (i.e. more than an individual must be involved), and visibility (others must be aware of a new idea or tool in order for it to have power). (Avelino and Rotmans 2009: 552).

The indicators of natality and plurality have already been established for RETEC, as earlier analysis demonstrates that members of RETEC exercised the ability to act in concert through legal filings, lobbying efforts and other actions. By necessity, acting in concert implies that more than an individual is involved in these actions.

To determine visibility outside of the group, I conducted a media analysis by searching for stories related to the NYS RPS before and during the process time period. The search term “New York AND Renewable Portfolio Standard” between the dates of 1/1/2001 – 12/31/2002 yielded six results for an annual average of 3 stories per year in the two years preceding the RPS process. The same search term concurring with the RPS process (Jan 1, 2003–Dec 31, 2005) yielded 102 results, for an average of 34 stories per year. This represents a 10 fold increase in print media coverage during the RPS proceedings.

Of the 102 results, every 10th article (approx. 10%) was sampled to determine if the content was skewed in a particular direction. The results are below and demonstrate that of the sample, 10% more of the stories were pro-renewable than pro-fossil fuel. This is significant in regards to RETEC and other renewable energy proponents succeeding in raising visibility and positive messaging. Expressions of support for renewable energy technology tend to go along with expressions of dissatisfaction with dependence upon fossil fuels. This then is evidence of the use of innovative power by the Renewable Energy Technology and Environment Coalition.

LexisNexis Content	Sample	1.1.2003 - 31.12.2005	
		Pro-fossil fuel	Informational Other
4	3	2	1

Figure 15: Media Analysis

Searching “New York and Renewable Portfolio Standard” between 1/1/2006 – 12/31/2010 revealed 455 results.

Most members of RETEC had a history of policy advocacy and demonstrated that they knew how to mobilize the necessary resources for the passage of an RPS that met their objectives. Member groups lobbied the governor’s office and the PSC individually during the RPS process, utilized media such as radio, newspapers and organizational contact lists, produced literature for their members and the public and organized grassroots efforts on college campuses and other venues demonstrating a range of strategies to achieve policy objectives. Media use was mainly used to educate and inspire the public regarding renewable technologies and their potential for good.

The analysis of the usefulness of innovative power is one that resonates considerably in the renewable energy movement, as by definition all alternative energies are new resources. Not

since whale blubber was supplanted by fossil fuels as an energy source has such a paradigm been relevant, and for 100 years energy policies have centered around the distribution and mobilization of existing resources. But now, with the acknowledgement that fossil fuels are a finite resource and with the ever mounting negative effects of using fossil fuels, the pressures to utilize innovative power have never been stronger.

An understanding of the positive effects of innovative power, as demonstrated through the concepts of natality, plurality, and visibility, can serve as a tool for future renewable energy proponents as they try to effect policy processes.

7.5 External Events

Three noteworthy external events occurred in relation to renewable energy policy in NYS. The first was the election assumption of power by Governor George Pataki on January 1, 1995 whose administration turned out to have a strong environmental record.

Most politicians are fortunate if they're remembered for one good thing. In the case of Gov. George Pataki, that will almost surely be his work for the environment. Mr. Pataki has earned his badge as an environmental governor by protecting wilderness, adding riverside parks, creating coalitions for cleaner air and alternative fuels and, most recently, announcing the fulfillment of his pledge to add one million acres of land to the public estate.

(NYT 31.12.2006)

A state governor has considerable powers and the willingness of Pataki's administration to work with renewable energy advocacy coalitions such as RETEC cannot be underestimated (Schlager 1995). By creating a Greenhouse Gas Task Force to analyze how state-wide emissions reductions could be achieved and 'directing' the PSC to institute proceedings on the development of an RPS, Pataki demonstrated a significant intent to work with the RPS Active Parties that supported his goals.

Second, the growing awareness of climate change risks in the late 1990s led to a shift in responsibility for implementing emissions control policies to the state level when the U.S. federal government refused to sign the Kyoto Treaty or to legislate for a mandatory emissions control policy. This compelled states to take leadership in emissions policy and related renewable energy technology policies.

Finally, the destruction of the Twin Towers in New York City by international terrorists on September 11, 2001 shifted public attention toward our significant dependency on foreign oil supplies from the Mid-east. This consciousness set the stage for action to develop renewable energy technologies, particularly in New York State.

8. Discussion

This section will use the findings from the previous chapter to evaluate the soundness of the Suppositions and to place this information into a broader context of renewable energy policymaking in New York State.

Supposition 1

Groups with higher levels of congruency in belief systems will be more likely to influence state level policy makers.

There was no evidence to support the assertion that one group in this study had a higher level of overlap in their belief systems than the other. Members of both coalitions utilized a very similar language when discussing their core values, and the policy goals of each coalition's members, as demonstrated through repeated themes, submitted documents, and the roles they played in the RPS policy process left little room to conclude that one group held an advantage over the other.

However, there was a distinction in the types of values notable in each coalition that is worth noting. The scope and quality of the RETEC member core beliefs fit into two main categories – universal and enduring values. Beliefs such as environmental protection, sustainability, and public health are not tied to a specific business cycle and could be considered values that will be extremely long term. The MI findings were notable for the absence of such long term values, instead focusing on short term, regionalized, and policy specific objectives (prices, profit, short term efficacy/effects of policies, and competitiveness of the market). On an anecdotal level, there is reason to think that these differences may have had an impact on the energy, will, and lobbying efforts of RETEC, as well as impacting the level of trust among the members, but there is no empirical data to suggest the degree of influence of such a distinction.

Supposition 2

Groups with higher levels of trust will be more likely to influence state level policy makers.

My study of RETEC has demonstrated that this group had a high level of trust within the group and a history of interaction and actions amongst many of the members. Communicating frequently throughout the RPS process ensured that members were cognizant of the fact that reciprocity existed and was necessary to achieving their policy goals. They also became aware of the fact that it would be necessary to continue monitoring and lobbying efforts to ensure the successful implementation of the RPS and to promote renewable energy technology through other policies and venues.

In comparison, it is unclear whether members had a level of trust that would support a higher level of cooperation amongst its members during the RPS process. While the MI group continues to work together as an anonymous coalition, there is nothing to suggest that the membership has developed a strong level of trust, that the members today are the same as during the RPS process, or that the members communicated with one another at any level comparable to the communication between RETEC members.

The ability to act collectively with a greater variety of agents was nourished by an awareness of reciprocity for goal achievement and the high trust that existed amongst initial groups in RETEC that had repeated interactions. These high levels of trust contributed to the willingness of groups to experiment and cooperate with ever-expanding types of organizations.

Supposition 3

Groups that demonstrate stronger leadership will be more likely to influence state level policy makers.

Although trust may have nourished the stability and longevity of relationships within a coalition, coalition leadership was also an important factor for successfully influencing policy makers. Leadership can impact coalition effectiveness in two ways, internally and externally.

Leadership can help resolve internal conflicts and make individual members feel like their voice is being heard. In the case of RETEC, the ability of the group's leaders to get all members of the coalition to support the RPS, whether or not it had a direct positive impact on their particular organization (such as solar organizations), led to a stronger and more unified stance on the policy. Unity can positively impact how others perceive groups and the strength of their message. Also, unified groups are more likely to be better organized and have greater levels of cooperation. This is important as it can lead to greater effort being put forth by all members and can increase the efficacy of advocacy and outreach.

Leadership also plays a role in connecting the coalition to policymakers. Strong leaders are usually strong communicators because they have an ability to successfully influence people. Since one of the most important functions of a lobbying coalition is the offering of expert opinion and advice, the ability to communicate with policymakers is vital. Therefore, charismatic individuals are more likely to influence policymakers. RETEC was fortunate to have charismatic and respected leaders such as Ashok Gupta and Fred Zalman who left a lasting impression on the PSC.

Finally, strong leadership can inspire other actors to collaborate. By observing RETEC's leadership in the RPS process, biomass energy proponents realized that they were missing out on opportunities to meaningfully insert themselves in important policy processes. Monitoring policies that are being considered at the state and federal levels allows groups the opportunity

to find 'entry points' into the process. They realized that in order for biomass to be represented in policy in the way that its proponents envisioned, a formal alliance with resources dedicated to policy monitoring and advocacy efforts may be necessary. These observations were one of the catalysts that led to the formation of the Biomass Energy Alliance in NY (Interviewee 10).

Having strong leadership in the coalition through members such as the NRDC, PACE Energy Project and AWEA provided actors who not only had the appropriate negotiating and strategy-making skills but also the respect of the policy-makers, other members of the coalition, and renewable energy proponents outside of the coalition. This enabled their message to be heard and thus, this leadership was crucial to the success of the effort.

Supposition 4

Groups that fulfill the four conditions of power and the type of power that are best suited to the group's policy goals will be more likely to influence state level policy makers.

When coalitions apply member skills to finding opportunities, accessing resources and strategizing they have an ability to transcend the confines of the group and the particular policy forum in which they are engaged. Through collaboration and making itself visible outside of the RPS process, RETEC was able to alter public opinion direct this opinion toward the public comment process of the Standard, thereby increasing their leverage in the process. In democracies, public opinion can be a powerful tool for swaying policymakers. When policymakers are successfully influenced, existing resources are re-allocated and new resources are created. Thus, power is re-distributed and over time can tip the balance toward niche actors such as the renewable energy proponents. This is not a smooth process and regime actors will fight back to maintain the *status quo*, as has been the case since the implementation of the RPS. This back and forth is part of the process and will continue until a new equilibrium is reached. By championing a strong RPS, RETEC has played an important role in creating new resources on a structural level (new installations of wind, solar, etc.) and on an institutional level by changing the rules of the game.

Supposition 5

External events can alter the beliefs of policymakers or change a governing coalition altogether, making them more amenable to the message of an advocacy coalition that represents new ideas.

The startling degradation of a NYS treasure (Adirondack Park) led the state to design and implement some of the most innovative and far-reaching emissions legislation in the U.S. and for NYS to become an aggressive force for implementing this type of policy on a national level. Clearly the stage was set for further progress in this area. But without the visual evidence of

environmental and public health damage from CO₂ emissions, the same type of support may not have been realized for policies that supported renewable energy technology. Governor Pataki may have become inspired to implement further emissions limiting policy when he realized that the federal government would not be taking action, as per their refusal to sign the Kyoto Protocol. Having the public attention shift toward energy issues by the events of 11 September 2001 completed an important piece of the puzzle for renewable energy proponents. These events made it more likely that renewable energy technology would be promoted at the state level and that the opinions of its allies would be valued. This turned out to be beneficial for groups such as the NRDC and the PACE Energy Project as they participated in task forces and made recommendations for a mandatory RPS. This same momentum also benefitted RETEC during the RPS process, making it more likely that their opinion would be sought out by policymakers and seriously considered.

Conclusion

Because of the transparency of RETEC, I was able to gain real insight into their relationships and strategies. Although the coalition was formed specifically to work on the RPS, the fact that many of their members had previously existing relationships enabled higher levels of trust to become established in a short amount of time. Members included many seasoned energy policy specialists who were able to provide strong leadership amongst the group, despite differing opinions within the group on how the RPS should be crafted. This was partly due to the fact that there was significant overlap in core beliefs among the members of RETEC. Strong leadership also allowed RETEC to successfully insert its vision into the policy process because the leadership was respected by people throughout the process. This group used a variety of tactics including process monitoring, media outreach, and public education and organizing efforts as well as legal advocacy and lobbying to influence the process. By discovering opportunities, accessing new resources and collaborating, RETEC was able to increase their visibility and successfully exercise innovative power. Ultimately, this changed both the structure and rules of the electricity sector in NYS.

9. Conclusion

To conclude the thesis, I would like to refer back to the central research question, 'What are the conditions and factors that promote renewable electricity policy at the state level?'

This research has demonstrated that coalitions whose members have congruent belief systems, high levels of trust and strong leadership can successfully exercise innovative power to promote renewable technology policy at the state level. These coalitions are an important piece of the puzzle and some of the reasons why are highlighted below.

- In representational democracies, coalitions provide an access point into the policy-making process for the general public beyond elected officials. This is an essential function in cases such as the RPS that are not handled through legislative channels. Through public outreach and the use of media to achieve policy goals, coalitions become an important arena for educating citizens and involving them in the political system.
- Proponents have to be aware of opportunities to insert themselves in the policy making process so that they don't lose the opportunity to participate. So, it is very important to have the ability to monitor and report on these opportunities which takes effort and resources. Coalitions can provide the human and other resources necessary to track developments on the policy landscape and make sure that information is reported in a timely fashion so that groups can take advantage of openings in the process.
- When organizations come together to strategize to achieve policy goals, a wider field of expert knowledge and ideas can contribute to innovations and can garner a broader base of support for their ideas.
- Finally, by providing an opportunity for sometimes disparate groups to collaborate, the skills and resources of members can be used to greater effect. RETEC successfully demonstrated this by having a base of groups that advocated for the environment, for public health and for technology businesses. In addition to the benefits of having a broad base of interests, the combination of players allowed younger less experienced actors to gain from the expertise and reputation of the more established actors.

Yet, there remain other reasons why NY was able to develop the RPS and the RGGI from 2000-2005 beginning with the strong environmental leadership provided by then-governor George Pataki. His commitment to the environment provided opportunities for renewable energy coalitions to impact policy in ways that may not have been possible otherwise. Even his choice of venues for the RPS and RGGI policy processes showed a strong intent to manifest these policies. Operating outside of the legislature certainly streamlined the processes. The implications for democracy are beyond the scope of this thesis but would be interesting to contemplate.

In addition, several sources cited NYSERDA as an important contributor to NYS energy policy and to the RPS process. Since NYSERDA has existed since the 1960s, they have seen many gubernatorial administrations come and go. They have spent decades analyzing energy issues for the state of New York and as such, provide a wealth of expertise and organizational infrastructure for policy development and implementation. In the case of the RPS process, NYSERDA provided analysis and technical expertise, hosted working groups and provided a politically neutral, science-based arena for both renewable energy proponents and *status quo* supporters to come and discuss the implications of energy and economic studies that were being conducted for the RPS (Interviewee 5). Also importantly, NYSERDA provided a ready-made infrastructure for implementing an RPS with a central procurement model. The RPS could move forward in a timely fashion while addressing the concerns of risk-averse Utilities.

New York also benefitted from the presence of visionary environmental leaders such as Ashok Gupta (NRDC) and Fred Zalzman (PACE Energy Project) who were respected enough to engage with Governor Pataki, the chair of the PSC and other high level officials. Perhaps their personal charisma and influence opened other minds to the necessity and good sense of implementing emissions reduction policy at the state level.

Finally, the NYS governor's office, NYSERDA, the PSC and important members of RETEC all had significant experience and success working together in developing and instituting innovative, market based emissions policy designed to reduce acid rain. There was a willingness to work together and a common vision that this work would benefit New York State economically, environmentally and offer a higher quality of life for the state's residents.

Having this type of awareness may have enabled an understanding of climate change risks related to power plant emissions and provided an impetus to action in the early years of the 21st century. A defined sense of purpose, a proven ability to accomplish policy objectives in this area and a strong institutional infrastructure already in place to implement renewable technology policy proved to be a successful combination in the development of a strong Renewable Portfolio Standard. It was the right place and time for a coalition such as RETEC to positively impact the RPS process.

Some of these factors and conditions may not be replicable in other states but having an awareness of what fosters successful outcomes can enable other states to assess their situations and see what can be done to provide opportunities for success in promoting renewable electricity policies.

Whether the passage and implementation of the RPS is part of an overall energy system shift in NYS remains to be seen. What I have learned is that progress does not march forth in a straight line. In TM terms, I would say that there is a lot more variability and messiness within the niche area,

where the power of niche agents rises and falls depending on the actors in power and other circumstances such as leadership. These change agents move along a trajectory nonetheless.

NYS has been perceived in recent years as losing ground in its status as a leader in renewable energy policy. When Interviewee 12 was asked why NYS has not come further since the implementation of the RPS, they stated that it takes years to bring innovative policies to fruition and additionally several factors have been at play, including a recession. However the single most important factor is the organized opposition – fossil fuel interests have organized to roll back some of the progress that was made. However this interviewee felt that New York is definitely moving forward and that there is no turning back on NY's commitment and investment in renewable energy technology. Other interviewees agreed with this opinion. Interviewee 6 stated that if you look at the energy field now as compared to 10 or 15 years ago, it is measurably better as far as transitioning to post-fossil fuel system. Interviewee 10 believes a tipping point toward renewables will be reached in the next thirty-fifty years and that there is progress in the state Energy Plans toward incorporating renewables. There has certainly been organizing on a wider scale by renewable energy proponents, as evidenced by coalition building in recent years.

There are signs that NYS is clearly moving to increase renewable electricity. The NYS RPS goal was strengthened in 2010 to 30% renewables by 2015 and progress is being made on various fronts to achieve this goal including significant increases in customer-sited energy. The Legislature is moving forward with supportive policies such as net-metering, improved connection policies to enable distributed generation and the recent NYS Solar Initiative should significantly increase the amount of customer-sited PV installations. Other technologies such as bio-digesters are also set to increase capacity. At two recent renewable energy forums sponsored by the Hometown Energy Group in Upstate NY, many of the attendees were builders looking to incorporate solar hot water designs or geo-thermal into new construction, or landowners interested in developing medium- to large-scale wind farms.

Whether all of this forward motion will continue to build momentum remains to be seen. How far states can go toward making renewable energy technology the status quo without consistent federal support also remains to be seen. Maybe this will be the decade that future researchers point to as the one in which the electricity sector began to accelerate rapidly into a more sustainable phase.

9.1 Opportunities for further research

The dynamics of coalitions and renewable energy policy is an area rich with possibilities for further research. I will list a few of those possibilities but this is by no means an exhaustive elaboration of the potential for future research.

One possibility is examining in-depth the strategies of broad-based coalitions for avoiding or resolving internal conflict. Another would be to conduct an in-depth analysis of coalitions that worked on RPS-related policies (net-metering; interconnection regulations) under consideration in the NYS Legislature from 2006 to the present. How do the actors and strategies work with the diminished role of the Governor and the PSC? Perhaps a more transparent coalition exists in opposition to the ACENY (RETECs successor) policy goals. This could open more fruitful paths of analysis.

Another possibility is to study the RGGI process, with the added complexity of multi-state involvement. Within the same time frame as this study (2000-2005), were the same factors relevant for the policy outcome? A final idea is to compare the NYS PRS process with those of several other states, in light of the results of this study. This could reveal which unique conditions render different or similar policy outputs.

9.2 Reflections on Research Design and Process

Combining the theories of TM and ACF proved to be challenging in several ways. Firstly, the central research question does not really address the larger ideas of TM, such as tipping points and shifts between phases. Deciding the scope of this study and how to create a conceptual model that incorporated aspects of both were two additional challenges. I did not fully succeed in addressing these challenges, partly because I was not fully aware of them until late in the process.

The conceptual model created was more a detail of an ACF conception to which I added my own twist by including the exercise of power as a factor of importance. My conception of power was taken from a discussion of power and TM but I am not convinced that this was the only, or most appropriate, source from which to pull this idea. Choosing to perceive the RPS process as an iteration within the bounds of TM works on a broad scale but applying TM on a practical, detailed level in this hybrid conception was difficult to understand and to execute.

Appropriately locating a discussion of how TM related to the research was not really accomplished, although ultimately some form of this thought process was placed in the conclusion. Perhaps designing two studies within the thesis, such as a straight ACF analysis of the RPS process including field research and then a separate discussion of how this relates to TM based on desk research could have been a more effective way to conduct this project. Another solution would have been to conduct a straight ACF analysis and not worry about incorporating an overarching theory, even though it is philosophically interesting to contemplate.

A key flaw of this research was that data related to the analysis of the MI coalition was not triangulated. Although I made an initial contact with Couch White, I did not aggressively pursue

opportunities to interview the legal counsel of MI or current board members. As such, analysis and conclusions based on document analysis and deduction and are less robust.

A second flaw was that I was not specific enough in my data collection initially. I asked questions about general areas of the renewable energy policy arena in NYS instead of honing in on the RPS policy process and the actors that played significant roles in this process sooner. Thus, some interviews, although widely enlightening regarding the state of renewable energy policy in NYS, were limited in application for the analysis that I ultimately conducted. This also created the dilemma of learning about many factors and aspects of renewable energy policy that were outside of the scope of this research. This knowledge may have “muddied the waters” when thinking about how to organize and describe the factors that were relevant.

Finally, I failed to obtain an acceptable response rate to the survey that was sent out, which was the original method for data collection in the field. Perhaps the low response rate was partly due to the fact that the initial timeframe was not appropriate. This failure led me to a re-examination of the methods and scope of investigation, which cost valuable data collection and evaluation time. The specifics of the survey endeavor follow.

Initially I conducted a survey of state level policy-makers, politicians, academicians, research organizations and non-governmental organizations (NGOs) to reveal patterns of communication amongst the renewable energy proponents and between them and state level policy makers. Most of these entities were found via internet searches and seventy-seven (77) surveys were initially sent out with two subsequent requests for participation. I received a total of three completed surveys and eight additional responses from entities that stated they did not exist in the timeframe that I was studying.

Realizing that this response rate would be insufficient for the purposes of meaningful analysis and discussion, this method was then abandoned. However, it was from this effort that I received valuable feedback via email from survey receivers about NYS renewable energy policy. This feedback indicated that the timeframe of 2000-2005 would be a fruitful and relevant period to explore the dynamics of coalitions and their role in renewable energy policy. This stimulated an inquiry into those claims, which proved to be sound. Overall, this led to a stronger, more specific direction for this thesis.

Overall, the process of designing this research, collecting the empirical data from literature and through field methods, and writing an original treatise forced me to confront my own psychological and intellectual barriers. Understanding our own nature better through an examination into the topic of inquiry gives the process of thesis writing an additional value that

cannot be easily measured, but that should not be underestimated. For me, this was a valuable exercise in academia and personal development.

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Appendices

Appendix I

Active Party List

Source: New York State Public Service Commission, URL:

<http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=03-E-0188>,

Name of Person/Title/Company

- 1 Agresta Paul, Staff Counsel, New York State Public Service Commission
- 2 Altmann Lisanne, Project Manager, Long Island Power Authority
- 3 Appel Brian S., Chairman And Ceo, Changing World Technologies, Inc.
- 4 Applebaum David B., Director, Regulatory Affairs, Fpl Energy, Llc
- 5 Audunson Janet, Senior Counsel, National Grid National Grid Usa
- 6 Ayer- Fred, Low Impact Hydropower Institute
- 7 Bachmeyer Erich, Global Winds Harvest
- 8 Balleine Doug, Primary Power
- 9 Benas Richard C., The Saratoga Associates
- 10 Berry , Consultant, County Of Westchester
- 11 Blom Peter, Manager, Renewable Energy, Con Edison Solutions
- 12 Brew James, Brickfield, Burchette, Ritts & Stone, Pc
- 13 Briccetti Heather, Vp Of Government Affairs, The Business Council Of New York
- 14 Brickfield Peter J.P., Brickfield, Burchette, Ritts & Stone, Pc
- 15 Brocks Kevin, Read And Laniado, Llp
- 16 Brown Ruben, President, The E Cubed Company, Llc
- 17 Brown Carolyn, Independent Power Producers Of New York, Inc.
- 18 Buckley Allison, Conservation Director, The Adirondack Council
- 19 Burger Michael, Audobon New York
- 20 Burrell Carl A, Independent Electricity Market Operator
- 21 Caldwell Jim, American Wind Energy Association
- 22 Chacko Anna, Counsel, Niagara Mohawk Power Corp. D/B/A National Grid & Keyspan Energy Services, Inc.
- 23 Clark Cynthia R., Keyspan Energy
- 24 Cogen Richard, Nixon Peabody Llp
- 25 Colligan David J., Watson, Bennett, Colligan, Johnson & Schechter, L.L.P.
- 26 Congdon Thomas, New York State Office Of The Attorney General
- 27 Conley John, Ny Energy Service Providers Assoc., Adirondack Hydro Dev. Corp.
- 28 Conway Gerard, Plug Power Inc. Plug Power Inc.
- 29 Corneau Keith, Director Of Energy Policy, Empire State Development
- 30 Cristofaro William, Integrated Energy Concepts Pc
- 31 Curran Paul, Bq Energy, Llc
- 32 Davidson Gary, Project Manager, Horizon Wind Energy Llc, F/K/A Zilkha Renewable Energy, Llc
- 33 Davie Sara, Aegis Energy Services, Inc.
- 34 Davis Amy A., Dewey & Leboeuf, Llp
- 35 Decostanzo Donna, Staff Attorney
- 36 Delaney Michael, Director, Energy Regulatory Affairs, New York City Department Of Environmental Protection
- 37 Delince Karen, Corporate Secretary, New York Power Authority

38 Dewitt Laurence B.
39 Deyette Jeff, Asst. Director, Energy Research & Analysis, Union Of Concerned Scientists
40 Duffy Dennis J., Energy Management, Inc.
41 Durocher Jeffrey, Read And Laniado, Llp
42 Duthie Daniel, Daniel P. Duthie, Esq. Strategic Power Management
43 Edgley Erika, Conservation Assistant, The Adirondack Council
44 Epstein Rafael, Administrative Law Judge , New York State Department Of Public Service Albany,
45 Farnsworth Barney, Energetix, Inc.
46 Feingold Heather, National Energy Marketers Association
47 Ferraro France A, Wheelabrator Technologies Inc.
48 Fleury Joseph C., New York State Electric & Gas Corporation
49 Fogel Usher, Attorney At Law,
50 Foley Matthew W., Azure Mountain Power Company
51 Frangione Christopher S., Green Mountain Energy
52 Frank Dennis, Fluent Energy Energy Cooperative Of New York
53 Genzer Jeffrey, Duncan, Weinberg, Genzer & Pembroke, P.C.
54 Gioia Paul, Dewey & Leboeuf, Llp
55 Glasser Robert, Robert J. Glasser, Pc, Central Hudson Gas & Electric Corporation
56 Goodman Craig, President, National Energy Marketers Association
57 Gordon Keith, Assistant Attorney General, Nys Attorney General's Office, Consumer Frauds Bur.
58 Grace Robert C., Sustainable Energy Advantage, Llc
59 Graf Jessica A., Nixon Peabody Llp
60 Green William, President & Ceo, Energy Enterprises, Inc.
61 Greene Nathaniel, Natural Resources Defense Council
62 Gulino Daniel V., Ridgewood Power Management, Llc
63 Gupta Ashok, Air And Energy Program Director, Natural Resources Defense Council
64 Hagner Thomas, President, Upstate Ny Power Corp.
65 Haight Laura, Senior Environmental Policy Analyst, New York Public Interest Research Group
66 Hale Kevin, New York State Energy Research And Development Authority
67 Hanks Marc, Director, Market Development - Eastern Region, Strategic Energy Llc
68 Hatcher Charles, National Biodiesel Board
69 Heller Judith, Meyer, Suozzi, English & Klein
70 Henriguez Stephan, Ecosystem Projects Llc
71 Hevesi Andrew, New York State Assembly Member, New York State Assembly, 28th District
72 Hewson Tom, Energy Ventures Analysis Inc.
73 Hoaglund, li Robert, National Grid Plc Niagara Mohawk Power Corporation
74 Hobday Robert, Managing Director, Strategic Issues, Energetix, Inc.
75 Hogan Christopher, Chief Major Project Manager Section, New York State Department Of
Environmental Conservation
76 Houston Ashley
77 Hunt Heather, Law Offices Of Heather Hunt
78 Irving John, Burlington Electric Department
79 Johnson David, Read And Laniado, Llp
80 Jones Mel, President And Ceo, Sterling Planet
81 Joyce John F.
82 Kacandes Tom, Taylor Recycling Facility, Llc
84 Kauffman Laura, Customer Service Manager, Bluerock Energy, Inc.
85 Kazanjian George, Assistant Counsel, Empire State Development Corporation

86 Keane Peter, Associate Counsel, New York State Energy Research And Development Authority
87 Khader Faris, The E Cubed Company, Llc
88 Little William, Associate Counsel, New York State Department Of Environmental Conservation
89 Luthin Catherine, Executive Director, Consumer Power Advocates
90 Marino Rebecca, Vice President Government Affairs, Capitol Hill Management Services, Inc.
91 Russo Steven, Deputy Commissioner And General Counsel, New York State Department Of
Environmental Conservation
92 Warren Barbara, Executive Director, Citizens' Environmental Coalition
93 Wentlent Christopher, Director, Regulatory Affairs, Aes Eastern Energy, Lp
94 Williams Jeff, Manager - Governmental Relations, Deputy Director – Division Of Public Policy
New York Farm Bureau, Inc.
95 Wise David, Uwnr Municipal Consortium, Nrg Energy, Inc.
96 Wooley David, Young, Sommer, Ward, Ritzenberg, Wooley, Baker & Moore, Llc, Awea
97 Wright Robert, Mitsubishi Power Systems Americas Inc.
98 Younger Mark D., Vice President, Slater Consulting
99 Zaweski Daniel, Long Island Power Authority
100 Zimmerlin Joy, Regulatory Affairs Specialist, New York Independent System Operator, Inc.
101 President, Aes Eastern Energy, L.P.

Appendix II

Vision and Value Statements for MI and members

All statements are quoted from current websites (2012).

Multiple Intervenors (MI) <<http://www.multipleintervenors.com>>

Multiple Intervenors is a membership-driven organization formed in 1972. Members of Multiple Intervenors share a common interest in ensuring that New York State's energy markets provide access to reliable, affordable energy supplies. Multiple Intervenors advocates through the legal and regulatory process on behalf of its members. Because Multiple Intervenors is the only party exclusively representing large-volume New York energy consumers in these proceedings, Multiple Intervenors plays a critical role in protecting its members interests, as well as shaping the State's energy policy.

Multiple Intervenors does not have a minimum usage threshold to qualify for membership. Traditionally, most members of Multiple Intervenors have an on-peak electric loads of 1 MW or more (some have less). Additionally, for most Multiple Intervenors members, energy costs comprise a significant portion of their organization's product cost and/or operating cost.

Alcoa Incorporated <<http://www.alcoa.com>>

Alcoa. Advancing each generation. Since 1888, the people of Alcoa have partnered to create innovative and sustainable solutions that move the world forward.

We live our Values every day, everywhere, collaborating for the benefit of our customers, investors, employees, communities and partners.

IBM Corporation <<http://www.ibm.com>>

In the end, IBMers determined that our actions will be driven by these values:

- Dedication to every client's success
- Innovation that matters, for our company and for the world
- Trust and personal responsibility in all relationships

Occidental Chemical Corporation (subsidiary of Occidental Petroleum Corporation) <<http://www.oxy.com>>

Occidental Petroleum has grown to be the fourth-largest U.S. oil and gas company, based on market capitalization.

We pride ourselves on operational and technical excellence, business acumen, strong partnerships, environmental stewardship, performance, growth and value. We always want to be /.../recognized for continually delivering sustained growth and solid profitability.

Balancing near-term profitability with long-term growth, we selectively pursue new opportunities/.../with the goal of enhancing value for Oxy, our partners and our stockholders.

Praxair Inc. <<http://www.praxair.com>>

Praxair's Vision

To be the best performing industrial gases company in the world as determined by our customers, employees, shareholders, suppliers and the communities in which we operate.

Praxair's Values

- Total customer satisfaction
- Results driven
- Integrity
- People excellence
- Safety and environmental excellence
- Increasing shareholder wealth

Praxair's Behaviors

- Personal Accountability
- Teamwork
- Externally driven
- Urgency of action
- Winning - making money

Xerox Corporation <<http://www.xerox.com>>

Since our inception, we have operated under the guidance of six core values:

- We succeed through satisfied customers.
- We deliver quality and excellence in all we do.
- We require premium return on assets.
- We use technology to develop market leadership.
- We value our employees.
- We behave responsibly as a corporate citizen.

Appendix III

RETEC Organizational Mission Statements

Citizen's Advisory Panel and New York Renewable Energy Coalition were not searchable by internet.

American Lung Association of NYS <<http://www.lung.org/associations>>

The American Lung Association of the Northeast serves Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island and Vermont. We are part of the American Lung Association, the oldest voluntary health agency in the U.S.

Our focus today is on healthy air, tobacco control and all lung disease, including asthma and COPD. Our mission is to save lives by improving lung health and preventing lung disease and we do that through education, research and advocacy.

AWEA <<http://www.awea.org>>

The mission of the American Wind Energy Association is to promote wind power growth through advocacy, communication, and education.

Community Energy Inc. <<http://www.communityenergyinc.com>>

Community Energy's mission is to ignite the market and develop the supply of fuel-free energy. Driven by our shared passion, we lead the development and availability of fuel-free renewable energy with wind and solar power. Our customers – utilities, businesses, institutions and individuals – are our partners in leading the way in renewable energy.

Community Energy, Inc. (CEI) was founded in 1999 to ignite the market and develop the supply of fuel-free energy. Under the leadership of its founders, CEI built the voluntary market for renewable energy, spurring the demand for hundreds of Megawatts of new wind generation ahead of state mandates. CEI currently delivers renewable energy to over 120,000 customers through direct sales and 21 partnerships with electric utilities and suppliers. The company was awarded the American Wind Energy Association's "Market-Maker" Award in 2002. Together with our community of customers and partners, we are energizing a sustainable world and building a clean energy future.

Fuel Cell Energy, Inc. <<http://www.fuelcellenergy.com>>

The Direct FuelCell is a perfect fit for a number of emerging markets that require a technology that can provide Ultra-Clean distributed generation over a range of sizes. With few exceptions, the worldwide community of nations recognizes the impact that pollution is having on the environment, and demand for electricity produced without harmful emissions is growing. While alternative sources of electrical energy are generally viewed in the role of backup power, fuel cells are beginning to take center stage for baseload power in DG applications. FuelCell Energy is at the forefront of such progress and is certain to remain so with the company's continually evolving Direct FuelCell technology and products.

Hudson River Sloop Clearwater <<http://www.clearwater.org>>

The Hudson River Sloop Clearwater, Inc. is an organization based in Beacon, New York that seeks to protect the Hudson River and surrounding wetlands and waterways through advocacy and public education.

...with its Next Generation Legacy Project Clearwater will be broadening its mission by bringing together school age children and young adults from our cities, suburbs and small towns to train and prepare them “to pick up the torch,” as Seeger likes to say, and create the sustainable world, with green jobs, that we all need.

To create the next generation of environmental leaders, Clearwater is developing a comprehensive educational program that focuses on many of the elements necessary for a green economy, including sustainable energy technologies, best practices in organic farming and employment opportunities in new job sectors.

Natural Resources Defense Council <<http://www.nrdc.org>>

The Natural Resources Defense Council's purpose is to safeguard the Earth: its people, its plants and animals and the natural systems on which all life depends.

We work to restore the integrity of the elements that sustain life -- air, land and water -- and to defend endangered natural places. We seek to establish sustainability and good stewardship of the Earth as central ethical imperatives of human society. NRDC affirms the integral place of human beings in the environment. We strive to protect nature in ways that advance the long-term welfare of present and future generations.

We work to foster the fundamental right of all people to have a voice in decisions that affect their environment. We seek to break down the pattern of disproportionate environmental burdens borne by people of color and others who face social or economic inequities. Ultimately, NRDC strives to help create a new way of life for humankind, one that can be sustained indefinitely without fouling or depleting the resources that support all life on Earth.

New York Lawyers for the Public Interest (NYLPI) <<http://www.nylpi.org>>

Our mission is to advance equality and civil rights, with a focus on health justice, disability rights and environmental justice, through the power of community lawyering and partnerships with the private bar.

New York League of Conservation Voters (NYLCV) <<http://nylcv.org>>

is the only statewide environmental organization in New York that fights for clean water, clean air, renewable energy and open space through political action. We're non-partisan, pragmatic and effective.

We're unique because we:

- Educate the public about a broad range of important issues
- Evaluate the performance of elected officials
- Endorse and Elect by campaigning for the passage of laws during the legislative season and candidates in the electoral season.

New York Public Interest Research Group <<http://www.nypirg.org>>

NYPIRG seeks to empower, train and educate students and community members through organizing and advocacy efforts in order to solve significant problems affecting the health, environment, democratic institutions and quality of life for New York State's residents. Our principal areas of concern are environmental protection, consumer rights, higher education, government reform, voter registration, mass transit and public health.

New York Solar Energy Industries Association <<http://www.seia.org>>

Est. 1974 - SEIA is the voice of the solar industry at the federal and state level, advocating for the protection and expansion of the U.S. market for all solar technologies. We represent the entire solar industry; from the small-business owners to the multi-national companies, from the installers on the roof to the engineers in the lab. We

build coalitions of solar energy professionals and renewable energy supporters to champion the legislative successes that grow our industry and keep America competitive.

In January 2012, SEIA merged with the Solar Alliance, an advocacy organization working to establishing solar policies at the state level. The two organizations now operate under the SEIA brand in order to present a unified solar industry voice in all state and federal advocacy efforts.

Pace Energy Project <<http://www.pace.edu/school-of-law>>

The mission of the Pace Energy and Climate Center (PECC) is to reduce the environmental, social, and human health burdens of today's predominant forms of electricity production and consumption and to promote climate change solutions. Our multi-disciplinary team aims to accelerate the world's transition to clean, efficient and renewable energy alternatives.

In Spring 2008, the Pace Energy Project renamed itself the "Pace Energy and Climate Center." The name change reflects that the work undertaken by the organization currently and throughout its twenty year history – to reduce the environmental impact associated with the production and use of energy by promoting clean, efficient and renewable energy alternatives and addressing the barriers to implementation of clean energy technologies – relates directly to the issue of climate change.

Public Utility Law Project <<http://pulpnetwork.blogspot.com>>

The public utility law project of New York (pulp) works to advance universal service, affordability, and customer protection for low and fixed income energy and utility consumers.

Riverkeeper <<http://www.riverkeeper.org>>

Riverkeeper is a member-supported watchdog organization dedicated to defending the Hudson River and its tributaries and protecting the drinking water supply of nine million New York City and Hudson Valley residents.

For more than 44 years Riverkeeper has been New York's clean water advocate. We have helped to establish globally recognized standards for waterway and watershed protection and serve as the model and mentor for the growing Waterkeeper movement that includes nearly 200 Keeper programs across the country and around the globe.

From the website – OUR ALLIES include:

NRDC, Sierra Club Atlantic Chapter, NY League of Conservation Voters, NYPIRG, Environmental Advocates of New York

Plug Power <<http://www.plugpower.com>>

At Plug Power, we share a common goal to transform the energy landscape in ways that will positively impact the economy, society and environment. As architects of modern fuel cell technology, Plug Power continues to lead commercialization by identifying real markets, fostering key partnerships and manufacturing products that bring value to customers.

PowerLight (acquired by SunPower in 2006) <<http://us.sunpowercorp.com>>

At SunPower, we believe that as a leader of clean energy technology, we have a critical role to play in addressing some of our planet's greatest social and environmental challenges. We do this by producing the most efficient and reliable products on the market while supporting local, national and international policies that help make solar the energy of choice for thousands of individual homeowners, businesses and government agencies.

Scenic Hudson <<http://www.scenichudson.org>>

Scenic Hudson works to protect and restore the Hudson River and its majestic landscape as an irreplaceable national treasure and a vital resource for residents and visitors. Our team of experts combines land acquisition, support for agriculture, citizen-based advocacy and sophisticated planning tools to create environmentally healthy communities, champion smart economic growth, open up riverfronts to the public and preserve the valley's inspiring beauty and natural resources.

Sierra Club Atlantic Chapter <<http://atlantic.sierraclub.ca>>

Sierra Club Canada is a member-based organization that empowers people to protect, restore and enjoy a healthy and safe planet.

Sustainable Energy Developments, Inc. <<http://sed-net.com>>

Sustainable Energy Developments is the essence of our business, not just our name. Undertaking each quality project with integrity and enthusiasm, we strive to combine our commitment to providing enduring, renewable energy with our client's vision for a wind or solar installation that provides on-site performance and instills pride of ownership. Although we operate primarily in the Eastern US, offering our expertise to any and all who want to be part of a clean energy revolution, we believe our mission contributes to a much larger goal of helping heal the Earth and sustain it for future generations – as long as the wind blows and the sun shines.

Union of Concerned Scientists. <<http://www.ucsusa.org>>

The Union of Concerned Scientists is the leading science-based nonprofit working for a healthy environment and a safer world. UCS combines independent scientific research and citizen action to develop innovative, practical solutions and to secure responsible changes in government policy, corporate practices, and consumer choices.

What began as a collaboration between students and faculty members at the Massachusetts Institute of Technology in 1969 is now an alliance of more than 400,000 citizens and scientists. UCS members are people from all walks of life: parents and businesspeople, biologists and physicists, teachers and students. Our achievements over the decades show that thoughtful action based on the best available science can help safeguard our future and the future of our planet.