Winter Is Frigid, so I Say Bring on the Greenhouse Effect! A Legal and Policy Discussion of the Strategies the United States Must Employ to Combat Global Warming

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1. See AccuWeather.com, Brutal Cold into the Northeast, http://www.accuweather.com/news-top-headline.asp?partner=chicagosuntimes&traveler=0&date=2007-02-04&month=2&day=1&year=2007 (last visited October 15, 2007) ("The bone-chilling cold which has gripped the northern Plains and Midwest the past couple of days is now affecting the Northeast as well. Along with the brutal cold will come strong winds, which will make the already frigid temperatures feel even colder."). In early 2007, temperatures in the Midwest and Northeast were consistently below zero, even dipping as low as minus thirty-seven degrees. Id.
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I. INTRODUCTION

Oscar night 2007 proved to be as much a tribute to Al Gore and his Academy Award winning documentary on climate change as it was about the awards themselves. Amidst the star-studded gathering of the world's most celebrated actors, directors, and movie makers, a former Vice President emerged as the year's most compelling figure in film.\(^2\) There were no undertones or suggestions implicit in the presentation; rather, it was quite clear that Hollywood was on board with Gore's crusade to create national, if not international, awareness of the threat of global warming.\(^3\) In a word, the Oscars went green. This comes as no surprise, considering that climate change has become an issue, more and more, for scientists, politicians, and the general public as temperature increases have become progressively more definite and irreversible.\(^4\) Greenhouse gas emissions are on the rise in the United States as a whole,\(^5\) not to mention the rest of the world, and not enough is being done to curb them.

\(^2\) See William Booth, *Al Gore, Rock Star: Oscar Hopeful May be America's Coolest Ex-Vice President Ever*, WASH. POST, Feb. 25, 2007, at A01, available at [http://www.washingtonpost.com/wp-dyn/content/article/2007/02/24/AR2007022401586.html](http://www.washingtonpost.com/wp-dyn/content/article/2007/02/24/AR2007022401586.html). Gore's documentary *An Inconvenient Truth*, more than merely touted by the Academy, grossed 45 million dollars worldwide, making it the third-highest grossing documentary of all time. *Id.* In addition to watching the documentary, people are actually coming in droves to watch Gore present his slide show on climate change. In early February, the website for the University of Toronto's ticket sales "crashed" due to some 23,000 people attempting to purchase tickets in the first three minutes they were offered. *See id.* It is not as if Gore is the world's most compelling figure and everyone wants to soak up his aura. The issue is just "hot," and it has begun to reach all media forums. *See Dori Berman, Maryland Lawmakers Introduce Bills Aimed at Environmental Issues, DAILY RECORD (Md.), Feb. 9, 2007.*

\(^3\) The 79th Annual Academy Awards began much the same as any of the seventy-eight previous shows had, but "[a]s the ceremonies unfolded, environmentalism . . . turned out to be [the] central focus." *See Brian Hanrahan, Scorcese Brings a Happy Ending to Oscar Show, L.A. TIMES, Feb. 26, 2007.* Gore was on stage twice, once as a winner for Best Documentary Feature and again as a presenter, "[m]a[king] an onstage pitch with Leonardo DiCaprio for green technologies." *Id.* All the while the audience was fully prepared for Gore to take the next leap and announce another bid for the presidency, though the moment never came.


Concern over potential atmospheric warming has evolved from its roots as an academic and scientific issue to one that pervades every sector of modern society. Nothing and nobody is immune from its reach. The business leader, once singularly concerned with profits and the bottom line, must now contemplate conversion to environmentally friendly technology in his power plants to anticipate potential regulation. The farmer, principally at the mercy of Mother Nature, must consider how climate change will affect the conditions under which he cultivates his crop. So too the law firm, always looking to expand its practice, must be mindful of the emerging need for advocates in the area of "climate change litigation." Furthermore, if recent developments are any indication of the course that the United States is taking in this area, climate change will be among the most important legal issues of the twenty-first century.

In September 2006, California became the first state to adopt a comprehensive regulatory program specifically aimed at combating climate change. Other states have begun, and will continue, to follow California’s lead. Conspicuously absent from the fight, however, is Congress. But Federal inaction does not mean that Congress is not concerned with the data it has on climate change. Nor does it imply that members of Congress

6. "Back in 1956, a New York Times headline read: 'Warmer Climate on Earth May Be Due to More Carbon Dioxide in the Air.' Fifty years later, nearly every scientist in the world subscribes to the view that the Earth’s climate is changing at an accelerated rate." Jurriaan Kamp, The Courthouse Effect, ODE, June 2006, at 29. The increased scientific certainty about climate change has caused others to become consumed by the issue. At the 2007 annual meeting for the World Economic Forum, climate change was voted as the number one most likely factor to impact world economy. World Economic Forum—Annual Meeting 2007, http://www.weforum.org/en/events/ArchivedEvents/AnnualMeeting2007/index.htm (last visited Oct. 15, 2007) [hereinafter World Economic Forum].

7. See infra notes 27, 135-36 and accompanying text.

8. All climatic changes are potential problems for the farmer. See NAT’L RESEARCH COUNCIL, CLIMATE CHANGE SCIENCE: AN ANALYSIS OF SOME KEY QUESTIONS 19 (2001). The increase in the recycling rate due to the high temperature will cause drier conditions in some regions, especially the U.S. Great Plains, and the overall higher evaporation rates will lead to increased intensity and frequency of heavy rain events. See id. For the farmer, this poses catastrophic harm to the stability and predictability of his crop production. See id.

9. See infra notes 60-68 and accompanying text.

10. See infra text accompanying notes 244-62.

11. In early 2007, the Montana Legislature introduced a bill in its House proposing legislation with very similar language to the California law. See Montana Global Warming Solutions Act, H.B. 753, 60th Leg., Reg. Sess. (Mt. 2007). Texas, similarly, mirrors the language of the California law in its bill pending before the state senate. Texas Global Warming Solutions Act, S.B. 945, 80(R) (Tex. 2007). California’s initiative will continue to encourage other states to enact legislation to address climate change.
have not pushed for regulation. Rather, Congress is silent for another reason—namely, that industry lobbyists have convinced legislators that federal regulation would be unforgivably injurious to the American economy. The current Presidential administration has made it clear, moreover, that America will have no part in any international efforts to combat climate change, nor will it create a national program to deal with the issue domestically. Unfortunately, America cannot afford to sit this one out, not when the penalties for inaction are great and there is still time to reverse current climate trends.

This Comment will examine the legal means available to combat global warming and give a framework on how such means can be implemented and pursued. There are two viable strategies to employ: (1) using the court process to bring claims against emitters of greenhouse gases, and (2) enacting or modifying the laws to reflect a more comprehensive statutory stance against global warming. Of course, the two are interrelated. Regulation will precipitate lawsuits challenging the constitutionality or implementation of the regulation. Additionally, legislators will react to court decisions on the issue with legislation either to reinforce, or alternatively to preempt, the law created in the courts.

The common law approach to remedying environmental ills has been used often with mixed success over the years. Moreover, Connecticut v. American Electric Co. indicates that the courts may not be ready to tackle

12. See infra notes 192-201 and accompanying text.
13. See infra notes 263-81 and accompanying text.
14. See infra notes 131-33, 196, 285 and accompanying text.
15. See infra notes 33-59 and accompanying text.
17. See infra notes 128-281 and accompanying text.
18. See infra notes 117-27 and accompanying text.
19. See infra note 134 and accompanying text.
20. See Missouri v. Illinois, 200 U.S. 496 (1906) (Holmes, J.) (holding—in action brought by the State of Missouri on behalf of its citizens to enjoin the City of Chicago from discharging its sewage into an artificial channel which eventually emptied into the Mississippi River and adversely affected Missouri residents—that there was lack of proof that resultant sickness was caused by Chicago’s dumping activities); see also Georgia v. Tenn. Copper Co., 206 U.S. 230 (1907) (Holmes, J.) (enjoining defendant in an action brought by State of Georgia to stop copper company from smelting activities which released noxious gas that spread to five counties in Georgia); New York v. New Jersey, 256 U.S. 296 (1921) (holding—in action brought by New York to enjoin New Jersey’s sewage disposal practices—that such problems, though significant, were properly reserved for the state representatives, whose resources could be properly utilized to make agreements and/or compromises with the representatives of the other state). The United States Supreme Court began moving away from regulating interstate activities that may or may not have constituted nuisances, electing to leave the resolution of the matter to the legislative branch.
the global warming issue, thus leaving its resolution to the legislature. Nevertheless, if a court could be convinced that the issue is ripe for decision, then lawsuits could be strong weapons to reduce greenhouse gas emissions.

As far as legislation goes, this Comment will emphasize that a comprehensive regulatory program is not only possible, but required if the United States wishes to nip global warming in the bud. There exists considerable support for federal regulation of greenhouse gas emissions, however, the President wants nothing to do with regulation in this area. Nevertheless, an increase in the accuracy and certainty of scientific data on climate change, coupled with cooperation by some energy leaders, indicate that there will be significant pressure on Congress to take a stand against global warming in the near future.

21. "[C]ases presenting political questions are consigned to the political branches that are accountable to the People, not to the Judiciary, and the Judiciary is without power to resolve them." American Electric, 406 F. Supp. 2d at 267. The court determined that the issue of global warming, and whether the defendants contributed to it, was political in nature, and could not be decided based on common law nuisance. Id. at 274.

22. See RESTATEMENT (SECOND) OF TORTS § 821B cmt. i (1979). In a public nuisance action, to get an injunction, the plaintiff must show that the act of the defendant was "so unreasonable that it must be stopped." On the other hand, to get monetary damages in a public nuisance action, the plaintiff "must have suffered damage different in kind from that suffered by the general public." Id. Therefore, it is more common to get an injunction in a public nuisance suit. See id.

23. See infra notes 191-281 and accompanying text.


25. Andrew C. Revkin, Budgets Falling in Race to Fight Global Warming, N.Y. TIMES, Oct. 30, 2006, at A1. The President and most lawmakers and industries strongly oppose any caps or taxes associated with emissions. Id.


27. Steve Lohr, The Cost of an Overheated Planet, N.Y. TIMES, Dec. 12, 2006, at C1. James Rogers, CEO of Duke Energy, "a coal-burning utility in the Midwest and Southeast," advocates federal regulation. Id. He does so not out of altruism, but rather because he wants to have a system in place so he can evaluate his risks and hedge against the costs. Id.
Part II will cover the important scientific and statistical data available on climate change. Part III provides a background and basis for both environmental regulation and litigation, covering the twentieth century through the present. Part IV applies the scientific policy principles to the legal framework. Part V presents a picture of what lies ahead for this area of the law, and Part VI concludes the discussion.

II. SCIENTIFIC FRAMEWORK AND CURRENT TRENDS

Global warming is driven by human activities that have greatly enhanced the greenhouse effect. The greenhouse effect is the process by which the earth retains some of the heat radiated by the sun. Human

28. See infra text accompanying notes 33-59.
29. See infra text accompanying notes 60-127.
30. See infra text accompanying notes 128-281.
31. See infra text accompanying notes 282-97.
32. See infra text accompanying notes 298-303.
33. According to the National Research Council in 2001, the causal link between increased greenhouse gas buildup and the global warming trend has not been unequivocally established. See EPA, Climate Change: Science, http://epa.gov/climatechange/science/index.html (last visited Oct. 15, 2007) [hereinafter EPA: Science]. Nevertheless, there is a very large correlation between the two trends, in that during the period in which greenhouse gases have built up, we have also experienced an increase in average global temperatures. See id. But see Lisa Antilla, Climate of Skepticism: US Newspaper Coverage of the Science of Climate Change, 15 GLOBAL ENVTL. CHANGE 231, 338 (2005) ("The Intergovernmental Panel on Climate Change (IPCC) concluded (2001) that there is strong evidence that most of the observed warming of the Earth over the last 50 years is attributable to human activities, and other scientific bodies agree." (citing U.S. NAT'L RESEARCH COUNCIL, ABRupt CLIMATE CHANGE: INEVITABLE SURPRISES (2002))). Moreover, there are strong influences that are actually working to distract the public from the reality that climate change is driven by human activity. Id. Those industries primarily responsible for greenhouse gas emissions benefit greatly if there is uncertainty as to the source of global warming because they can carry on their high-emission business unfettered. See id. In 2004, Republican Senator James Inhofe was quoted on the floor of the Senate saying: "Global Warming is the greatest hoax ever perpetrated on the American people." Id. There is no doubt that large corporations responsible for fossil fuel consumption "provide financial support to their political allies in an effort to undermine public trust in climate science." Id. at 338-39. To make matters worse, "[j]t is well-recognised that in order to maintain an illusion of intense controversy, industry lobbies as well as special interest groups and PR firms have manipulated climate science and exploited the US media." Id. at 340. Therefore the majority of the general public has been exposed to this media "construct" that global warming is not a legitimate concern. See id. at 339; see also First Report from U.S. Climate Change Science Program Examines Temperature Trends, 16 AIR POLLUTION CONSULTANT 1.7, 1.7 (2006) (concluding that "there is no longer a discrepancy in the rate of global average temperature increase" and further indicating at least the substantial connection between climate change and "human influences").
34. See EPA: Science, supra note 33.

The Earth absorbs energy from the Sun, and also radiates energy back into space. However, much of this energy going back to space is absorbed by "greenhouse" gases in the atmosphere. Because the atmosphere then radiates most of this energy back to the Earth's surface, our planet is warmer than it would be if the atmosphere did not contain these gases. Without this natural "greenhouse effect," temperatures would be about 60°F lower than they are now, and life as we know it today would not be possible.
activities, such as burning fossil fuels, increase the amount of greenhouse gases in the atmosphere. The carbon stored in certain fuels is released as they are burned, and that carbon is emitted almost entirely as carbon dioxide. The process by which power plants in the United States convert coal into electricity accounts for the largest portion of annual domestic carbon dioxide emissions. In addition to carbon dioxide, which is far and away the most dominant greenhouse gas, emissions of methane, nitrous oxide, tropospheric ozone, and fluorinated gases contribute to the enhancement of the greenhouse effect. It is difficult, therefore, to deny the human contribution to greenhouse gas concentrations. Likewise, because the greenhouse effect regulates global climates, it is also difficult to deny the human contribution to global warming.

Id. (internal citation omitted). The greenhouse effect is an essential process that warms the Earth and makes our planet inhabitable. See id. Recent concern has focused on human activities which have operated to enhance the greenhouse effect. NAT'L RESEARCH COUNCIL, supra note 8, at 6 ("Those gases that absorb infrared radiation . . . tend to prevent this heat radiation from escaping to space, leading eventually to a warming of Earth's surface. The observations of human-induced forcings underlie the current concerns about climate change.").

35. EPA: Science, supra note 33. By burning such fossil fuels as coal, natural gas, oil, and gasoline, we are responsible for emitting large amounts of carbon dioxide and methane, two principal greenhouse gases, which begin to accumulate in the atmosphere, thereby enhancing the natural greenhouse effect and giving rise to an increase in global temperatures and other changes that accompany such increases. Id.; see also EPA, Climate Change: Greenhouse Gas Emissions: Human-Related Sources and Sinks of Carbon Dioxide, http://epa.gov/climatechange/emissions/co2_human.html (last visited Oct. 15, 2007) [hereinafter EPA: Human-Related Sources] ("The largest source of CO2 emissions globally is the combustion of fossil fuels such as coal, oil and gas in power plants, automobiles, industrial facilities and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production and the use of petroleum-based products can also lead to CO2 emissions.").

37. Id.; see also EPA, supra note 5, §§ 2.24, 2.26 ("The generation, transmission, and distribution of electricity, which is the largest economic sector in the United States, accounted for 33 percent of total U.S. greenhouse gas emissions in 2004."). Transportation ranks second at twenty-eight percent of all U.S. emissions. Id. § 2.26.

38. NAT'L RESEARCH COUNCIL, supra note 8, at 10; ALLEY ET AL., supra note 26, at 2 ("Carbon dioxide is the most important anthropogenic greenhouse gas."). Anthropogenic, as used in reference to greenhouse gas emissions, refers to emissions which are caused by human activities. NAT'L RESEARCH COUNCIL, supra note 8, at 10 n.1.


40. According to the IPCC, it is very likely that the warming trend began to occur late in the twentieth century and, further, it is likely that human activities have contributed to observed warming. ALLEY ET AL., supra note 26, at 7 tbl. 1; see also NAT'L RESEARCH COUNCIL, supra note 8, at 6; supra notes 33-38 and accompanying text.
A. Greenhouse Gas Emissions

Those concerned with the recent trend in greenhouse gas emissions use the year 1990 as a starting point. Additionally, important regulatory legislation and other efforts to reduce annual levels of greenhouse gas emissions have used 1990 levels as a baseline. Between 1990 and 2004, the total annual emissions in the United States have risen by almost sixteen percent. The reasons for such figures are predictable, in that they are the result of our increasing appetite for energy. With economic expansion, a larger population, and an increased tendency to travel, our nation has also demanded more electricity, gasoline, and petroleum to run our businesses, expand industrial production, and drive our automobiles. Seeing as there is no indication our population will level off or that our economy will slow down, greenhouse gas emissions are projected to rise significantly by the year 2020.

B. Environmental Impacts

According to the EPA, which obtains its information from the Intergovernmental Panel on Climate Change (IPCC) and the National

41. EPA, supra note 5, § 2.1; see also William Sweet, Clean Air, Murky Precedent, N.Y. Times, Sept. 29, 2006, at A23.
43. EPA, supra note 5, at § 2.1. The IPCC projects that throughout the twenty-first century greenhouse gas emissions will rise somewhere between 50 and 150 percent and the greatest increases will occur in developing countries. EPA: Future Atmosphere Changes, supra note 39.
44. EPA, supra note 5, at §§ 2.1, 2.4. When compared to rates of economic and social indicators such as overall energy consumption, fossil fuel consumption, electricity consumption, and the Gross Domestic Product, the rate of increase of greenhouse gases actually has been the slowest. See id.
45. Id. § 2.1; see also EPA: Science, supra note 33 (“During the past century humans have substantially increased GHG concentrations by “burning fossil fuels such as coal, natural gas, oil and gasoline to power our cars, factories, utilities and appliances.”).
46. U.S. DEP'T OF STATE, U.S. CLIMATE ACTION REPORT 2002 73 (2002), available at http://www.cgerio.org/CAR2002 (“Total net U.S. greenhouse gas emissions are projected to rise by 42.7 percent . . . for 2020.”). The report is not a completely grim reflection, however, because although the percentage of emissions will certainly grow according to its figures, the rate of increase in emissions over the period 2000-2020 is predicted to diminish over the same period. Id. This decline in the growth rate reflects “the influence of development and implementation of cleaner, more efficient technologies that reduce the ratio of greenhouse gas emissions” as compared to the Gross Domestic Product, which tends to be a good measuring stick for greenhouse gas emissions. See id.
47. Findings of the IPCC are generally considered “authoritative” when it comes to policy discussions on climate change. NAT’L RESEARCH COUNCIL, supra note 8, at 22.
Research Council (NRC), 48 "current estimates of the magnitude of future warming should be regarded as tentative and subject to future adjustments." 49 The IPCC projects that average global surface temperatures will increase somewhere between two and ten degrees by the end of this century. 50 The concern over these projections reflects an understanding that other climate changes will accompany global warming. 51 These potential climate-driven changes seem to raise three important questions. First, what changes are in store for the United States if the global warming trend continues? Second, will these changes even have a significant effect on our lives? Third, considering the answers to the first two questions, are we concerned with doing anything to combat global warming?

Although many changes are predicted, their impacts and intensities are uncertain. 52 The nation will experience regional adaptations in agricultural production, 53 as well as a greater susceptibility to drought and infectious disease. 54 The most significant changes are forecasted to occur in the

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48. The National Research Council is the institutional author of the comprehensive book on climate change, entitled CLIMATE CHANGE SCIENCE, supra note 8, cited consistently in this article; but see ALLEY ET AL., supra note 26, at 5 ("Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level."). The IPCC also authored the Fourth Assessment, supra note 26, a summary of which was released on February 2, 2007. See Thomas H. Maugh II, No Stopping Climate Shift, U.N. Study Says, L.A. TIMES, Feb. 2, 2007. Its findings are far more conclusive than its earlier reports, and the EPA will certainly ameliorate its policies to coincide with the most recent IPCC findings. See id.


50. This rate represents a trend that could be somewhere between two and ten times higher than the rate of increase in the twentieth century, and one that has not been reached in the last 10,000 years. Id.

51. Many changes, such as a decline in mountain glaciers and snow cover and an increase in the average sea level, have already been well documented. See ALLEY ET AL., supra note 26, at 5. These changes will continue and be magnified by the melting of the polar ice sheets. EPA: Future Sea Level Changes, http://www.epa.gov/climatechange/science/futureslc.html (last visited Oct. 15, 2007) [hereinafter EPA: Sea Level]. There exists a great potential for sea level rise resulting from the melting of the Greenland and Antarctic ice sheets; however, the melting is expected to be gradual, occurring over millennia as the warming trend continues. Nevertheless, the average sea level could rise up to almost thirty-five inches by 2100, according to IPCC figures. Id. Additional variations such as changing precipitation rates, changing vegetation, greater temperature disparities over twenty-four-hour periods, increased intensity of tropical cyclones, and other regional changes will also result. NAT'L RESEARCH COUNCIL, supra note 8, at 19.

52. NAT'L RESEARCH COUNCIL, supra note 8, at 20.

53. Id. at 19 (predicting that a hotter and drier climate will lead to a decline in agriculture and forestry).

54. Id. at 19-20. The spread and frequency of infectious disease, though not completely understood, could also accompany climate change. Id. at 20.
coastal regions, where temperature change could increase the prevalence and intensity of severe weather, and rising sea levels could result in coastal flooding.\textsuperscript{55} There is no doubt that these changes will be “significant,” however the United States, with its substantial resources, should be able to adapt to the changes without experiencing great instability.\textsuperscript{56} Nevertheless, the widespread changes resulting from global warming will be shouldered by the United States at substantial cost,\textsuperscript{57} and developing countries could be in far more danger.\textsuperscript{58} Therefore, in response to the third question, the answer should be in the affirmative. Global warming, by its very name, is a world-wide issue, and the United States, as a global leader in almost every area, should wear the hat of environmental stewardship and encourage others to do the same.\textsuperscript{59}

III. HISTORY AND BACKGROUND: COMMON LAW NUISANCE AND ENVIRONMENTAL REGULATORY HISTORY

Before discussing how global warming can be fought in the courts and by the Legislature, it is important to have a historical framework for nuisance law and legislation as they pertain to environmental issues. Since

\begin{footnotesize}
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\item \textsuperscript{55} Id.; see also ALLEY ET AL., supra note 26, at 5 (“\textit{[N]}umerous long-term changes in climate have been observed. These include changes in Arctic temperatures and ice, widespread changes in precipitation amounts, ocean salinity, wind patterns and aspects of extreme weather including droughts, heavy precipitation, heat waves and the intensity of tropical cyclones.”) (citations omitted).
\item \textsuperscript{56} According to the U.S. National Assessment of Climate Change Impacts, the United States should be able to absorb the effects of climate change. NAT’L RESEARCH COUNCIL, supra note 8, at 20; see also Sunstein, supra note 4, at 17 (“So even in the worst-case scenarios for global warming, the United States is probably not at severe risk.”).
\item \textsuperscript{57} NAT’L RESEARCH COUNCIL, supra note 8, at 20. Whether the United States acts or not the cost will be huge; it is estimated that over the next fifty years it will require an annual expenditure of one percent of total global economic activity to combat global warming. Lohr, supra note 27, at Cl. At the same time, simply waiting for the disasters projected to occur as a result of global warming could cost between five and twenty times more than preventive measures. Climate Change, supra note 24, at 55.
\item \textsuperscript{58} Poor countries that are dependent upon local agriculture could be in for severe problems including economic devastation and health problems. Sunstein, supra note 4, at 17-18. Furthermore, such countries lack the wealth to properly respond to or prepare for such risks. \textit{Id.}
\item \textsuperscript{59} Climate Change, supra note 24, at 55. Unless the United States attempts to curb its greenhouse gas emissions, developing countries will not have incentives to make similar changes. \textit{Id.} Whether or not the U.S. wants to accept its position as a world leader in combating climate change, it should do so for a couple of reasons. First, the U.S. is one of the leading culprits of global warming, contributing roughly twenty-five percent of worldwide carbon dioxide emissions. See Symposium, The Role of State Attorneys General in National Environmental Policy, 30 COLUM. J. ENVTL. L. 351, 360 (2005). Second, much as California took a stand in enacting a global warming statute, the U.S. needs to be at the forefront in order to justify its position as a leader in all other areas. \textit{Cf.} CAL. HEALTH & SAFETY CODE § 38051(c) (West 2007) (“California has long been a national and international leader on energy conservation and environmental stewardship efforts . . . [and will] continue this tradition of environmental leadership by placing California at the forefront of national and international efforts to reduce emissions . . . .”).
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common law nuisance only occupies a small piece of the environmental law pie, its treatment will accordingly be pithy. With respect to nuisance, the focus will be on those cases which have attempted to cure broad environmental ills. The discussion of regulatory history, on the other hand, will begin with general environmental regulation and focus more recently on regulations that specifically deal with atmospheric pollution.

A. Common Law Public Nuisance

"A public nuisance is an unreasonable interference with a right common to the general public." The reasonableness analysis in a public nuisance action is analogous to that used for negligent, reckless, or abnormally dangerous conduct. Those rights commonly believed to be held by the general public include public peace, health, safety, morals, comfort, and convenience. Moreover, if the conduct is "proscribed by a statute, ordinance or administrative regulation," there is strong evidence it is unreasonable. The scope of what offenses are covered under these categories is very broad. Nevertheless, it was not until the early twentieth century that the United States Supreme Court decided a nuisance action with significant environmental ramifications. The benefit of public nuisance for environmental issues is the potential for getting an injunction. Whereas in private nuisance, especially when only brought by a single landowning

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60. When compared to environmental legislation, common law suits represent a rare effort to cure environmental ills or further environmental stewardship aims. See, e.g., ROBERT V. PERCIVAL ET AL., ENVIRONMENTAL REGULATION: LAW, SCIENCE AND POLICY 101 (3d ed. 2000) ("THe common law has proved to be a crude mechanism at best for controlling the onslaught of modern-day pollution."). Nevertheless, there are some who are optimistic about bringing global warming litigation to the forefront. See Kamp, supra note 6, at 31. According to Steve Susman, a noted litigation attorney, Hurricane Katrina has provided fertile soil for a large-scale global warming lawsuit. Id. at 32. Moreover, Susman is convinced that, in the absence of regulation, large damage judgments are the only way to compel U.S. industries to change emissions practices. See id. at 31.


62. Id. §§ 821B cmt. e, 822, 826-31. Whether or not the conduct was intentional or unintentional, there is a requirement that it be unreasonable to be a nuisance. Id. § 821B(1).

63. Id. § 821B cmt. b.

64. Id. § 821B(2)(b). Of course, if the conduct is proscribed by a specific federal statute then preemption may be an issue. See Symposium, supra note 59, at 356. Whereas if the Clean Air Act provided specific standards for greenhouse gas emissions, then a public nuisance action would probably be preempted under the concept of field preemption. See id. at 357. The principle behind field preemption is that where the federal regulation is sufficiently comprehensive that it covers the area sought to be addressed by the common law action, the court uses the Supremacy Clause of the U.S. Constitution to find the common law preempted. See id. at 357-58.

65. See infra notes 72-76 and accompanying text.
plaintiff, it is difficult to get an injunction. The possibility of getting an injunction in a successful public nuisance suit is considerably greater. This distinction is very important in environmental law, where damage remedies are not adequate to protect environmental interests, and the only way to avert environmental degradation is to stop the harmful activity.

1. Origins of Nuisance in Environmental Law

At its common law roots, public nuisance was utilized to seek relief from those who interfered with public highways or encroached on the royal domain. Environmental issues were first reached in cases where entities either contaminated public waters or emitted "noxious fumes." During the Industrial Revolution courts were reluctant to find large corporations liable under public nuisance law, fearing that to do so would negatively impact the economy.

66. See Madison v. Ducktown Sulphur, Copper & Iron Co., 83 S.W. 658, 662 (Tenn. 1904). In order to get an injunction, "the right must be clear, and the injury must be clearly established." Id. (citations omitted).

67. Injunctive relief in nuisance requires a showing that there is a threat of irreparable harm and that there is no adequate remedy at law. Harrison v. Ind. Auto Shredders Co., 528 F.2d 1107, 1123 (7th Cir. 1976); see also Boomer v. Atl. Cement Co., 26 N.Y.2d 219, 227 (1970). In order to sustain a permanent injunction the court takes into account the social utility of the defendant's conduct, the continued nature of the nuisance, and the balance of equities. Boomer, 26 N.Y.2d at 227. The greater the utility of the defendant's conduct, though inevitably unreasonable and therefore a nuisance, the less likely the court will enjoin the conduct, electing instead to award the plaintiff damages. See id.

68. There is a strong incentive to seek an injunction against a greenhouse gas emitter, seeing as a court order to abate such practices would virtually prevent or limit the emitter's ability to continue its practices. See Connecticut v. Am. Elec. Power Co., 406 F. Supp. 2d 265, 267 (S.D.N.Y. 2005) (seeking to enjoin power companies from emitting greenhouse gases). At the same time, there is support for the proposition that a substantial damage judgment would deter emissions and entice emitters to invest in and implement cleaner technology much as the tobacco litigation changed public opinion about the adverse effects of smoking. See Kamp, supra note 6, at 31. The theory behind seeking substantial damages is that large emitters will be scared into being more environmentally friendly to avoid potentially costly litigation. Id.


70. PERCIVAL ET AL., supra note 60, at 88. These cases dealt with interstate pollution, wherein the activities of one state adversely affected the citizens of another state, and the state brought an action on behalf of its people. See id.

71. Adverse economic effects have continued to be the most significant deterrent in the legislative and regulatory arenas. See Joel Franklin Brenner, Nuisance Law and the Industrial Revolution, 3 J. LEGAL STUD. 403, 421 (1974). Elected policy makers are unwilling to jump on board with expensive environmental programs when those programs will create costs that their constituents are unwilling to bear. Id. Moreover, the conservative Congress of the past decade coupled with a conservative executive made it difficult for activists against global warming to have their voices heard. Id. Additionally, rich countries, such as the United States, tend to believe they can adjust to global warming; therefore, they have little incentive to invest in programs and legislation to curb the trend. See Climate Change, supra note 24, at 55.
twentieth century which set the tone for public nuisance actions to come. In *Missouri v. Illinois* the Court decided whether Illinois was liable for dumping sewage into an artificial channel. The channel eventually reached the Mississippi River, and allegedly caused an increase in the occurrence of typhoid fever in St. Louis. The Supreme Court refused to enjoin Illinois' sewage dumping activities, however. The basis for the holding was not that the State of Missouri failed to make a case for nuisance, taking the facts in the light most favorable to the plaintiff's side, but rather that Missouri failed to show that St. Louis' incidences of typhoid fever were caused by Illinois' sewage diversion project.

Inevitably, *Missouri* opened the door for the Court to decide *Georgia v. Tennessee Copper Co.* the very next year. *Tennessee Copper* was decided by the same Court, authored by the very same Justice, and decided even as the ink from *Missouri* was still wet on the page; nevertheless, Georgia successfully obtained an injunction against Tennessee Copper's smelting activities. The difference was merely that Tennessee Copper's smelting

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72. 200 U.S. 496 (1906).
73. Id. at 517. Illinois had actually accomplished a very ambitious engineering feat. It previously dumped considerable sewage into Lake Michigan which led to rampant outbreaks of typhoid fever in Chicago. See *Percival et al., supra* note 60, at 88. To solve the problem, the state of Illinois constructed a "28-mile canal to reverse the flow of the Chicago River." Id. at 89. The river therefore was created to flow into the Des Plaines River which is a tributary of the Mighty Mississippi. Id. In doing so, raw sewage was diverted away from Chicago's drinking water supply and left to flow downstream toward the residents of St. Louis. Id. Of course, Missouri was not thrilled at being a destination for Chicago's toilets. See id.
74. *Missouri*, 200 U.S. at 526.
75. There was considerable uncertainty as to whether the cause of the typhoid fever cases originated from sewage dumped by Illinois or downstream contamination. Id. at 524. That is to say, the Supreme Court was unconvinced that Missouri's own sewage treatment activities did not cause the harm suffered. Id. The Court reached this conclusion in light of the fact that there was no definite pattern of typhoid incidence in St. Louis, tending to prove that a dramatic rise occurred in conjunction with the opening of Chicago's new drainage canal. Id. at 524-25. Additionally, the rise in incidences may have been caused by changes in reporting procedures. Id. at 525. The issue decided in this case involved harm as a result of a chain of activities, whereas most successful public nuisance suits have involved more direct harm. See Clawson v. Cent. Hudson Gas & Elec. Corp., 298 N.Y. 291 (1948) (declaring a public nuisance where defendant allowed dam to spray ice upon bridge, which created dangerous conditions for motorists); New York v. Fermenta ASC Corp., 608 N.Y.S.2d 980 (N.Y. Sup. Ct. 1994) (ruling in favor of plaintiffs where defendant's herbicide product contaminated groundwater); Sullivan County v. Filippo, 315 N.Y.S.2d 519 (N.Y. Sup. Ct. 1970) (finding sufficient evidence to establish public nuisance where a planned rock festival with ticket sales of 50,000 and 18 hours of performance was scheduled).
77. Id. at 238.

It is a fair and reasonable demand on the part of a sovereign that the air over its territory should not be polluted on a great scale by sulphurous acid gas, that the forests on its
practices released fumes that were unequivocally carried from Tennessee over the border into Georgia. Both Missouri and Tennessee Copper were decided using the federal common law nuisance, where the environmental harm caused was interstate in nature. The importance of federal common law nuisance was only fully realized decades later when the Supreme Court grappled with the notion of whether the federal common law was preempted by federal statutory law in Milwaukee I and Milwaukee II. Taken together, Milwaukee I and II stand for the proposition that "federal common law cause[s] of action for interstate environmental harm" are viable; however, when Congress enacts comprehensive legislation in the same area, common law is preempted.

mountains, be they better or worse, and whatever domestic destruction they have suffered, should not be further destroyed or threatened by the act of persons beyond its control, that the crops and orchards on its hills should not be endangered from the same source. If any such demand is to be enforced this must be notwithstanding the hesitation that we might feel if the suit were between private parties, and the doubt whether, for the injuries which they might be suffering to their property, they should not be left to an action at law.

Id. 78. Proof of injury to the general welfare of Georgia's population was not a difficult task, since there was simply no other activity being carried on in the area capable of emitting such quantities of sulfur dioxide into the atmosphere. Id. In fact, Georgia had previously filed suit against Tennessee Copper but agreed to dismiss the suit provided that the smelters reduce their emissions. See PERCIVAL ET AL., supra note 60, at 95. To remedy the situation, Tennessee Copper merely built taller smoke stacks, hence dispersing fumes over a wider area and creating a greater environmental impact, upon which Georgia re-filed their suit and hence the present case. Id. The causation requirement is especially problematic in climate change litigation. Trying to prove that a particular defendant, or group of defendants, is responsible for glacial melt, rising sea levels, natural disasters, and changing agricultural conditions will be an enormous feat. See Lori R. Baker, Global Warming: Attorneys General Declare Public Nuisance, 27 U. HAW. L. REV. 525, 533 (2005). It will be a task that challenges the scientific and evidentiary resources and skills of the plaintiff's attorney to prove that the damages suffered "would not have occurred or would have been less serious if it weren't for global warming, and that the particular companies in question are partly responsible for rising temperatures." Kamp, supra note 6, at 33.

79. See Matthew F. Pawa & Benjamin A. Krass, Behind the Curve: The National Media's Reporting on Global Warming, 33 B.C. ENVTL. AFF. L. REV. 485, 489 (2006). The Supreme Court "held that the right of a state to seek relief in federal court against an interstate nuisance was inherent in a constitutional scheme in which the states gave up their rights to resolve such disputes with military force." Id.


81. Pawa & Krass, supra note 79, at 489. Both Milwaukee I and II are still considered good law in the area of federal nuisance and preemption. Id. In Milwaukee II, moreover, the Court decided that although the language of the Clean Air Act and the legislative history were devoid of any indication that the law should preempt the federal common law of nuisance for pollution, the common law was preempted. See Benjamin P. Harper, Climate Change Litigation: The Federal Common Law of Interstate Nuisance and Federalism Concerns, 40 GA. L. REV. 661, 679-80 (2006). The holding in Milwaukee II does not mean that climate change litigation using nuisance is preempted. Whereas all listed pollutants are covered by the reach of the Clean Air Act, the EPA is unwilling to list carbon dioxide emissions or other greenhouse gases as a recognized pollutant. See infra note 119 and accompanying text.
2. Global Warming Litigation

Only recently has global warming become a "blue chip" environmental issue, and with increased recognition, global warming has been dragged into court. Connecticut v. American Electric Power Co., decided while the issue was hot on the tables of Congress, was ultimately determined to be an improper use of the court's common law authority. The court noted that Congress recognized the severity of the global warming problem, yet declined to set any limits on emissions. Noting that the suit "touched on so many areas of national and international policy," the court resolved that the issue could not be reached until the "elected branches" took a definite stance on the myriad of policy determinations concerning global warming. The action was accordingly dismissed at the pleading stage.

82. Blue chip is a reference commonly given to the Dow Jones Industrial Stocks and used colloquially to reference anything that has attained or been given top status or recognition.

83. See Connecticut v. Am. Elec. Power Co., 406 F. Supp. 2d 265, 267-68 (S.D.N.Y. 2005). Eight states and several private interest groups brought suit in the Federal District Court in New York, claiming that the defendants, five of the largest power companies in the United States, were contributing to the public nuisance of global warming, which was adversely affecting the welfare of the citizens of many states, and prayed for relief in the form of abatement. Id.

84. See infra notes 183-225 and accompanying text.

85. Am. Elec., 406 F. Supp. 2d at 267. The district court decided that the federal system, which provided for checks and balances, would be undermined if the court used its power to enjoin or abate the defendants' activities or used its discretion to set limits on the levels of emissions that they could permissibly allow. Id. The court found the issue of global warming to be peculiarly political in nature, requiring action by Congress (which is answerable to the constituents), not by the judiciary (which is answerable to no one). Id.

86. Id. at 268-69. The court highlighted Congress' interest in the issue and efforts to understand the risks, but again, it noted that Congress was not inclined to make definitive laws to limit greenhouse gas emissions. Id.; see, e.g., The Global Climate Protection Act of 1987, Pub. L. No. 100-204, 101 Stat. 1331, reprinted at 15 U.S.C. § 2901 (2000); see also Global Change Research Act, 15 U.S.C. §§ 2931-2938. In order to create a comprehensive global warming solution for the United States, the Global Climate Protection Act sets out a ten-year research program intended to improve current understandings of the global warming trend by identifying the activities, data collection, international efforts and programs needed to implement a comprehensive plan that is efficient and effective. See id. The court likewise identified Congressional bills passed which "barred the EPA from implementing the [Kyoto] Protocol." Am. Elec., 406 F. Supp. 2d at 269; see, e.g., Pub. L. No. 105-106, 112 Stat. 2461, 2496 (1998); Pub. L. No. 106-74, 113 Stat. 1047, 1080 (1999); Pub. L. No. 106-377, 114 Stat. 1141, 1441A-41 (2000). Ultimately, the court in American Electric was hesitant to step in and establish rules for greenhouse gas emissions where Congress was uneasy about regulating in the first place.

87. Am. Elec., 406 F. Supp. 2d at 272-73; 68 Fed. Reg. 52,922, 52,922-28 (noting that the EPA, in declining to regulate the emissions of greenhouse gases under the Clean Air Act, remarked that it would be hard pressed to imagine any issue that had more political or economic significance than global warming). The district court in American Electric, therefore, found the issue not to be ripe for judicial action precisely because the political branches had yet to take decisive action. Am. Elec.,
B. Regulatory Environmental Legislation

The legislative branch made a late arrival on the environmental stage and statutory law has only recently been used to limit environmental destruction and conserve natural resources. Following the Second World War, and into Franklin Roosevelt’s New Deal era, the federal government used its spending power to encourage states to legislate pollution controls into their statutory repertoire. The legislation contained a clear message that the states were ultimately responsible for environmental stewardship within their borders. However, Washington would soon discover that the most important environmental issues were distinctly interstate in nature, and could not be adequately addressed by distinct state programs.

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406 F. Supp. 2d. at 274.
When cases present political questions, judicial review would be inconsistent with the Framers’ insistence that our system be one of checks and balances. As set out below, cases presenting political questions are consigned to the political branches that are accountable to the People, not to the Judiciary, and the Judiciary is without power to resolve them. This is one of those cases.

Id. (citations and internal quotation marks omitted).
89. PERCIVAL ET AL., supra note 60, at 102-03. In fact, it was not until after WWII that environmental law became a creature of legislative action, thereby moving away from its common law roots. Id. at 102. The genesis of federal regulation actually dates back as far as the Homestead Act of 1862 and the Mining Act of 1872; however, these legislative pronouncements were created for the organized development of land, consumption of water, use of land, and exploitation of mineral resources. Id. Provisions enacted under the Homestead Act allowed for the efficient and organized settlement of lands and use of resources. See 43 U.S.C. §§ 325-39, 663, 946-49. The key distinction between early statutes and modern environmental legislation is that modernly, the emphasis is on conservation and efficiency rather than exploitation of the nation’s resources. Of course, protecting the nation’s resources has become an important policy for our nation, which is driven by consumerism and economic expansionism. Without a sound policy for conservation and protection of our land, air and waters, our way of life will not persist in the future.

90. See PERCIVAL ET AL., supra note 60, at 103; see, e.g., Water Pollution Control Act of 1948, 33 U.S.C. §§ 1251-63, 1265-70, 1273-74, 1281-1301, 1311-26, 1328-30, 1341-46, 1361-77, 1381-87. The provisions of the Water Pollution Control Act sought to establish guidelines and tools for implementation plans to be carried out by the states. See id. The main goal was to keep pollution out of intrastate and interstate waters. See id.

91. See PERCIVAL ET AL., supra note 60, at 103; cf. Sweet, supra note 41. When it comes to global warming, the control of greenhouse gas emissions is a tall task and one that cannot be accomplished by state in an “ad hoc” scheme. See Sweet, supra note 41. Also, an attempt to solve environmental problems may have economic repercussions elsewhere.” See ROGER W. FINDLEY & DANIEL A. FARBER, CASES AND MATERIALS ON ENVIRONMENTAL LAW 202 (5th ed. 1999). “Environmental regulations may, for example, have the intended or unintended effect of acting as barriers to trade.” Id. Essentially, large scale environmental problems cannot be solved without regulating activities which are interstate in character. Id. Fittingly, Congress is still struggling with the same issue it dealt with when environmental concerns first surfaced—whether the federal government or the individual states will be responsible for setting environmental regulatory standards. See id.

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1. Expansion of National Environmental Regulation

In the years between 1960 and 1970, the environmental movement began to hit its stride in Congress. This period was also the beginning of the environmental debate, which pitted those in favor of regulation against those who favored economic stability to the exclusion of environmental regulation. This decade set the table for the ten years that would follow by encouraging environmental debate and policy discussion, yet making no significant changes to the regulatory structure. It was the following decade, from 1970-1980, rather, that marked the creation of a comprehensive regulatory structure for environmental protection, punctuated by well-known environmental laws. This new era of federalizing environmental law was heralded in on January 1, 1970, when President Nixon went on national television and signed the National Environmental Policy Act. Congress likewise amended the Clean Air Act in 1970 and

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92. This movement in Washington was driven by the rise of environmental groups. PERCIVAL ET AL., supra note 60, at 104. Such groups as the Environmental Defense Fund (created by scientists opposed to DDT) and the Natural Resources Defense Council (begun in an effort to lobby the Federal Power Commission to consider the impact of electrical power projects on the environment they proposed to develop) began to put pressure on Congress to create more environmental legislation. Id.


[T]he policy stream has struggled to adapt to [new environmental problems] as well as to changes in the economy and society, [while] the politics stream has remained locked in the same old regulatory debate. This debate has focused largely on whether the United States should have more or less regulation rather than whether it should have a different kind of regulation.

Id.


95. PERCIVAL ET AL., supra note 60, at 105. The statutes enacted in the 1970s “established the ground rules for environmental protection efforts by mandating that environmental impacts be considered explicitly by federal agencies, by prohibiting actions that jeopardize endangered species, and by requiring the establishment of the first comprehensive controls on air and water pollution, toxic substances, and hazardous waste.” Id.

96. Erica J. Burgess, Comment, Trucks on our Turf: Seeking to Resolve the International Inconsistency in Public Citizen v. Department of Transportation, 66 U. PITT. L. REV. 601, 603 (2005) (“This statutory scheme signaled the first nationwide comprehensive approach to regulating the interaction between United States citizens and their environment.”). The National Environmental Policy Act (NEPA) stated its purpose as the following:

To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the
between 1972 and 1976 enacted the Clean Water Act, the Endangered Species Act and the Toxic Substances Control Act, just to name a few.

The government finally had a means of controlling nationwide environmental issues, recognizing at last that environmental hazards “do not respect state boundaries.” By the early 1980s, the United States had “built the legal and institutional infrastructure for environmental regulation.” The 1980s were characterized by expansion of the regulations already in place. Congress, following Ronald Reagan’s election, passed the Comprehensive Environmental Response, Reauthorization Act of 1986 (CERCLA). The act was primarily designed to provide a basis for the cleanup of hazardous waste sites and to put the responsibility for doing so on the parties who caused the contamination. It is known colloquially as the “Superfund” act.

NEPA, 42 U.S.C. § 4321 (2000). NEPA was Congress’ response to the need for an agency that would be in charge of conservation and environmental protection efforts generally and to coordinate and integrate various programs aimed at the environment. Additionally, NEPA set the standard for other legislation which came on its heels. 2 FRANK P. GRAD, TREATISE ON ENVIRONMENTAL LAW § 9.01 (1989).

97. The Clean Air Act, 42 U.S.C. § 7409, “imposed nationally uniform air quality standards on all states, overriding the objections of economists that such national uniformity made little economic sense.” LAZARUS, supra note 94, at 92. The Clean Air Act amendments marked the beginning of a “statutory and institutional” expansion of federal environmental law that was “dramatic, sweeping, and uncompromising.” Id. at 69.


99. PERCIVAL ET AL., supra note 60, at 105-08. Along with the new environmental structure that was established due to the outburst of legislative acts, the Environmental Protection Agency (EPA) was created by executive order in 1970. Id. at 108. Modernly, the EPA bears a heavy load and complications that arise as a result of the EPA’s oversight with respect to so many pieces of legislation is somewhat expected. See id. As a result, the EPA and state agencies have constantly been challenged to make adjustments “in response to problems with” implementation of the various legislative acts. Id.

100. The rise of modern environmental legislation is due, in part, to advocates’ recognition that “[r]egional and often national policy responses were necessary” to make an impact. FIORINO, supra note 93, at 43. Essentially there is a two-fold problem if the states try to run isolated global warming regulations programs. First, a state cannot control what pollution enters its atmosphere or escapes over state lines, and a state program could not address the real problem of carbon dioxide emissions that move over state lines. See Sweet, supra note 41. Second, there is no accountability for states that choose to do nothing about the problem. The dilemma can be illustrated by thinking about California. California is the second largest emitter of carbon dioxide in the United States and the twelfth largest in the world, single-handedly producing two-and-a-half percent of yearly global emissions. Felicity Barringer, California, Taking Big Gamble, Tries to Curb Greenhouse Gases, N.Y. TIMES, Sept. 15, 2006, at A1. If California refused to curb emissions—of course it is one of the only states committed to curbing emissions in reality—where would that leave the other forty-nine states working diligently to reduce emissions? One large emitter like California could undermine the rest of the nation’s investment under an ad-hoc, state-by-state scheme. Therefore, when it comes to regulation, only action by Congress is sufficiently comprehensive to address global warming.

101. FIORINO, supra note 93, at 45. In a single decade the U.S. “enacted a formidable array of laws, established a national regulatory agency, created a comprehensive system of regulation, and put major sectors of U.S. industry to the task of reducing and cleaning up pollution.” Id.

102. Id. at 48-49; PERCIVAL ET AL., supra note 60, at 111; LAZARUS, supra note 94, at 106.

103. The law was actually passed during the lame-duck session of Congress just prior to President Reagan taking office. LAZARUS, supra note 94, at 106.
Compensation, and Liability Act ("CERCLA") which was liability-based rather than merely regulatory. Onward the legislature marched, expanding environmental statutes and making the complex structure and interaction between the different laws even more complex. Amendments were written to increase efficiency in implementing regulations. Moreover, the importance of enforcement was not lost on Congress—it imposed deadlines for governmental agencies to act and specified sanctions for failure to meet such deadlines. Additionally, it increased sanctions for violating laws, including significant criminal punishment for intentional violations of the law. "As a result, environmental law became a settled part of the legal landscape and, therefore, ingrained in both public and private expectations." 

104. CERCLA's liability scheme was more closely tied to common law tort liability and evidenced Congress' ability and willingness to fashion laws that were responsive to the environmental harm they sought to prevent. Id. at 107. Furthermore, CERCLA was designed "to eliminate the threats from uncontrolled hazardous waste sites and to remove hazardous substance threats to public health and the environment in a cost-effective manner." FINDLEY & FARBER, supra note 91, at 613.

105. LAZARUS, supra note 94, at 106. The expansion of the law was not without purpose but operated to "broaden[] strengthen[] and [make] more specific" the existing laws. PERCIVAL ET AL., supra note 60, at 111. "Comprehensive amendments to [the Resource Conservation and Recovery Act] were adopted in 1984, to CERCLA and the Safe Drinking Water Act in 1986, to the Clean Water Act in 1987, and to the Clean Air Act in 1990." Id.

106. PERCIVAL ET AL., supra note 60, at 111.

107. Id. The 1980s were not marked by more legislation, but rather by a broadening of the regulatory reach and a deepening of its roots in policy and enforcement. See LAZARUS, supra note 94, at 124.

108. PERCIVAL ET AL., supra note 60, at 111. These changes were made even as the Reagan administration advocated a philosophy of minimal government regulation, maximum economic freedom, and increased wealth for the nation. LAZARUS, supra note 94, at 99. Such was proof that although the administration may oppose environmental regulation on the ground that it is not economically sound policy, strong Congressional will in favor of regulation can overcome such opposition.

109. LAZARUS, supra note 94, at 106. Interestingly, one of the most innovative laws of the decade was passed by the voters of California as Proposition 65 in 1986, entitled the Safe Drinking Water and Toxic Enforcement Act. See id. at 112. Proposition 65 "imposed flat bans on the discharge of certain carcinogenic or reproductive toxins into drinking water and also imposed a duty to warn on those persons responsible for exposing individuals to those toxins." Id. Under Proposition 65 businesses must provide a warning that is "clear and reasonable" before they have knowledge that their customers may be exposed to a listed chemical. California Office of Environmental Health Hazard Assessment, Proposition 65 in Plain Language!, http://www.oehha.ca.gov/prop65/background/p65plain.html (last visited Oct. 15, 2007). "This warning can be given by a variety of means, such as by labeling a consumer product, posting signs at the workplace, distributing notices at a rental housing complex, or publishing notices in a newspaper." Id. For anyone familiar with California businesses, such warnings are often displayed on conspicuous signs or placards or even in and around apartment complexes.

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2. Scaling Back Regulatory Programs

After expanding and strengthening environmental laws, Congress was ready for a new course, a period of "[r]egulatory [r]ecoil and [r]einvention." In 1994, the Republican Party gained control of both houses of Congress and began to attack the cost-benefit ratio value of many environmental programs. Although the Clinton administration favored environmental initiatives, Congress was unwilling to continue its pursuit of environmental reform. The result was a political stalemate, whereby Congress "lacked the time, patience, and political support to undertake a comprehensive overhaul of the main environmental laws." Congress, with its eye on economic concerns, proposed bills to limit its own ability to enact laws termed "unfunded mandates," aimed less-than-surreptitiously at environmental laws with state implementation guidelines that lacked appropriate funding. The implementation and regulation created by environmental laws was no doubt a costly agenda, accounted by one estimate to be $200 billion dollars per year by the start of the twenty-first century. Consequently, the ecotourism industry grew out of the protection of pristine environments, while a new market for environmentally friendly

110. PERCIVAL ET AL., supra note 60, at 113 (emphasis omitted).
111. FIORINO, supra note 93, at 52; see H.R. 1022, 104th Cong., (1st Sess. 1995) (requiring the President to enforce a rule that each federal agency wishing to enact a new rule or amend an old one must provide a risk and cost assessment if the law concerns the public health, safety or environment). Additionally, the bill specifically enumerated the EPA as an agency to which the law certainly applied. FIORINO, supra note 93, at 52.
112. FIORINO, supra note 93, at 53.
113. Unfunded mandates are laws and regulations directing state action which lack the necessary funding to carry out the proposals. LAZARUS, supra note 94, at 129.
114. Id. at 129-31. In addition, Congress proposed bills to compensate private property owners for "taking-type" deprivation of property as a result of federal restrictions on the use of protected lands, as well as limits on the government's ability to unduly regulate industry. Congress ultimately failed to get the vast majority of these bills passed. Id. at 129. But see PERCIVAL ET AL., supra note 60, at 113 ("In March 1995 Congress enacted the Unfunded Mandates Reform Act, which makes it procedurally more difficult to impose new regulatory requirements on state and local governments in the absence of federal funding for compliance.").
115. LAZARUS, supra note 94, at 162. The United States shoulders roughly forty percent of the worldwide cost—about $500 billion per year—in carrying out environmental programs, while the task of pollution control employs 1.4 million people. Id. Any way you slice it, environmental regulation is part of the national economy, and the industry it creates is viable only as far as the law allows it to be. Id. Environmental regulation does not come cheap, which is why many industries have begun investing on their own in alternative fuel and energy sources. See, e.g., Feinstein, supra note 24 ("Substantial venture capital funding is available today for clean energy projects expected to generate between 48,000 and 75,000 new jobs in our State over the next five years.... Bloom Energy[,] has raised $165 million to develop clean fuel cells that will produce both electricity and hydrogen to fuel our vehicles."). Rather than costing the economy, environmental efforts have provided incentives for industry to invest in the effort, creating jobs and cutting business costs in the long run. Id.
products was created.\textsuperscript{116} Environmental regulation quickly became entrenched in American business practices.

The Clean Air Act is the closest analogue available for legislation in the area of global warming.\textsuperscript{117} The Clean Air Act consists of eight major components formulated in the 1970 amendments, notwithstanding substantial amendments in 1977 and 1990.\textsuperscript{118} Greenhouse gas emissions have not come under regulation by the Clean Air Act since the main greenhouse gas—carbon dioxide—has not been included “within the Act’s definition of an air pollutant.”\textsuperscript{119} The Clean Air Act, due to the diversity of air pollution activities it seeks to address, is very complex, and the following is an attempt to oversimplify its structure.\textsuperscript{120}

At the heart of the law is the regulation of six conventional air pollutants with the establishment of national ambient air quality standards (NAAQs).\textsuperscript{121} The law assigns “responsibilities for addressing different aspects of our

\textsuperscript{116} LAZARUS, supra note 94, at 164.

\textsuperscript{117} The Clean Air Act is the principal source of statutory law in the area of air pollution. PERCIVAL ET AL., supra note 60, at 543. Although the Clean Air Act was originally passed in 1963 as 42 U.S.C. § 1857, the Act did not take on the quality of a “comprehensive national regulation” until the 1970 amendments were adopted. Id. at 544, 548. Before the 1970 amendments the Clean Air Act lacked the “stick” to beat states into compliance. See MARK SQUILLACE, 3 ENVIRONMENTAL LAW 41 (1st ed. 1988). Moreover, even as the amendments were passed, Nixon by executive order created the Environmental Protection Agency. Id.

\textsuperscript{118} See SQUILLACE, supra note 117, at 41. The following are the goals of the act: (1) to establish national ambient air quality standards (NAAQs) for specific pollutants, a goal which is at the heart of the act, PERCIVAL ET AL., supra note 60, at 551, and (2) to establish state implementation plans (SIPs) to achieve the standards set forth in NAAQs, SQUILLACE, supra note 117, at 41.

\textsuperscript{119} See Symposium, supra note 59, at 360 (“A legal opinion issued by EPA General Counsel Robert E. Fabricant on August 28, 2003, concludes that EPA does not have authority to regulate CO2 under the Clean Air Act because CO2 does not fall within the Act’s definition of an air pollutant.”). The EPA abided by Fabricant’s conclusion, though the Supreme Court ultimately found the General Counsel’s conclusion to be erroneous. See Massachusetts v. EPA, 127 S. Ct. 1438 (2007). The case presented the issue of whether the EPA has the statutory authority and obligation to regulate carbon dioxide emissions for new motor vehicles under section 202(a)(1) of the Clean Air Act, 42 U.S.C. § 7521(a)(1) (2000). In 2003, the EPA exercised its authority on the issue, refusing to regulate greenhouse gas emissions from motor vehicles. See 68 Fed. Reg. 52922 (Sept. 8, 2003). The District of Columbia Court of Appeals panel sided with the EPA. See Massachusetts v. EPA, 415 F.3d 50 (D.C. Cir. 2005), cert. granted, 126 S. Ct. 2960 (2006). The Supreme Court reversed and remanded. Massachusetts, 127 S. Ct. 1438 (holding that the Clean Air Act gives the EPA authorization to regulate greenhouse gas emissions from new motor vehicles if it concludes that such emissions contribute to climate change).

\textsuperscript{120} See PERCIVAL ET AL., supra note 60, at 544. The Clean Air Act is to federal environmental law as Leonardo Da Vinci is to art. It is the “centerpiece” of federal law in this area. See id.

\textsuperscript{121} Id. Furthermore the NAAQs are administered at regional levels, requiring each state and each region to meet the standards set by the NAAQs. SQUILLACE, supra note 117, at 42.
country’s air pollution problems to federal and state government.”

Furthermore, in the Clean Air Act, the legislature lists the pollutants, sets standards for emissions, and authorizes the EPA to approve (or not approve) how a state implementation plans to carry out the regulations. Accordingly, it is within the ambit of state authority to determine how to meet the NAAQs by creating programs designed to reduce emissions. If the state implementation plan (SIP) cannot meet the standards under the act, then the EPA must create a federal implementation plan (FIP). In *Train v. Natural Resources Defense Council*, the court directed states to “achieve compliance by any means seen fit.” The federal versus state dichotomy in environmental regulation, furthermore, is a principal issue for legislators to take into account when enacting a greenhouse gas emissions reduction program.

122. PERCIVAL ET AL., *supra* note 60, at 546. While the federal government was ultimately in charge of creating, enforcing, and implementing the legislation, each state was given the “primary” responsibility of regulating the air within its borders. FINDLEY & FARBER, *supra* note 91, at 344-45.

123. PERCIVAL ET AL., *supra* note 60, at 572. “Upon EPA approval, the SIP becomes federally enforceable.” Id. However, if a state does not submit an implementation plan or does not remedy the deficiencies in its proposed plan, it may be subject to sanctions. Id. Pursuant to *South Dakota v. Dole*, 483 U.S. 203, 206 (1987), although the Twenty-First Amendment prohibits the federal government from directly commanding the state to act, the federal government may provide incentives and use its spending power to influence state action. Id. at 207. Therefore, whereas the EPA may not commandeer the state executive power by forcing states to implement the NAAQs, the EPA is well within its authority to use other constitutional powers to influence the states. See id.

124. PERCIVAL ET AL., *supra* note 60, at 572. Once the NAAQs are established the state must adopt “a plan which provides for implementation, maintenance, and enforcement of such primary standards in each air quality control region.” Id.; see also 42 U.S.C. § 7410 (2000). Air Quality Control Regions (AQRs) are those areas within a state “designated by the EPA . . . for the purpose of providing for the attainment and/or maintenance of the [NAAQs]. All areas within a state must be included within an AOCR.” SQUILLACE, *supra* note 117, at 42.

125. WILLIAM H. ROGERS, JR., *ENVIRONMENTAL LAW* § 3.6 (1977). According to the Court in *Train v. Natural Resource Defense Council*, 421 U.S. 60, 98-99 (1975), states need not be held too strictly to the original provisions of their implementation plans, so long as the end result is reached. Furthermore, in *Train*, the court wrote the following:

The Act gives the Agency no authority to question the wisdom of a State’s choices of emission limitations if they are part of a plan which satisfies the standards of § 110(a)(2), and the Agency may devise and promulgate a specific plan . . . which satisfies those standards. Thus, so long as the ultimate effect of a State’s choice of emission limitations is compliance with the national standards for ambient air, the State is at liberty to adopt whatever mix of emission limitations it deems best suited to its particular situation.

Id. at 79 (citation omitted).

126. ROGERS, *supra* note 125, at § 3.8 (quoting *Train*, 421 U.S. at 79).

127. See infra text accompanying notes 235-62.
IV. ANALYSIS OF COMMON LAW AND STATUTORY OPTIONS FOR COMBATING GLOBAL WARMING

Being the most powerful country in the world, the United States is also burdened with a great responsibility when it comes to international issues, and global warming is no exception. The rest of the world, painfully aware of the risks posed by the upward trend in worldwide temperatures, will not bear the weight of cutting greenhouse gas emissions alone. Nevertheless, a plea by the Secretary-General of the United Nations, Kofi Annan, to the United States to cut greenhouse gas emissions by signing on to the Kyoto Protocol fell on deaf ears. By all accounts, the United Nations, and especially Europe, seems far more concerned about the issue than do American political leaders.

In the meantime, the Bush Administration has been firmly against costly federal programs to address the issue, instead electing to promote and invest in new technologies as a method of cutting emissions. Making efforts in

128. Climate Change, supra note 24, at 55. “American intransigence has been particularly irritating to Tony Blair, because climate change is one of the areas where the British prime minister might have got some reward for his support over Iraq.” Id.; see also Kofi Annan, As Climate Changes, Can We?, WASH. POST, Nov. 8, 2006, at A27 (encouraging all United Nations participants to take heed to Sir Nicholas Stern’s report that global warming is not myth, but reality). Kofi Annan does not specifically mention the United States in the article, but the inherent message clearly indicates that U.S. support for the U.N. efforts to fight climate change is required. Id.

129. There is no doubt that the U.N. has made efforts to convince the U.S. to ratify the Kyoto protocol; nevertheless, the U.S. has consistently maintained it will not be a party to the agreement. U.S. Rejects Annan Call to Cut Greenhouse Gases, REUTERS, Nov. 15, 2006, available at http://www.alertnet.org/thenews/newsdesk/L15584115.htm (last visited Oct. 15, 2007) [hereinafter U.S. Rejects Annan Call].

130. See Annan, supra note 128, at A27. “The Scientific consensus, already clear and incontrovertible, is moving toward the more alarmed end of the spectrum. Many scientists long known for their caution are now saying that warming has reached dire levels, generating feedback loops that will take us perilously close to a point of no return.” Id. Accordingly, the U.N. Secretary-General advocates adoption and implementation of the Kyoto Protocol. U.S. Rejects Annan Call, supra note 129. The European Union (EU) established the European Climate Change Programme (ECCP) in June of 2000 to cut emissions in accordance with the Kyoto Protocol. Regional Affairs: Second Climate Change Programme Launched, 35/6 ENVTL. POL’Y & L. 257 (2005) [hereinafter Regional Affairs]. The ECCP seeks to meet the reductions assigned in the Kyoto Protocol by improving energy efficiency, expanding the use of renewable resources, regulating fluorinated gases, reducing carbon dioxide emissions from vehicles, improving and expanding research and development for better technologies, and promoting the general public to make environmentally friendly decisions. Id. Europe, consisting of no fewer than twenty-five U.N. countries, has taken significant steps toward major greenhouse gas emission reductions by way of efficient energy sources, renewable energy, and technology policy. Id. at 257; see Kyoto Protocol, supra note 42, at Annex B. Additionally, the EU is dedicated to reaching the 2012 goals set forth in the Kyoto Program while keeping the cost of doing so reasonable. Regional Affairs, supra, at 257.

131. U.S. Rejects Annan Call, supra note 129. “Since 2001, when Mr. Bush abandoned a
the direction of new and more efficient energy technologies is, without question, a key feature of sound environmental policy. But only concentrating on subsidies and incentives for cleaner technologies will not significantly curb greenhouse gas emissions. A more comprehensive approach is needed, specifically, an approach utilizing every legal means available in order to put pressure on the sectors most responsible for higher atmospheric greenhouse gas concentrations. Businesses have already started to react to these concerns. Even though greenhouse gas output is

campaign pledge to limit carbon dioxide from power plants, he has said that too little is known about specific dangers of global warming to justify hard targets or mandatory curbs for the gas.” Revkin, supra note 25, at A1. There is an inherent struggle to pass legislation, therefore, when the President adamantly opposes limiting or capping fossil fuel emissions. See Lohr, supra note 27, at C1. According to the President, cutting greenhouse gas emissions would cost the U.S. in the ballpark of 5 million jobs. John Heilprin, Global Warming Policy in Gridlock, WISCONSIN ST. J., Oct. 7, 2006, at A1. He further pointed out that China and India were not cutting back, so why should we? See id. By the same token, there are others who estimate that environmental regulation will actually create millions of jobs, see id., so the president’s conclusions on this issue are anything but conclusive.


133. According to Adam Kirkman, who works as an energy and climate programme manager for World Business Council for Sustainable Development, there needs to be some mechanism to engage the financial community. See Ask the Experts: Getting to Grips with Global Warming, FT.COM, Feb. 16, 2006. “Investors and financiers must be enticed to allocate capital to low carbon infrastructure, and products and services that support good climate adaptation strategies.” Id. Therefore, some sort of regulation needs to be put in place, so that carbon dioxide emissions can be assigned a market value, whereby investors can make informed decisions on whether to allocate capital towards clean technologies. See id. Without the stick associated with regulatory legislation, the carrots that the federal government offers in the form of clean energy incentives will be insufficient to bring about meaningful emissions reductions. See id.; cf. Adele Nicholas, Warming Trend: Government and Private Plaintiffs Get Creative with Climate Change Litigation, INSIDE COUNSEL, Dec. 2006 (concluding that climate change litigation, by itself, is insufficient to fight the problem; however if the litigation can force Congress to act, then the litigation will be considered effective).

134. Feinstein, supra note 24 (advocating the use of market-based compliance mechanisms, caps on commercial, transportation and industrial sectors, investment in alternative energy, and promotion of “green” energy-efficient consumer products). The mounting evidence linking human activities to climate change “justifies prompt, more aggressive action to pay for or spur research and speed the movement of climate-friendly energy options into the marketplace.” See Revkin, supra note 25, at A1. Proponents of aggressive action are also proponents of comprehensive federal legislation. Id.

135. Lohr, supra note 27, at C1. Even the greatest culprit of all—the power sector—has begun to show support for regulation. See id. Their efforts are driven by the fact that regulation is inevitable, and they wish to be influential in the process, in hopes that the resultant regulations are predictable and no more restrictive to their business interests than is necessary. See id. Furthermore, many energy producers are investing in alternative technologies to prepare for regulation which would tighten their emissions outputs. Id. But see S.C. Gwynne, Coal Hard Facts, 35 TEX. MONTHLY 116, 117 (Jan. 2007) (“The reemergence of coal is, in the history of electricity generation, an astounding turn of events. After a quarter-century slumber, during which it had clear status as yesterday’s technology, coal is once again the fuel of choice for electric power.”). The move in the direction of cleaner energy is by no means uniform, and the benefits of cleaner technology may even be negated by the increased prevalence of fossil fuel-generated energy. See id.
not subject to regulation and there has not been a widespread incidence of civil suit for such emissions, American businesses are beginning to invest in “green technologies” in anticipation of future restraints and repercussions for continuing to emit large quantities of greenhouse gases.\footnote{See supra note 27 and accompanying text.}

A. Nuisance

In the absence of federal greenhouse gas reduction mandates, many states have addressed climate change through litigation.\footnote{Different approaches have been taken, for instance, trying to force the EPA to regulate greenhouse gases, supra notes 117-27 and accompanying text, as well as public nuisance, infra notes 146-90 and accompanying text; see also David R. Wooley & Elizabeth Morss, Clean Air Act Handbook § 6:36 (2006).} In the first highly publicized attempt\footnote{Global Warming Case Goes to Supreme Court, MSNBC.com, Nov. 28, 2006, http://www.msnbc.msn.com/id/15938695 (last visited Oct. 15, 2007) (reporting on the impact and importance of Massachusetts v. EPA); see also In Supreme Global Warming Case, States Face the Burden of Proving Harm, FoxNews.com, Nov. 29, 2006, http://www.foxnews.com/story/0,2933,232697,00.html (last visited Oct. 15, 2007) (same).} at using the courts to act (where Congress will not), “[twelve] states, three cities and several environmental groups . . . sought to force the [EPA] to regulate emissions of the greenhouse gases that . . . cause global warming.”\footnote{Split D.C. Circuit Rejects Regulation of Global-Warming Cases: Massachusetts v. EPA, 25 Andrew's Envtl. Litig. Rep. 2, 2 (2005).} The D.C. Circuit panel, in a split decision, refused to order the EPA to regulate greenhouse gas emissions.\footnote{Id.} The case was heard before the Supreme Court on November 29, 2006, and the Court issued an opinion on April 2, 2007.\footnote{Id.}

Although the plaintiffs in American Electric\footnote{Massachusetts v. EPA, 127 S. Ct. 1438 (2007). The decision by the Supreme Court, which concluded that the Clean Air Act authorized the EPA to regulate carbon dioxide emissions, could change the course of environmental regulation. Prior to the Supreme Court’s ruling, there was speculation that if the EPA were to list carbon dioxide as a pollutant under the Clean Air Act, the need for a new global warming regulation would be substantially diminished if the Clean Air Act could adequately address the majority of emissions. See Symposium, supra note 59, at 358. However, because the decision only addressed emissions from new motor vehicles and the discretion to regulate still remains with the EPA, Massachusetts, 127 S. Ct. at 1462, the need for comprehensive regulations on greenhouse gas emissions continues to be essential.} were unable to convince the court that emissions of greenhouse gases constituted a public nuisance, such a lawsuit is not foreclosed.\footnote{See supra notes 83-88 and accompanying text.} First, the claim was dismissed by the
District Court for the Southern District of New York. If another suit were brought in a different jurisdiction, for instance, the Southern District of California, the decision in *American Electric* would be persuasive rather than binding authority on the matter. Therefore, considering the case has not been heard by the Supreme Court, there is no bar to bringing a similar suit elsewhere against similar defendants. The next inquiry is whether the claim would be viable if it progressed beyond the pleading stage.

1. Pleading a Nuisance Claim

To constitute a public nuisance, an emission of greenhouse gases must be an unreasonable interference with a right common to the general public. The reasonableness analysis is conducted by using the balancing test that Judge Learned Hand set forth in the famous case of *United States v. Carroll Towing Co.*, with some modifications. The test, as set forth in the Restatement (Second) of Torts, balances the gravity of the harm against the utility of the actor's conduct. Imagine that a claim was brought by the State of California against Detroit's biggest auto makers, Ford and General Motors (GM), for public nuisance in the Southern District of California. The following could represent an abridged version of the State's complaint: (1) Fossil fuel consumption by the transportation sector

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144. See infra note 164 and accompanying text.
145. See 21 C.J.S. Courts § 212 (2006). Trial or inferior court decisions are not precedents binding other courts, including appellate courts or other judges of the same trial court. A single district court decision has little precedential effect, and is not binding on the appellate court, or even on other district judges in the same district. However, even though district court cases from districts outside the circuit are not precedent, a district court may refer to them. *Id.* (citations omitted); see also *Harrott v. County of Kings*, 25 Cal. 4th 1138, 1148 (2001) (noting that if the same set of facts arose again and a suit were brought in the same Superior Court that decided the current action, the judge would not be bound under the principles of stare decisis to follow the decision reached in the present case).
146. See *supra* notes 61-68 and accompanying text.
147. 159 F.2d 169, 173 (2d Cir. 1947) (setting forth the reasonableness test as whether the burden of taking precautions is less than the magnitude of the harm and the likelihood of the harm).
148. See *Restatement (Second) of Torts* §§ 826-28 (1979). The gravity of the harm is assessed by considering the following factors: (1) extent of the harm; (2) character of the harm; (3) social value law places on the use and enjoyment which is invaded; (4) suitability of the particular use or enjoyment invaded to the place it is carried on; and (5) burden on the victim of avoiding such harm. *Id.* § 827. The utility of the actor's conduct is assessed considering these factors: (1) social value the law places on the conduct of defendant; (2) suitability of conduct to the place; and (3) impracticability of preventing or avoiding the invasion. *Id.* § 828.
149. See *infra* notes 150-63 and accompanying text. In reality, in September 2006, California Attorney General Bill Lockyer filed a complaint against six major automakers, including Ford and GM, alleging that by producing millions of automobiles, they are responsible for enormous emissions of carbon dioxide and are therefore engaging in a public nuisance. Nicholas, *supra* note 133. The defendants moved to dismiss the action, arguing that the case presented a political question that must be addressed by Congress before the courts can reach it. *See* Brief of Amicus Curiae of
accounts for twenty-eight percent of total yearly greenhouse gas emissions in the United States;\textsuperscript{150} (2) further, automobiles and highway vehicles consumed roughly two-thirds of all energy used by the transportation sector;\textsuperscript{151} (3) GM maintained a 25.9 percent market share by year-end 2006, while Ford held on to 17.9 percent of the U.S. market;\textsuperscript{152} (4) therefore, Ford and GM’s combined contribution to nationwide emissions of greenhouse gases can be estimated by running the following figures \( \frac{28}{100} \times \frac{66}{100} = \frac{154}{440} = \frac{8}{100} = \text{eight percent} \); (5) this figure is probably much higher in California, which is a primary destination for many of Ford and GM’s vehicles;\textsuperscript{156} (6) climate change is a danger to the “security and stability of our planet;”\textsuperscript{157} (7) there are no longer questions about whether the climate is warming and/or that there is a continual rise in the average sea level due to melting of glacial sheets and snow packs;\textsuperscript{158} (8) these changes are due to the observed increase in greenhouse gas concentrations caused by human activities;\textsuperscript{159} (9) GM and Ford contribute significantly to this
increase;\textsuperscript{160} California faces coastal flooding, prolonged droughts, uncertainty in agricultural conditions, and a potential increase in the intensity and frequency of coastal storms;\textsuperscript{161} these changes, which the defendants have contributed to, threaten the health, safety, comfort, peace, and well-being of the citizens of California;\textsuperscript{162} the defendants, moreover, have contributed to the buildup of greenhouse gases intentionally and unreasonably by not making use of new, cleaner technologies to power their fleet of vehicles;\textsuperscript{163} therefore, the state of California asks the court to enjoin the defendants from selling vehicles in California until they have increased the average fuel efficiency of their fleet to twenty-five miles per gallon, and to award the State damages in the amount of $1.5 billion.

2. Likelihood of Success on the Merits

This case should get through the pleading stage\textsuperscript{164} and California might be able to prove that the defendants have interfered with a commonly held right.\textsuperscript{165} Using the very broad standard set forth in California’s statute, the common right can be defined as the right against flooding, storms, drought, and temperature change that all adversely impact the health, safety, and comfort of California’s citizens.\textsuperscript{166} However, in \textit{Milwaukee I},\textsuperscript{167} which is bolstered by several previous Supreme Court decisions,\textsuperscript{168} the Court

\textsuperscript{160} See supra notes 152-56 and accompanying text.
\textsuperscript{161} See \textsc{Alley} \textit{et al.}, supra note 26, at 5.
\textsuperscript{162} See \textsc{Restatement (Second) of Torts} § 821B cmt. b (1979).
\textsuperscript{163} See id. § 821B(1). “When you think about it, if the Court gets to the question of unreasonable conduct, it will be a landmark case—a pronouncement from a federal court on what is and is not reasonable conduct with respect to climate change would be a very big deal.” Symposium, supra note 59, at 367.
\textsuperscript{165} \textit{Wade v. Campbell}, 200 Cal. App. 2d 54, 58 (Ct. App. 1962) (maintaining that anything which affects the free and undisturbed enjoyment of one’s life and property or is injurious to health of the public is a nuisance (citing \textsc{Cal. Civ. Code} § 3479 (1997) (describing a nuisance as “[a]nything which is injurious to health, including, but not limited to, the illegal sale of controlled substances, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property, or unlawfully obstructs the free passage or use [etc.]”)).
\textsuperscript{166} See supra note 165.
\textsuperscript{167} \textit{406 U.S. 91, 107-08 (1972)} (recognizing the federal common law of nuisance, and determining that a state cannot use the law of its own jurisdiction when using the original jurisdiction of the court to bring a case involving interstate pollution).
instructed that the federal common law governed nuisance actions brought by a state against a citizen of another state. Therefore, California will have to argue the federal common law to prove that the defendants are liable in public nuisance.

California will bear the burden of showing that the defendants’ conduct was unreasonable. In terms of the gravity of the harm, the relevant factors are widespread drought, coastal flooding and agricultural problems. Coastal flooding alone may threaten up to ten million people. Furthermore, the difficulty in avoiding such widespread environmental changes would be enormous for the citizens of California. Consequently, how would we value the utility of the defendants’ conduct? Certainly, designing, creating and providing automobiles to the general public is a valuable service in our mobile world. We place a very high worth on our automobiles; however, GM and Ford can provide the same service, while making the conversion to more fuel-efficient technologies. They could cure many ills by phasing out SUVs and trucks, and by marketing more fuel-

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169. See RESTATEMENT (SECOND) OF TORTS § 826 (1979) (“An intentional invasion of another’s interest in the use and enjoyment of land is unreasonable if . . . the gravity of the harm outweighs the utility of the actor’s conduct.”).  
170. Maugh, supra note 48. In the United States the flooding is expected to be the most severe in low-lying areas such as the marshlands near New Orleans. Id.  
171. These changes have already begun. Extreme weather patterns have emerged—heat waves, droughts, hurricanes, floods—and they are occurring with greater frequency and greater intensity . . . . And global warming is also touching us closer to home [California]. The Sierra snow pack is shrinking and the scope and intensity of forest fires in the west has increased. This is just the beginning. Feinstein, supra note 24.  
172. See supra note 148 and accompanying text.  
173. See EPA, supra note 5, at § 2.26. Over the past decade-and-a-half, yearly emissions from the transportation sector have increased significantly, partly due to the increased demand for travel in the U.S. Id. “Likewise, the number of miles driven (up 21% from 1990 to 2005) and the gallons of gasoline consumed each year in the United States have increased steadily since the 1980s.” Id. § 2.28.  
174. See Ford to Combine Fuel Cell, Plug-in, L.A. TIMES, Jan. 23, 2007, at C8 (reporting that Ford Motor Co. is working on a model that will combine hydrogen-power fuel cells with plug-in capabilities to power up). At the North American International Auto Show, GM unveiled its newest “green” vehicle. Dan Neil, A Mere Tinge of Green: Motor City is Abuzz over Alternate-Power Cars. But Automakers Still Love their Overweight, Overpowered Vehicles, L.A. TIMES, Jan. 17, 2007, at G1. The Chevy Volt, an all-electric vehicle, was the instant hit of the auto show. Id. It combines zero emissions with a range of 40 miles before recharge. Id. In the end, the move by GM makes one wonder why they are not doing more to increase the fuel efficiency and reduce the emissions of their heavy-duty fleet of vehicles. In the end, the move by GM may be an isolated gesture of “reach[ing] out and hugg[ing] a tree.” Id.
efficient vehicles and engines.\textsuperscript{175} In balancing the gravity of the harm against the social utility of the defendants' conduct, the court would consider what conduct has been deemed unreasonable in past cases.\textsuperscript{176} In the present hypothetical, it is a very close call, and the result will depend on how much emphasis the trier of fact places on the alternative that GM and Ford can switch to more efficient vehicles.\textsuperscript{177} Whether or not the trier of fact determines that the defendants' conduct is unreasonable, California will run into a huge roadblock on the issue of causation.\textsuperscript{178}

The first problem arises because, although there is strong scientific support for the notion that global warming is caused by human activities (resulting in a significant increase in greenhouse gas concentrations),\textsuperscript{179} there remains a popular belief that global warming is not as imminent as some scientists and politicians would have people believe.\textsuperscript{180} Nevertheless, recent studies have become more and more conclusive on our contribution to the greenhouse effect and gradual warming of worldwide temperatures.\textsuperscript{182}

\textsuperscript{175} See, e.g., EPA, supra note 5, § 2.26 (noting that the increase in emissions has been instigated and prolonged by the use of SUVs and trucks which generally have very low fuel-efficiencies).


\textsuperscript{177} See \textit{RESTATEMENT (SECOND) OF TORTS} § 826 cmt. c (1979).

\textsuperscript{178} \textit{See infra} notes 179-90 and accompanying text.

\textsuperscript{179} See supra notes 33-59 and accompanying text.

\textsuperscript{180} Pawa & Krass, supra note 79, at 499. "The perception of a divided scientific community is largely the product of a long and sophisticated public relations campaign by the electric power, coal, oil, and automobile industries to mislead the public." \textit{Id.} Further, [t]his campaign has, as its central feature, promotion of the idea that there is a dispute about global warming through the use of industry-funded "skepticism." . . . Tellingly, their criticisms are almost never published in peer-reviewed journals but on the pages of the \textit{Wall Street Journal}'s editorial page, the \textit{Washington Times}, or in industry-funded "journals" that are not peer-reviewed. \textit{Id.} at 499-500 (footnote omitted). Nevertheless, problems with scientific certainty would create a considerable challenge to a nuisance suit. \textit{See} Harper, supra note 81, at 684-85. Finally, even if all the scientific evidence were admissible at trial, "plaintiffs would still have to convince a jury of the realities of global warming." \textit{Id.} at 685.

\textsuperscript{181} See Pawa & Krass, supra note 79, at 497. Despite scientific clarity on the subject there remains a divide between the scientific data and the media's reporting on the science. A recent study exemplified the problem. \textit{Id.} The study found "a clear scientific consensus that human emissions of greenhouse gases are the dominant force behind global warming and that immediate and mandatory actions are necessary to combat the problem." \textit{Id.} However, in examining over 3,500 articles published by the nation's leading newspapers from 1988 to 2002, the study "found that the majority of articles provided balanced coverage that gave the incorrect impression of the significant scientific dispute on these topics." \textit{Id.} (emphasis added).

\textsuperscript{182} \textit{See ALLEY ET AL.}, supra note 26, at 5-10.

The understanding of anthropogenic warming and cooling influences on climate has improved since the Third Assessment Report . . . leading to \textit{very high confidence} that the
The Fourth Assessment summary report of the IPCC, released on February 2, 2007, has increased its level of certainty in this most recent report. The value of the report also lies in the international support it has garnered and the broad contributions it assimilates from scientists worldwide. The report would be valuable firing power for California, though the causal connection between the defendants' activities and global warming still remains attenuated.

Even provided that the trier of fact accepts as credible that defendants' vehicles are responsible for eight percent of yearly nationwide greenhouse gas emissions, and a much larger percentage for California, there is a gap in the causal link between the emissions and the harm caused by global warming. With ninety-two percent of all U.S. emissions left unaccounted for in the present case, how could California prove more likely than not that the defendants are actually interfering with the general health and welfare of globally averaged net effect of human activities since 1750 has been one of warming. Most of the observed increase in globally averaged temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations.

Id. 183. See Maugh, supra note 48. The phrase "very likely" [used in the report] indicates a 90% certainty. The last IPCC report, issued five years ago, said it was "likely" that human activity was at fault, indicating a certainty of 66%. Many scientists had argued during the editing process that the report should say it is "virtually certain" that human activities are causing global warming. That would indicate a 99% certainty.

Id. 184. The White House recently reported:

The United States joined 112 other nations in finalizing and approving a landmark climate change science report today in Paris, France. The Working Group I portion of the Assessment Report released today represents a comprehensive assessment of the most recent state of knowledge of the physical science of climate change. IPCC reports are drafted and reviewed by several hundred scientists who are leading experts in their fields from around the world, and contain extensive scientific and technical information and analysis.


185. See infra notes 186-90 and accompanying text.

186. See supra notes 149-56 and accompanying text.

187. See Missouri v. Illinois, 200 U.S. 496, 526 (1906). The State of Missouri unequivocally proved that Chicago, Illinois had diverted large amounts of sewage into the Mississippi River. Id. Further, Missouri presented evidence that St. Louis' residents showed an increased incidence of typhoid fever beginning in the year that Chicago began dumping the sewage. Id. at 499. Nevertheless, Justice Holmes found that Missouri's own sewage practices could have been the result of the sickness and the plaintiff's figures did not compel a contrary holding. Id. at 525-26.
Unfortunately, the harm is indirect and attenuated, and convincing a court to award damages or an injunction for future harm would be difficult. These fundamental difficulties in common law nuisance make federal regulation an attractive alternative to address the problem.

B. Statutory Law

One of the primary goals of this Comment is to promote the implementation of a comprehensive regulatory structure to deal with global warming. This section will examine the current and proposed programs in Congress and, to a limited extent, in state legislatures, and come to a decision on what will work and what is not feasible or effective. There exists no shortage of proposed legislation seeking to create programs to limit greenhouse gas emissions; however, no single proposition is broad enough to make a sizeable dent in greenhouse gas emissions. Therefore,

188. The short answer is that causation is a monumental obstacle for bringing a successful public nuisance claim. See Harper, supra note 81, at 684. The scientific proof, at once uncertain, is compounded by the problem of finding the causal link where the harm is indirect. Id. It may be enough to prove that “the activities of certain companies are partly to blame for climate change.” Kamp, supra note 6, at 33. However, just proving that climate change occurs partly as a result of a defendant’s actions is not enough. The more difficult causation hurdle would be to show that climate change is the reason for damages caused by hurricanes, droughts and coastal flooding. Id. Furthermore, “[e]vidence of the future harm of climate change, which seems to be the weightier portion of the plaintiff’s case, is the most likely to be excluded.” Harper, supra note 81, at 685.

189. See RESTATEMENT (SECOND) OF TORTS 821B cmt. 1 (1979). Damages are only available for past conduct, so it would be virtually impossible to get a monetary judgment against the defendants where the harm has not yet been suffered. See id. Moreover, an injunction applies only to future harm, and uncertainty over the future effects of global warming in California would probably not warrant an injunction. See id.

190. See infra notes 191-275 and accompanying text.


193. A comprehensive program would address greenhouse gas emissions from all the major sectors (i.e. industrial, transportation, residential, and commercial). See EPA, supra note 5, § 2.8. By selecting a single sector, say the electrical utility sector, a regulation completely omits other important sources of emissions and it would be very difficult to reduce emissions to 1990 levels. See id. § 2.1. Yearly U.S. emissions rose by sixteen percent between 1990 and 2004, and since the electrical utility sector is responsible for about one-third of greenhouse gas emissions, the total
this Comment endorses the idea that change can be achieved by combining the best traits of the proposed legislative solutions to the problem into one all-encompassing legislative act, hence creating uniformity and increased efficiency.194

This hypothetical legislation will be evaluated based on three components vital to its success: (1) type of regulation imposed; (2) federal-state responsibilities; and (3) economic feasibility.195 Considering these components, this section will draw a picture of what the legislation would look like.

1. Type of Regulation Imposed

Not only is there a lack of consensus on whether regulation is the proper means to achieve greenhouse gas reductions,196 but there is also dispute over the means to achieve emissions reduction targets.197 Although there is no consensus, there are a couple of programs that could be instituted by federal legislation.198 One of the programs is a tax on greenhouse gas emissions.199 This scheme has found its way into a few of Congress’s proposed bills200 and has proved to be an effective way for European policy
makers to force automobile manufacturers to produce energy-efficient vehicles.201

Because carbon dioxide is the most significant of the greenhouse gases,202 most tax schemes seek to institute a carbon tax.203 One clear advantage that a carbon tax has over other programs is its clarity; those who are in the business of emitting carbon dioxide require certainty and predictability when it comes to federal regulation,204 and, according to some economists, the carbon tax offers all that and more.205 With the certainty that by releasing a given amount of carbon dioxide, an industry will be taxed in direct proportion to those emissions, the industry will modify its practices to absorb the added cost of emitting greenhouse gases.206 Despite its promise, the carbon tax is largely untested as a basis for regulation in the United States.207 Moreover, although it has gained support among economists, it remains a less than viable alternative for American policy makers. In fact, of the various proposed bills introduced in the House of Representatives and the Senate starting in 2005, few have advocated a carbon tax on emissions.208

201. Climate Change, supra note 24, at 55. Europe currently has a system in place that imposes taxes on the price of fuel. Id. This regulation accounts for the fact that European fuel stations are staggeringly more expensive than even the most outrageous Los Angeles gas station. Id. They apply the tax in order to promote energy efficiency and reduced emissions in European automobiles. Id. In conjunction with its already established fuel tax, the European Union has a comprehensive greenhouse gas reduction program in place which implements several regulatory strategies using cost-effective solutions and innovations to accomplish the goals set forth in the Kyoto Protocol. See Regional Affairs, supra note 130, at 257.

202. See supra note 38 and accompanying text.

203. See, e.g., Lohr, supra note 27, at C1 (comparing advantages and pitfalls of both the carbon tax and the cap-and-trade market based system).

204. According to Robert N. Stavins, director of Harvard University’s environmental economics program, “[s]etting a real price on carbon emissions is the single most important policy step to take . . . . Pricing is the way you get both the short-term gains through efficiency and the longer-term gains from investments in research and switching to cleaner fuels.” Id. (internal quotation marks omitted).

205. According to William D. Nordhaus, an economist from Yale, and Richard Cooper, an economist from Harvard, the carbon tax is far “less susceptible to political tampering and market manipulation than a cap-and-trade system.” Id. Additionally, Cooper found that by setting a tax of 14 dollars per ton of carbon dioxide emitted, the United States could raise up to 80 billion dollars per year. Id. If that tax were refunded back into the market through an incentive system to promote “green technologies,” then both the President’s policies and strict regulatory policy could be furthered simultaneously. See Climate Change, supra note 24, at 55.

206. Many, such as James E. Rogers, the CEO of Duke Energy, are actually in favor of federal regulation of coal burning power plants. Lohr, supra note 27, at C1. It is not as if business executives are after altruistic goals; rather they know that mandatory controls are on the horizon and they want to know what impact regulations will have on current practices. Id. The longer Congress dances around the issue, the more costly it will be to these industries. Id.

207. Climate Change, supra note 24, at 55 (stating that America does not like taxes, and President Bush is highly opposed to them; therefore, the likelihood of a tax scheme to deal with climate change is highly unlikely).

Unfortunately for proponents, a federal bill recommending a carbon tax would not likely garner much support.\textsuperscript{209} Perhaps this is because taxing emissions seems to be a punitive measure, and punitive regulations have been strongly opposed by states in the past.\textsuperscript{210} The federal taxing power is not used, as it is in Europe, to meet the fuel efficiency and emissions reduction targets of the government.\textsuperscript{211} Therefore, it is more likely that a market-based system will be imposed upon carbon dioxide emissions, especially because the United States is accustomed to allowing the free market to regulate itself.\textsuperscript{212}

Along with taxing emissions, regulators can use a market-based cap-and-trade program. Simply put, "cap-and-trade" and "allowance trading" both refer to the system by which regulators allow the free market to determine how mandatory emissions caps are accomplished.\textsuperscript{213} The government first sets the cap at a desired level, then distributes "allowances" which, added up, equal the cap.\textsuperscript{214} Allowance trading, furthermore, permits

(seeing to institute a cap-and-trade system to reduce emissions); H.R. 2828, 109th Cong. (2005) (using a tax scheme which, by amending the Internal Revenue Code, offered tax incentives to those who invested in and created new technologies, rather than imposing taxes on carbon dioxide emissions); H.R. 5959, 109th Cong. (2006) (seeking to amend the Internal Revenue Code in order "to impose an excise tax on automobiles sold in the United States that are not alternative fueled . . . automobiles," and further authorizing the tax to be placed into a trust for dispersal to entities engaged in alternative fuel projects).

209. See supra note 207 and accompanying text.

210. South Dakota attacked the constitutionality of 23 U.S.C. § 158, which directed the Secretary of Transportation "to withhold a percentage of federal highway funds otherwise allocable from States in which the purchase or public possession . . . of any alcoholic beverage by a person who is less than twenty-one years of age is lawful." South Dakota v. Dole, 483 U.S. 203, 205 (1987) (internal quotation marks omitted) (alteration in original). The Supreme Court upheld the law as a valid exercise of Congress’ spending power. Id. at 209. Although the law was upheld, it exemplified the states’ distaste of Congress using its constitutional powers to force them to modify their practices.

211. See Climate Change, supra note 24, at 55. “Vehicle emissions . . . are controlled by regulation in America, whereas they are mostly discouraged by fuel taxes in Europe.” Id.

212. According to the U.S. Department of State:

[The United States remains a “market economy.”] Americans continue to believe that an economy generally operates best when decisions about what to produce and what prices to charge for goods are made through the give-and-take of millions of independent buyers and sellers, not by government or by powerful private interests. In a free market system, Americans believe, prices are most likely to reflect the true value of things, and thus can best guide the economy to produce what is most needed.


214. Id. “Each covered entity in the electrical generation, industrial, and commercial sectors shall
an entity to buy or sell allowances in accordance with its output of greenhouse gases. To comply with the regulation, an entity must own allowances commensurate with its emissions at each reporting period. The allowance trading system is intended to operate without many constraints or limits. By allowing emissions credits to be traded among entities, this program enables the credits to be distributed at their fair market value. The program would enable emitters operating above their allotted credits to purchase allowances from entities that have reduced emissions below their needed allowances. In the end, so long as the cap is met, national goals for greenhouse gas emission reductions will be achieved.

The instrument of reduction built into the cap-and-trade legislation is the gradual tightening of the cap through a phasing out of emissions credits. Gradually, the number of allowances are removed, or “retired,” from the market in order to reduce total emissions in conjunction with a lower cap. Therefore, by tightening the cap, industries cannot merely buy allowances, but must eventually implement cleaner technology as the number of

submit to the Administrator one tradeable allowance for every metric ton of greenhouse gases [emitted], measured in units of carbon dioxide equivalents . . . .” S. 342, 109th Cong. § 301(a)(1) (2005). Consequently, an allowance is an authorization to emit a fixed amount of a pollutant. Id. 

217. Cf. Heilprin, supra note 131, at A1. The Kyoto Protocol has set up a market-based system for trading allowances between countries that have signed on to the program. Id. If sovereign countries can pull off such a trading scheme using free market principles, then the United States, already a leader in all things “capitalist,” can surely adjust to an allowance trading system. See id.
218. S. 3698, 109th Cong. (2006). In permitting the allowances to be sold among emitters, the bill further proposes to allocate the proceeds “of any sale of emission allowances to the appropriate beneficiaries.” Id. at § 706(a)(2)(C). These beneficiaries range from “communities, individuals, and companies that have experienced disproportionate adverse impacts as a result of . . . global warming,” as well as entities in the process of carrying out carbon sequestration according to “requirements established by the Administrator,” here the EPA. Id. at §§ 706(b)(1)(B), (b)(3). Moreover, proceeds, in the discretion of the EPA, can be given to agencies for protection and restoration of ecosystems and to manufacturers producing consumer products “that result in substantially reduced global warming pollution emissions” for use as rebates to their customers. See id. at § 706(b)(6).
219. Basically there are “two ways to meet the cap: either [by] implement[ing] new technologies, or [by] purchas[ing] credits from other companies” operating below their target emissions cap. Feinstein, supra note 24.
220. Id.
221. At the outset, the system provides major emitters with increased allowances to “subsidize their investments” in alternative technologies. Because these entities will be subject to the greatest costs under the program, the subsidies give them leeway initially, before tightening the wrench in the future. See Lohr, supra note 27, at C1.
222. Federal Plan Issued to Implement the Clean Air Interstate Rule, 16 AIR POLLUTION CONSULTANT § 4.1-4.6 and tbl. 1 (2006). When the EPA implemented federal legislation in April of 2006 for nitrogen oxides and sulfur dioxide (in twenty-eight states and the District of Columbia), they set out phases for the emissions. Id. In Phase I, annual nitrogen oxide and sulfur dioxide were capped at given quantities and by Phase II (2015) the caps were significantly reduced, often by as much as 1 million tons. Id.
allowances available in the market gradually decreases. This cap-and-trade scheme, used by the EPA as a guide for state implementation of federal legislation to combat acid rain, was actually borrowed from a state agency practice. The benefit of using cap-and-trade is that the EPA has already implemented the program successfully to regulate acid rain under the Clean Air Act.

In addition to the EPA’s use of a cap-and-trade approach to acid rain solutions, there are many efforts in Congress to put the cap-and-trade program directly into a federal statute. In doing so, Congress has implicitly indicated its preference of cap-and-trade over a tax system and perhaps over a pure incentive-based system as well. In addition to Congress, there are several non-binding national and international agreements that employ or encourage a cap-and-trade program for implementation by individual sovereignties. One such agreement has been negotiated between seven northeastern states attempting to regionalize global warming efforts. The plan is non-binding on the states, though it does represent concerted action by its members to create legislation

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223. The Administrator is charged with issuance of allowances each year equal to the emissions permitted under the cap for that given year. H.R. 5642, 109th Cong. § 704(c)(1) (2006). Therefore, each year the Administrator must re-evaluate the cap in order to work toward achieving the overall reductions set forth in the law.

224. In creating policies for state implementation of the cap-and-trade system, the EPA borrowed from practices of the South Coast Air Quality Management District (SCAQMD) in California. PERCIVAL ET AL., supra note 60, at 585. This is not surprising when one considers that the region of Southern California under the jurisdiction of SCAQMD “has the most significant air quality problems in the United States.” See id.

225. See Feinstein, supra note 24.

Using the Clean Air Act, a cap-and-trade regime was implemented in the 1980s to reduce sulfur dioxide and nitrogen oxide emissions from electric utility plants in the northeast. In the six years it has been in place, sulfur dioxide emissions have been reduced by about thirty-four percent and nitrogen oxide by forty-three percent. So cap and trade has been used, and it has been effective.

Id.


227. See supra notes 208-10 and accompanying text.

228. See Feinstein, supra note 24; see also PERCIVAL ET AL., supra note 60, at 585 (“The Kyoto accords also contemplate a cap and trade program as one of the instruments for implementing the agreement.”).

229. See Regional Greenhouse Gas Initiative, Post-Model Rule Action Plan (Aug. 8, 2006), available at http://www.rggi.org/docs/model_rule_ap_8_8_06.pdf. Under the model rule, the governors of each participant state have until December 31, 2008, to enact legislation creating a regulatory program, and such shall be law in each state, though a regional board will also be set up to deal with technical support, organization, and adoption of a budget. Id.
addressing global warming. The cap-and-trade scheme cannot be fully assessed without discussing its drawbacks.

One complaint that arises is that cap-and-trade only really applies to stationary sources. There is a significant need to address mobile sources of greenhouse gases, and cap-and-trade does not contemplate regulation of such sources. A second drawback concerns abuse. If entities were able to produce invalid credits in order to meet their caps, then the benefits of the free market system would be outweighed. Overall, however, with considerable support in Congress and among the states as well, cap-and-trade appears to be the most viable option for federal legislators.

2. Federal-State Relationship

This section will discuss the legal ramifications of federal legislation on the traditional roles that the federal and state governments have in their sovereign capacities. Additionally, this section will contemplate whether state regulation, in the absence of a federal plan, would be a viable option. To better understand the legal ramifications of federal environmental legislation, it is necessary to determine what court decisions have to say about the Clean Air Act.

At the outset, seminal decisions contouring the reach of the Tenth Amendment are helpful. In New York v. United States, the Court made clear that Congress was, if only in a small degree, limited in its ability to regulate
the States pursuant to the Tenth Amendment. Additionally, in *Printz v. United States* the Court directed Congress to refrain from enacting legislation where "the whole object of the law is to direct the functioning of the state executive," which is an offense to traditional state sovereignty. Accordingly, the federal legislature cannot enact a law which forces a state to act in its legislative, executive, or judicial capacity. Knowing this, the drafters of the Clean Air Act left it up to the states to decide how they would implement the statutory law and regulations of the EPA. State implementation does not come without a caveat, however: pursuant to the act, if a state fails to submit a plan or does not cure its deficiencies, the state could be subject to sanctions. Therefore, although the states are given considerable latitude in implementing Congress's laws, the EPA will be breathing down the states' necks to ensure that implementation plans are acceptable. If the states are implementing the legislation anyway, why does Congress not leave regulation completely up to the states? California has taken the lead in enacting a complete state global warming prevention strategy. The California law is far-reaching, and seeks to implement programs to cover all emissions that contribute to global

238. New York v. United States, 505 U.S. 144, 161 (1992) ("As an initial matter, Congress may not simply 'commandeer[] the legislative processes of the States by directly compelling them to enact and enforce a federal regulatory program.' (quoting Hodel v. Va. Surface Mining & Reclamation Ass'n, 452 U.S. 264, 288 (1981))).

239. Printz v. United States, 521 U.S. 898, 932 (1997). Where the federal law imposed a mandatory obligation on police officers to do background checks on gun possessors, the law clearly was contrary to the Tenth Amendment and "afoul" of the Supreme Court precedent established in New York v. United States. See id. at 933 (citing New York, 505 U.S. at 187-88).

240. See id. at 933.

241. See id. at 933.

242. A popular sanction is the removal of federal highway funds. Id. Undoubtedly, states would be very angry if the government were to take such action against them; however, Congress has the authority to use its spending power in exactly this manner. See, e.g., South Dakota v. Dole, 483 U.S. 203 (1987) (conditioning receipt of federal funds is valid so long as the spending power is used to promote the general welfare, the condition is unambiguous, there is a federal interest involved, and there is no other constitutional provision barring the conditions).

243. See FINDLEY & FARBER, supra note 91, at 354 n.1. The basic principle within a state implementation plan is the attainment principle. Id. "The attainment principle requires EPA to approve a state plan that will attain the national air quality standards." Id.

244. California has taken initiative where Congress has not. See LAZARUS, supra note 94, at 250. Symbolic of the shift, California seems to be resurrecting the leadership role that it took in the 1960s. The state has sought to regulate carbon dioxide emissions . . . stepping into an area of pollution control that the EPA has long declined to embrace and the Bush administration has shied away from. California has also taken a leadership position in promoting so-called zero-emission motor vehicles.

Id.
warming in the state. 245 In fact, the statute authorizes the California Air Resources Board (CARB) to implement many of the regulations that Congress has been unable to pass into law. 246 The California law has all the makings of a competent federal environmental statute, yet its reach stops at the border of the Golden State. 247 It includes greenhouse emissions limits (and a timetable to achieve them), 248 mandatory reporting of emissions, 249 market-based compliance mechanisms, 250 and enforcement provisions. 251 Though the law is truly a bold and progressive move by California, 252 there are two reasons why California’s program will not become a model for other states to follow. 253

First, global warming is an issue that not only transcends state borders but reaches beyond our nation to the rest of the world, hence the “global” in its title. 254 For this reason, the action of one state could never make a significant dent in overall emissions. 255 However, considering that the


246. See supra note 188 and accompanying text.

247. Feinstein, supra note 24 (boasting that California is “leading the way” in climate change initiatives).

248. See CAL. HEALTH & SAFETY CODE § 38530.

249. See id.

250. See id. § 38570.

251. See id. § 38580.

252. See id. § 38501(c). The Act is conscious of its impact and does not fail to boast at the legislature’s achievement:

California has long been a national and international leader on energy conservation and environmental stewardship efforts, including the areas of air quality protections, energy efficiency requirements, renewable energy standards, natural resource conservation, and greenhouse gas emission standards for passenger vehicles. The program established by this division will continue this tradition of environmental leadership by placing California at the forefront of national and international efforts to reduce emissions of greenhouse gases.

Id.

253. See infra notes 254-62 and accompanying text.

254. PERCIVAL ET AL., supra note 60, at 123 (noting that “international environmental law now has expanded to involve virtually the entire community of nations . . . .”). Inasmuch as the “central reason for environmental regulation is to mitigate the impact of market failures that emerge from uninternalized externalities, drawing more lines on the map only multiplies the potential for transboundary spillovers.” Daniel C. Esty, Revitalizing Environmental Federalism, 95 MICH L. REV. 570, 573 (1996). Essentially, the problem with trying to regulate environmental issues in a box is that there is no box, and to make an impact, the regulation must also be no respecter of boundaries.

See id.

255. See Symposium, supra note 59, at 363. Worldwide carbon dioxide emissions continue to grow by about two percent per year. Id. California’s total output of carbon dioxide accounts for roughly two percent of total emissions; therefore, all things being equal, even if California were to cut its greenhouse gas emissions to zero, the worldwide increase in total emissions would completely negate all efforts made by California to reduce emissions. See id.
United States may be responsible for one quarter of worldwide emissions,\textsuperscript{256} a law with national scope could take a bigger bite out of the pie. Second, California’s regulation under the statute will be largely aimed at mobile sources, which account for roughly forty percent of the state’s emissions,\textsuperscript{257} and at improving the already-advanced green technologies the state has developed.\textsuperscript{258} For other states, especially those heavily dependent on coal power, regulation to cut greenhouse gases will have to take a different approach.\textsuperscript{259} Additionally, coal dependant states have a readily available option to make drastic changes quickly—convert to nuclear, natural gas, and wind energy—\textsuperscript{260} but there is strong sentiment that U.S. industry will not readily give in and change its energy practices.\textsuperscript{261} Ultimately, there is no

\begin{itemize}
  \item \textsuperscript{256} See \textit{id}.
  \item \textsuperscript{257} California plans to regulate everything from making plastics to toasting English muffins. No doubt the plan will include stricter energy standards for \textit{[industrial, commercial, agricultural and residential sectors]}. Inevitably, stricter limits on motor vehicles, which account for about forty percent of the state’s greenhouse gas emissions, will be a big part of the program. \textit{Sweet, supra note 41}.
  \item \textsuperscript{258} \textit{Id}.
  \item \textsuperscript{259} \textit{Id}. [California] is a world leader in green technologies, and the progress it has already made in constraining its emissions will make it harder in some ways to achieve even greater advances. Its per capita consumption of electricity and gasoline already are much lower than the national average . . . . It is one of the nation’s leading wind energy producers, and has the country’s most ambitious solar roofs program. \textit{Id}.
  \item \textsuperscript{259} \textit{See Lohr, supra note 27, at C1}. For states that are driven by coal-fired industry the key is to “start small to give industries time to adapt, then ratchet up over the years to encourage long-term investments in energy saving, carbon cleanup and new technology.” \textit{Id}.
  \item \textsuperscript{260} \textit{See id}. “The iconic culprit in global warming is the coal-fired power plant. It burns the dirtiest, most carbon-laden fuels, and its smokestacks belch millions of tons of carbon dioxide . . . .” \textit{Id}.
  \item \textsuperscript{261} \textit{See Gwynne, supra note 135, at 117}. After a quarter-century slumber, during which it had clear status as yesterday’s technology, coal is once again the fuel of choice for electric power. One hundred fifty-four coal-fired power plants are currently on drawing boards in the United States . . . . Nuclear power, which now accounts for 20 percent of our electricity, bid briefly to replace it as the dominant technology in the sixties and seventies [but concerns over nuclear meltdown have prevented its widespread use]. \textit{Id}; see also \textit{Susan Moran, Coal Rush! With Carbon Caps on the Horizon, U.S. Utilities are Racing to Build Dozens of Antiquated Coal-Fired Power Plants}, \textit{20 WORLD WATCH 8}, 8 (Jan. 2007). Our nation, despite our awareness of environmental concerns, is not willing to give up all the great items we hold dear to our hearts. \textit{See id}. These items include our laptops, iPods, plasma televisions, refrigerators and the like. \textit{Id}. Even in the wake of potential regulation, the energy industry has opted to ride the coal train until it bucks ‘em. \textit{See id}. The rationale for the energy sector is that, if regulation is inevitable, then they will continue to use coal while its prices are “low and stable,” and switch over to cleaner technologies when Congress decides to act. \textit{See id}.
\end{itemize}
guarantee that other states will jump on the California bandwagon, mainly out of concern for their economic interests, a subject which dominates political debate.

3. Economic Feasibility

The federal budget cannot maintain every idea, bill or proposal that a Congressperson, representing the interests of his or her constituents, attempts to bring to the table. For this reason, bill proposals are careful to include distinct language indicating that economic efficiency is a primary concern in implementing the law. California's Global Warming Solutions Act of 2006 includes the terms "cost-effective" and "feasible" eleven times each in the text of the statute. In addition, the statute makes reference to the efficiency and cost of global warming regulations five other times. The California Legislature did not take the cost of creating such a vast environmental framework lightly, and it was able to get the bill passed through the State Assembly and signed into law by Governor Arnold Schwarzenegger. Congress also seems to recognize the concern for economic feasibility. A poll of seven proposed Congressional "global warming" bills revealed that six out of the seven emphasized the cost-effectiveness or the economic impact of the regulation.

Realizing that economic feasibility would be a momentous problem for federal regulation, Congress spoke on the subject of "unfunded

262. See infra notes 263-81 and accompanying text.
263. See Revkin, supra note 25, at A1. It has become clear to environmental advocates that politicians will need much more convincing before they are willing to increase government spending in this area. Id. First, the public needs compelling evidence that spending is necessary to guard against "potential calamity." Id. Only then will Congress remove its "death-grip" from the federal purse and allot more towards energy research. See id.
264. See William Pizer et al., Modeling Economy-wide vs. Sectoral Climate Policies Using Combined Aggregate-Sectoral Models, 27 ENERGY J. 135, 135 (2006). "Achieving environmental goals at lowest cost has sparked considerable interest" among policy makers. Id. The converse is also true. Participants in the World Economic Forum's annual meeting for 2007 voted that climate change would have the most worldwide impact in the coming years. World Economic Forum, supra note 6. Essentially, economists—used to worrying about traditional factors such as emerging markets, profitability and private capital—are more concerned over climate change as a driver of world economies. See id.
266. Id. By making mention of "economic information," "costs," "efficient" implementation, "affordable" service, and "minimize[d]" costs, the statute ensures that no reader will miss its intention—to create a law that is friendly to the environment while remaining economically "feasible." See id.
267. See Sweet, supra note 41.
In 1995, responding to widespread state and local distaste with the economic burden of implementing its laws, Congress enacted the Unfunded Mandates Reform Act. According to the law, all subsequent federal mandates would require more rigorous cost-efficiency figures, and procedures were created for opponents of legislation to defeat it on cost-effectiveness grounds. Likewise, if a law promises future funding, the Act demands that the legislation "expire[s]" if and when the funding does not materialize. This protection from unfunded mandates also extends to agency regulations. The concern with federal funding is understandable, especially when the figures for fixing global warming are revealed.

According to a study done by Sir Nicholas Stern the costs of switching to alternative technologies is considerable, about one percent of total global output over the next fifty years. Furthermore, the cost of

269. PERCIVAL ET AL., supra note 60, at 123 ("[a]rguing that it is unfair for the federal government to impose 'unfunded mandates,' state and local officials lobbied Congress" to guard against legislation that the federal budget could not adequately cover the cost of implementation).  
270. See id.  
273. PERCIVAL ET AL., supra note 60, at 123. "The law requires the Congressional Budget Office (CBO) to provide estimates of the future cost of legislative mandates if they may exceed $50 million annually . . . ." Id. A Congressional member also has authority to "raise a point of order" to strike down mandates costing more than $50 million unless funding is provided or the majority votes to implement the law notwithstanding the lack of funding. Id.  
274. Id. at 123-24. In implementing a program the EPA must, according to Due Process principles, provide notice and an opportunity to be heard, see Envtl. Def. Fund, Inc. v. Costle, 636 F.2d 1229, 1252-53 (D.C. Cir. 1980), as well as provide information on the estimated costs of the program and employ the most cost-effective means of achieving the goals outlined in the legislation. PERCIVAL ET AL., supra note 60, at 123. If the EPA were to employ any means other than the most economic means, they would have to explain why such was the case. Id. Finally, if the action of the EPA itself is subject to judicial review, then the Unfunded Mandates Reform Act allows for judicial review. Id. at 124.  
275. See infra notes 276-78 and accompanying text.  
276. See supra note 199 and accompanying text.  
277. See Climate Change, supra note 24, at 55. Scientists tend to be in accord "that over the next 50 years, the cost of slowing and eventually reversing carbon emissions growth will be 1 to 2 percent of global economic output." See Lohr, supra note 27, at C1. The scary part is that the same experts estimate that beyond fifty years, the cost could be as high as sixteen percent of the global economic output. Id. Interestingly, one percent of global economic output, in today's terms, would be about
global warming, if little or nothing is done about it, will be heavily borne by
developing countries.\textsuperscript{278} Because the United States can avert disaster by
doing nothing, many in Washington are not even willing to admit the global
warming problem exists, instead calling the phenomenon a “hoax.”\textsuperscript{279}
Underlying the federal government’s skepticism over costly environmental
regulation is a significant priority hierarchy which places energy research at
the bottom of the list.\textsuperscript{280} Therefore, economic concerns about climate
change legislation are not rooted in a federal government that is unwilling to
spend, but one that underestimates the importance of addressing climate
change.\textsuperscript{281}

V. WHAT LIES AHEAD: FUTURE TRENDS

As far as the IPCC is concerned, global warming is anything but a
hoax.\textsuperscript{282} Our planet is heading for higher temperatures, sea level rises, and
regional variations in precipitation and wind patterns, heat waves, tropical
cyclones, and drought.\textsuperscript{283} Thus far the discussion has covered what the
United States could and should do,\textsuperscript{284} and now the analysis turns to what it
will do.

By many accounts, Congress is on the verge of passing a comprehensive
global warming program.\textsuperscript{285} Between late March and mid-May 2007, six

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\footnotesize
278. The world’s richest countries will be able to adjust to global warming. See \textit{Climate Change}, supra note 24, at 55. Countries that are hotter and more dependent on agriculture are in for potential
disaster, however. \textit{Id.} Developing countries, in particular, will bear the brunt when it comes to
climate change. See \textit{id.}

279. “Global warming is an alarmism,” said Senator James Inhofe (ranking member, United States
Senate Committee on Environment & Public Works). Heilprin, \textit{supra} note 131, at A1. For the
Senator, the economic concerns certainly outweigh any concerns with climate change. \textit{Id.} “The
reality is,” says Inhofe, “a cap on carbon is a cap on the economy, through the rationing of energy.”
\textit{Id.}

280. In the past three decades, federal spending on medical research has almost “quadrupled,”
while military research funding has increased by over 250 percent. Revkin, \textit{supra} note 25, at A1.
During the same period, annual spending on energy research and development has actually been cut
by over half. \textit{Id.}

281. See \textit{id.} Federal apathy toward global warming has invited California to speak for the U.S.
internationally. See Patrice Hill, \textit{Blair, Schwarzenegger Propose Alliance to Curb Global Warming,
WASH. TIMES, Aug. 1, 2006, at A7.} Tony Blair and Arnold Schwarzenegger, representing Britain
and California respectively, planned to establish a bilateral program implementing a cap-and-trade
scheme between the two sovereigns. \textit{Id.}

282. See Maugh, \textit{supra} note 48 (noting that the IPCC has never used such strong language to sum
up its findings on climate change). The report, moreover, finds that there is a preponderance of
evidence in favor of the hypothesis that post-1970 hurricanes and cyclones are the result of global
warming. See \textit{id.}

283. See \textit{Climate Change, supra} note 24, at 5-7.

284. See \textit{supra} notes 128-281 and accompanying text.

285. According to the current Administration, the United States expends billions yearly in
new proposals were introduced into the House and Senate, addressing climate change and proposing climate change strategies.286 The proposed laws cover topics ranging from "intelligence," to climate change education programs, to "security risks posed by global climate change," as well as "energy efficiency" and "carbon capture."287 These bills have sprung up in bunches as a result of climate change efforts being zealously pursued by committees in the House and Senate. On the House side, the Select Committee on Energy Independence and Global Warming was formed by the new Speaker Nancy Pelosi as part of her 100-Hour Plan.288 The plan could not have come at a better time for advocates of climate change legislation. The House, with its distinct Democratic majority, promises to be a major player in any legislation.289 Likewise, the Senate, led by the Environment and Public Works Committee, has been hard at work creating "ideas for tackling climate change."290 The Democratic party only holds a climate-related research, and its investments were important to the most recent IPCC report. See, e.g., White House, supra note 184. Additionally, Congress has its eye on global warming solutions. In her speech to Silicon Valley business leaders, Senator Feinstein stressed that programs were in the making, including two bills to cap emissions of greenhouse gases for the electricity and industrial sectors. Feinstein, supra note 24. Most importantly, there are many opponents of Bush's approach to climate change in Congress, and several Republicans are, uncharacteristically, thinking green. Heilprin, supra note 131, at A1.


287. H. 2082; S. 1389; H. 1961; H. 2337.


289. See Energy Industry, supra note 288, at 1. Although it is true that climate change programs and legislation are a major agenda of the political left, it certainly is not a platform that is unique to the liberal representatives. In fact, John McCain, a presidential contender for 2008, has sponsored a bill aimed at curbing greenhouse gas emissions, and any other presidential hopeful will surely set forth ambitious goals for climate change programs. See Coile, supra note 288, at A1.

290. See Coile, supra note 288, at A1. As early as 2005 the Senate voted 53-44 to implement non-binding initiatives to slow the accumulation of greenhouse gases in the atmosphere; however, legislation was well shy of obtaining a majority. Id. But the mid-term elections saw the addition of six Democratic representatives in the United States Senate. Id. Even more, Senators Max Baucus (Montana) and Arlen Specter (Pennsylvania), previously opposed to any mandatory regulation of greenhouse gas emissions, have recently switched sides on the issue. Id. These changes have made the current Congress a fertile area for earnest discussions on global warming prevention strategies, and the chairwoman of the Environment and Public Works Committee, Barbara Boxer, has held

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very slight majority in the Senate, however, and unless there is an increase in bipartisan support for global warming legislation, it is likely that the Senate is stuck at a political impasse.

If and when Congress succeeds in passing a program to cut the emissions of greenhouse gases, regulatory hurdles will be erected to challenge Congress' ability to reach intended targets. Additionally, the courts will be inundated with constitutional claims and with claims that the EPA has failed to fulfill its statutory duty. Challenges such as these,

numerous hearings to build support for greenhouse gas initiatives. Zachary Coile, Green: Congress and Candidates Feel the Wind Moving Toward Green, S.F. CHRON., April 20, 2007, at W10. Despite the political shift and efforts being made in the Senate, there is still considerable doubt that climate change legislation will originate in that house of Congress. Coile, supra note 288, at A1. “[E]ven supporters of climate change bills acknowledge it will be tough to get the 60 votes needed in the Senate to overcome a filibuster on any piece of legislation.” Id. Currently Congress, and particularly the Senate, lacks the support to pass a mandatory federal program to combat global warming; however, there is enough support from both political parties to pass laws that would “require increased use of renewable fuels and alternative energy sources, and to offer tax credits to firms that develop and use cleaner energy.” Coile, supra, at W10. That may be the case, and the result may be disappointing for those optimistic for drastic Congressional action to address climate change.

291. The recent political shift in favor of greenhouse gas emissions regulation has given rise to more practical debate about what program to implement to accomplish the goals of the regulation. See Juliet Eilperin & Steven Mufson, Tax on Carbon Emissions Gains Support, WASH. POST, Apr. 1, 2007, at A5. Although the large majority of legislators on Capitol Hill are in favor of cap-and-trade programs, there are those that believe a carbon tax is still the most efficient and cost-effective means of cutting emissions. See id. Many large carbon emitters are joined by a coalition of academics in advocating the carbon tax. Id. In addition, Al Gore—currently the hottest name in environmental stewardship—has expressed to Congress his view that both a carbon tax and a cap-and-trade program are needed to get the job done. Felicity Barringer & Andrew C. Revkin, Gore Warns Congressional Panels of “Planetary Emergency” on Global Warming, N.Y. TIMES, Mar. 22, 2007, at A20. For proponents of the tax, it “offers certainty about the price of polluting” and seems far easier to administer than the cap-and-trade system. Eilperin & Mufson, supra. Despite growing interest in the tax, however, America’s aversion to taxes makes talk of a tax program decidedly “unpalatable” to lawmakers in Washington, and the future of a tax-based program is hopeful yet unlikely. See id.

292. See, e.g., FINDLEY & FARBER, supra note 91, at 93. The Administrative Procedure Act provides an initial hurdle, allowing anyone to bring a suit in court if they are adversely affected or wronged by a final action of the EPA. Id. Furthermore, the regulatory burden is especially great where the EPA has regulatory authority over no fewer than a dozen environmental states. See PERCIVAL ET AL., supra note 60, at 105-39. The EPA regulates NEPA, the Clean Air Act, the Federal Water Pollution Control Act (Clean Water Act), the Endangered Species Act, the Safe Drinking Water Act, the Toxic Substances Control Act, the Resource Conservation and Recovery Act, and CERCLA, just to name a few. Id. at 105-07.

293. See supra notes 235-43 and accompanying text.

294. See Massachusetts v. EPA, 415 F.3d 50, 53 (D.C. Cir. 2005) (noting that plaintiffs sought a court order forcing the EPA to regulate emissions of greenhouse gases); see also Union Elec. Co. v. EPA, 427 U.S. 246, 249 (stating that the plaintiff, Union Electric, challenged the EPA’s approval of Missouri’s state implementation plan (SIP), based on a claim that the SIP was economically and technologically impossible); Ethyl Corp. v. EPA, 541 F.2d 1 (D.C. Cir. 1976) (en banc) (noting that the EPA determined that lead in gasoline posed a substantial risk of harm). Not surprisingly, in Ethyl Corp., lead additive manufacturers sought review of the EPA’s decision. Ethyl Corp., 541 F.2d at 7. The divided en banc panel held that “[t]he Administrator may apply his expertise to draw
however, should not discourage Congress from enacting global warming legislation. In essence, legislation is an insurance policy for the United States to protect the nation from "climate change" induced disasters. Are we ultimately concerned about what Congress decides to do amidst considerable pressure to act? Probably.

VI. CONCLUSION

The clothing and apparel company Diesel launched an advertising campaign which simultaneously warns against and takes advantage of the hype surrounding global warming. One such ad can be found in the

conclusions from suspected, but not completely substantiated, relationships between facts, from trends among facts, from theoretical projections from imperfect data . . . and the like.” Id. at 28. The EPA’s decision was upheld in the D.C. Circuit. Id. at 55. The Supreme Court, however, held that “the Clean Air Act authorizes EPA to regulate greenhouse gas emissions from new motor vehicles in the event that it forms a ‘judgment’ that such emissions contribute to climate change.” Massachusetts v. EPA, 127 S. Ct. 1438, 1459 (2007). Accordingly, the Supreme Court remanded the case for a determination by the EPA of whether greenhouse gases emitted from new motor vehicles endanger the public health. Id. at 1463. If the EPA makes such a finding, then it is obligated by statutes to regulate emissions unless it can provide a reasonable explanation to not make the determination. Id. at 1462-63.

295. See Heilprin, supra note 131, at A1. Although the cost of regulation may indeed be great, the most economically sensible avenue is still regulation. Id. A recent Congressional Budget Office report said:

any cost-effective U.S. policy on global warming must put a price on carbon—via an emissions tax or a ‘cap-and-trade’ system . . . . [Furthermore] [s]etting a current price for carbon emissions and announcing planned future carbon prices not only would induce firms and households to change their behavior but also would increase their demand for technologies that would reduce emissions.

Id. (internal quotation marks omitted).

296. Lohr, supra note 27, at C5. In fact, national spending to regulate greenhouse gas emissions may be equated to military spending during the Cold War. Id. The United States taxed itself at incredible rates to fund a military defense “bulking up.” Id. Of course, the weapons we created and stored during the Cold War were never used against an aggressor; however, were Americans unhappy to have that security? See id. The same is true of global warming. To act means investing significant money in order to regulate national emissions. However, providing security against climate change induced disasters may be well worth the price. See id.

297. See supra notes 47-59 and accompanying text (posing three initial questions one should consider on the topic—one of which was whether we care to do anything about global warming—a question that remains unanswered).

298. See Global Warming Ready, http://www.diesel.com (highlight “Collection” tab at top; then click on “Advertising Campaign” dropdown hyperlink). What follows is a video presentation, which provides a brief scientific background about the greenhouse effect and human contribution to greenhouse gases. Id. The video makes statements like global warming “is a bad thing.” Id. Although the video conveys a general message that global warming should be averted, its ultimate stance on the issue is ambivalent. The campaign’s catch-phrase is “Global Warming Ready,” as if to say that Diesel clothes and global warming go hand in hand. See id.
January-February edition of Details magazine. 299 The scene presented on
the two page spread is that of the New York City skyline, but the buildings
are more than halfway submerged in the sea. 300 In the foreground rest a man
and a woman clad in Diesel summer attire—the woman pouring a glass of
water into the man’s mouth as he lies on her lap. 301 Down below, the
movement of sea vessels can be observed as they circle among the upper
levels of the buildings. 302 The models presented are anything but alarmed,
rather they communicate a sense of playfulness and carefree enjoyment. 303
Perhaps Diesel has it right—why bother with regulating against global
warming when we can just throw on a pair of cargos and enjoy the weather?

Seth W. Eaton*

300. See id.
301. See id.
302. See id. Another advertisement depicts a scene in St. Marks Square, Venice, though the
pigeons that usually inhabit the square are replaced by dozens of tropical parrots. See Amanda Gore,
Diesel has taken an important topic in the news and used its popular coverage as a marketing ploy.
See id. Yet another Diesel advertisement places a young duo on the deck of a yacht—the
background dominated by the Statue of Christ the Redeemer—which currently rests on a mountain
top above Rio De Janeiro, some 2300 feet above sea level, yet in the advertisement its base is right at
303. See DETAILS, supra note 299.

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