EXECUTIVE SUMMARY

Nearly 15 years after its ratification of the Rio Declaration on Environment and Development and a decade after its negotiation of the Kyoto Protocol, the United States federal government has maintained its posture of climate policy disengagement. Congress has rejected a series of legislative proposals that would have established modest targets for containing the growth of greenhouse gas emissions from major sources. The Bush Administration remains tightly scripted, endorsing further research and voluntary reductions, but nothing more. Even British Prime Minister Tony Blair’s push for some American flexibility on the issue, in conjunction with his leadership of the G8 nations and push for new climate initiatives, got a cold shoulder in Washington.

This familiar tale, however, fails to provide a complete picture of evolving American engagement in climate policy. Indeed, at the very time federal institutions continued to thrash about on this issue, major new initiatives were launched with bipartisan support in such diverse state capitals as Sacramento, Carson City, Santa Fe, Austin, Harrisburg, Albany, and Hartford. Even Blair has gotten in on the federalism act, negotiating transatlantic climate partnerships with California Governor Arnold Schwarzenegger rather than with a governor-turned-president like George W. Bush.

As of August 2006, more than half of American states could be fairly characterized as actively involved in climate change, with one or more policies that promise to significantly reduce their greenhouse gas emissions. Virtually all
states have begun to at least study the issue and explore very modest remedies. A growing number of these states are every bit as engaged on multiple policy fronts as counterparts in European capitals. These state programs are beginning to have some effect on stabilizing emissions from their jurisdictions. Indeed, many states are major sources of greenhouse gas emissions, with considerable potential for reduction. If the fifty states were to secede and become sovereign nations, thirteen would rank among the world’s top forty nations in emissions, including Texas in seventh place ahead of the United Kingdom. So if it is globally consequential when other nations establish climate policies, state engagement is more than a matter of environmental trivial pursuit.

There are, of course, profound limitations on what American states, acting individually or collectively, can do to reverse the steady growth of American greenhouse gas releases of recent decades. States face enormous constitutional constraints, including prohibitions against the negotiation of international treaties and restrictions on commercial interstate transactions. This paper will consider the historic role of American states in national policy development and particular drivers that seem pivotal in the climate case. It will also examine state climate policy evolution, with particular attention to new trends that have emerged in the past few years. Finally, we will consider possible limitations facing state-driven policy and opportunities for these statehouse-level developments to continue to expand and ultimately define a unique American response to this enormous policy challenge.

**Bottom-Up Policy**

Many accounts of American environmental policy are written as if the United States operated as a unitary system, whereby all innovations and initiatives emanate from the federal government. A more nuanced view of American federalism indicates that states have often served a far more expansive and, at times, visionary role. The potential for early and active state engagement on policy issues has only intensified in recent decades, as the capacity of most state governments has grown markedly. This has led, in many instances, to dramatic increases in state revenue and expansion of state agencies with considerable oversight in all areas relevant to greenhouse gases, including environmental protection, energy, transportation, and natural resources. Even in areas with significant federal policy oversight, states have become increasingly active and, in some cases, fairly autonomous in interpretation, implementation, and innovation.

Extending such resources and powers into the realm of climate change is a fairly incremental step in some instances, such as electricity regulation where state governments have been dominant for decades. The burgeoning state role in climate change policy must be seen as not merely an extension of existing authority, but rather a new movement of sorts driven by a set of factors distinct to the issue of climate change. These factors have proven increasingly influential in a wide range of jurisdictions, overcoming inherent opposition and building generally broad and bipartisan coalitions for action. In some jurisdictions, this dynamic has advanced so far that one of the greatest
Conflicts in climate policy innovation is determining which political leaders get to “claim credit” for leading the race to the top. The following factors appear to be pivotal drivers behind action in numerous states.

Climate Impact. Contrary to the rather acrimonious interpretations of climate science in national policy circles, individual states have begun to feel the impact of climate change in more immediate ways. These impacts differ by jurisdiction but are often buttressed by state-based researchers, working cooperatively with state regulatory agencies in attempting to discern localized indicators of climate impact. Among coastal states, for example, concern is often concentrated on the impact of rising sea levels, particularly given the substantial economic development along many shores at relatively low sea level in the United States. This dynamic has influenced state governments from Honolulu to Trenton. No two states have faced identical experiences but a common theme suggests that individual states and regions have begun to face direct impacts, thereby taking the climate change policy debate from an acrimonious battle over graphs and charts toward something that touches real life experience and legitimizes a policy response. The scorching summer of 2006 will only accelerate these trends in many states.

Economic Development. Virtually all states that have responded to the challenge of climate change have done so through methods that they deem likely to reduce greenhouse gas emissions but simultaneously foster economic development. Active state promotion of renewable energy, through a combination of mandates and financial incentive programs, has focused upon development of “home grown” sources of electricity. These programs promise to simultaneously stabilize local energy supply and promote significant new job opportunities for state residents. Many states with active economic development programs have concluded that investment in the technologies and skills needed in a less-carbonized society in coming decades is a sound bet. In response, and in large part, they have advanced many policy initiatives in anticipation of economic benefits. Even some states with substantial sectors that generate massive amounts of greenhouse gases, such as coal-intensive Pennsylvania, have begun to shift their thinking toward longer-term economic development opportunities presented by investment in renewable energy.

Agency Advocacy. Many states worked intensively in recent decades to build in-house capacity in environmental, energy and other areas that now have direct relevance to climate change. Consequently, state agencies have proven increasingly fertile areas for “policy entrepreneurs” to develop ideas that are tailored to their state’s needs and opportunities. These ideas can then be translated into legislation, executive orders, and pilot programs. Such officials also have proven effective in forming coalitions, often cutting across partisan lines in the legislature and engaging supportive interest groups where feasible. No two states have assembled identical climate policy constituencies, just as no pair has devised identical policies. But state agencies have been significant drivers
Perhaps the most evident trend in state policy engagement on climate change is that the sheer number of states involved, as well as aggregate number and range of policies, continues to expand on a monthly basis. Behind innovation, whether in the stages of developing policy ideas or seeing them through to policy formation. In more recent years, state-based environmental advocacy groups and private firms that might benefit financially from climate policy have become increasingly visible and active in bringing about far-reaching initiatives. This has created broader coalitions supporting new policy development, although some schisms have begun to emerge, such as between competing providers of renewable energy.

**Entering the Second Generation of State Climate Policies**

The sheer volume and variety of state climate initiatives is staggering. So much analysis has been focused on federal or international-level actions that state or other subnational policies have received markedly less attention. This paper draws from ongoing refinement of climate policy profiles for all fifty states, representing a confluence of elite interviews, government documents and reports, and legislative histories, as well as sector-specific data acquired from state-based professional associations. These sources help distill current developments and highlight emerging trends in a “second generation” of state climate policy.

**Continuing Proliferation**

Perhaps the most evident trend in state policy engagement on climate change is that the sheer number of states involved, as well as aggregate number and range of policies, continues to expand on a monthly basis. This trend shows no signs of slowing and may in fact be accelerating. Alongside the sheer magnitude of state policies, these efforts are generally becoming more rigorous in terms of the levels of emissions reductions that they are seeking. There has been a gradual shift in state policy over the past decade, with voluntary initiatives increasingly supplanted with regulatory efforts. Most of these policies retain considerable flexibility in terms of compliance, consistent with the credit-trading mechanisms popular among most nations that have ratified Kyoto. But their rigor is steadily increasing, along with the likely impact on greenhouse gases if faithfully implemented.

In turn, states continue to have multiple motivations for pursuing these respective policies but are becoming increasingly explicit and forceful in articulating the climate benefits, among others. This runs somewhat contrary to earlier practice, whereby many states were aware of potential climate impact but said little if anything about this element of a proposed policy. This newer pattern is particularly evident among current and recent state governors with prominent national profiles, such as Schwarzenegger, other Republicans such as George Pataki (New York) and Mitt Romney (Massachusetts), and such Democrats as Bill Richardson (New Mexico) and Tom Vilsack (Iowa). Indeed, it is possible to envision presidential primaries in 2008 or 2012 in which multiple statehouse candidates will be able to claim more constructive climate policy engagement than any of their recent Presidential predecessors.
Diffusion Across the States

There is ample precedent from other policy arenas for such “policy diffusion” to spread across the nation and become, in effect, a de facto national policy. For instance, in the 1930s, Social Security was modeled in part on early state action. Similarly, in the 1980s, the federal policy to require public disclosure of toxic emissions was based heavily on prior state policy innovation. Much of the existing infrastructure of state climate programs has been individually tailored to the needs of a particular state. However, there is increasing evidence that some policies enacted in one state ultimately are being replicated elsewhere. Under such circumstances, states may simply negotiate interstate differences and implement these interrelated programs. There may also be some tipping point at which diffusion reaches sufficient numbers of states that the federal government concludes that it should respond by drawing from these state models and establishing some version of this on a national basis.

There are several areas in which climate policy enactment in one jurisdiction has already been duplicated elsewhere. The policy tool that appears to be diffusing most rapidly is the Renewable Portfolio Standard, which was operational in twenty-two states representing more than 55 percent of the American population as of mid-2006. The first RPS was enacted in 1991 in Iowa, with little if any attention to greenhouse gas impacts. Subsequently, the pace of adoption has intensified; four new RPS programs were approved in 2005, three existing RPSs were significantly expanded during that period, and a number of other states entertained legislative proposals for their own version. Collectively, these policies are projected to add 64,000 megawatts of renewable electricity by 2020.

Particular RPS features vary by state but all such programs mandate a designated increase over time in the level of renewable electricity that must be provided by all providers in a state. For example, Nevada enacted 2005 legislation requiring that, by 2015, 20 percent of all electric utilities must derive from renewable energy. This legislation passed with unanimous support in both legislative chambers and was endorsed by Republican Governor Kenny Guinn. It built on a set of earlier laws, each expanding the state’s promotion of renewable energy. Nevada, like virtually every other state that has enacted an RPS, provides regulated utilities considerable flexibility in finding ways to meet renewable mandates through so-called “renewable energy credit” programs that function much like other market-based programs and promise to reduce compliance costs.

RPS programs appear likely to continue to diffuse in coming years, reflecting recent legislative enactments and the continuing exploration of this approach as a policy option in a number of other state legislatures. In turn, several states with established RPSs, such as Texas, Arizona, and Wisconsin, have found them so successful in terms of their ability to add renewable energy at reasonable costs, that they are looking actively to “elevate the bar” with a substantial increase in future mandate levels. Ironically, this American state pattern coincides closely with the experience of the European Union, where a growing number of nations—including Denmark, Sweden, and the United Kingdom—have
adopted their own RPSs as central components of their plans for meeting greenhouse gas
reduction obligations. One growing challenge as RPSs proliferate will be differential state
requirements, ranging from varied definitions of what constitutes renewable energy to
state efforts to maximize generation of in-state renewable sources for economic
development reasons. The former issue poses challenges for renewable energy market
development in areas where generators serve multiple states; the latter raises questions
of state adherence to the Commerce Clause of the U.S. Constitution.

**Regionalism: Between Nation and State**

There is also ample precedent in American federalism for states to work cooperatively on
common concerns and even formalize regional approaches involving two or more
mutually significant issues. Some regional strategies take a permanent structure, such as
interstate compacts, which involve a formal agreement ratified by participating states
and ultimately Congress. These have been used extensively among states that share
responsibility for an ecosystem or common boundary. Other strategies may entail
establishing multi-state organizations or commissions to address particular issues,
commonly with some degree of active federal support.

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agreements or any constructive engagement from federal authorities. As state climate policies proliferate and diffuse, it is entirely possible that certain clusters of states may become, in practice, regions even in the absence of formal agreements or any constructive engagement from federal authorities. All Southwestern states between California and Texas, for example, have an RPS. It is increasingly possible to envision interstate trading of renewable energy credits and other forms of cooperation that link these state programs. But more formal regional arrangements are also under consideration, perhaps most notably among Northeastern states, where relatively small physical size and heavy population foster considerable economic and environmental interdependence. States in this region have a strong tradition of working together, whether campaigning for federal air emission standards to deter acid rain or establishing a regional strategy for reducing nitrogen oxide levels.

Perhaps the most vibrant regional initiative amongst American states is the so-called
Regional Greenhouse Gas Initiative. RGGI was launched in 2003, when New York
Republican Governor George Pataki invited his counterparts from ten neighboring states
and Washington, DC, to explore the possibilities of establishing a regional cap-and-trade
program for reducing carbon dioxide emissions from all coal-burning power plants
located within the region. Massachusetts and New Hampshire had already taken formal
action to cap carbon emissions from their own coal plants and similar steps were under
consideration elsewhere. New York completed a multi-year review to confront climate
change, which included a number of renewable energy initiatives and a pledge to reduce
statewide emissions 5 percent below 1990 levels by 2010 and 10 percent below 1990 levels
by 2020. But state policy analysts concluded that a regional approach to cap-and-trade
would be more cost effective given the strong interstate linkages in regional electricity
distribution.

New York reached agreement in December 2005 with six other states (Connecticut,
Delaware, Maine, New Hampshire, New Jersey, and Vermont) on a regional cap-and-trade program. Maryland joined RGGI in 2006; Massachusetts and Rhode Island were active in negotiations but have decided for now not to join; and Pennsylvania, Washington, DC, and the province of New Brunswick, Canada, continue as formal observers and may ultimately decide to join the initiative. Development of a model rule addressing all key provisions continues, with the goal of formally launching the cap-and-trade program in January 2009. RGGI would cap regional emissions at 2009 levels through 2014, and then reduce these levels 10 percent by 2018. The RGGI process emulates some of the framework for interstate coordination in reducing nitrogen oxide emissions in the Northeastern Ozone Transport Region, but entails exclusively a negotiation among states without any input from federal officials. Consequently, a major RGGI goal is to establish and implement a regional carbon emissions cap while “accommodating, to the extent feasible, the diversity in policies and programs in individual states.” In that regard, RGGI bears considerable resemblance to Europe’s Emissions Trading Scheme that was launched in 2005 and has triggered collaboration between Northeastern state officials and European counterparts. Indeed, such a vision of transatlantic collaboration in emissions trading prompted Tony Blair in July 2006 to abandon Washington in search of a new American political ally in California.

Yet another variant of a multi-state approach involves an extension of “regionalism” to include states that are not necessarily contiguous with one another. Under federal air pollution legislation, for example, California has long enjoyed unique status that it can parlay to establish a network of states with regulatory standards more stringent than those of the federal government. California chose in 2002 to revisit those powers, becoming the first Western state government to mandate carbon dioxide caps for motor vehicles. This took the form of legislation, signed by former Democratic Governor Gray Davis, that went to considerable lengths to characterize carbon dioxide as an air pollutant that fell within the purview of its regulatory powers. Since enactment, the California Air Resources Board has moved toward implementation, which is scheduled to go into effect later in the current decade and could achieve reductions of up to 30 percent in vehicle emissions in future fleets. This legislation has been a cornerstone of a larger California effort on climate change, which has resulted in some of the lowest per capita emission rates of any state and relatively modest emission growth since 1990. In fact, under Schwarzenegger, the state has only intensified its efforts on climate change policy, leading to his June 2005 executive order that vowed to return California to 2000 emission levels by 2010, followed by a return to 1990 levels by 2020 and reductions that are 80 percent below current levels by 2050.

These steps have already had effects beyond state boundaries. Within two weeks of the Schwarzenegger executive order, New Mexico Democratic Governor Bill Richardson proposed comparable reductions through his own executive order authority. Perhaps more importantly, ten states have formally approved the California vehicle standards for carbon. These include the states of Oregon and Washington and eight Northeastern states, with decisions pending in still others. This creates the very real possibility of two
separate “regional” standards for vehicular emissions, including the “coastal strategy” (involving California and collaborating East and West Coast states) alongside the Central states. The legality of this approach is likely to be determined through upcoming court decisions, including the much-awaited Massachusetts v. EPA case that will soon be argued before the U.S. Supreme Court. Nonetheless, this redefinition of regionalism illustrates the array of possibilities whereby multiple states might begin to pool their efforts and work collaboratively.

The Second Generation and Beyond

There is no current indication of a slowing pace in state engagement on climate change. If anything, most trends point in the opposite direction. Long-active states are expanding their efforts and elevating their reduction commitments. Long-dormant states are, in some instances, showing signs of engagement. Consequently, one could increasingly envision an American climate policy system emerging on a bottom-up basis, with an expanding and perhaps permanent role for states to play in continued policy development and implementation. In certain respects, this appears to parallel the experience in other federal or federated systems, whether or not they have ratified Kyoto.

In Europe, for example, striking parallels exist with the American case. The European Union remains formally bound to meeting Kyoto reduction targets, which led to the 2005 launch of the Emissions Trading Scheme and the first volley of cross-national carbon credit trading. However, each EU member has a different reduction target and is free to establish its own internal policies. This has resulted in a tapestry of different strategies and wide variation in the degrees of success for individual nations in approaching their pledged reductions. Just as some American states lead while others lag in climate policy development, a similar dynamic operates among European nations and Canadian provinces.

At the same time, there may be three distinct challenges facing continued or expanding state involvement on climate policy, some unique to the American context. These have yet to have any demonstrable effect on state policy but could potentially have a chilling impact. First, a consortium of well-heeled organizations hostile to any American government action to reduce greenhouse gases has become increasingly vocal in the state policymaking process. Organizations such as the Heartland Institute and Competitive Enterprise Institute have published reports that portray state-based initiatives as posing dire economic and social consequences. Perhaps most importantly, the American Legislative Exchange Council has launched an aggressive campaign to reverse or rescind existing state climate laws, although it has had little demonstrable effect on state policy thus far.

Second, it appears increasingly likely that various interest groups and the executive branch of the federal government may join forces in bringing legal or administrative challenge against many state climate policy initiatives. This is somewhat ironic given the
long-standing emphasis in the Republican Party on the virtues of decentralization and the fact that so many Bush Administration leaders, including the president, were leaders in climate policy development when employed in their respective statehouses. The most prominent confrontation will focus on the California vehicle emissions program, but other challenges also are possible through the route of preemption via legislative or administrative action. There is scant interaction between senior state officials and their federal counterparts on this issue, reflecting a growing federalism divide that cuts across partisan lines in numerous policy areas. It is perhaps no surprise that more and more governors, Republican and Democratic, have decided that it makes more sense to talk about climate policy with leaders of other national governments than with their own.

Third, as a growing number of states become active players in climate policy development and implementation, inevitable questions emerge regarding interstate collaboration. This is most apparent in cases such as RGGI, which require considerable cooperation between multiple states where turnover of elected officials is a constant. Despite the substantial body of agreement reached among RGGI states, a number of difficult governance issues challenge long-term viability. Participating states can literally secede from this union with thirty days notice, and they collectively struggle with tricky issues such as balancing powers between big and small states, even before moving into such contentious issues as defining acceptable “offsets” or containing “carbon leakage” from energy imports outside the RGGI cap. The decision of Massachusetts and Rhode Island to refrain from joining RGGI, at least for now, further underscores the fragility of sustaining such a complex intergovernmental network without any semblance of constructive input from the federal government.

Despite these potential impediments, all indicators suggest that climate policy has not only reached the agenda of most state capitals but is actively moving ahead with fairly broad political support. It appears reasonable to anticipate continued state engagement in coming years, giving a growing set of states a level of climate policy expertise that rivals the most aggressive nations pursuing Kyoto. All of this suggests that the American context for climate policy is far more complex—and far less barren—than many conventional depictions would suggest. Moreover, there are abundant precedents in other policy areas whereby states take the lead and remain active in long-term policy development and implementation. Consequently, there is ample reason to suspect that states will remain central players in the evolution of American climate policy, with growing potential for achieving emissions reductions and providing lessons that merit consideration in Washington and around the world.