Intergovernmental Cooperation As A Requisite For Renewable Energy Success

Abstract
In light of the increasing need to develop a renewable energy industry in the United States, I evaluate the role of cooperative intergovernmental fiscal relations, policymaking, and political norms in renewable energy policy success. By comparing and contrasting the cases of Spain, Australia, Germany, and the US, I determine that because energy policy must span government levels, a constitutional and norm based structure of multilateral bargaining and consensus seeking determines renewable energy effectiveness.

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Introduction

Ronald Reagan famously stated, “The nine most terrifying words in the English language are ‘I’m from the government and I’m here to help.’” Evidently, those nine terrifying words don’t translate well into German. As Joschka Fisher, the former German Foreign Minister and Green Party member said, “solutions must be based on compromises.” These two attitudes toward politics and government, the former antagonistic, the latter cooperative, represent a larger underlying structure of distrust and rivalry resulting from institutionalized and culturally engrained patterns of behavior that lead to varying policy outcomes. Renewable energy policy represents the impact of these various attitudes. With a fundamentally similar policy, Germany prospered and the US lagged behind.

The importance of renewable energy continues to grow, but the market requires government intervention in order to prosper (Gillingham and Sweeney, 2010). Widely lauded as the most effective renewable energy policy, the feed-in tariff (FIT) stimulates renewable energy markets without bankrupting consumers, utilities, or the government. For reasons ranging from combating climate change to desiring energy independence to insuring against rising oil prices, over 60 countries already implement this policy. Germany exemplifies one of the best policies and now enjoys an explosion of renewable energy capacity. In Spain, the same policy overheated within a few months due to overinvestment in two regions, and the American version slowly withered into oblivion when market conditions shifted.

Some scholars debate that the problem with policy sustainability in the United States lie in our weak parties, claiming that politicians susceptible to lobbies instead of
their parties sabotage what could otherwise become successful programs. Others argue that weak parties are irrelevant, but government systems matter: with more centralized states better equipped to coordinate large-scale policies than decentralized systems. I argue that party strength and centralization may influence policymaking, but only a coordinated and cooperative set of intergovernmental relations,¹ maintained either through institutions or customs, determines effective renewable energy policy.

Unlike other research in the field, my work specifically evaluates energy policy success as a product of intergovernmental cooperation. I begin with a detailed explanation of the FIT and an analysis of the government factors necessary for its success. I then isolate intergovernmental cooperation as the variable responsible for sustained renewable energy policy by comparing several cases and ruling out alternative explanations. I explain how German intergovernmental policymaking, fiscal relations, and cooperative political norms contribute to cooperative relationships between the national and sub-national governments, maintaining national renewable energy policy, while the inherent conflicts between US government layers inhibits such a policy from succeeding. I conclude by recommending a restructuring of American intergovernmental fiscal relations and the establishment of a quarterly, consensus-based, policymaking conference for heads of state, based on a similar Australian institution, in order to correct for the structural obstacles that prevent sustainable renewable energy policy in the US.

**A Theoretical and Structural Approach to the Feed-In Tariff**

¹ The definition of the terms “intergovernmental” and “intragovernmental” is inconsistent in political science literature. For the purpose of this paper, intergovernmental relations refer to dealings between government levels (e.g. California and the federal government) and intragovernmental refers to horizontal relationships (e.g. California and Nevada)
Before detailing the institutional and structural reasons for policy successes and failures across nations, I will elaborate on the FIT. FITs promote renewable energy technology on the principle that higher prices will increase supply and incentivize new technological development. The tariff mandates that utilities purchase any renewable energy generated in their area for a fixed rate for a fixed number of years. Over time, the rate drops, which encourages investors to finance projects sooner before the payback decreases. The utility reallocates the extra costs of energy to the consumers up to a threshold before spreading costs utilities and grid operators (NREL, 2009).

In 1978 the US passed the ill-fated Public Utility Regulatory Policies Act (PURPA), an early version of the FIT, in response to the Arab oil crisis. Due to falling fossil fuel prices and liberalization of the energy market, the law has since become obsolete. Germany, in 2000, passed the Renewable Energy Sources Act (EEG), instituting a FIT throughout the country. This has been called the most successful example of national renewable energy policy and a case that shows how the idiosyncrasies of renewable energy require government cooperation (NREL, 2009). I will outline these details below in order to explain the drastic difference in policy success between the US and Germany.

Renewable energy sources tend to be located away from highly populated areas, necessitating cooperation across state lines in order to most effectively build transmission lines and harmonize the electrical grid. This geographic limitation makes renewable energy a national issue, requiring federal funding to stimulate production and build infrastructure in high-resource, low-population states. Because funding and regulation for

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2 The price per kilowatt and number of years of payment changes based on the type of fuel used (biomass, geothermal, solar, wind). For more information on the pricing mechanisms of feed-in tariffs, please refer to the National Renewable Energy Lab 2009.
renewable energy occurs at a municipal, state, and federal level, intergovernmental cooperation ensures efficient funding allocation. Furthermore, the policy requires periodic adjustments in scheduling and valuation because of political, technological, and market changes. Separate policymaking and regulation undermines the overall success of FIT by segregating local regulators from federal policymakers, creating a disconnect between those who possess information and those empowered with policymaking and distribution of funds. In sum, the most efficient policy requires both inter and intra governmental cooperation.

I ground my study on two preconditions. First, there are a variety of institutional formats for successful intergovernmental cooperation, much the same way that various government systems may still be democratic. For example, the German parliamentary system and the American bi-cameral presidential system are structurally different, yet both government systems promote democracy by holding politicians accountable. By unpacking the debate on effective policymaking, I find that the function of strong parties and government systems facilitates intergovernmental cooperation, but nations may achieve intergovernmental cooperation through alternative norms and institutions. Sustainable FIT cannot exist without intergovernmental cooperation, regardless of the institutions that helped induce it.

Second, institutions shape the behavior of actors in a given system.3 One can reasonably assume that an actor will act in accordance with the institutions in place in order to survive. Therefore, an actor’s motives and actions are imbedded in the institutions in which they operate (North, 1990). This is important to note because of the varying outcomes of the American and German environmental movements. For the US,

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3 For more information on institutionalism as a framework for behavior of agents, please see North, 1990.
this resulted in a surge of environmental policies in the early 70’s such as the Clean Air Act of 1970 and the Clean Water Act of 1972 before hitting a plateau in the 1980’s. Germany’s environmental movement culminated in a pro-environment political faction that, since the 1990’s, maintains reasonably heavy influence in the Bundestag. This example demonstrates that the lack of renewable energy policy in the US does not result from lack of agency, but rather from institutional shortcomings. Furthermore, one should not ignore agency, but momentum alone cannot sustain energy policy without a political framework to absorb it.

**Neither Centralization Nor Strong Parties**

Many scholars theorize about government structure and policy implementation without a specific case with which to test their hypotheses. Without a concrete policy area to evaluate their claims, scholars debate whether strong parties or centralization contribute most to effective environmental policymaking. I propose, contrary to the available research, that neither strong parties nor centralization can be effective at implementing the FIT without intergovernmental cooperation.

A study by Moe and Caldwell suggested that unitary governments, like the UK and France, more effectively pass policies because they “enable a democratically elected single party government headed by a strong leader to keep dilemmas of public choice at bay and to virtually eliminate special interest politics in favor of coherence, integration and central control (Moe and Caldwell, 1994).” In reality, centralized unitary governments that passed the FIT do not purely exhibit top-down control. Although degrees of centralized command vary, in all cases (with the exception of extremes like
North Korea), significant overlap and codependence between the localities and the central government exist, even without any constitutionally engrained power for the localities (Döring, 2000). In the case of the UK, British regulatory officials “relied more on persuasion and voluntary agreements and less on coercion than any other industrial democracy (Vogel, 1986). Although centralization may help in passing the policy, the cooperative relationship between the central government and various sub-national actors is crucial for localities to effectively implement the federal directive. Centralization may facilitate intergovernmental cooperation, but norms and institutions that sustain cooperation can exist independently of centralization. Rather than examining centralization as the dominant variable responsible for FIT, I claim that it may more easily ensure intergovernmental cooperation, which directly results in an effective FIT.

The structure of the government alone does not account for policy outcomes; many scholars argue that the influence of political parties most significantly impacts policy sustainability. In theory, systems that produce strong parties can more effectively pass renewable energy policy because of ideological cohesion and reduced influenced by pressure groups. In the US, politicians cannot rely on their party’s national popularity and must respond directly to their constituents. American politicians may be more influenced by lobbies and other third party interests, like The American Coalition for Clean Coal Electricity or the Sierra Club. Because of party disunity, American federalism exhibits “the multiple crack,” or many different areas in which interest groups may exert influence (Nice, 1987). The opponents of interest groups can exert influence through the same avenues. This partly suggests an opportunity for citizen involvement, but also biases toward groups with many resources and high mobilization with which to maneuver the
various “cracks.” This fragmentation of party unity makes comprehensive, systematic change more difficult because groups are concerned more with specific programs and policies, such as a reduction in fossil fuel subsidies, than with general principles, such as the nationalization of energy policy (Grodzins, 1984).

The reverse holds true in Germany, where the difficulty with which lobbyists influence policymaking in Germany results in mixed benefits. On the one hand, lobbyists for the coal industry cannot inhibit environmental policies, but environmental groups cannot effectively push for them either. Instead, interest groups tend to integrate their interests into political parties. For example, Länder with substantial coal deposits and economic dependency on fossil fuels provide a more favorable climate for the Social Democratic Party (SPD) that represents worker’s interests (Schmidt, 2003). However, the mere presence of the Green party affects environmental policy disproportionately to its numbers, particularly since their coalition with the Social Democratic Party in 1998 (Schmidt, 2003: 145).

Strong parties do not inhibit interest groups but rather integrate special interests into their party’s agenda. Functionally, both weak and strong parties over-represent special interests, so the policy outcomes should not be drastically different. Additionally, those that regard highly the impact of Green Parties on environmental legislation underscore that the Bundestag passed the EEG during the coalition government of the Greens and the SPD. Although true, that does not account for the sustainability of this policy through a conservative coalition, nor does it explain periodic modifications made to the bill ensuring its success through changing market conditions. Furthermore, the relationship between strong parties and FIT does not hold up empirically, with OECD cases such as
Spain unable to pass this policy effectively. Because little empirical association exists between strong parties and FIT success, I propose intergovernmental cooperation, which does hold up empirically, as a variable with stronger explanatory power than party strength.

Methods

I use sustainability of FIT as my dependent variable because a well designed FIT is superior to the best alternative: Renewable Portfolio Standards (RPS). RPS necessitate the creation of new bureaucratic institutions in order to ensure the mandate, it fails to foster a competitive industry by impeding small providers from entering the market, and overall it achieves lower results in developing renewable energy. For these reasons, countries with RPS do not exhibit successful renewable energy policies. Considered the cornerstone of German renewable energy policy, the FIT is an obvious choice as a dependent variable because of its superior effectiveness in developing a competitive and profitable renewable energy industry in Germany and other countries that have implemented it (Gipp, 2011).

To demonstrate that unitary governments and party strength are not accurate predictors of the FIT, I outline a variety of cases in which the FIT outcome differs from the one that the presence of these variables would predict. The countries selected vary in their political systems, party strengths, intergovernmental cooperation levels, and FIT policy effectiveness (see table 1). Because FIT functions best in economically and politically stable countries, I select all my cases from the OECD.
I break down intergovernmental cooperation into three different variables: intergovernmental fiscal relations, intergovernmental policymaking and implementation, and political norms. Intergovernmental fiscal relations occur through either earmarking (conditional grants) or grant-in aid (unconditional grants). National governments disperse grant-in aids to states to use at their discretion. However, multiple national and subnational agencies filter the money from the top-down, creating inefficiencies. Earmarking provides a transparent way for the national government to issue money to the state for a specific project, minimizing federal regulation of the project. The trust necessary for earmarking signifies more intergovernmental cooperation, as well as increased efficiency from reducing the intervening agencies.

The variable policymaking and implementation signifies the degree to which a subnational unit’s input matters in national policymaking as well as the degree to which subnational policies can undermine national ones. Not all intergovernmental cooperation stems from supporting institutions, therefore, I will incorporate political customs and norms into my study of intergovernmental cooperation. This includes cooperative interactions (that do not frequently deviate) between actors and government levels that stem from tradition rather than a constitutional arrangement. In Australia and Germany, such political norms manifest themselves in policy making. In the case of Germany, decisions by the Bundestag require 2/3 majority by the Lander, but almost always receive unanimous support (Borzel, 2002). Similarly, policies crafted at the Council of Australian Governments also receive unanimous support from the states and commonwealth (Painter, 1996). No legal requirement enforced these outcomes, however, norms ensure
multilateral bargaining and consensus seeking until legislators achieve unanimous support.

For the case study, I focus on Germany and the US because of the similarity of these cases. Both are highly advanced, capitalist, democratic, federal countries, with strong environmental movements in the past and very different policy outcomes. Assuming that the behavior of individuals within a given system is contingent on the structure of that system, then the US and Germany should, for economic, historical, and cultural reasons, serve as similar enough examples to study the impact of intergovernmental cooperation on renewable energy policy. Because of the small sample size and complexity of the subject, I analyze the other countries in shorter case studies to establish the external validity of the findings from my paired comparison.

**The United States and Germany’s Divergent Renewable Energy Policies**

Proponents of American federalism, such as Thomas Dye, claim that interstate competition creates “laboratories of democracy” that culminates in efficient policies that adhere to local preferences (Dye, 1999). This notion fails to hold up in the case of renewable energy because the state, like any other market, may experience market failures. In this section I outline the process in which different layers of government draft and implement energy policy to show how the “marketplace” for renewable energy policy in the US experiences market failures due to a lack of intergovernmental cooperation. Taking these findings into account, I then provide an account of PURPA and describe the reasons for its failure. I repeat this process with Germany, first outlining the
energy policymaking and implementation process and then relating it directly to the German EEG and the FIT.

America’s Energy Policymaking and PURPA

Policymaking in the United States not only creates policies but also fuels a debate over competencies. The outcome of policies may differ depending on what group brings the matter to which body. The American constitution does not expressly delegate competencies to particular levels of government and accountability differs between levels (Nice, 1987). In the case of renewable energy—states, Congress, the Department of Energy, and FERC may all create policies—depending on whether a utility, an energy producer, a lobby, or any some other group brings forth the case. The complexity of the system can lead to redundancies and contradictions that doom interstate efforts to inferiority at best and complete failure at worst.

Policymakers frequently contest the issue of funding for environmental initiatives because of the policy system’s asymmetry and insufficiency. In the U.S., Congress can issue directives to the states and allocate money to the approved programs. But federal mandates in the U.S. often lack funding, as evidenced by the multitude of legal cases relating to costs against the Environmental Protection Agency (EPA) since environmental directives came into vogue (Rabe, 2007). The electoral and primary system exacerbates the problem of inadequate mandate funding by making it unequal between states. States that hold primaries and states with many electoral votes receive a disproportionate amount of consideration for funding and preferential policies (Nice, 1987). The lack of intergovernmental coordination creates unfair fiscal demands, especially to the states that
are less important politically. This undermines any federal energy policy with a lack of funding.

The environmental movement of the 1970’s serves as evidence for the ineffectiveness of the American federal government in implementing environmental initiatives. Efforts by Senator Edmund Muskie led to strong federal regulations such as the Clean Air Act and Clean Water Act. Under the belief that industrial interests would inhibit state-run initiatives, a top-down approach was implemented, creating excessive bureaucratic layers, increasing complexity, and accountability issues (Scheberle, 2005). As a result of these underfunded directives and the formation of an overly complex structure of ad hoc regulatory institutions, these policies deteriorated trust and communication between the states and the federal government leading to even greater fragmentation in policymaking (Gerlak, 2006). This creates a hostile environment for the creation of the FIT because the tariff requires cohesion and communication in order to mediate between the various levels of government, utilities, suppliers, producers, and consumers.

Congress passed PURPA, one of the many policies enacted in the Muskie era, in 1978 to incentivize domestic energy production and combat rising energy prices. Not surprisingly, it met a similar fate as many other 1970’s environmental policies. PURPA required utilities to purchase power from a Qualified Facility (QF) opportunity costs were high.\(^4\) Twenty year-long contracts incentivized long-term investment in small QFs (Graves et al, 2006).

The Federal Energy Regulatory Commission (FERC) regulated the energy market, ensuring that payments to the QF as well as costs reallocated to the consumer were “just

\(^4\) The complexities of the mechanism for pricing and selection of QFs is beyond the scope of this paper. For more information, please refer to The Edison Electric Institute and the National Renewal Energy Lab.
and reasonable (Slocum, 2007).” States reluctantly implemented this legislation with the knowledge that high barriers to entry create monopolistic rather than competitive markets. This policy, rather than reduce prices through competition, increased them with monopolistic pricing. Having been entrusted with regulating interstate commerce and competition in energy utilities and energy products, FERC effectively prevented interstate competition by imposing overwhelmingly high costs and a complex bureaucracy within which a small firm had to maneuver\(^5\) in order to proceed with interstate trade. This disincentivized energy firms from ever crossing state lines to take advantage of renewable energy resources (Mihaly, 2009).

Instead of limiting FERC powers to promote competition, the federal government expanded them to encourage decentralization of energy monopolies. The federal government’s aggressive push for market based rates caused states to bear the brunt of increasing prices from an uncompetitive market, unfunded FERC directives, and FERC’s failure to regular ensure that the rates of power marketers and suppliers was “just and reasonable (Graves et al, 2006).”

PURPA and the expanded powers of FERC increased political pressure for deregulation with the unintended consequence of undermining the push for renewable energy. The Energy Policy Act of 1992 (EPACT) enabled FERC to allow independent power producers to access the utility’s transmission grid, which increased competition. The combination of EPACT and PURPA catalyzed deregulation in the energy markets by reducing the barriers to entry for non-state owned utilities. Although deregulation would appear to favor small renewable energy producers with lower opportunity costs, the

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\(^5\) I make the assumption that renewable energy suppliers start as small plants. It has been the case that large, mostly conventional, energy companies like BP make large investments in renewable energy. However, the feed-in tariff targets small, even often household providers.
increased competition in the market made it increasingly difficult to monitor prices and
the status of the QF (Slocum, 2007). Scarred by the experience of fluctuating energy
prices and eroded grid reliability from QFs, states refocused on deregulation rather than
amending PURPA to better reflect the changed market conditions. Although the
government never officially repealed PURPA, the contracts signed in the 1980’s expired,
leaving the policy to be largely unused today.

German Policymaking and EEG

Unlike the American system that divides competencies through specific acts and
policies, Germany centralizes legislation and utilizes the expertise of the Land though
informal meetings between the MP and the premiers. The Bundestag requires permission
from the Bundesrat, the main representative body of the Länder, to pass policies. Once a
policy is passed, the Länder must implement the policy themselves (Benz, 2009). Even
though most policies only require a majority vote through the Bundesrat, the Bundestag
passes most actions unanimously (Börzel 2002). If the Bund and Länder cannot reach an
agreement, then the Mediation Committee formulates compromises to arbitrate the
interests of the lower and upper houses of parliament by forming grand coalitions
between incumbent parties and the opposition. The Bundestag and Bundesrat accept over
90 percent of the Mediation Committee’s proposals (Schmidt, 2003). Because the Länder
governments, and not the citizens of the Länder, accept these laws, policies are more
successfully implemented than American federal directives because the governments
have a better idea of what is technically and economically feasible than citizens.
Germany’s coordinated federalism distributes costs more equally between the Bund and Länder than does American federalism. The German Länder collaborate on the earmarking of funds for particular policies that form part of a national plan (e.g., labor market and incomes policies; policies resulting from collective bargains, etc.). The Länder seldom compete against another one. Rather, they present joint positions and eschew bilateral agreements (Börzel 2002). The power of the joint positions allows the Länder to reject any policy unless the Bund compensates the cost or they can bear the cost themselves (Börzel, 2002).

Länder pursue their interests in policymaking similar to the way they pursue funding. Unless a decision benefits most Länder, an individual Land will not have its way in policy creation. Furthermore, relationships between individual Länder are generally facilitated by the Bund. Tanja Börzel describes the German government as a “model of cooperative federalism” where “multi-lateral bargaining and consensus-seeking are part of the dominant political and institutional culture” in part due to joint decision-making, or Politikverflechtung (Börzel, 2002). This mutual decision-making process assures agents policies implemented now will be compensated for by policies in the future.

One of the best examples of the virtues of cooperative intergovernmental relations, the Renewable Energy Sources Act (EEG), instituted a FIT throughout Germany in 2000. Instead of imposing costs solely on consumers this policy distributes additional renewable energy costs to consumers up to a threshold before reallocating them to the grid operators and utilities.6 This principle of burden sharing ensures that no one actor pays the full brunt of the costs and that all fit well into existing regulatory regimes

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6 Lechtenböhmer and Samadi, 2011 explain the methods used for determining thresholds, costs, and distribution of costs.
controlled by the Länder. The success of the policy can be measured in the expansion of renewable energy capacity with limited extra costs to the government or the consumer.\(^7\)

By contrast, a similar interstate plan in the US would require FERC intervention, which would delay approval of new renewable energy producers and increase administrative costs.

**Refuting Alternatives: An Analysis of OECD Countries**

Before focusing on the US and Germany’s governments as they relate to renewable energy policy, I will detail the structures and policies of Australia and Spain. Australia’s government system is more similar to that of the US yet it successfully implemented a FIT. Spain’s policy resulted in debacle despite a parliamentary government system. By examining the processes in which these two countries passed their policies, I show how centralization and strong parties do not guarantee the success of FITs.

**Australia**

Australia underwent constitutional reforms in the early 1990’s that transformed the country from a dual federalist system like the United States to a more cooperative “marble cake” form of federalism. Prime Minister Bob Hawke announced plans to create a closer partnership between the three levels of Australian government, resulting in Executive Federalism: a policy-making process that occurs through institutional arrangements between cabinet ministers and public servants on behalf of the federal and

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\(^7\) Groschel, 2007 explains in detail the real costs to the consumer, estimating a three-person household to only pay an additional €2.20 a month for the policy.
states governments. The reform created the Council of Australian Governments (COAG), a consortium composed by the Prime Minister, chief ministers of territories, and the president of the local government association. The COAG meets several times a year to consult with states on major issues through agreement and to coordinate the creation of a single national market (Wiltshire, 1992).

Those who opposed the creation of COAG claimed that it would pave the way for intergovernmental collusion or coercion by centralizing Australian power. The Hawke administration addressed this concern by mandating that all COAG decisions would be passed by consensus, mandating all parties to negotiate their positions. Most COAG decisions are reached “out of session” making it poorly transparent and less democratic. Despite these drawbacks, outcomes are more efficient to the benefit of citizens in contrast to competitive outcomes. Overall, COAG improved intergovernmental policymaking because it “legitimated a compromise arising from a typical "take it or leave it" financial offer to the states, resulting in a new set of federal arrangements that were not unequivocally centralist in form or operation, and opened access to new interests and perspectives” (Painter, 1996: 114). These changes transfigured Australia from a competitive federalism into a cooperative one.

Evidence of the cooperation can be seen in Australian energy markets. Energy remains a competency of the states, but almost every Australian state, with the exception of Western Australia and Victoria, use the FIT. With regards to the two states not included, they only recently closed applications for the program to allow restructuring because the quota initially set had been reached (Energymatters, 2011). In 2008, a COAG meeting established standards for transmissions and compensation of renewable energy
through FIT (COAG, 2008). Although Australia does not have a national FIT, the cooperation between the states allows for a sustainable renewable energy policy to be possible on a state level through formal and informal agreement and policy-making arrangements between the layers of government as facilitated by COAG.

Spain

Tension between the Spanish Autonomous Communities (AC) and the national government, originating from Francisco Franco’s culturally repressive policies, create a culture of distrust in Spain. While researching political economy in Madrid and the Basque Country, I personally came across many examples of distrust in the federal government from representatives of the CCAA who did not even identify themselves as Spanish. The lack of intergovernmental cooperation in policymaking and funding demonstrates the extent of Spanish fragmentation, which Tanja Borzel calls “competitive regionalism.”

Like Germany, Spain’s parliamentary system fosters strong parties and the national government controls transfers. But like the United States, few constitutional provisions facilitate intergovernmental cooperation, federal and constituent competencies often overlap, and although the AC control spending, funding comes from federal grants (Castells, 2000). The Spanish federal government does not entrust the AC with implementation, but carries out policies through subnational extensions of the federal government called the administración periférica del Estado (Borzel, 2002). Each AC elects its own president who presides over a unicameral parliament and interacts with public administration and a high court of justice. The distribution of power and
competencies is asymmetrical and frequently ambiguous. Regional and national
governments often dispute each other’s laws (Heywood, 2000).

Distrust, lack of intergovernmental cooperation, and overlap in administrative
functions eventually led to the failure of the Spanish FIT program. In 2007, the Spanish
government instituted a FIT for all of Spain that guaranteed payments of 44 euro
cents/kilowatt hour for 25 years for all solar projects. By 2008, investors seeking a
investment safe from the global economic decline flooded the hot and sunny ACs of
Andalucía and Extremadura with capital. The disconnect between the AC and the
national government hindered government efforts to quickly institute a cap or redistribute
costs. The program overheated in a few months, surpassed its quota, and the utilities
could not make the promised payments (Voosden, 2009). The government rushed to
retroactively institute a cap and required developers to register their projects for
preapproval. These changes “led to a significant flight of capital from the Spanish PV
market, spurring job losses and sending ripples throughout the global PV market” (NREL,
2011). The example of Spain demonstrates that a top-down, one-size-fits-all policy
implemented without the input of the constituent governments can lead to a complete
failure (Voosden, 2009).

Some Limitations of Intergovernmental Cooperation Arguments

This study fails to address two major events that greatly impacted German
federalism and policymaking: the reunification of East and West Germany and increasing
integration within the European Union. Reunification demanded a centralized
government that emphasized unity (with generous cost allocation policies) in order to
integrate the economies and infrastructure of the halves of Germany. This created asymmetry in the power structure (Benz, 1999) and a policy to modernize the energy industry may have more value that it otherwise would have. The EU concept of subsidiary may compel German to centralize its energy policy following certain EU directives (Wehling, 1989), rendering the cooperative atmosphere merely a function of EU goals. Furthermore, Germany’s leadership role and interdependence with other countries within the European Union could compel it to pursue radical policies with less risk than the United States. By pursuing renewable energy development so ambitiously, Germany may be attempting to push other EU members to take similar measures.

Although Germany institutionalizes cooperation between parties, Länder, and the Bund to a greater extent than the United States does with its equivalent institutions, one would erroneously conclude that no cooperation exists within American political institutions with regards to energy policy. As argued by Kamieniecki et al, certain exogenous shocks such as major environmental disaster may stimulate cooperation within the American federal system (Kamieniecki et al., 1986). Although the 1970’s movement or the 2010 Gulf Oil spill have not proved sufficient to spur green energy policy in the past, perhaps some future major event will have that impact. Though beyond the scope of this paper, a massive restructuring of FERC, the current body responsible for such issues, could possibly remedy the problems of American federalism as it relates to renewable energy. Additionally, an intergovernmental forum for state and national legislators, similar to the one in Australia, could also achieve intergovernmental cooperation.

Although it is the case that Americans value renewable energy over conventional fuels (Farhar, 1994), they may not value renewable energy above low energy prices or
employment. Therefore, policies may truly reflect the preferences of the citizenry that take precedent over and conflict with environmental goals. The desire for renewable energy may be higher in Germany due to higher dependence on energy imports and culturally imbedded values of thriftiness and conservation. Compared to the United States, Germany’s dense population and lower energy consumption implies that lower barriers exist to committing to energy reform.

**Conclusion**

Stemming from the electoral level up to the federal level, the inherent competition between states, parties, and governments in the United States creates obstacles to the national FIT while the structural cooperation of the German federal system encourages such policies. Party strength and government system may play a role in policy sustainability, but only in as much as they facilitate intergovernmental cooperation. The predetermined allocation of competencies and the co-decision process in Germany facilitates the passage of effective nation-wide policies due to multi-level decision-making with input from the Länder. In the U.S., a lack of cooperation empowers interest groups to push competencies into the level of government most favorable to them, rather than the level most appropriate to handle the issue. Because of the lack of coordination in policymaking, funding, and implementation, policies like PURPA inevitably fail.

Future research might analyze the role of culture in creating institutions that in turn influence policy creation. Potentially, Germany’s bloody history fostered an appreciation of cooperation, which then led it to develop a federalized government that institutionalizes cooperation. Conversely, the culturally established individualism of
Americans may have led to a system in which competition, even in government, remains the primary value. Another avenue of research may be to assess the impact of these two federalist systems in regard to other environmental policies. For example, in a competitive system, a marketable solution to climate change, like carbon-offset trading, may take effect better than in a cooperative federalist system. The role of European integration may also impact many of the countries assessed. European directives to harmonize energy grids and to reduce carbon emissions also may have given rise to government incentives to invest in renewable energy, particularly nation-wide policies like the FIT.

Given the outlined distinctions between American and German federal structures, the same solutions to energy problems may not be possible in both countries without a fundamental restructuring of government: an implausible scenario. Therefore, the U.S. needs to adopt policies within the confines of its structure similar to the Australian reform. With better cooperation between state and federal levels, it may be possible for legislators to scale successful state experiments to the federal level, provided the existence of sufficient public pressure and concurrent creation of effective and accessible intergovernmental regulatory bodies.
Works Cited


Gipp, Paul. 2011. “Feed-in Tariffs Best to Deal With Climate Change Says IPCC Working Group III Renewables.” URL:


### Tables

**Table 1: Alternative explanations for the FIT by country**

<table>
<thead>
<tr>
<th>Country</th>
<th>Feed-in Tariff</th>
<th>Strong Parties</th>
<th>Unitary (U) Federalist (F) Decentralized (D)</th>
<th>Green Party</th>
<th>Intergovernmental Cooperation</th>
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<tbody>
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<td>Australia</td>
<td>Y in states</td>
<td>Y</td>
<td>F</td>
<td>Only in Senate</td>
<td>Y</td>
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