Climate Change Law in and Over Time

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I. INTRODUCTION

A year can be a long time in politics. One year ago, at the First Annual Climate and Energy Law Symposium here at the University of San Diego, there was good reason to believe that, at long last, the nation was about to enact significant climate change legislation. The United States Supreme Court had two years earlier set the table for a new Administration

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and a new Congress, by requiring in Massachusetts v. EPA, that the Environmental Protection Agency ("EPA") reconsider its prior decision of choosing not to determine whether greenhouse gas emissions from new motor vehicles endanger public health or welfare. The new President, Barack Obama, appointed individuals strongly supportive of sweeping and comprehensive climate change legislation to important leadership positions throughout the executive branch, including White House Climate Change and Energy Advisor Carol Browner, EPA Administrator Lisa Jackson, Council on Environmental Quality Chair Nancy Sutley, Secretary of Energy Lawrence Chu, and Presidential Science Advisor John Holdren. Congress seemed no less favorably inclined. The relevant leadership positions in both chambers, from the Senate Majority Leader and Speaker of the House to the Chairs of the most important authorization committees. seemed disproportionately dominated by allies of climate change legislation, with a heavy dose of California: Majority Leader Harry Reid, Speaker Nancy Pelosi, Senate Committee on the Environment and Public Works Chair Barbara Boxer, and House Commerce Committee Chair Henry Waxman.

Yet only a year later, political pundits of every stripe are writing climate change legislation's obituary.² Both sides of the debate are treating as politically dead the legislation that the House passed in June 2009³ and the bill that the Senate Democratic leadership introduced with great fanfare in the fall of 2009.⁴ The only climate change legislation that currently enjoys significant bi-partisan support, moreover, seeks to prevent rather than impose greenhouse gas emission controls, by preventing EPA from implementing new rules intended to provide for such controls based on the existing Clean Air Act.⁵

^{1.} Massachusetts v. EPA, 549 U.S. 497 (2007).

^{2.} John M. Broder, Climate Change Bill Is in Doubt, N.Y. TIMES, Jan. 20, 2010, available at http://thecaucus.blogs.nytimes.com/2010/01/20/climate-change-bill-is-indoubt/; Katie Connolly, Why Climate Change Is Dead in the Senate, Newsweek, Feb. 25, 2010, available at http://www.newsweek.com/id/234137; Editorial, Backing Down on Climate Change, Feb. 5, 2010, L.A. TIMES, available at http://articles.latimes.com/2010/feb/05/opinion/la-ed-climate5-2010feb/05; Juliet Eilperin, Cap-and-Trade Declared Dead—Again, WASH. POST, Mar. 2, 2010, available at http://views.washingtonpost.com/climate-change/post-carbon/2010/03/cap-and-trade_declared_dead—again.html; Juliet Eilperin & Steven Mufson, Senators to Propose Abandoning Cap-and-trade, WASH. POST, Feb. 27, 2010, available at http://www.washingtonpost.com/wp-dyn/content/article/2010/02/26/AR2010022606084.html.

H.R. 2454, 111th Cong. (2009) (passed by 1st Sess. of the House on June 26, 2009).

^{4.} Clean Energy Jobs and American Power Act, S. 1733, 111th Cong. (2009) (introduced Sept. 30, 2009); Senate Rep. No. 111-121, Clean Energy Jobs and American Power Act, 111th Cong. (2nd Sess. 2010).

^{5.} S.J. Res. 26, 111th Cong., 2nd Sess. (introduced Jan. 21, 2010) (disapproving a rule submitted by EPA relating to the endangerment finding and the cause or contribute

How did this happen? A few too many snowflakes in the nation's capital in February 2010?⁶ A handful of misguided emails from scientists who should have kept to their science and left politics to politicians?⁷ A tea party in Massachusetts that placed a truck-driving Republican in Ted Kennedy's Senate seat in Massachusetts?⁸ Or a Senate procedural rule from an earlier political era that, when applied in modern times, effectively bars the passage of any new significant legislation?⁹

findings for greenhouse gases under section 202(a) of the Clean Air Act) (sponsors include Senators Murkowski, Chambliss, Landrieu, Thune, Hutchison, Graham, Coburn, Vitter, Cornyn, Isakson, Grassley, Alexander, Bond, Inhofe, Bunning, Carper, Brownback, Roberts, McConnell, Enzi, McCain, Wicker, Lugar, Corker, Cochran, Kyl, Bennett, Risch, Johanns, Sessions, Voinovich, Burr, Shelby, Gregg, Hatch, and LeMieux).

Risch, Johanns, Sessions, Voinovich, Burr, Shelby, Gregg, Hatch, and LeMieux).

6. Christine Todd Whitman et al., Did D.C.'s Blizzard Bury Climate Change Legislation? ("The recent bout of wintry weather and the overall political climate have almost certainly killed climate-change legislation this year."), WASH. POST, Feb. 14, 2010, available at http://www.washingtonpost.com/wp-dyn/content/article/2010/02/12/R2010021203910.html; Alexander Bolton, Climate-Change Legislation Buried Under Record Snowfall in Capital, THE HILL, Feb. 9, 2010, available at http://thehill.com/home news/senate/80485-climate-bill-buried-under-record-snowfall 'Sen. Jim DeMint . . . used the D.C. snowstorm to make a political jab . . . It's going to keep snowing in DC until Al Gore cries 'uncle."). John M. Broder, Climate-Change Debate Is Heating up in Deep Freeze, N.Y. TIMES, Feb. 10, 2010, available at http://www.nytimes.com/2010/02/11/science/earth/11climate.html.

7. Andrew C. Revkin, *Hacked E-Mail Is New Fodder for Climate Dispute*, N.Y. TIMES, Nov. 20, 2009, *available at* http://www.nytimes.com/2009/11/21/science/earth/21climate.html; Juliet Eilperin & David A. Fahrenthold, *Series of Missteps by Climate Scientists Threatens Climate-Change Agenda*, WASH. POST, Feb. 15, 2010, *available at* http://www.washingtonpost.com/wp-dyn/content/article/2010/02/14/AR2010021404283.html.

8. Darren Samuelsohn, Sen-Elect Brown's Win Adds More Question Marks to Senate Climate Debate, N.Y. TIMES, Jan. 20, 2010, available at http://www.nytimes.com/cwire/2010/01/20/20climatewire-sen-elect-browns-win-adds-more-question-mark-48190.html; Evan Lehmann, Sen.-Elect Brown Is a 'Blank Slate' on Climate, Drawing Concern and Optimism, N.Y. TIMES, Jan. 21, 2010, available at http://www.nytimes.com/cwire/2010/01/21/21climatewire-sen-elect-brown-is-a-blank-slate-on-climate-41366. html; William O'Keefe, Planet Panel: Legislation Will Likely Be Delayed, WASH. Post, Feb. 15, 2010, available at http://views.washingtonpost.com/climate-change/panelists/william_okeefe/2010/01/legislation_will_likely_be_delayed.html ("[Due to Scott Brown's election], climate legislation has been put off for at least the rest of this year.").

9. Catherine Fisk & Erwin Chemerinsky, *The Filibuster*, 49 STAN. L. REV. 181, 181 (1997) ("The filibuster in the United States Senate imposes an effective supermajority requirement for the enactment of most legislation."); Norman Ornstein, *Our Broken Senate*, THE AMERICAN, March/April 2008, *available at* http://www.american.com/archive/2008/march-april-magazine-contents/our-broken-senate ("Filibusters . . . simply [don't] provide any hope of regular 51-vote majorities."); Thomas Geoghegan, Op-ed, *Mr. Smith Rewrites the Constitution*, N.Y. TIMES, Jan. 10, 2010, *available at* http://www.nytimes.com/2010/01/11/opinion/11geoghegan.html ("[T]]he Senate, as it now operates, really has become unconstitutional: . . . a 60-vote majority is required to overcome a filibuster and pass any contested bill.").

The blueprint for construction of the political wall now seemingly blocking climate change legislation in Washington no doubt includes a mix of each of the above features, with the Senate procedural rules serving as the most portentous deal-breaker. But there is a more sobering political lesson to be drawn from the remarkable reversal of political fortunes. Climate change's gloomy political fate right now is not the product of mere meteorological bad luck or political missteps. What is telling is that it could take seemingly so little to change so much so quickly. And, that unfortunately, is the truly bad news for those concerned about climate change.

The reason that it took so little to shift political fortunes so significantly is that many people, businesses, and political leaders would prefer to be climate skeptics, no matter how overwhelming the scientific evidence to the contrary. That is why they will readily embrace almost any available excuse—even some extra snowflakes—to ignore the problem. Justice Antonin Scalia, during the oral argument in *Massachusetts* v. EPA, expressed what is probably the unstated feeling of many Americans when, acknowledging that he was "not a scientist," he added that "[t]hat's why I don't want to have to deal with global warming, to tell you the truth."

Justice Scalia is, of course, right. No one wants to have to "deal with global warming," for understandable reasons. The politics of climate change are several orders of magnitude more difficult than the science of climate change. It is no less than a lawmaking nightmare. 11 National healthcare legislation is mere child's play compared to climate change. The challenge for climate change is no less than to persuade the world's most powerful nations and industries to dramatically curtail the greenhouse gas emissions upon which their current economies and high standards of living are premised. And they must do so although the costs of such curtailment will be immediate and potentially huge, compared to benefits realized not only in distant times and places but also only if not eliminated altogether by increased emissions from developing nations beyond the reach of any international lawmaking authority. Presented with such a nightmarish political scenario that seemingly offers little hope for a lawmaking answer, it should not be surprising that many people are quick to conclude that climate change is in fact no more than a bad dream, which they can readily avoid by

^{10.} Transcript of Oral Argument at 23, Massachusetts v. EPA, 549 U.S. 497 (2007) (No. 05-1120).

^{11.} See Lazarus, Super Wicked Problems and Climate Change, supra note *, at 1184-87.

waking up. Choosing between hope and hopelessness, they naturally choose hope.

Climate scientists and environmentalists would be delighted to be wrong about climate change. But there is little beyond wishful thinking to believe that their concerns are misdirected. The basic scientific foundation of the existing scientific consensus regarding the significant threats posed by climate change and humankind's contributions to it remains largely intact. The need for climate legislation is no less pressing today than it was a year ago. Indeed, given the inherent costs of delay—because the more emissions rise the more costly it is to reduce them in the future 12—the case for climate legislation is even more compelling than it was one year ago.

Fortunately, with a nod to Mark Twain, my own view is that "reports of [climate change's] death are greatly exaggerated." This is not the first time environmental law's obituary has been written. In the early 1970s, many considered environmental law a flash-in-the-pan fad, especially after the oil embargo during the middle of that decade. And, few thought environmental regulations could survive intact after they were targeted for major reformation by an enormously popular President, Ronald Reagan, during the 1980s. Yet, on each of those prior occasions, environmental law has not only revived to meet the next set of daunting challenges but in fact rebounded with increased vigor. That is why I fully expect that, buoyed by a new wave of scientific reports and the backing of the White House, climate change's lawmaking moment will, Lazarus-like, soon be resurrected.

As I have written elsewhere at greater length,¹⁵ the inherent problem with such lawmaking moments is just that—they are moments. What Congress and the President do with much fanfare can quickly and quietly slip away in the ensuing years. This is famously so in environmental law. Subsequent legislative amendments, limited budgets, appropriations riders, interpretive agency rulings, massive delays in rule-making, and simple nonenforcement are more than capable of converting a seemingly uncompromising legal mandate into nothing more than a symbolic

^{12.} Id. at 1164-68.

^{13.} See Richard J. Lazarus, The Making of Environmental Law xi–xii (Univ. of Chicago Press, 2004).

^{14.} Id. at xi-xiii.

^{15.} The subsequent discussion in this essay excerpts from that prior article. For a more in-depth treatment of the themes discussed herein, see Lazarus, *supra* note *.

aspirational statement. In short, what Congress and the President give, they can just as easily take away. The same powerful short-term impulses that seek to prevent a law's enactment in the first instance do not disappear upon the law's passage. They instead typically remain to seek the law's ultimate undoing over time.

The critical lesson for climate change legislation is that the pending lawmaking moment must include the enactment of provisions specifically designed to maintain the legislation's ability to achieve its long-term objectives over the longer term. For climate change legislation to be successful, the new legal framework must simultaneously be flexible in certain respects and steadfast in others. Flexibility is necessary to allow for the modification of legal requirements over time in light of new information. Steadfastness or "stickiness" is important to maintain the stability of a law's requirements over time. The need for both is particularly great for climate change legislation. Flexibility is absolutely essential for climate change legislation in light of the enormity of the undertaking, both in its temporal and spatial reach, and the surrounding uncertainty concerning the wisdom of specific regulatory approaches. Yet the basic legal framework and legal mandate must also be steadfast enough to be maintained over the long term notwithstanding what will be an unrelenting barrage of extremely powerful short-term economic interests that will inevitably seek the mandate's relaxation.

To that end, the law will need to include institutional design features that allow for such flexibility but insulate programmatic implementation to a significant extent from powerful political and economic interests propelled by short-term concerns. Such design features will include "precommitment strategies," which deliberately make it hard (but never impossible) to change the law in response to some kinds of concerns. At the same time, the legislation should also include contrasting precommitment strategies that deliberately make it easier to change the law in response to other longer-term concerns that are in harmony with the law's central purpose, which is to achieve and maintain greenhouse gas emissions reductions over time. Such concerns are otherwise less likely to have powerful voices in lawmaking fora. Directed to all three branches of government, such institutional design features should therefore be deliberately asymmetric, making it easier to change the law in one substantive direction rather than another.

^{16.} *Id.* at 1158; *see also id.* at 1205–31 (discussing the ways precommitment strategies might be used to affect the actions of the legislative and executive branches); *see generally* Samuel Freeman, *Reason and Agreement in Social Contract Views*, 19 PHIL. & PUB. AFF. 122, 143 (1990) (defining "joint commitment"); Thomas C. Schelling, *Enforcing Rules on Oneself*, 1 J.L. ECON. & ORG. 357, 363–64 (1985) (giving examples of rules set in the present for the purpose of affecting future behaviors).

The obvious objection to any such deliberate modifications of lawmaking processes, especially those that make future lawmaking more difficult, is that they are antidemocratic. These modifications allow the views of existing majorities to trump the views of future majorities who may well view sound public policy very differently. The shorthand reference to this objection, of course, is that the dead hand of the past or present should not be able to govern the future.¹⁷

There are, however, at least three compelling reasons why the dead hand concern is not persuasive as applied to the need for substantial lawmaking restraints in federal climate change legislation. The first is that such restraints, notwithstanding their seemingly antidemocratic implications, have a long and widely accepted history in domestic law. ranging from the Constitution's organization of the House and the Senate to a host of existing federal statutes that seek to insulate somewhat uncertain decisions from politics. Hence, such restraints, rather than suggest a departure from the nation's lawmaking traditions, at the very least fall well within them. Second, the lawmaking restraints in federal climate change legislation would be deliberately asymmetric in order to further the options available to future generations, not restrict them. Skewing currently exists in lawmaking in general and certain interest groups exercise undue influence at the expense of others. The institutional lawmaking design features contemplated for federal climate legislation would be designed to redress that existing skewing and therefore ultimately foster and not undermine the fundamental values underlying representative government.18

The final justification relates to the sheer impracticalities of failing to address over the longer term the threats now posed by climate change. Preserving the ability of future majorities to retain the full range of options necessary for self-government most likely depends on climate change legislation being capable of maintaining greenhouse gas emissions reductions over the longer term. Otherwise, current lawmakers will undercut the autonomy of future majorities by subjecting them to a natural environment that sharply curtails their options. In other words, cross-temporal majority effects will occur with or without climate change legislation. The question is not whether to have such cross-temporal

^{17.} See Lazarus, Super Wicked Problems and Climate Change, supra note *, at 1194.

^{18.} Id. at 1194-95.

impacts, but which ones to have. To the extent, therefore, that lawmaking restraints are a necessary component of climate change legislation that can provide future majorities with greater opportunities, they further rather than undermine democratic norms.¹⁹

The section below describes some preliminary ideas, many of which are traceable to strategies that Congress has previously embraced in other contexts. Some are directed to congressional lawmaking. Others are aimed at Executive Branch implementation.²⁰

A. Congress

One option is to design federal climate legislation in a manner that would create a powerful political constituency with a strong economic incentive favoring the legislation's preservation. Such provisions should not be difficult to create. For instance, a tradable emissions program would be expected to generate billions of dollars in revenue from the sale of emissions rights.²¹ Those revenues could be allocated to address climate change concerns, ranging from efforts to develop more efficient technologies capable of reducing greenhouse gas emissions to assistance to persons and places likely to suffer from both the climate change no longer avoidable and dislocations caused by a shift to an economy that produces lower emissions. Recipients of those funds would have a strong incentive to resist legislative amendments that threaten the continued availability of such financial support.

A different tack is to limit more directly the lawmaking avenue most susceptible to use by powerful, narrowly focused interests seeking to gain short-term economic advantage: the appropriations process. To the great detriment of environmental law, it is the appropriations process that has most lent itself to such efforts by riddling environmental law with appropriations riders and earmarks.²² One possible anticipatory response is to include procedural hurdles or canons of statutory construction targeted directly to laws enacted exclusively through the appropriations process. The justification would be the shared understanding that the appropriations process does not lend itself to the careful deliberations generally warranted for major changes in substantive law.

20. For a full description of these options, see id. at 1205–31.

22. See Richard J. Lazarus, Congressional Descent: The Demise of Deliberative Democracy in Environmental Law, 94 Geo. L.J. 619, 638–52 (2006).

^{19.} *Id.* at 1195.

^{21.} See Peter Crampton & Suzi Kerr, Tradeable Carbon Permit Auctions: How and Why to Auction Not Grandfather, 30 ENERGY POL'Y 333, 334 (2002) (suggesting that a tradeable emissions permit auction could generate \$125 billion per year).

A far bolder move, however, is to insulate parts of the greenhouse gas emissions reduction and climate change adaptation programs from the appropriations process altogether. What Congress did with the Federal Reserve Board provides the legislative precedent. Congress allowed the Federal Reserve Board to retain revenue it generated in its operations in order to shield the Board from the politics of the congressional appropriations process. The same could be done in the context of climate change. Implementation of federal climate change legislation will, assuming a tradable emissions program, generate billions of dollars in revenue. Some of that revenue could be used to insulate the especially vulnerable aspects of the greenhouse gas regulation program from the appropriations process and therefore the short-term economic interests that tend to dominate that particular lawmaking avenue.

B. Executive Branch Lawmaking

There are many ways to design climate change legislation in anticipation of problems that may arise in the Executive Branch's administration of the law. Some measures could be designed to insulate agency officials to some extent from political pressures, especially those pressures likely to derive from short-term economic concerns, which undermine the law's effectiveness. Other measures could be crafted to enhance the influence of interest groups that are concerned about protecting future generations but which otherwise lack the necessary economic or political clout. Some of the possibilities worthy of consideration are catalogued and described below.

1. Insulating (Somewhat) Agency Officials from Politics

A variety of measures could be used to try to insulate agency officials from the short-term political pressures that could undermine a climate change statute's effective, fair, and impartial administration. None purports to achieve complete insulation, nor should they. Political influence is neither all bad nor all inappropriate. Quite often, some political accountability is necessary for a law's legitimacy. The purpose

^{23.} See Lazarus, Super Wicked Problems and Climate Change, supra note \ast , at 1203–04.

^{24.} See supra note 21.

of such insulating measures is to temper, not eliminate, the influence of politics on statutory implementation.

For instance, federal climate change legislation could define in some detail the substantive qualifications, tenures, and grounds for removal or disqualification of specific agency officials charged with particularly important and sensitive statutory responsibilities. There is no reason for Congress to delegate complete discretion on such potentially important matters to the President, cabinet secretary, agency head, or other agency officials.²⁵

 Structuring the Implementation Process to Diminish the Influence of Short-Term Interests Likely to be Unduly Influential and to Promote Consideration of Longer-Term Interests Otherwise Unlikely to Receive Their Due Weight

A second category of institutional design features pertains to techniques for ensuring that certain kinds of factors are given due consideration and that others are not given undue weight during the Executive Branch's implementation of climate change legislation. These techniques can be used to promote accountability, deliberativeness, impartiality, and transparency in general. Alternatively, they can be shaped to ensure that specific factors that are anticipated to be undervalued instead receive their due. Several possibilities are described below.

- Requirements for interagency consultation to promote a fuller consideration of relevant factors and therefore reduce the prospects of a narrow, short-term interest hijacking a law's implementation.²⁶
- Creation of a new expert governmental entity to ensure that certain interests are given due weight during agency implementation of climate change legislation.

^{25.} See Lazarus, Super Wicked Problems and Climate Change, supra note *, at 1212-16.

^{26.} Interagency consultation requirements are a regular feature of environmental statutes. For instance, the Endangered Species Act (ESA) requires that federal agencies subject to section 7 of the Act consult with the Secretary of the Interior (for terrestrial wildlife or plants) or the Secretary of Commerce (for marine life) if they believe that an endangered or threatened species may be adversely affected by a contemplated agency action. See 16 U.S.C. § 1536(a)(1) (2006). Another example of an existing, effective interagency consultation requirement is section 309 of the Clean Air Act, which requires federal agencies preparing environmental impact statements pursuant to the National Environmental Policy Act to provide the EPA with an opportunity to review their draft impact statements. See 42 U.S.C. § 7609 (2006) ("The Administrator shall review and comment in writing on the environmental impact of any matter relating to duties and responsibilities granted pursuant to this chapter or other provisions of the authority of the Administrator . . . ").

- Provisions for consideration of more neutral, objective scientific
 expertise during statutory implementation to diminish the influence
 of politically powerful short-term economic interests and promote
 consideration of longer-term consequences if supported by
 scientific evidence.
- Participatory rights for selected stakeholders in the implementation stages to ensure that important but less politically powerful voices are heard during statutory implementation.²⁷

3. Maintaining and, if Necessary, Accelerating the Executive Branch's Implementation of Climate Change Legislation

A third category of design features will anticipate the many roadblocks that will occur during the process of statutory implementation within the Executive Branch, especially over the long term. Such features would deliberately build into the original statutory scheme mechanisms that directly limit the effectiveness of the roadblock. These features could accomplish that end in different ways: sometimes by creating lawmaking shortcuts that circumvent the roadblock and other times simply by eliminating the roadblock altogether. The statutory objective in either circumstance would be the same: to prevent the Executive Branch, either intentionally or negligently, from frustrating congressional objectives by delaying the law's implementation.

a. For instance, Congress can create a lawmaking shortcut that allows lawmaking to be made in the absence of Executive Branch action within a specified time period. This can occur if Congress would actually prefer Executive Branch lawmaking but anticipates that roadblocks may prevent the agency from acting in a sufficiently expeditious manner. Both to encourage the agency to act, and to ensure that law is made without undue delay, Congress can create a lawmaking scheme that is triggered by default in the event that the agency fails to act by the statutorily specified deadline.²⁸ Drafters of climate change legislation

^{27.} See Lazarus, Super Wicked Problems and Climate Change, supra note *, at 1216-25.

^{28.} Congress embraced such a design feature in the Hazardous and Solid Waste Act Amendments of 1984, Pub. L. No. 98-616, 98 Stat. 3221, by adding what have been euphemistically referred to as "soft" and "hard" "hammers" that call for automatic imposition of extraordinarily harsh pretreatment standards in the event that the EPA misses the statutorily prescribed deadlines for promulgation of pretreatment standards. See 42 U.S.C. § 6904. Congress's establishment of a default standard completely changed the

might well want to consider including such lawmaking shortcuts that precommit to certain climate change emissions reduction requirements in the absence of the necessary subsequent action taken by the Executive Branch agency charged with the law's implementation. The potential is considerable that those resisting imposition of climate change emissions reduction requirements will seek to delay their implementation. But by anticipating that potential and precommiting to certain legal standards in the event of delays greater than a specified time period, climate change legislation can effectively both reduce the incentive for such obstructionist efforts and ensure that a lengthy legal vacuum does not result.²⁹

b. Congress could also create a lawmaking shortcut by separating the policy question of what standard should apply in a particular factual circumstance from the distinct factual inquiry of whether that circumstance is actually present. A statutorily prescribed standard triggered by a subsequent agency finding allows Congress to dictate what the regulatory requirements or other regulatory measures must be to address different degrees of environmental hazards but then leave to another entity the responsibility (and potential political heat) of making the finding that triggers the standard. Congress, in effect, precommits to a series of lawmaking standards that someone else then triggers. Ongress therefore is not itself immediately responsible for making the hard political choice.

Climate change legislation could also utilize this kind of precommitment device. Congress could precommit to increasingly stringent standards depending, for instance, on the degree of greenhouse gas emissions reductions deemed necessary. This precommitment would allow Congress to make the critical policy determination regarding which kinds and combinations of regulatory measures and economic incentives would be best to achieve different levels of emissions reduction. But at the same

lawmaking dynamic. Not only did the EPA have an overriding incentive to meet the deadlines, but regulated industry also had an incentive to ensure the agency's compliance. See James J. Florio, Congress as Reluctant Regulator: Hazardous Waste Policy in the 1980's, 3 YALE J. ON REG. 351, 351 (1986) (noting that Congress "established self-enforcing standards to be implemented in the absence of agency action"); Michael P. Vandenbergh, An Alternative to Ready, Fire, Aim: A New Framework to Link Environmental Targets in Environmental Law, 85 Ky. L.J. 803, 839 (1997).

^{29.} See Lazarus, Super Wicked Problems and Climate Change, supra note *, at 1225-26.

^{30.} The nonattainment provisions of the Clean Air Act Amendments of 1990 illustrate this possibility. See 42 U.S.C. §§ 7501–15. Here again, Congress sought to take away the EPA's discretion to decide what regulatory measures were necessary to address varying degrees of nonattainment of national ambient air quality standards. Accordingly, Congress set forth in exhaustive detail programs that became increasingly prescriptive for sources of air pollution as an area of the country went from just barely out of compliance to extremely out of compliance. See id. §§ 7511–12.

enough to provide federal officials and industry with the incentives necessary to jumpstart a stalled federal program.³⁴

d. Finally, lawmaking design features could even seek to remove altogether anticipated litigation roadblocks to statutory implementation by limiting judicial review of some kinds of agency decisions and promoting judicial review of other kinds of agency decisions. Congress could define these limits by focusing on types of decisions or types of plaintiffs in determining which kinds of lawsuits threaten timely implementation and which kinds of lawsuits are, by contrast, necessary to spur timely implementation. For instance, under the Comprehensive Environmental Response, Compensation, and Liability Act, Congress limited judicial review of administrative agency orders and remedies to clean up hazardous waste sites in order to prevent lawsuits from slowing the cleanup process. There may well be aspects of the implementation of climate change legislation that are at least as urgent and for which Congress may want to ensure implementation is not delayed as a result of lawsuits brought by certain kinds of aggrieved plaintiffs.

Conversely, Congress may decide that judicial review is precisely what is necessary to eliminate statutory roadblocks, including agency enforcement, that Congress anticipates will arise within the Executive Branch. To that end, Congress can authorize certain kinds of plaintiffs with certain kinds of claims to bring citizen suits seeking court orders that the agency comply with statutory mandates or judicial relief against a source of greenhouse gas emissions in violation of federal requirements. The Supreme Court has previously ruled that Congress can by statute create injuries, define causal chains, and provide for legal redress in a manner that allows for a citizen suit that would otherwise fall short of Article III.³⁷

^{34.} See Lazarus, Super Wicked Problems and Climate Change, supra note *, at 1228-29.

^{35.} See id. at 1229-31.

^{36.} See 42 U.S.C. § 9613(h).

^{37.} Massachusetts v. EPA, 549 U.S. 497, 516 (2007) (""Congress has the power to define injuries and articulate chains of causation that will give rise to a case or controversy where none existed before."") (quoting Lujan v. Defenders of Wildlife, 504 U.S. 555, 580 (1992) (Kennedy, J., concurring in part and concurring in judgment)); Summers v. Earth Island Inst., 128 S. Ct. 1142, 1153 (2009) (Kennedy, J., concurring) ("This case would present different considerations if Congress had sought to provide redress for a concrete injury 'giv[ing] rise to a case or controversy where none existed before."") (quoting same).

time, Congress could leave to a more detached, politically insulated body the decision regarding how serious the climate change problem truly was, how much temperature could rise, and therefore how much reduction of emissions was in fact necessary.³¹

c. A statutory provision for non-, limited-, or conditional federal preemption of state climate change law could be another effective technique for ensuring that federal climate change legislation stays on track over the long term. The extent to which federal law preempts state climate change law is likely to be one of the most significant policy disputes in the drafting of the federal legislation during the next four years. Industry generally supports federal preemption of state climate law, while states and many environmental organizations oppose it, especially in light of what they perceive as decades of foot-dragging on the issue by the national government. Congress could draft a federal preemption provision that both strikes a balance between these competing concerns and serves as a very significant check on the federal government's implementation of climate change legislation.

For instance, the federal statute could make the ultimate scope of federal preemption expressly dependent on the success of federal efforts. Congress could use any number of benchmarks to measure success or lack of success. The statutory trigger required for preemption, limited preemption, or nonpreemption could be a formal finding or action by a designated federal government official, a designated committee of individuals within or outside the government with relevant expertise, or even the states themselves. Congress could consider just the fact of action by a large number of states to be sufficient evidence that there was something remiss in the federal effort. The lifting of federal preemption, or the mere threat of a lifting of federal preemption, might well be

^{31.} See Lazarus, Super Wicked Problems and Climate Change, supra note *, at 1226-28.

^{32.} See Daniel A. Farber, Climate Change, Federalism, and the Constitution, 50 ARIZ. L. REV. 879, 900-10, 921-23 (2008) (discussing preemption in the context of climate change law).

^{33.} See Lisa Heinzerling, Climate, Preemption, and the Executive Branches, 50 ARIZ. L. REV. 925, 925–29 (2008) (suggesting that "state regulation of greenhouse gases... would benefit from equal attention to the role of state executive agencies in asserting power to regulate even in the face of federal resistance"); Felicity Barringer & William Yardley, Bush Splits on Greenhouse Gases with Congress and State Officials, N.Y. TIMES, Apr. 4, 2007. at A1.

II. CONCLUSION

One year in politics can be a long time. During the spring of 2009, many assumed Congress would pass significant climate legislation within two years, and perhaps even in time for the United Nations Framework Convention on Climate Change 15th Conference of the Parties, to be held later that same year in December at Copenhagen. By that winter, however, the political winds seemed to be blowing in the precise opposite direction and a no less certain consensus deemed federal climate legislation moribund.

But a broader lesson of these dramatically shifting political winds surrounding climate change is that lawmaking design is a critical feature of climate change legislation. Even assuming that Congress will enact meaningful climate change legislation in the next few years, the success of those legislative efforts will turn on the federal government's subsequent ability to stay the statutory course over the longer term, measured not by years but by multiple decades. Otherwise, significant reductions of greenhouse gas emissions will not occur.

The associated lawmaking design challenge is considerable. One must include within the legislative package lawmaking features capable of withstanding the strong pressures generated by powerful short-term interests seeking implementation delays and exceptions from the law's requirements. Yet, because the legislation must be maintained over the longer term, there must also be some flexibility to allow for learning, especially from those interests that are less likely to have the political clout required to have their voices heard by those charged with the law's implementation. The resulting lawmaking design will, accordingly, have to be deliberately asymmetrical in an effort to counter those asymmetries that already dominate our political system and that threaten to unravel the effectiveness of climate legislation once enacted.

The challenge to develop the right mix of precommitment strategies is considerable, and the risk of any particular law being perversely hijacked can never be eliminated. But through the kind of asymmetric hurdles and shortcuts described above, Congress could at least diminish the risk of short-term pressures undermining whatever legislation it passes and increase the chance that the concerns of future generations would not be forgotten during the decades required for the new law's ambitious objective to be achieved. Perhaps a year from now, Congress will have taken some significant strides in that direction.