U.S. SUB-FEDERAL CLIMATE CHANGE INITIATIVES: AN IRRATIONAL MEANS TO A RATIONAL END?

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“It’s now clear that the effort to stop global warming in the United States will be led by the cities and states—not the federal government.”

“If you want a quality, act as if you already had it.”

INTRODUCTION

Recent years have seen a dizzying profusion of policy initiatives from U.S. sub-federal entities designed to reduce their respective emissions of greenhouse gases (GHGs). Across much of the country, advisory groups, task forces, action teams, councils and commissions on climate

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1 Denis Hayes, Bullitt Foundation, February 2005.

2 Quote commonly attributed to the pragmatist philosopher William James.


5 See California Climate Action Team (est. June 2005 pursuant to Exec. Order No. S-3-05).

6 See Utah Governor’s Blue Ribbon Advisory Council on Climate Change (est. Aug. 2006).

7 See Alaska Climate Impact Assessment Commission (est. May 2006 by House Concurrent Resolution 30); Arkansas Governor’s Commission on Global Warming (est. April 2007 by HB2460); Florida Energy Commission (est. June 2006 by Senate Bill 888; charged, inter alia, with developing recommendations vis-à-vis climate change); North Carolina Commission on Global Climate Change (est. Sept. 2005 by Senate Bill 1134); Vermont Commission on Climate Change (est. Dec. 2005 by Exec. Order No. 07-05).
change are springing to life. Businesses, cities, and states are proclaiming commitments to achieving reduction targets for GHG emissions. Regional climate change initiatives—involving all levels of government (notwithstanding the federal one) and civil society—are populating the political landscape at an increasing pace. In short, if we were to peer beneath the federal lid to see just what sub-federal actors are doing with respect to climate change, there would be no shortage of things to watch.

There is, of course, a comparative context that provides the bustle to the bustling picture of activity painted above. That context is the ostensible lack of any meaningful action by the federal government with respect to climate change. Pronouncements on this score are legion. And whether accurate

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9 See Emma Marris, Nine States Impose Limits on Greenhouse-Gas Pollution, 437 NATURE 11 (2005) (“It seems that in the face of federal inaction, individual states have begun making their own climate policy.”); California Bucks Federal Inaction on Climate Change, BUSINESS AND THE ENVIRONMENT, Nov. 2006, at 13 (“Faced with inaction by the Bush Administration, many U.S. states are taking action to combat climate change.”); Climate Change: Frustrated by Federal Inaction, States Assert Their Right to Combat Greenhouse Gas Emissions, HOUSTON CHRONICLE, Aug. 31, 2005, at 8 (“With the issue of man-made atmospheric warming buried deep in the Bush administration’s policy freezer, a growing number of governors are taking action on their own.”); Doing It Their Way, THE ECONOMIST, Sept. 9, 2006, at 22 (“The federal government’s inaction contrasts with a flurry of activity at lower levels of government.”); United States: Bottom-Up Greener: Climate Change, THE ECONOMIST, Mar. 20, 2004, at 51 (“[T]he very obstinacy [of George Bush on climate change] has fomented a backlash in the states.”); Barry G. Rabe, Statehouse and Greenhouse: The States are Taking the Lead on Climate Change, THE BROOKINGS REVIEW, Spring 2002, at 11 (“[W]hile Washington has continued to stumble on the global warming issue, a number of states have launched constructive efforts to lower emissions of
or not, such pronouncements have done much to cast the rhetorical dye. To wit: States are acting, while the federal government is not.

As other commentators have noted, however, there is an apparent illogic in all this sub-federal activity directed at climate carbon dioxide . . . .”); Patrick O’Driscoll, The West Takes Lead on Climate Change, USA TODAY, Feb. 28, 2006, at A1 (“Half a dozen Western governors impatient for more federal action on global warming are mounting state campaigns to deal with climate change on their own.”); David Appell, Acting Locally, SCIENTIFIC AMERICAN, June 2003, at 20 (“Frustrated by federal inaction on preventing climate change, states and municipalities have begun reducing greenhouse gas emissions on their own.”); Janet Larsen, Mayors Respond to Washington Leadership Vacuum on Climate Change, HUMANIST, July/August 2006, at 4 (“Response to the Washington climate action void isn’t limited to cities. States and businesses also are taking part.”); U.S. States Go It Alone on Climate Change, ECOLOGIST, Oct. 2005, at 8 (“Unwilling to wait on the recalcitrant president, nine states . . . are developing a scheme to cap and then reduce the level of greenhouse gas emissions from power plants.”).

See also Andrew Revkin and Jennifer Lee, White House Attacked for Letting States Lead on Climate, NEW YORK TIMES, Dec. 11, 2003, at A32 (quoting Washington State Governor Gary Locke as saying, “The states are taking action for one simple reason: because the federal government is not”); Andrew Revkin and Jennifer Lee, Warming Feud: States vs. Bush Team, INTERNATIONAL HERALD TRIBUNE, Dec. 11, 2003 (reporting that many “Democratic state officials said the administration was using state initiatives as cover for its own inaction.”); Jeffrey Ball, States Feel Heat on Global-Warming Steps: Political, Industry Pressures Undermine Efforts to Trump Washington on Emissions in Absence of Federal Action Curbs, WALL STREET JOURNAL, Nov. 12, 2003, at A4 (observing that “State officials tout their activism as a rebuke to what they call the Bush administration’s failure to address climate change on a national level.”).

The legal literature also reflects this observational trend. See Randall S. Abate, Kyoto or Not, Here We Come: The Promise and Perils of the Piecemeal Approach to Climate Change Regulation in the United States, 15 CORNELL J. L. & PUB. POL’Y 369 (2006) (“Effective federal climate change regulation in the United States has been thwarted because the second Bush Administration is reluctant to recognize the problem . . . . This limited federal response . . . has prompted . . . efforts at the state, regional, and local levels . . . .”); Kristen H. Engel, Harnessing the Benefits of Dynamic Federalism in Environmental Law, 56 EMORY L.J. 159 (2006) (“[I]t is the states and local governments—not the federal government—that are taking the lead in addressing climate change in the United States.”); Barry Rabe et al., State Competition as a Source Driving Climate Change Mitigation, 14 N.Y.U. ENVT’L L.J. 1 (2005) (“Various state governments are presently taking significant steps to mitigate climate change. This trend is particularly interesting in its sharp contrast to the federal government’s official stance on climate change . . . .”).
change. When viewed through the lens of traditional commons analysis, it would seem that rational sub-federal actors should eschew unilateral (or even regional) actions to reduce their GHG emissions, given that the atmosphere is a true global commons wherein GHG emissions from one part of the world are entirely fungible with emissions from any other part of the world. Viewed thusly, to the extent that sub-federal GHG reductions actually result in climatic benefits, any such benefits would be lost (i.e., erased many times over) through such market inefficiencies as free-riding, hold-outs, leakage and even plain-old insouciance. Moreover, regardless of these inefficiencies, the impact of GHG reductions by sub-federal actors on global temperature will necessarily be statisically inconsequential—which is to say, for all their efforts the benefits such actors will accrue in terms of avoided global warming will, in practical terms, be nonexistent.

So why, then, are states and other sub-federal actors laboring so intently to deter a phenomenon that is clearly beyond their ability to meaningfully affect? And why are they doing so when the global nature of climate change requires that any meaningful mitigation efforts be the product of a truly global response? Does this bevy of sub-federal activity make sense—and if so, how does it make sense (meaning, pursuant to what justificatory perspective)?

In this article I take up the question of whether or not sub-federal mitigation efforts can be seen as rational with respect to

10 See Kristen H. Engel, Mitigating Global Climate Change in the United States: A Regional Approach, 14 N.Y.U. ENVT’L. L.J. 54–58 (2005); see also Kristen H. Engel & Scott R. Saleska, Subglobal Regulation of the Global Commons: The Case of Climate Change, 32 ECOLOGY L.Q. 183 (2005) (arguing that with respect to subglobal—as opposed to sub-national—actors, that “large countries that should have a significant, economic incentive to reduce greenhouse gas emissions—even in the absence of an international framework.” Id. at 110.). With respect to state and other sub-federal GHG initiatives, professors Engel and Saleska conclude that such initiatives, “at least for now, are more show than substance . . . .” Id. at 215. See also Kevin L. Doran, Can the U.S. Achieve a Sustainable Energy Future Economy from the Bottom-Up? An Assessment of State Sustainable Energy Initiatives, 7 Vt. J. ENVT’L. L. 95, 117 (2006).

the objective of achieving meaningful mitigation of climate change. There are, of course, a great many reasons as to why sub-federal actors are engaging in mitigation efforts—many of which have nothing at all to do with climate change. The intent here, however, is not to explore the rationality of sub-federal mitigation efforts with respect to the many reasons and rationales that underlie such efforts. Instead, assuming arguendo that a primary or ultimate objective of sub-federal climate mitigation policies is to achieve meaningful mitigation of global climate change, my purpose is to explore the extent to which these efforts can be seen as rational with respect to that objective.

The analytical theme developed in this article regards not only the extent to which sub-federal GHG mitigation initiatives can be seen as rational actions with respect to the goal of achieving meaningful mitigation of global climate change, but also the manner in which the justifications and rationales offered in support of these initiatives contribute to this ostensible rationality. As we shall see, this latter dynamic is intriguing inasmuch as points to a relationship wherein an action that would otherwise be irrational (viewed in the context of meaningful climate mitigation), achieves rationality in part through the rhetorical force of an irrational argument.

Part I of this article sets the contextual and comparative stage with a discussion of key U.S. and global issues and trends relating to climate change and energy.

In Part II of this article I introduce a conceptual formulation made by the linguistic philosopher J.L. Austin regarding

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12 The primary focus here is generally on explicit sub-federal climate mitigation efforts—meaning those efforts that are self-identified as being (primarily or in significant part) a means to achieving the end-goal of GHG reductions and/or climate mitigation, and specifically on self-described U.S. state GHG reduction policies. Thus, while there are many sub-federal policies that have a direct (though globally inconsequential) bearing on GHG emissions—such as state renewable portfolio standards and energy efficiency mandates—the analytical scope of this article is limited to those efforts that are expressly addressed, in some fashion, to the issue of climate change. The rationale here is that if we want to understand why states are doing things to address a given issue, let us look first at the things they say they are doing with respect to that issue.
This distinction between constative and performative statements is offered—in a rather modified fashion—as a kind of analytical metastructure by which to organize and understand the types of justifications and rationales offered on behalf of explicit sub-federal climate mitigation efforts. This schema, in turn, is a helpful analytical devise for exploring the rationality of sub-federal mitigation efforts with respect to the goal of achieving meaningful climate mitigation—an issue which is taken up in Part IV.

Given the large and growing number of sub-federal GHG-related initiatives, offering a comprehensive account of these initiatives is well beyond the scope or ambition of this paper. To help situate the discussion of rationality vis-à-vis sub-federal mitigation efforts and limit the analytical scope to a manageable size, the discussion in Part III is confined to analyzing the proliferation and substance of state GHG reduction targets.

Of course, to explore the rationality of sub-federal climate mitigation efforts, we need to come to some conclusions—however tentative and general—regarding the actual and potential impacts of these efforts. Part III of this article takes up this task by offering a heuristic, quantitative assessment of the magnitude of GHG reductions that can be achieved through current sub-federal initiatives.

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13 J.L. Austin, HOW TO DO THINGS WITH WORDS (J.O. Urmson ed. 1965).
14 For those desiring a more comprehensive account of sub-federal GHG-related initiatives, see Kevin L. Doran, Can the U.S. Achieve a Sustainable Energy Future Economy from the Bottom-Up? An Assessment of State Sustainable Energy Initiatives, 7 VT. J. ENVTL. L. 95, 117 (2006). The following resources may also be of use: Database of State Incentives for Renewable Energy (DSIRE), available at http://www.dsireusa.org (a comprehensive informational source for local, state, utility, and federal policies and incentives dealing with energy efficiency and renewable energy); the Pew Center on Global Climate Change, available at http://www.pewclimate.org (contains information on state and regional GHG-related initiatives); U.S. EPA Climate Change Site, available at http://www.epa.gov/climatechange (provides information on state climate action plans and policies, as well as actions by local governments); Clean Energy States Alliance, available at http://www.cleanenergystates.org (provides information on state clean energy funds); and the National Association of State Energy Officials, available at http://www.naseo.org (provides information on state clean energy entities, activities and programs).
In Part IV of this article I explore the question of why sub-federal entities are engaging in explicit climate mitigation efforts by focusing, as an initial matter, on the types of purpose-related justifications that have been offered on behalf—or with respect to—such efforts. What claims and rationales are offered in support of these efforts? To what extent, and in what manner, are these justifications explicitly directed at climate change, energy security, economic competitiveness, and so on? I have two primary reasons for this initial exercise: First, while justifications offered with respect to a given policy do not necessarily reflect the actual intent (or set of intentions) underlying the policy’s creation, they nonetheless offer insight into the manner in which the purpose of that policy was marketed. For instance, a justification along the lines of “we enact X policy in order to achieve Z result” may not reveal the real reasons that “we” enacted X, but it does shed some light on what “we” considered a cogent justification (i.e., Z) for doing so. Second, by assaying the various justifications offered on behalf of sub-federal climate mitigation efforts, we can develop a kind of justificatory baseline that represents the universe of explicit expectations and results associated with these efforts. We can then assess the extent to which this justificatory baseline matches up with (or influences through, say, rhetorical effect)—the actual and potential impacts of sub-federal climate mitigation efforts.

In Part IV I also endeavor to weave the various themes developed and explored in the previous parts into a cohesive and conceptually unified whole. My goal in this part is to “show” how sub-federal mitigation efforts are in fact rational from a perspective that seeks to achieve meaningful climate mitigation. The role that explicit rationales and justifications play with respect to climate change initiatives is an important element of this discussion.

Sub-federal actors appear to be doing a great deal to stop a problem that cannot, by their own efforts, be either stopped or even measurably slowed. Their efforts to mitigate climate change seem akin to placing a brightly colored paper hat on the head of a child sitting on the railroad tracks in the hopes that the hat will, somehow, stop the incoming locomotive from harming the child. Would it not be better to try and move the child off the tracks? In
this article I conclude that the most rational course of action is to refrain from any efforts to move the hat and its precious wearer off the tracks. And moreover, that a paper hat is actually the best protection available.

I. THE CHALLENGE

A. Global Climate Change: Causes and Impacts

In its latest assessment of climate change released in early 2007, the Intergovernmental Panel on Climate Change (IPCC) posited for the first time that “warming of the climate system is unequivocal” and that human activity is “very likely” the cause of most of the increase in globally averaged temperature since the mid-20th century (the term “very likely” is used to indicate a greater than 90% probability of occurrence). The 2007 report is the IPCC’s fourth assessment since 1990 on the causes and effects of climate change, but it is the first in which the IPCC has asserted with more than 90% confidence that carbon dioxide ($CO_2$) and other GHGs from anthropogenic activities have been the main causes of warming in the past half century.

The IPCC’s expression of more than 90% certainty that anthropogenic forcing is the primary driver of global climate change represents a strong (though not absolute) consensus among scientists that has evolved over the past 20 years. For instance, in the IPCC’s first assessment of climate change—released in 1990—it declared that the “unequivocal detection of the enhanced greenhouse effect from observations is not likely for a decade or more.” Five years later in 1995, the IPCC cautiously advanced this conclusion by stating the “balance of evidence . . . suggests a discernable human influence on global climate.” And in 2001 the

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15 This metaphor bears an unintended (and, in terms of its rhetorical design, superficial) resemblance to a television advertisement fielded by Environmental Defense. See the “train” ad at http://fightglobalwarming.com.
17 Id. at 10.
18 Id. at 8.
IPCC moved closer to the view held in the 2007 assessment, noting that there “is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities.”

According to IPCC’s 2007 report, the period of 1995 to 2006 contained 11 out of the 12 warmest years in the instrumental record since 1850. The report also concludes that the global climate is “likely” (a term used to indicate a greater than 66% probability of occurrence) to warm 3.5 to 8°F if atmospheric CO₂ concentrations reach twice the levels of 1750. Predicting a rise in global sea levels of 7 to 23 inches by 2100 during the period 2090 to 2099, the report indicates that global sea levels will continue to rise for more than a millennium. Importantly, the IPCC notes that due to the timescales required for the removal of atmospheric CO₂, even if GHG concentrations and other influences on the climate were stabilized immediately, the earth would be committed to a further warming of 1.1°F by 2100.

According to IPCC evaluations, moderate climate change will have both beneficial and adverse impacts on human and natural systems. However, modeling scenarios indicate that with larger and more frequent climate changes comes an increased likelihood of adverse effects to all systems. In general, such adverse effects will likely impact developing countries the hardest. The IPCC notes that for many developing countries climate change is projected to have a negative impact on gross domestic product (GDP), while some developed countries may experience marginal gains in GDP as a result of climate change.

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23 Id. at 11.
24 Id.
25 Id. at 13.
26 Id. at 10–13.
28 Id.
29 Id.
30 Id. at 12.
While the causal connection between anthropogenic GHG emissions and the adverse effects on human and natural systems cannot be ascertained with utter certainty, the IPCC is confident that we will face significant adverse impacts should we continue to experiment with earth’s delicate balance. These adverse environmental impacts include the rise of sea levels, threats to human health—particularly to those in low-income groups living in tropical climates, harm to ecosystems and the extinction of some vulnerable species, and a decrease of yields in tropical and sub-tropical regions. Global warming will create water shortages in some parts of the world, while those living in small islands and low-lying areas are at particular risk from sea level rises and storm surges. With respect to changes in wind patterns, precipitation and other climate-driven phenomenon, the IPCC 2007 report inter alia offers the following conclusions: (1) hot extremes, heat waves and heavy precipitation events will “very likely” continue to become more frequent;\(^{31}\) (2) snow cover is expected to contract;\(^{32}\) (3) sea ice is expected to shrink in both the Arctic and the Antarctic;\(^{33}\) (4) future tropical cyclones (typhoons and hurricanes) will “likely” become more intense;\(^{34}\) and (5) increases in the amount of precipitation are “very likely” in high-latitudes, while decreases are “likely” in most subtropical land regions.\(^{35}\)

**B. Sustainable Energy and Climate Change**

The question of how to meet galloping global energy demand within the context of sustainable development is perhaps the greatest environmental challenge of the 21st century. Climate change and energy are two sides of the same door. You cannot push one side of the door without moving the other. Moreover, energy is profoundly intertwined with key social, economic, political, environmental, and ethical issues. The type of energy that we produce and use, the accessibility and affordability of that energy, and the infrastructure we build to ensure power is available when we need it are all factors that significantly impact such critical issues as global poverty, health, education,


\(^{32}\) *Id.*

\(^{33}\) *Id.*

\(^{34}\) *Id.*

\(^{35}\) *Id.* at 16.
environmental sustainability, gender equality, and so forth. In the following discussion I offer three basic points that may serve to illustrate the enormity of the challenge presented by the need to supply sustainable energy to a growing global population while simultaneously addressing the phenomenon of climate change.

1. Global Energy Demand

By virtually all accounts we will be using far more power in the future than we do at present. By some estimates today’s current primary global power consumption of about 15 terawatts (TW) will reach around 30 TW by 2040.36 Other forecasts indicate that total global energy consumption will expand by 71% between 2003 and 2030.37 A significant and troubling part of this projected increase in energy demand will occur in developing countries that rely primarily upon the combustion of hydrocarbons such as coal to produce the electricity necessary to meet their energy needs.38

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36 Future energy scenarios are the product of developmental assumptions for complex demographic, socioeconomic and technological factors and may thus vary significantly. See Martin I. Hoffert et al., Advanced Technology Paths to Global Climate Change: Energy for a Greenhouse Planet, 298 SCIENCE 981 (2002); Martin I. Hoffert et al., Energy Implications of Future Stabilization of Atmospheric CO₂, 395 NATURE 881, 883 (1998); Intergovernmental Panel on Climate Change, Special Report on Emission Scenarios, 95–96, 221 (2000). One terawatt (TW) equals one thousand gigawatts or one million megawatts.

37 The U.S. EIA “reference case” projects that total world energy consumption will increase from 421 quadrillion British Thermal Units (BTU) in 2003 to 722 quadrillion BTU in 2030—a 71% total increase. EIA, INTERNATIONAL ENERGY OUTLOOK 2006 7 (2006) (hereinafter IEO 2006).

38 Non-OECD countries are projected to have the strongest energy consumption growth rate, accounting for 57% of the entire projected increase in world energy consumption through 2030. Id. at 7. For Non-OECD countries, EIA predicts that carbon dioxide (CO₂) emissions will increase from 11.6 billion metric tons carbon equivalent in 2003 to 26.2 billion metric tons in 2030—a total increase of 125%. Id. at 73. During this same period of time, total U.S. CO₂ emissions from energy use are projected to increase from about 5.9 to 8.0 million metric tons carbon equivalent—a total increase of 35%. EIA, ANNUAL ENERGY OUTLOOK 2007, Table 18: Carbon Dioxide Emissions by Sector and Source (2007) (hereinafter AEO 2007). These figures and projections should, of course, be viewed in a historical context that takes into account cumulative emissions. For instance, by some estimates the cumulative CO₂ emission from the U.S. accounts for 29% of the world total, while cumulative emissions from China accounts for only 7.6% of the world total. Similarly, cumulative emissions from the EU-25 accounts for about 26.5% of the world total, while cumulative emissions from...
2. Resource Scarcity, the Shift to Coal, and Carbon Emissions

Oil and gas are finite and non-renewable natural resources. Oil and gas are not as abundantly available as coal. Moreover, because the demand for oil and gas far exceeds the supply of those countries that rely most heavily upon them, these countries are compelled to import oil and gas from politically volatile parts of the world. This phenomenon exposes many developed countries to shortages of vital energy sources. Despite, however, the looming specter of global warming and increasingly tight energy markets, virtually all projections indicate that under current policies and trends fossil fuels will remain the dominant source of energy throughout the foreseeable future.

As a result of increasing reliance of developing countries on fossil fuels, despite lower projected energy consumption levels than that of the industrialized nations, CO₂ emissions from developing countries are projected to exceed those of the industrialized nations soon after 2010. Indeed, according to recent projections by the International Energy Agency (IEA), China is expected to overtake the U.S. as the largest emitter of GHGs by the end of 2007.

The U.S. Energy Information Administration (EIA) predicts that in 2030 oil, natural gas, and coal will comprise 77% of energy production in the U.S. In 2007 oil, natural gas, and coal accounted for 78% of U.S. energy production (see Chart 1).

India accounts for a mere 2.2%. Herzog et al., Navigating the Numbers: Greenhouse Gas Data and International Climate Policy 31–32 (2005).

39 While in 2003 developing nations consumed about 50% as much oil as OECD nations, by 2030 they are expected to consume about 77% as much oil as OECD nations. IEO 2006, supra note 37, at Figure 27: World Oil Consumption by Region and Country Group, 2003 and 2030.


41 See Shai Oster, China Emissions Quicken: IEA Warns of Erasing Global Efforts to Curb Greenhouse Gases, The Wall Street Journal Asia, Apr. 24, 2007, at A2 (noting that the IEA has revised its projections for China’s GHG emissions due to increased coal consumption and economic growth). See also IEA, supra note 32, at 5 (previous forecast by the IEA in which it predicted China would surpass the U.S. as the leading emitter of GHGs by 2010).

42 AEO 2007, supra note 38, at Table 1: Total Energy Supply and Disposition Summary. The assumptions here are that in 2007 conventional fossil fuels
Globally, the IEA forecasts that between 2004 and 2030, fossil fuels will account for 83% of the overall increase in global energy demand.\textsuperscript{43}

![Chart 1. Total U.S. Energy Production, 2007 & 2030\textsuperscript{44}]

The EIA’s forecast for the U.S. translates into a commensurate increase in CO\textsubscript{2} emissions (assuming, as EIA does, that no major improvements in technology occur). In 2003 the U.S. emitted approximately 5,800 million metric tons (MMT) of CO\textsubscript{2}.\textsuperscript{45} Compared with global CO\textsubscript{2} emissions of 25,028 MMT in 2003, this amount was approximately 23% of the world’s total emission.

accounted for 57.28 Btu out of a total of 73.44 Btu, while in 2030 conventional fossil fuels will account for 68.38 Btu out of a total of 86.63 Btu.

\textsuperscript{43} IEA \textit{supra} note 40, at 2.

\textsuperscript{44} Data for Chart 1 is derived from the AEO 2007. \textit{See AEO 2007, supra} note 38, at Table 1: Total Energy Supply and Disposition Summary.

\textsuperscript{45} \textit{Id.} at Figure 93: Carbon Dioxide Emissions, 1990-2030, \textit{available at} http://www.eia.doe.gov/oiaf/aeo/excel/figure93_data.xls.
emissions of CO\textsubscript{2} for that year.\textsuperscript{46} By 2030 the EIA predicts that U.S. CO\textsubscript{2} emissions will rise to 7,950 million metric tons of carbon dioxide equivalent (MMTCO\textsubscript{2}e), which would be about 18.2\% of the projected total world CO\textsubscript{2} emissions for that year.\textsuperscript{47} This 2030 projection of 7,950 MMTCO\textsubscript{2}e in U.S. CO\textsubscript{2} emissions would also equal a 33\% increase over U.S. CO\textsubscript{2} emissions in 2006.\textsuperscript{48}

Globally, CO\textsubscript{2} emissions are expected to rise from about 21.2 billion metric tons in 1990 to 42.9 billion metric tons in 2030 (see Chart 2)—an increase of 102.4\%. For these same time periods, the respective share of share of CO\textsubscript{2} emissions from OECD and non-OECD countries is expect to go from 51\% OECD and 46\% non-OECD in 1990 to 39\% OECD and 61\% non-OECD in 2030. To move from the projected global CO\textsubscript{2} emissions in 2030 to an emission level equivalent to 75\% below the global 1990 level would require an actual decrease in emissions of approximately 90\%.

Chart 2. Projected Global CO\textsubscript{2} Emissions Through 2030\textsuperscript{49}

\begin{table}
\centering
\begin{tabular}{|c|c|c|c|}
\hline
\text{Year} & \text{CO\textsubscript{2} Emissions (MMTCO\textsubscript{2}e)} & \text{OECD} & \text{Non-OECD} \\
\hline
1990 & 9.8 & 11.4 & 12.8 \\
2010 & 16.8 & 14.1 & 21.1 \\
2030 & 26.2 & 16.7 & 42.9 \\
\hline
\end{tabular}
\caption{Projected Global CO\textsubscript{2} Emissions Through 2030}
\end{table}

\textsuperscript{46} IEO 2006, supra note 37, at Table A10: World Carbon Dioxide Emissions by Region, Reference Case, 1990-2030, available at http://www.eia.doe.gov/oiaf/ieo/excel/ieoreftab_10.xls. In 2006, the U.S. emitted 5,940 MMTCO\textsubscript{2}e of CO\textsubscript{2}. Id.

\textsuperscript{47} Id. (assumes global CO\textsubscript{2} emissions in 2030 reach 43,676 MMTCO\textsubscript{2}e).

\textsuperscript{48} AEO 2007, supra note 45.

\textsuperscript{49} Data for chart derived from EIA, INTERNATIONAL ENERGY OUTLOOK (2007), Table 11: World Carbon Dioxide Emissions by Region, 1990-2030, 74 (2007).
3. No Silver Bullets or Buckshot—Yet

The search for carbon free energy that is plentiful, affordable, and accessible to replace or supplement our present reliance on fossil fuels will involve new technological developments and creative frameworks dealing, *inter alia*, with energy production, distribution, delivery, storage, conversion, end-uses, and environmental protection. While professors Pascala and Socolow have posited that a 500 ppm stabilization pathway can be attained using existing technology—via implementation of 15 “technology wedges,” each of which could be scaled up by 2055 to reduce GHG emissions by 1 gigaton of carbon per year (GtC/yr),\textsuperscript{50} their assessment fails to take into account the stabilization (or “virtual”) wedges already built into their underlying baseline scenario, meaning that to achieve the 500 ppm stabilization pathway anywhere from 21 to 49 or even more wedges capable of being scaled up to 1 GtC/yr will be needed by 2055—rather than 15 wedges.\textsuperscript{51} These technologies and frameworks will need to be assessed and expressed in a manner that facilitates and secures global, national, and multinational corporate responses.

There are no showstoppers waiting in the wings. Development and deployment of carbon free, sustainable energy technologies on an unprecedented scale is needed.

II. CONSTATIVE AND PERFORMATIVE STATEMENTS

In a series of twelve somewhat soporarily received lectures presented in 1955 at Harvard University, the philosopher and Oxford don J.L. Austin outlined a theory of language in which ordinary statements do not function merely as inert descriptions of the world, but rather also function as forces that work to *reshape* and *create* that very world.\textsuperscript{52} As Austin puts it in his

\textsuperscript{50} See Pascala and Socolow, *Stabilization Wedges: Solving the Climate Problem for the Next 50 Years with Current Technologies*, 305 SCIENCE 968–72 (2004).
\textsuperscript{52} See JAMES LOXLEY, *PERFORMATIVITY* 6 (2007). Loxely notes that the “series of twelve lectures was not, however, all that warmly received: an audience of hundreds for the first had dwindled to a ‘core of some twelve to fifteen souls’ by
second lecture, “to say something is to do something”—something beyond the mere uttering of the words in question, and in addition to the semantic content embodied in and expressed by those words. This part is divided into two sections. In the first section, I briefly describe some salient aspects of Austin’s theory of language. In the latter section I take the liberty of appropriating (and modifying) a few insights from Austin’s theory that may assist us in analyzing the rationality of sub-federal mitigation efforts.

A. Saying and Doing

Austin begins his Harvard lectures (posthumously published as How to Do Things with Words) by first describing two provisional categories of speech which he names the constative and the performative. Constative statements are those that can be adjudged true or false as they “state some fact” or describe or report “some state of affairs.” For instance, statements such as “the fish is on the plate” or “it has stopped raining” are constative in that they can be evaluated in terms of their truth (correspondence to a given set of factors) and falsity (the lack of such correspondence).

In putting forth his theory of language, Austin’s goal is to respond to what he calls the “constative fallacy”—the mistaken assumption, which he ascribes primarily to “logical positivism,” the last, ‘and not all of these few were happy.’” Id. (quoting STANLEY CAVELL, THEMES OUT OF SCHOOL: EFFECTS AND CAUSES 30 (1984).  
53 AUSTIN, supra note 13, at 12 (emphasis in original).  
54 Austin explains his choice of the term “constative” as follows: “Not all true or false statements are descriptions, and for this reason I prefer to use the word ‘Constative’.” Id. at 3. As regarding his choice of the word “performative,” he notes: “The name is derived, of course, from ‘perform’, the usual verb with the noun ‘action’; it indicates that the issuing of the utterance is the performing of an action . . . .” Id. at 6.  
55 Id. at 1.  
56 The brand of logical positivism being addressed by Austin is aptly captured in the following statement of English philosopher Alfred Ayer:

We say that a sentence is factually significant to any person, if, and only if, he knows how to verify the proposition which it purports to express—that is, if he knows what observations would lead him, under certain conditions, to accept the proposition as being true, or reject it as being false.

that all language use is essentially constative and thus aimed at the production of true or false statements or descriptions. Against the introduced backdrop of this fallacy, Austin presents the concept of the performative, a type of statement which ostensibly (1) does not describe or report anything at all, and to which the verdict of true or false cannot therefore be meaningfully attached; and (2) which, upon being uttered, is the doing of an action, or is part of such a doing, which “would not normally be described as saying something.”

Austin observes that statements such as “I bet,” “I promise,” or “I . . . warn you,” do not describe a bet, a promise or a warning, but rather that in being said these statements are these actions. While we might verify the truth or falsity of the statement “the fish is on the plate” by referencing the relative positions of the fish and the plate, the same is not true, as an intuitive matter, for the statement “I warn you that kangaroo is dangerous.” This latter utterance is not true or false in its correspondence to the elements of a particular situation, making correspondence, as a criterion for truth, inapplicable. The statement is the linguistic instantiation of an action—which in this case is a warning. For utterances such as these, the distinction between saying and doing collapses. They are one and the same.

From the beginning Austin is careful to emphasize the “preliminary” nature of the distinction he has drawn between constative and performative speech. This is not done, however, as a prelude to a fuller, more concrete account of why these distinctions are indeed categorically distinct. Instead, upon introducing these categories, Austin immediately proceeds to demonstrate a variety of ways in which the categories, as he has defined them, constantly overlap, and the futility of attempting to

57 Austin, supra note 13, at 5 (emphasis in original).
58 Id.
59 Id. at 9.
60 Id. at 60.
61 See id. at 4 & n.1 (noting that “[e]verything in these sections is provisional, and subject to revision in the light of later sections”), 25 (noting that in the “first lecture we isolated in a preliminary way the performative utterance . . .”).
systematically distinguish between them. Indeed, at the end of his sixth lecture, Austin declares that “[i]t is time to make a fresh start on the problem” and abandons the distinction altogether.

In abdicating the coherence of his initial delineation between constative and performative statements, Austin proceeds to offer a perspective in which all language consists of both constative and performative aspects. To illustrate the point, if I say to a student, “to pass this class, you will need to get an A on the final exam,” I have uttered a constative statement, meaning one that can be evaluated in terms of its truth or falsity. But I have also uttered a performative statement. I perhaps intended the statement to produce a certain effect, such as motivating the student to study harder for the final exam than previous one—and it may even produce this effect. But regardless of such an intention, the statement will inevitably bring about various effects and impacts—with or without my intent, desire or knowledge. Upon hearing the statement, the student might become angry and resentful. He or she might break into tears. Or it might conjure to the student’s mind a memory of a similar incident, long since passed. The statement is simultaneously performative and constative.

In his last five lectures, Austin elaborates a theory of “speech acts” in which he endeavors to incorporate the performative and constative dimensions of language, while also sidestepping the type of conceptual fuzziness inherent in his original distinction.

62 Throughout his analysis of performative statements, Austin is drawn to a specific type of performative—namely, those that announce the act that they will, upon being uttered, perform. Austin used such “explicit” performatives as a tool for evaluating the performativity of statements such as “I will not be late.” If, for instance, such a statement can be restated as an explicit performative (e.g., I promise I will not be late), then it belongs to the category of performatives. If it cannot be so restated, then it belongs to the category of constatives. Austin soon realized, however, that pursuant to this formula, all statements intuitively classified as constative could be restated as an explicit performative, thus requiring (or so his argument went) they be classified as performatives. Austin followed a similar train of thought in elucidating the inevitably constative nature of performative statements. See id. at 25–93.

63 Id. at 91. Austin continues: “We want to reconsider more generally the senses in which to say something may be to do something or in saying something we do something (and also perhaps to consider the different case in which by saying something we do something)” (emphasis in original). Id.
For the purposes of this article, however, we will not be relying on or delving into the many peregrinations of Austin’s theory of speech acts. Instead, for the sake of conceptual simplicity, we will merely be drawing upon Austin’s fundamental insight that while statements may seem, as an initial and intuitive matter, to be either strictly constative or performative, all statements nonetheless possesses both constative and performative dimensions.

B. The Analytical Framework

The primary question we are concerned with is the extent to which sub-federal climate mitigation policies can be plausibly interpreted as rational with respect to the objective of bringing about meaningful mitigation of climate change. Of course, given the definitional malleability of the term “rational,” it may help to try and clear up the terminological air a bit. As used throughout this article, the term “rational” (and its counterpart, “irrational”) is not intended to indicate a formal or otherwise esoteric understanding of the term. The term is instead offered as a colloquial designation for actions, decisions, and the like that seem, upon examination by a reasonable person, to be “endowed

64 Without belaboring the details, Austin defines three types of speech acts, each of which is an aspect of language, rather than a discrete category: (1) the locutionary act; (2) the illocutionary act; and the (3) perlocutionary act.

If I say “there is a bumblebee on your head,” I have used the sounds uttered to stand for the idea of a particular kind of insect occupying a certain spatial relation to a certain type of object. This semantic correspondence is the locutionary act—an act that is, in terms of function, analogous to Austin’s previous concept of the constative utterance. Id. at 120–46. The illocutionary act (or aspect) of the statement refers to the type of act I was endeavoring to accomplish in saying the words. Unlike the locutionary act, the illocutionary act does not regard the content or meaning of the utterance. Instead, in a manner similar to the concept of the performative statement, the illocutionary act regards what the statement was intended to do—such as warning you that a bumblebee has landed on your head. Id. The perlocutionary act refers to the effect produced when I utter the statement. In contrast to the illocutionary act, which refers to the function performed in saying something, the perlocutionary act denotes the effect produced by saying something. Id. Thus, when I say “there is a bumblebee on your head,” I have performed the illocutionary act of warning you, but through the perlocutionary act brought about by this statement, I might have also made you shriek and run away as fast as you can. This would be the effect produced by the perlocutionary act.

65 Id. at 146.
with reason” or “having sound judgment” and which are “not foolish, absurd or extravagant.” 66 While this definition of “rational” is tautological to be sure, it nonetheless embraces a common (i.e., informal) comprehension of the term. 67 To quote Albert Einstein, here we are taking “rational” to mean “comprehensible to reason.” 68

In evaluating the rationality of sub-federal climate mitigation efforts along the distinctly informal lines indicated above, Austin’s dual constative and performative schema provides a useful analytical guide and structure by which to organize and situate the discussion. This is perhaps not an intuitive connection. The relevance of Austin’s project to the focus of this article may seem distant, and thus, as articulated here, improbably contrived. Indeed, it is easy to confuse Austin’s project as being concerned exclusively with language—as opposed to the impact (and underlying rationality) of laws and policies, such as those that comprise the focus of this article. Austin dealt with the nature of utterances, while the focus here is on the rationality of sub-federal climate mitigation efforts. What then, if any, is the relevance of Austin’s schema to the present inquiry?

For our purposes, this relevance is found in two principles developed by Austin, each of which confronts the dynamic interrelation between the words we use to describe and interact with “reality,” and the nature of that reality. These two principles, adapted to suit the analytical thread being developed here, are as follows:

1. All communication—including the words, statements, images, symbols, gestures and so on by which laws and policies are

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67 This method is similar to the one employed by Wittgenstein in his elaboration of the term “Ethics”:
[T]o make you see clearly as possible what I take to be the subject matter of Ethics I will put before you a number of more or less synonymous expressions each of which could be substituted for the above definition, and by enumerating them I want to . . . make you see . . . the characteristic features of Ethics.
68 Albert Einstein, Out of My Later Years (1950)
announced, codified, described, justified and so forth—has a
constative aspect in which the content of that communication
can be assessed in terms of truth or falsity.

2. All communication has a performative aspect in which the
content of that communication can be evaluated in terms of
the effects and impacts it brings about.

These principles suggest that if we are to comprehensively and
coherently evaluate the rationality of sub-federal mitigation
policies, this evaluation should acknowledge both the
performative and constative aspects of these policies; and further,
it should evaluate each of these aspects according to their own
(interdependent) criteria.

Unlike Austin, however, we are not examining discrete
words, sentences or statements. Our focus is on explicit sub-
federal mitigation policies such as state targets for reducing GHG
emissions. These policies do not typically describe anything in the
conventional sense. That is not their purpose. Instead, they are
cast in the performative mold. They declare things, express
commitments and mandates, and create actions intended to lead
to desired results. Given this discrepancy between the type of
policy instruments at issue here and the type of linguistic objects
scrutinized by Austin, we cannot use concept of a constative
aspect in quite the same manner as Austin. What would it mean,
for instance, to say “the state target to reduce greenhouse gas
emissions is true or false”? We could certainly repeat the move
made by Austin and reformulate the expression as “I now say the
state target to reduce greenhouse gas emissions is true or false.”
Notwithstanding the nonsensical nature of this statement, it does
now lend itself to being evaluated in terms of truth and falsity.
We have recast the original statement in constative terms (put
differently, we have elicited its constative aspect). However, this
sort of conceptual maneuver, while useful to Austin’s endeavor, is
hardly useful to our project.

We thus need to amend the concept of a constative aspect to
suit our purposes. To this end, we shall not be using constative to
refer to statements and other communicative acts that seek to
describe or state something, thus making them amenable to
evaluation in terms of truth or falsity. Instead, working in the
context of laws and policies that seek to bring about certain
results and institute actions designed to achieve that result, we shall be using constative to refer to whether or not it is true or false that those actions can (1) be achieved and (2) if upon being achieved those actions will bring about the desired results. In short, as employed here, the constative aspect of a law or policy refers to its ability to do what it seeks to do, in terms of purpose, and what it says it will do, in terms of actions designed to achieve that purpose. The actions will, of course, be written on the face of the instrument—as it is the instrument that states what actions will be taken. The same, however, is not necessarily true with respect to purposes. These may well be explicitly mentioned in the law or policy itself. Or they may be found in secondary communicative acts.

Constative, as we have defined it, deals with whether or not something can be achieved. Performativity, however, deals with the impacts that occur regardless of whether or not actions can be achieved, and regardless of whether or not the actions, once achieved, are capable of satisfying the underlying purpose. This is not to imply a lack of connection between the two. On the contrary the constative and performative aspects of law and policy are ineluctably and inseparably intertwined. Indeed, with respect to a given policy, the possibility of achieving an action announced by that policy (such as reduction of GHGs), and the capability of that action, once achieved, to satisfactorily respond to the underlying purpose (such as meaningful mitigation of climate change), are certainly factors that can influence the performativity of that policy. However, while these factors may play a role in the determining the performativity of a given law or policy, they are by no means the ultimate arbiters of how that performativity is expressed.

III. CAN SAYING MAKE IT SO?

A. State GHG Reduction Targets

In recent years there has been dizzying profusion of U.S. sub-federal laws and policies that seek to address the issue of

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69 E.g., the following is a fairly representative time span in early 2007 that encompasses less than 30 days: On January 18, 2007, Massachusetts Governor
climate change through mitigation efforts—a phenomenon that has not gone unnoticed in the legal literature.70 For the purpose of this article, we will focus on just one of the many types of explicit sub-federal climate mitigation policies that have flourished in recent years—statewide GHG reduction targets.

As of mid-2007 some 17 U.S. states have adopted time-bounded, quantitative targets for GHG emissions reductions (see Table 1). Established through a variety of policy instruments

Deval Patrick announced the state would rejoin the Regional Greenhouse Gas Initiative—a regional effort to limit carbon dioxide emissions from power plants in a number of Northeastern states. Two weeks later Rhode Island Governor Donald Carcieri similarly declared that his state would also rejoin the regional initiative. On February 7, 2007, Washington Governor Christine Gregoire signed an executive order calling for a reduction in statewide greenhouse gas emissions to 50% below 1990 levels by 2050. Five days later on February 12, New Jersey Governor Jon S. Corzine issued an executive order calling for an 80% reduction in statewide GHGs by 2050, and ordering four state agencies to develop a plan for achieving the target. And just one day later, on February 13, Illinois Governor Rod Blagojevich announced that state sources of GHGs would reduce their collective emissions to 60% below 1990 levels by 2050. Phew.

70 See e.g., Randall S. Abate, Kyoto or Not, Here We Come: The Promise and Perils of the Piecemeal Approach to Climate Change Regulation in the United States, 15 CORNELL J.L. & PUB. POL’Y 369 (2006); Jonathan H. Adler, When is Two a Crowd? The Impact of Federal Action on State Environmental Regulation, 31 HARV. ENVTL. L. REV. 67 (2007); John C. Dernbach, Moving the Climate Debate from Models to Proposed Legislation: Lessons from State Experience, 30 ENVTL. L. REP. (2000); Kevi...
ranging from executive orders and legislation to state-sponsored climate action plans and even a gubernatorial press release (see Chart 3), these mitigation policies announce and embody a commitment to reducing GHG emissions a certain amount by a certain point in time. The target established by the Governor of Florida Charlie Crist on July 13, 2007, is prototypical in this regard. The executive order reads, in part:\footnote{71}

I hereby establish greenhouse gas emission reduction targets for the State of Florida as follows: by 2017, reduce greenhouse gas emissions to 2000 levels; by 2025, reduce greenhouse gas emission to 1990 levels; by 2050, reduce greenhouse gas emissions by 80% of 1990 levels.

What are we to make of these emission reduction targets and other sub-federal climate mitigation efforts? Put less broadly, why are states and other sub-federal entities engaging in explicit climate mitigation efforts when the reductions achieved by these targets (assuming they are in fact achieved) are arguably incapable, either individually or collectively, of bringing about meaningful mitigation of climate change?

Chart 3. Instrument Types Used to Establish U.S. State GHG Emission Targets

\footnote{72} See Exec. Order 07-127, infra, at n. 80.

\footnote{73} As some state GHG targets are embodied in multiple instruments, the numbers do not equal 17.
As we seek to evaluate the rationality of sub-federal climate mitigation efforts, it may be helpful to focus our attention on the language contained in the various formal documents and proclamations through which these efforts are announced and created. As articulated within the proverbial four corners of these instruments, what will be done as a result or consequence of their existence? What do they say they are going to do? And also, what do they posit as the reason for their existence. How do they justify their existence?

In addition to establishing a fixed series of GHG reduction goals, each of the 17 state GHG reduction targets announces an assortment of often high-level, relatively abstract actions that are intended to assist in the attainment of these targets. For instance, the executive order announcing Arizona’s GHG reduction target establishes a “Climate Change Executive Committee” to develop recommendations for reducing GHG emissions. Similarly, the legislative act declaring Hawaii’s GHG target establishes a “task force” to develop a “work plan and regulatory scheme . . . to achieve the statewide greenhouse gas emissions limit . . . .” The executive order proclaiming the State of Washington’s GHG target mandates the creation of the “Washington Climate Change Challenge, to achieve the goals of this Executive Order.”

We can categorize the type of actions announced above as things that will be done as a result or consequence of the underlying sub-federal mitigation policies. In short, such statements are what these policies say they are doing and going to do.

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74 See Exec. Order 2006-13, infra, at n. 77.
75 See The Global Warming Solutions Act, infra, at n. 81.
76 See Exec. Order 07-02, infra, at n. 93.
Table 1. U.S. State GHG Emissions Targets (17)

<table>
<thead>
<tr>
<th>State</th>
<th>GHG Emissions Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona</td>
<td>2000 levels by 2020; 50% below 2000 by 2040</td>
</tr>
<tr>
<td>California</td>
<td>2000 levels by 2010; 1990 by 2020; 80% &lt; 1990 levels by 2050</td>
</tr>
<tr>
<td>Connecticut</td>
<td>1990 levels by 2010; 10% &lt; 1990 by 2020; 75-85% &lt; 1990, long-term</td>
</tr>
<tr>
<td>Florida</td>
<td>2000 levels by 2017; 1990 by 2025; 80% below 1990 by 2050</td>
</tr>
<tr>
<td>Hawaii</td>
<td>1990 levels by 2020</td>
</tr>
<tr>
<td>Illinois</td>
<td>1990 levels by 2020; 60% below 1990 levels by 2050</td>
</tr>
<tr>
<td>Maine</td>
<td>1990 levels by 2010; 10% &lt; 1990 by 2020; 75-85% &lt; 2003, long-term</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>1990 levels by 2010; 10% &lt; 1990 by 2020; 75-85% &lt; 1990, long-term</td>
</tr>
<tr>
<td>Minnesota</td>
<td>Using 2005 levels: 15% &lt; by 2015; 30% &lt; by 2025; 80% &lt; by 2050</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>1990 levels by 2010; 10% &lt; 1990 by 2020; 75-85% &lt; 2001, long-term</td>
</tr>
<tr>
<td>New Jersey</td>
<td>1990 levels by 2020; 80% &lt; 2006 by 2050</td>
</tr>
<tr>
<td>New Mexico</td>
<td>2000 levels by 2012; 10% &lt; 2000 by 2020; 75% &lt; 2000 by 2050</td>
</tr>
<tr>
<td>New York</td>
<td>5% &lt; 1990 levels by 2010; 10% &lt; 1990 by 2020</td>
</tr>
<tr>
<td>Oregon</td>
<td>Stabilize by 2010; 10% &lt; 1990 levels by 2020; 75% &lt; 1990 by 2050</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>1990 levels by 2010; 10% &lt; 1990 by 2020</td>
</tr>
<tr>
<td>Vermont</td>
<td>1990 levels by 2012; 50% &lt; 1990 by 2028; 75% &lt; 1990, long-term</td>
</tr>
<tr>
<td>Washington</td>
<td>1990 levels by 2020; 25% &lt; 1990 by 2035; 50% &lt; 1990 by 2050</td>
</tr>
</tbody>
</table>

77 EXEC. ORDER No. 2006-13, Governor of the State of Arizona (Sept. 7, 2006).
78 EXEC. ORDER No. S-3-05, Governor of the State of California (June 1, 2005).
See also The California Global Warming Solutions Act of 2006.
79 See CONNECTICUT CLIMATE CHANGE ACTION PLAN 5 (2005).
80 EXEC. ORDER No. 07-127, Governor of the State of Florida (July 13, 2007).
84 MASSACHUSETTS CLIMATE PROTECTION PLAN 8 (2004). See also 310 CMR 7.29.
85 Session Laws of Minnesota, Ch. 136, S.F. No. 145.
87 EXEC. ORDER No. 54, Governor of the State of New Jersey (Feb. 13, 2007).
88 EXEC. ORDER No. 05-033, Governor of the State of New Mexico (June 9, 2005).
89 See NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY NEW YORK STATE ENERGY PLAN § 1, at 35 (2002).
90 GOVERNOR’S ADVISORY GROUP ON GLOBAL WARMING, OREGON STRATEGY FOR GREENHOUSE GAS REDUCTIONS 9 (2004).
91 RHODE ISLAND GREENHOUSE GAS ACTION PLAN 12 (2002).
92 COMPREHENSIVE ENVT'L & RESOURCE MANAGEMENT PROGRAM 2 (2004).
93 EXEC. ORDER 07-02, Governor of the State of Washington (Feb. 7, 2007).
But what reasons are posited on behalf of these actions, and of the targets themselves? To what purposes are these sub-federal mitigation policies dedicated? As might be expected, these policies offer a wide range of reasons as to why they are necessary and important. Notwithstanding their particular differences, however, these proffered reasons can be grouped into the following three categories:

1. To prevent climate change from causing the State to suffer adverse environmental, health and economic impacts.\(^{94}\)
2. To secure economic and environmental benefits by reducing GHG emissions.\(^ {95}\)
3. To contribute to the State's leadership status.\(^ {96}\)

As noted in the introduction, we are assuming arguendo that a primary or ultimate objective of sub-federal climate mitigation policies is to achieve meaningful mitigation of global climate change. This assumption will enable us to explore the extent to which these efforts can be seen as rational with respect to that objective.

\(^ {94}\) See e.g., \textsc{California Exec. Order No. S-3-05, supra note 78} (noting “rising sea levels threaten California’s 1,100 miles of valuable coastal real estate and natural habitats”); \textsc{Florida Exec. Order No. 07-127, supra note 80} (noting “with nearly 1,350 miles of coastline and a majority of citizens living near that coastline, Florida is more vulnerable to rising ocean levels and violent weather than any other state”).

\(^ {95}\) Press Release, Governor of Illinois, \textit{supra} note 82 (stating, “By committing ourselves to action in Illinois, we can help minimize the effects of climate change and ensure our children and grandchildren inherit a healthy world full of opportunity.”); \textsc{Maine L.D. 845 (H.P. 622), supra note 83} (declaring the long term goal of reductions “sufficient to eliminate any dangerous threat to the climate” and stating that “[t]o accomplish this goal, reduction to 75% to 80% below 2003 levels may be required.”).

\(^ {96}\) \textsc{California Exec. Order No. S-3-05, supra note 78} (stating that “California has taken a leadership role in reducing greenhouse gas emissions”); \textsc{Florida Exec. Order No. 07-127, supra note 80} (stating that “Florida has committed to becoming a leader in reducing emission of greenhouse gases . . . .”); \textsc{New Mexico Exec. Order No. 05-033, supra note 88} (stating that “preparing to reduce greenhouse gas emission provides New Mexico the opportunity to assume a leadership role in the new emerging clean energy economy”).
Thus, as we set about the task of assessing the rationality of state GHG reduction targets (and explicit sub-federal mitigation efforts generally), we will restrict our analysis to the assumed primary purpose of preventing climate change from causing adverse environmental, health, and economic impacts.

Pursuant to our modified rendition of Austin’s dual constative and performative schema, we will be analyzing state GHG reduction policies both in terms of what they can achieve through the actions they announce (constative) and the various effects and impacts that occur as the result of their creation (performative).

However, prior to taking up this thread again in Part IV, below, we should first endeavor to discern the GHG reduction capabilities of these state GHG reduction targets. In other words, if fully implemented and achieved, how much will these policies reduce GHG emissions from what would have occurred in their absence? And what difference, if any, might that reduction have on global climate change?

B. Evaluating the Impact: Drops in a Leaky Bucket?

It is perhaps easy to overestimate the potential of the 17 extant state GHG reduction targets to significantly impact U.S. GHG emissions.97 These states have an aggregate population of about 134 million—nearly half of the total U.S. population.98 Moreover, the annual GDP for these 17 states represents about half of the annual GDP for the entire country (see Chart 4).

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97 See Fisher and Costanza, supra note 11, at 301.
98 U.S. Census Bureau, Table 1: Annual Estimates of the Population for the United States, Regions, and States and For Puerto Rico: April 1, 2000 to July 1, 2006 (NST-EST2006-01). Sums do not match due to rounding.
In terms of CO$_2$ emissions, if all 17 states were considered a single country their collective emissions would make them the fourth largest emitter in the world—just behind China, the European Union, and the rest of the United States, and in front of the Russian Federation. Taken together, these 17 states account for approximately 30% of U.S. GHG emissions, and about 6.5% of global CO$_2$ emissions (see Chart 5).

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100 WORLD RESOURCES INSTITUTE, CLIMATE ANALYSIS INDICATORS TOOL (CAIT US), VERSION 1.0 (2007), available at http://cait.wri.org (hereinafter CAIT). In 2003 aggregate CO$_2$ emissions for the 17 states with GHG reduction targets was 1,812 MMTCO$_2$e. During this same year, CO$_2$ emissions for China were approximately 4,497 MMTCO$_2$e, emissions for the EU-25 were about 4,003 MMTCO$_2$e, emissions for Russia were about 1,581 MMTCO$_2$e, and emissions for the entire U.S.—including the 17 states with GHG reduction targets—were about 5,778 MMTCO$_2$e. Id.
However, in evaluating the potential for state GHG reduction targets to achieve meaningful mitigation of climate change, it is important to look beyond these seemingly impressive numbers on population, GDP, and GHG emissions.

As previously noted, the EIA estimates that in 2030 total U.S. energy-related CO₂ emissions will equal approximately 7,950 MMTCO₂e (see Chart 6). While the 17 states with GHG reduction targets account for about 24% of U.S. GHG emissions, this is largely due to the presence of California, Florida, Illinois, and New York in this grouping. Emissions from these four states comprise about 72% of the 24% figure. Put differently, if California, Florida, Illinois, and New York had not committed to their respective GHG targets, states with GHG targets would have accounted for only 6.8% of total U.S. GHG emissions in 2003.

Using EIA’s most recent projections for U.S. CO₂ emissions through 2030, Chart 6 below depicts a tentative answer to the following question: If all 17 states with GHG reduction targets were to achieve and maintain a reduction equal to 10% below

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101 Id. Percentile figures represent 2003 data. Figures exclude land use change.
their respective 1990 levels by 2020, what impact would this have on total U.S. CO$_2$ emissions through 2030?

Chart 6. Impact of Current State GHG Reduction Targets

The Hypothetical Scenario (HS) line in Chart 6 indicates the extent of reductions from the EIA baseline that we might anticipate from full implementation of all 17 state targets.\textsuperscript{103} If by the year 2020 all 17 states were to meet the target of reducing their GHG emission to 10% below their respective 1990 levels, total U.S. CO$_2$-related emissions would be decreases by about 14% for that year relative to the baseline.\textsuperscript{104} By 2030 the HS line


\textsuperscript{103} In fact, the HS line actually indicates a level of GHG reductions greater than would be achieved through full compliance with all 17 state GHG reduction targets. At 10% below the respective 1990 levels for the 17 stages, the HS line is actually more aggressive than the targets set by Arizona, California, Florida, Hawaii, Illinois, New Jersey, New Mexico, and Washington. It is equal to (or in some instances, roughly equal to) the targets set by Connecticut, Maine, Massachusetts, Minnesota, New Hampshire, New York, Rode Island, and Washington. Only Vermont’s reduction target exceeds the goal set by the HS line.

\textsuperscript{104} The EIA baseline places total U.S. CO$_2$-related emissions at about 6,944 MMTCO$_2$e in 2020. Under the HS, total CO$_2$-related emissions in 2020 would be about 5,992 MMTCO$_2$e.
represents a 17% decrease relative to the EIA baseline. Initially, stabilization at 10% below 1990 levels for all 17 states would slow the annual growth rate from 1.2% under the baseline scenario to approximately 0.92%. However, assuming the average annual growth rate for the other 33 states remains at about 1.2%, by 2030 the HS annual growth rate reaches 0.94%, pulled higher by the net increase in CO$_2$ emissions from the other 33 states.

The impact delineated by the HS line above should be understood merely as a starting point for discussing what the impact of such a scenario would actually be. However, viewed strictly as a heuristic device, there are two obvious conclusions. First, despite a significant reduction from the EIA baseline of about 17% in 2030, the overall trend of the HS is still upward. Second, the CO$_2$ reductions that would be achieved under the HS are nowhere near the magnitude of reductions needed to bring the U.S. into compliance with the Kyoto Protocol’s call for reductions of 7% below 1990 levels from 2008 to 2012—much less the reductions needed to avert “dangerous anthropogenic interference with the climate system.” Indeed, as other commentators have noted, even if the Kyoto Protocol were fully implemented, when compared to a “business as usual” scenario (i.e., a scenario in which no carbon reductions occur), the Protocol would result in avoided temperature increases of about 0.15°C, less than one-sixth of one degree, while corresponding sea level rises will be reduced by about 1 inch by 2100. Another commentator—whose conclusions are based on IPCC models—estimates that full compliance with the Kyoto Protocol would result in the avoidance of one-fifth of one degree of predicted global warming.

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105 The EIA baseline places total U.S. CO$_2$-related emissions at about 7,950 MMTCO$_2$e in 2020. Under the HS, total CO$_2$-related emissions in 2030 would be about 6,571 MMTCO$_2$e.

106 U.N. Framework Convention on Climate Change, art. II, 31 I.L.M. 849 (entered into force Mar. 21, 1994). See also M. Hoffert et al., Advanced Technology Paths to Global Climate Stability: Energy for a Greenhouse Planet, 298 SCIENCE 981 (2002) (noting that emission reductions far greater those called for by the Kyoto Protocol will be needed to meet the goals of the Framework Convention).


Seen in this somewhat daunting light, it becomes unavoidably clear that sub-federal mitigation efforts generally—and state GHG reduction targets specifically—simply cannot effect meaningful climate mitigation through the direct reduction of GHG emissions. Put in more stark terms, regardless of how strenuous or stringent the effort, the reductions achieved by state GHG reduction targets are utterly incapable of producing a meaningful impact on the global phenomenon of climate change. Evaluated strictly in terms of avoided climactic impacts due to GHG reductions, these efforts might as well have never existed.

IV. IN SEARCH OF POLICIES THAT PERFORM

A. Constative Gibberish

For any purposeful action—meaning any action that we recognize as being done to accomplish a specific purpose—we typically expect there to be some likelihood that the action in question could satisfy the underlying purpose. With respect to state GHG reduction targets, we should therefore ask the question of whether or not the actions announced by these policies are capable of producing the desired results. However, in asking this question—which is meant to give us a handle on how to assess the rationality of these policies—we need also to bear in mind the guiding principles that we have borrowed from Austin’s dual constative and performative schema: namely that (1) all communication has a constative aspect in which the content of that communication can be assessed in terms of truth or falsity; and (2) all communication has a performative aspect in which the content of that communication can be evaluated in terms of the effects and impacts it brings about.

With these in mind, consider again the following declaration by the Governor of Florida establishing a statewide GHG reduction target:

I hereby establish greenhouse gas emission reduction targets for the State of Florida as follows: by 2017, reduce greenhouse gas emissions to 2000 levels; by 2025, reduce greenhouse gas emission to 1990 levels; by 2050, reduce greenhouse gas emissions by 80% of 1990 levels.
Under our modified version of Austin’s dual constative and performative schema, when evaluating the constative aspect of this executive order we are inquiring whether or not those actions announced by this instrument (1) can be achieved, and (2) if so, whether or not upon being achieved those actions will bring about the desired results.

Let us consider the setting of a specific reduction target to be the action announced by the executive order. Proceeding along constative lines of inquiry, the first question is whether or not it is possible for Florida to reduce its GHG emission by the various levels, and within the various time parameters, described in the order? Assuming, arguendo, that the answer is yes, we then proceed to the next question: If Florida does, in fact, reduce its GHG emissions in the manner set forth by the executive order, will this reduction satisfy the purposes for which the order was created? Answering this question requires us to have some sense of the purpose to which the order is dedicated. However, as noted previously, we are assuming that the ultimate objective of this and other sub-federal climate mitigation policies is to achieve meaningful mitigation of global climate change, as this assumption will enable us to explore the extent to which these efforts can be seen as rational with respect to that objective.

With respect to this purpose—that of preventing (to some meaningful degree) climate change from causing the state to suffer adverse environmental, health and economic impacts—there is an insuperable divide between the capabilities of the action and the underlying purpose. As the forgoing discussion in Part III has indicated, the action announced by the executive order is incapable—when viewed in terms of GHG reductions—of having a meaningful impact on the phenomenon of climate change.

If the only way to achieve this purpose was through the announced action, then we might reasonably categorize the order as an exercise in irrationality (in our colloquial understanding of the term). However, this is not the case. The analysis does not end with the constative line of inquiry.
B. Catalytic Can-Do’s

The potential for a sub-federal climate mitigation policy to meaningfully reduce the impact of global warming is not restricted to what the policy is capable of achieving through the various programs and actions that it sets into motion. This potential—to whatever degree it might exist—is also to be found in the multitudinous effects and impacts brought into being by the policy’s creation; and indeed, by the continuing awareness on the part of people (to whatever degree and by whatever means) that the policy exists, and that it is trying to do something about climate change. These effects and impacts define and express the performativity of the policy.109

This is not a novel or even contentious observation. It is perhaps even obvious. Certainly, other commentators have lit upon this same observation, in different ways. What has not hitherto been offered, however, at least within the narrow confines of sub-federal laws and policies directed at climate change, is a conceptual framework for understanding how to see and evaluate the overlapping constative and performative dimensions of law and policy. Of course, to be more precise, it is not the framework that enables us to see these dimensions—as if they existed independent of that framework. But rather as the German physicist Werner Heisenberg once opined, “[W]hat we observe is not nature in itself, but nature exposed to our method of questioning.”110

By examining sub-federal climate mitigation efforts in terms of constativity and performativity, we lay hold of a framework by which to begin an assessment in these formal terms of the many ways in which the actual and potential impacts of an object (instrument) are simultaneously dependent upon, independent of, and dynamically (and in some ways inscrutably) connected to what it says it is going to do.

109 Many of the performative effects and impacts will have nothing to do with the issue of climate mitigation.

110 WERNER HEISENBERG, PHYSICS AND PHILOSOPHY 58 (1958).
In the case of state policies that commit to achieving GHG reduction targets, the performative side of this framework enables us to expand the horizon of possible ways in which a policy can meaningfully contribute to its underlying goals, regardless of the fact that the actions it embraces are incapable of doings so in and of themselves.

Let us assume, for instance, that a state policy to reduce GHG emissions will help to reduce the impact of global warming on the state if and only if the policy in some fashion—and to some essential degree—assists in bringing about federal and international GHG reduction policies, where such policies are stringent enough to offer a reasonable chance of mitigating the adverse effects of global warming.

This is obviously not something the policy can simply bring about in constative terms. No action that it undertakes, no program that it puts in place, and no standards that it requires adherence to will lead—as a logical and necessary matter—to the development of meaningful federal and international action on climate change. Yet in terms of performativity—i.e., the impacts that occur not because something can or will be done, but because it has simply been said that they can or will be done—there is always the possibility, however unlikely, that the policy will lead to additional jurisdictional responses at higher levels of government.

This brings us to the issue of justification. Sub-federal mitigation policies are commonly (though not exclusively) self-justified by reference to the extraordinary importance—in light of some underlying concern such as environmental integrity or economic stability—of mitigating climate change. On the face of things it seems perfectly reasonable that a mitigation policy should justify itself in terms of the importance of mitigation. But the face of things, in this context, typically fails to mention or glosses over the fact that the policy has utterly no chance (when viewed in constative terms) of stopping or significantly slowing the rise in global temperature or preventing the adverse impacts of climate change. Viewed thusly, we have an irrational justification for an irredeemably nugatory policy.
Sub-federal mitigation policies can, and indeed often are, justified to some extent on a performative basis—meaning their posited potential for catalyzing other like-minded actions. Yet herein lies a curious situation. While an otherwise irrational policy might be plausibly justified, and thus rendered rational, strictly by appeal to its performative potential, it seems highly improbable that such a policy would survive the political process on that basis alone. What is needed is some sort of constative hook on which to hang the performative hat. And in the case of sub-federal mitigation policies, such hooks are quite readily and plausibly available (see Chart 7).

Chart 7. State GHG Reduction Policy: Constative & Performative Dimensions (GHG and Non-GHG)

<table>
<thead>
<tr>
<th>Explicit GHG Objectives</th>
<th>Performative Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>True</td>
<td>Reduce GHG emissions</td>
</tr>
<tr>
<td>Stop or significantly slow the rise in global temperature</td>
<td>Yes, if and only if it leads to other jurisdictional responses, which eventually lead to a meaningful global response</td>
</tr>
<tr>
<td>False</td>
<td>Prevent any adverse impacts of climate change</td>
</tr>
<tr>
<td>False</td>
<td>Irrational Constative Justifications</td>
</tr>
<tr>
<td>Performative Justifications</td>
<td></td>
</tr>
<tr>
<td>Supplementary Non-GHG Justifications (constative hooks by dint of nested games)</td>
<td></td>
</tr>
<tr>
<td>- reduced energy usage</td>
<td></td>
</tr>
<tr>
<td>- greater fuel diversity</td>
<td></td>
</tr>
<tr>
<td>- greater price stability</td>
<td></td>
</tr>
<tr>
<td>- reduced criteria pollutants</td>
<td></td>
</tr>
<tr>
<td>- more jobs</td>
<td></td>
</tr>
<tr>
<td>- high-growth industries,</td>
<td></td>
</tr>
<tr>
<td>- hedge against federal schemes</td>
<td></td>
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<tr>
<td>Sub Rosa Justifications</td>
<td></td>
</tr>
<tr>
<td>- political mileage for politicians</td>
<td></td>
</tr>
<tr>
<td>- justification for rent-seeking</td>
<td></td>
</tr>
<tr>
<td>- improve perception of state</td>
<td></td>
</tr>
</tbody>
</table>
While an appeal to performativity alone would depict the policy as purely a rhetorical device, thus detracting from both its rhetorical force and political viability, there are numerous other non-GHG benefits that can be plausibly placed within the broad umbrella objective of reducing GHG emissions. Reducing energy consumption through conservation and energy efficiency, diversifying the fuel portfolio and thus securing greater price stability, reducing emissions of criteria pollutants and other harmful substances, improving the economy by creating more jobs, securing competitive advantages vis-à-vis green power markets and emerging regional GHG trading programs, attracting businesses in high-growth sectors, and functioning as a hedge against possible federal regulations are all benefits that can be attributed to sub-federal mitigation policies that seek to reduce GHG emissions.

There is an interesting conceptual dynamic at work here. The above non-GHG benefits fit within the umbrella objective of reducing GHG emissions because they either contribute to the reduction of GHG emissions, or react strategically to the development of GHG markets, policies and regulations. Yet they do nothing to enhance the ability—as indeed they can do nothing more in this regard—of the policy to bring about meaningful mitigation of climate change in constative terms. When put to the second question in our constative line of inquiry—i.e., will these actions bring about the desired result of meaningful mitigation of climate change—the constative answer remains “no.” With respect to this question, in order to arrive at an affirmative constative answer for these actions we would need to situate them in the context of another purpose, such as helping to achieve greater energy security by reducing American reliance on foreign oil. While justificatory appeals to these actions (and effects) are quite capable of enhancing the political viability of a sub-federal mitigation policy, the affirmative constativity of these actions exists outside the normative dispositions that underlie this policy. To borrow a term from rational choice theory, we are dealing with “nested games,” wherein that which “appears suboptimal from the
perspective of one game is in fact optimal when the whole network of games is considered.‖

C. A Brief Concluding Vignette

To the great surprise and satisfaction of your parents, you have become the major of North Park, a bustling city in the state of Colorado. Perched high in the Rocky Mountains at about 9,500 feet, the city is home to several popular ski resorts. In addition to bringing in a substantial amount of revenue (and people) to the local area, the ski resorts are also the largest employers of North Park’s residents.

Given the concerning prospect that human-induced global warming will result in less precipitation and substantially reduced snowpack throughout the area—transforming its climate, according to several popular reports, into something akin to the climate of Amarillo, Texas—executives of the ski resorts, and the people they employ, are understandably concerned. So much so that members of the city council have voted to place an initiative on the ballot that would authorize the city to levy and collect an excise tax from electricity customers to fund a Climate Action Plan. Implementation of the plan, according to its proponents, would enable the city to reduce its greenhouse gas emissions to 7% below 1990 levels by 2012, thus bringing it into line with the reduction requirements of the Kyoto Protocol. The price tag for the plan, which would involve programs dealing with energy efficiency, conservation, renewable energy, and

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111 GEORGE TSEBELIS, NESTED GAMES—RATIONAL CHOICES IN COMPARATIVE POLITICS 7 (1990).
112 City of Aspen Canary Initiative, Press Release—Aspen Climate Study Finds Serious Risk to Future of Skiing, July 26, 2006 (stating that “[i]f global emissions continue their rapid rise under a high emissions scenario, Aspen is projected to warm 14°F by the end of this century, giving it a similar climate to that of Amarillo, Texas.”). See also ASPEN GLOBAL CHANGE INSTITUTE, CLIMATE CHANGE AND ASPEN: AN ASSESSMENT OF IMPACTS AND POTENTIAL RESPONSES 25 (2006).
113 Not entirely unlike Initiative 202 (the Climate Action Plan Tax), which was approved by residents of the City of Boulder, Colorado, in November 2006—making it the first time in the U.S. “that a municipal government will impose an energy tax on its residents to directly combat climate change. SARAH VAN PELT AND CAROLYN BROUILLARD, A COMMUNITY TAKES CHARGE: BOULDER’S CARBON TAX 1 (2007) (emphasis added).
transportation, is estimated to be about $1.5 million per year through 2012.\footnote{Similar to the funding levels called for by the City of Boulder’s Climate Action Plan—i.e., “The annual total budget required to achieve these reductions ranges from $860,265 in 2007 to $1.98 million in 2012.” \textsc{City of Boulder, Climate Action Plan} 4 (2006).}

Now it so happens that you know (meaning, you believe that a reasonable interpretation of the relevant facts compels this conclusion) that achieving the goals of this prospective plan will have \textit{no measurable effect} on global warming; and, moreover, than any greenhouse gas reductions that North Park could achieve, however steep, would do \textit{nothing} to prevent any adverse impacts that might result from global warming. In short, you know that the direct results that could be achieved through the Climate Action Plan, in terms of actual emission reductions, are \textit{meaningless} in that they will neither prevent nor palliate the concerns that engendered the plan in the first place.

Being the conscientious steward of the public trust that you are, you (very briefly) consider publicly advocating against the ballot measure. This rectitudinal reverie, however, is cut short when you recall a recent poll of North Park’s residents, in which an impressive 80\% indicated their support for the measure.\footnote{Also not entirely unlike the results of a 2007 Gallup poll in which 79\% of respondents indicated support for imposing mandatory national controls on greenhouse gas emissions. Lydia Saad, \textit{Most Americans Back Curbs on Auto Emissions, Other Environmental Proposals}, \textsc{Gallup News Service}, April 5 (2007).} You are, after all, a relatively astute public servant and politician—one that sees the big picture, encompassing all (or at least more than one) of the possible benefits that might arise from a given course of action. So here’s the big picture that you see.

First, while you know that the amount of greenhouse gas reductions called for by the plan are far too small to prevent any climatic impacts from global warming, you also know that achieving those reductions will yield economic and environmental benefits regardless of what happens to the climate. Second, you know that given the concern about global warming expressed by local residents—and the exceedingly strong support for the
initiative’s passage—that denouncing the plan as ineffective with respect to global warming would be politically ill-conceived. You do, after all, like being mayor. And perhaps most importantly, you believe—meaning you know an objective interpretation of the relevant facts really should compel a reasonable person to reach this same conclusion—that this plan might have some symbolic power to help, in some meaningful fashion, bring about the national and international responses to climate change that ultimately will be required in order to avert harmful climatic impacts. And that whatever possibility this trickle-up theory might have of working won’t be enhanced (and might even be harmed) if you overly emphasize its strictly symbolic nature relative to global warming.

In sum, you see a very cogent set of reasons to support this enterprise. And so you announce, at a press conference convened the next day, your unequivocal support for the initiative. And you say things like, “Well, when it comes to global warming and climate change, we’re doing something about it in here in North Park. We are setting tough standards to reduce greenhouse emissions.”116 And you also say things like, “Global warming is one of the greatest challenges of our time. Rising temperatures mean less precipitation and snowpack for North Park. This plan will help us reduce these risks through energy efficiency, renewable energy, and reduced greenhouse gas emissions.”117 You start wrapping up by saying something like, “We will make a difference. By taking this action to reduce climate pollution, we will also improve quality of life and economic vitality for our residents and businesses.”118 And finally, with a glint in your political eye, you finish by saying something like, “In the face of federal inaction, our leadership will capture national and international attention.”119 Here you gesticulate grandly at the small group of reporters off to one side, and continue—“Our message that we as a city can and should cut our contributions to

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116 Governor Bill Richardson of New Mexico, Speech at the Democratic National Committee Winter 2007 Meeting (Feb. 4, 2007).
119 Id.
global warming will be heard around the country and the world.”

You run unopposed in the next mayoral election, and are elected in a landslide.

CONCLUSION

My goal throughout this article was to explore the rationality of sub-federal mitigation policies while also elaborating and applying a conceptual framework to assist in this effort. Using the concepts of constativity and performativity—modified from Austin’s schema to suit our own purposes—we can see that a policy that is irrational in constative terms may very well be rational in performative terms. And moreover, that while we can verify—with some comfortable measure of accuracy—whether a policy is affirmatively or negatively constative, we cannot do the same for its performativity—which takes its expression from numerous interrelated and overlapping factors, including perceptions regarding its constative status.

In the introduction to this article I characterized sub-federal climate mitigation efforts as being akin to placing a brightly colored paper hat on the head of a child sitting on the railroad tracks in the hopes that somehow the hat will prevent the locomotive rushing down the tracks from hurting the child. I then asked whether it would not be better to try and move the child off the tracks, rather than hope that a non-solution would, in the face of an extraordinary challenge, somehow be transformed into an extraordinary solution.

The child in this metaphor represents a sub-federal entity such as the state—though indeed it could represent any level of government or community, large or small. We cannot move the child off the tracks, which represent the climatological and other environmental systems that we are presently bound to. There is

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120 Id.
121 The above is a “humbug” hypothetical, in the spirit of George Washington Carver.
only one way of preventing the looming locomotive of climate change from killing the child—we must find a way to stop it.

The paper hat is obviously not up to the task of stopping the oncoming locomotive. In constative terms, the hat is as useless as it is irrational. In performative terms, however, the brightly colored hat might just have the ability (and in this metaphor it certainly does) to draw the conductor’s attention to the child’s plight in time for him to stop the engine. Maybe.