

Global Warming: The Ultimate Public Nuisance

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Editors' Summary:

In 2004, eight states filed suit against five major U.S. electric power companies. Together, these companies contribute 25% of the United States' total carbon dioxide emissions. The states' complaint, based on the common law of public nuisance, alleged that global warming poses threats of severe harm to human health from increased heat and air pollution. With the case now on appeal in the U.S. Court of Appeals for the Second Circuit, the legal community waits for insight into the effectiveness of using common law public nuisance to combat global warming.

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On July 21, 2004, the attorneys general of Connecticut, New Jersey, New York, and Vermont and the corporation counsel of the city of New York walked into a crowded conference room in New York City. They squeezed through the crowd of staffers and reporters and proceeded to the podium, where large graphs depicting a perilous climb in greenhouse gas (GHG) levels and a global rise in temperature perched on easels alongside satellite photos of the shrinking arctic ice cap.

New York Attorney General Eliot Spitzer announced that the four states represented in the room and New York City, along with four additional states—California, Iowa, Rhode Island, and Wisconsin—had filed suit that morning in federal court in Manhattan against five major U.S. electric power companies under the common law of public nuisance. The suit, *Connecticut v. American Electric Power Co.*,¹ seeks to curtail the companies' massive emissions of GHGs that are contributing to global warming. A companion case, *Open Space Institute v. American Electric Power Co.*,² was contemporaneously filed in the same district court by three land trusts whose properties in the northeastern United States are threatened by the rising seas and ecological destruction from global warming. As Spitzer spoke, California Attorney General William Lockyer announced California's participation in the states' lawsuit at a press conference in Los Angeles. Later in the day, Iowa Attorney General Tom Miller and Wisconsin Attorney General Peg Lautenschlager explained at an event in Milwaukee why their states had also joined the case. Connecticut Attorney General Richard Blumenthal, who had shown a keen early interest in the case and was an important figure in its formation, succinctly captured the essence of the potential impact of this coordinated strategy of injunctive lawsuits: "Think *Tobacco* without the money."

The global warming lawsuits launched that day were the culmination of years of factual and legal research, countless meetings and planning sessions, and a remarkable cooperative effort among attorneys bound together by a common conviction. They believed that polluters who are contributing to the dangerous alteration of the planet's climate and thereby threatening severe and unprecedented harm to public health, property, and the environment of millions of Americans must be answerable in a court of law. My involvement in these cases dates to the beginning. In 1999, while working at a class action law firm, I started independently pursuing the idea of global warming litigation in cooperation with attorneys from

1. No. 04 CV 05669, 2005 U.S. Dist. LEXIS 19964, 35 ELR 20186 (S.D.N.Y. Sept. 15, 2005), *on appeal*, No. 05-5104-cv (2d Cir. 2006). In addition to Spitzer, the attorneys general at the press conference were Richard Blumenthal (Connecticut), Peter Harvey (New Jersey), and William Sorrell (Vermont). The New York City corporation counsel was Michael Cardozo.
2. No. 04 CV 05670, 2005 U.S. Dist. LEXIS 19964 (S.D.N.Y. Sept. 15, 2005), *on appeal*, No. 05-5119-cv (2d Cir. 2006). For ease of reference, the *Connecticut* and *Open Space Institute* cases will be collectively referenced herein as *Connecticut v. American Electric Power*.

the Natural Resources Defense Council, Inc. (NRDC). That creative partnership expanded in 2001 when I opened my solo practice in Newtown Centre, Massachusetts. In early 2002, Connecticut Attorney General Blumenthal contacted me to initiate what turned out to be the very fruitful discussions that led to the filing of these landmark companion cases in 2005.

This chapter tells the story of how these global warming lawsuits, still in their early stages, began. Although the cases were both dismissed in September 2005 in a cursory ruling by the district court, that ruling is on appeal and will be reviewed *de novo* by the U.S. Court of Appeals for the Second Circuit.

I. The Science of Global Warming

A. Consensus Within the Scientific Community

The need to address global warming through a tort lawsuit was supported by a clear scientific consensus that global warming is being caused by human emissions of GHGs, primarily carbon dioxide (CO₂).³ GHGs trap atmospheric heat by absorbing and re-radiating energy that otherwise would escape into space back toward the earth's surface. A certain level of some naturally occurring GHGs, including CO₂, is necessary to keep the earth warm enough to support life. But the burning of fossil fuels (oil, coal, and natural gas) gives off CO₂ during combustion as the carbon in these fuels combines with oxygen in the air. And burning very large quantities of fossil fuels gives off very large quantities of CO₂.

The theory of anthropogenic global warming, or the "enhanced greenhouse effect," was first advanced in 1896 by Swedish scientist Svante Arrhenius, who hypothesized that the burning of fossil fuels on a large scale would cause CO₂ to accumulate in the earth's atmosphere and that the elevated level of CO₂ would trap enough atmospheric heat to increase the surface temperature of the earth.⁴ More than 100 years later, it has turned out that Arrhenius was right.

1. Intergovernmental Panel on Climate Change

In one of the largest and most ambitious scientific collaborations in history, in 1988 the World Meteorological Organization and the United Nations Environment Programme formed the

Intergovernmental Panel on Climate Change (IPCC), open to membership by the countries belonging to the two organizations.⁵ The IPCC gathers, assesses, and summarizes thousands of studies on all scientific and technical aspects of global warming. Hundreds of scientists from around the world who are leaders in a diverse array of disciplines are engaged in this assessment process. Every few years, the IPCC publishes the results of this comprehensive assessment of the state of the scientific knowledge of global warming. Many of America's leading climate scientists play important roles in drafting the periodic IPCC assessments. The IPCC is vital because of the interdisciplinary nature of the global warming problem. Without the IPCC, no one would be collating and comparing all of the relevant warming trends around the world such as, for example, changes in butterfly habitat in California and shrinking arctic sea ice around the North Pole.

By 1990, when the IPCC issued its first assessment report, Arrhenius' thesis had been widely acknowledged as correct: CO₂ was building up in the earth's atmosphere from the combustion of fossil fuels. The 1990 IPCC report brought the rapid increase in CO₂ levels to the public's attention, projected a significant increase in global temperature during the 21st century, and predicted serious risks and harms from the rise in temperature.⁶ Although the IPCC could not yet attribute 20th century warming to human emissions, the future trends in GHG concentrations and global climate were clear. Reacting swiftly, in 1992, most nations of the world reached agreement on the United Nations Framework Convention on Climate Change (UNFCCC).⁷ The UNFCCC seeks "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system"⁸ and requires developed nations to report periodically on their efforts to reduce emissions, individually or jointly, to a nonbinding target of 1990 levels.⁹ The treaty recognizes and codifies the requirement that the developed nations of the world make the first round of emissions reductions because it is largely their emissions that created the problem. In June 1992, President George H.W. Bush signed the treaty, which then sailed through the U.S. Senate on a unanimous vote in October 1992, making the United States the first industrialized nation to ratify the UNFCCC.

In 1995, the IPCC issued its Second Assessment Report, in which it concluded that "the balance of evidence suggests a discernable human influence on global climate change."¹⁰ This conclusion constituted a major step forward in communicat-

3. See INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC), THIRD ASSESSMENT, CLIMATE CHANGE 2001: SYNTHESIS REPORT, SUMMARY FOR POLICYMAKERS (2001), available at <http://www.ipcc.ch/pub/un/syren/spm.pdf> [hereinafter IPCC, THIRD ASSESSMENT REPORT]; SPENCER R. WEART, THE DISCOVERY OF GLOBAL WARMING (Harvard Univ. Press 2003), available at <http://www.aip.org/history/climate/>; JOHN HOUGHTON, GLOBAL WARMING: THE COMPLETE BRIEFING (3d ed., Cambridge Univ. Press 2004).

4. See National Aeronautical & Space Administration (NASA), *Earth Observatory, On the Shoulders of Giants, Svante Arrhenius* (1859-1927), http://earthobservatory.nasa.gov/Library/Giants/Arrhenius/arrhenius_2.html (last visited Dec. 15, 2005).

5. For more information on the IPCC, see <http://www.ipcc.ch>.

6. IPCC, FIRST ASSESSMENT REPORT, SCIENTIFIC ASSESSMENT OF CLIMATE CHANGE REPORT OF WORKING GROUP I, SUMMARY FOR POLICYMAKERS (1990).

7. UNFCCC, June 4, 1992, 31 I.L.M. 849, available at <http://unfccc.int/2860.php>.

8. *Id.* art. 2, at 9.

9. *Id.* art. 4, ¶ 2(b).

10. IPCC, SECOND ASSESSMENT REPORT, CLIMATE CHANGE REPORT OF WORKING GROUP I, SUMMARY FOR POLICYMAKERS, THE SCIENCE OF CLIMATE CHANGE

ing the scientific community's growing consensus that human emissions were causing global warming. By this time, the coal, power, automobile, and oil industries were fighting back. They sought to discredit the IPCC's conclusion by attacking one of the leading American scientists, Benjamin Santer, who helped draft the report's conclusion.¹¹ The tactic failed to set back the science of global warming, however, which stoically marched on.

Through the 1990s, world temperature began to increase markedly. In 2001, when it issued its Third Assessment Report, the IPCC announced that the past decade was the hottest since thermometer records began in 1861.¹² In addition, an enormous array of physical evidence, including melting glaciers and northward migration of species around the world, pointed unambiguously toward a rapid warming trend. At the same time, the science of detecting the causes of global warming had matured. Supercomputer models of the earth's climate system were able to replicate 20th century climate with increasing accuracy. The IPCC concluded that "most of the observed warming over the last 50 years is likely to have been due to the increase in greenhouse gas concentrations."¹³ The IPCC defines "likely" as a term of art meaning a confidence level of 66-90%. To lawyers mulling over the idea of a civil action against the industries primarily responsible for the global warming problem, the IPCC's conclusion in 2001 regarding causation was a pivotal statement. The standard of proof in civil cases is "a preponderance of the evidence," meaning more than 50%. The IPCC's evidence to establish the role of industrial emissions in causing global warming was well over this threshold.

With respect to temperature trends, the IPCC's Third Assessment Report projected that the 21st-century global average temperature would be 2.5 to 10.4 degrees Fahrenheit (°F) hotter than the 1990 baseline. The most important factor influencing where in that range temperatures will fall is the level of emissions of GHGs, particularly CO₂. To put this temperature fluctuation in perspective, the global average temperature at the depths of the last Ice Age was only 7-11 degrees Fahrenheit lower than today.

2. Recent Scientific Advances: Computer Modeling and "Abrupt Climate Change"

Additional scientific advances were also improving the prospects of the legal case. The newest generation of supercomputer models used to project future climate was conquering the shortcomings of prior models.¹⁴ Earlier computer models that linked the temperature changes in the oceans and the

atmosphere had exhibited a slight but predictable underestimate of the earth's temperature changes. To correct for this problem, scientists had used "flux adjustments," which are somewhat akin to adding an extra \$10 per month to your monthly expenditures in figuring a budget because you know you otherwise are always off by that much. Critics of climate models focused on the flux adjustments as a weakness. But the newest computer models were replicating 20th century climate without flux adjustments. Scientists also were making great strides in downscaling, that is, taking the global projections from the supercomputers and generating a fine-grid scale set of projections that provided much more detail about future climate changes from global warming at the regional and local level.

The science of "abrupt climate change" was also yielding important and very disturbing results. In 2004, the National Academy of Sciences (NAS) issued a report on abrupt climate change,¹⁵ showing that the earth's climate tends to respond to perturbations by suddenly shifting from one steady state to another. While climate may change slowly at first, past episodes in the earth's climate demonstrated that at a certain tipping point, the earth shifts rapidly to a new climate regime in as little as 10 years. According to the NAS, the heat-trapping effect of massive GHG emissions is just the kind of perturbation of the earth's climate system that could push us to that unknown tipping point. This new scientific understanding made it all the more important to reduce CO₂ emissions immediately.

B. Harms From Global Warming

Global warming poses threats of severe harm to people, property, and the natural environment. Global warming will lead to a host of problems: heat deaths; increased ground-level smog and hence suffering from asthma and other respiratory diseases; disrupted water supplies in the western United States and other regions dependent upon snow-pack for water supply; an intensified hydrologic cycle, meaning more and greater floods, and an increased likelihood of drought; reduced water levels in the Great Lakes; interference with and permanent damage to forests and ecosystems; and accelerated sea level rise, which will cause increased beach erosion, inundation of low-lying coastal property, damage to property and hazard to human safety from larger coastal storm surges, and inundation of salt marshes and tidal wetlands that are vital breeding grounds for fish and shellfish.

There is no doubt that heat is a major public health threat. The loss of human life due to hot spells in the United States during summer exceeds that caused by all other weather events combined, including lightning, rainstorms, floods, hurricanes, and tornadoes. Global warming is expected to cause intensified and prolonged summer-time heat waves, resulting in increases in heat deaths, heat illnesses, and heat-related hospitalizations such as the 1995 heat wave in Chicago that resulted

22 (1995), available at [http://www.ipcc.ch/pub/sa\(E\).pdf](http://www.ipcc.ch/pub/sa(E).pdf) (last visited Oct. 7, 2005) [hereinafter IPCC, SECOND ASSESSMENT REPORT].

11. This episode is recounted on the website of the University Corporation for Atmospheric Research, see <http://www.ucar.edu/communications/quarterly/summer96/insert.html>.

12. IPCC, THIRD ASSESSMENT REPORT, *supra* note 3, at 4.

13. *Id.* at (Synthesis Report).

14. COMMITTEE ON ABRUPT CLIMATE CHANGE, U.S. NATIONAL RESEARCH COUNCIL, ABRUPT CLIMATE CHANGE: INEVITABLE SURPRISES (2002), available at <http://www.nap.edu/books/0309074347/html> [hereinafter ABRUPT CLIMATE CHANGE].

15. *Id.*; see also NOAA website <http://www.ngdc.noaa.gov/paleo/ctl/abrupt.html>.

in approximately 525 deaths in five days.¹⁶ The U.S. Environmental Protection Agency (EPA) reports that a 1°F warming could more than double heat-related deaths in New York City, from 300 to 700 per year; a 3°F warming could almost double heat-related deaths in Los Angeles, from about 70 to 125 per year; and a 2-to-3°F warming could quintuple heat deaths in Newark, New Jersey, from 25 to 125 per year.¹⁷ The elderly and the poor would be at highest risk. As an example of what is in store as future temperatures increase, one need only look to the heat wave in Europe in the summer of 2003, lasting from June through August.¹⁸ During this intense heat wave, unusually large numbers of deaths were reported in France, Germany, and Italy. The heat wave caused approximately 35,000 excess deaths.¹⁹ In France alone, the authorities have attributed more than 14,000 excess deaths to the heat wave. Temperatures in Paris topped 104 °F; on August 10, 2003, the United Kingdom recorded its first-ever temperature reading above 100°F.²⁰ In France, Germany, Spain, and Switzerland, nationwide temperatures were the warmest on record.²¹ One scientific study recently concluded, with 90% certainty, that more than half of the risk of the 2003 European heat wave was attributable to anthropogenic GHG emissions.²² If GHG emissions are not curtailed, by the 2040s, half of the years will be warmer than 2003 and, by the end of the century, 2003 would be considered a cool summer relative to the new climate.²³

The news gets worse. Higher temperatures from global warming would increase the production of summer-time smog. Increased smog would cause a higher incidence of respiratory illnesses, including asthma, pneumonia, and bronchitis.²⁴

Global warming would also cause accelerated sea-level rise, primarily via thermal expansion of seawater and the addition of freshwater by melting of glaciers and ice sheets. As a result of global warming over the next 100 years, sea levels will increase along the coasts, possibly by three feet or more. This threat to coastal lands will affect many of the governmental plaintiffs as well as the private land trusts involved in *Connecticut v. American Electric Power*.

An accelerated rise in sea levels from global warming will inundate low-lying property, cause more frequent and extensive flooding, accelerate beach erosion, and lead to saltwater

intrusion into groundwater aquifers or other water supplies in each of the coastal plaintiffs' jurisdictions. The increased flooding will cause billions of dollars of damage to state, city, and other public property as well as to residential, commercial, and industrial property. It will pose a major hazard to human safety along coastlines. A rise in sea level from unrestrained global warming also threatens to inundate or salinize marshes and tidelands that are vital breeding grounds for numerous species of fish and shellfish.

As a western state, plaintiff California faces some distinct harms from global warming. The state's mountain snowpack is its single largest freshwater source, critical to providing water to California's 34 million residents during the drier half of each year. Global warming will severely reduce the size of the snowpack because more precipitation will fall as rain instead of snow. The melting of the snowpack will occur earlier and proceed more rapidly. Diminished summer runoff from mountain snow will cause water shortages and disruptions to the interrelated water systems upon which the state's residents rely for agriculture, hydroelectricity, ecology, and other uses. Flooding will also increase in California as a result of the earlier melting. This process of reduced mountain snowpack, earlier melting, associated flooding, and reduced summer stream flows already has begun.

California will also become more susceptible to wildfire. More than one-half of the most damaging fires in the United States over the past 170 years have occurred in California, and the state leads the nation in wildfire-related economic losses. Wildfires cause property damage to public and private property, are a hazard to human safety, and contribute to landslides, flooding, erosion, and water quality impairment. Global warming will substantially increase the wildlife damage in California by increasing the number of escaped wildfires, increasing the area burned by wildfires, and shortening the return period between wildfires.

Moreover, global warming will result in more intense precipitation events. A warmer atmosphere heats the oceans (leading to greater evaporation) and holds more moisture than a cool one. When the extra water condenses, it more frequently falls to earth as larger downpours. Global warming will cause increased flooding and excessive runoff in many places. Floods cause damage to public and private property, increase soil erosion, pose a hazard to human safety, and contaminate water supplies.

Global warming also threatens to lower the levels of the Great Lakes and to disrupt the lakes' ecology with warmer temperatures, a matter of grave concern to plaintiffs New York State and Wisconsin. The Great Lakes are a critical source of drinking water, a major supplier of hydroelectric power, an important commercial shipping channel, a highly valued recreational resource, and home to a diversity of fish, plants, and animals. By lowering the levels of the Great Lakes, global warming will result in reduced inter-lake flow. Increasing temperatures will cause water losses by evaporation that are likely to exceed any increase in supply from additional precipitation due to global warming. Such a drop in Great Lakes levels will be severely damaging to commercial shipping, which is an

16. Illinois State Climatologist Office, *The 1995 Heat Wave in Chicago Illinois*, <http://www.sws.uiuc.edu/atmos/statecli/General/1995Chicago.htm>.

17. U.S. EPA, *Global Warming: State Impacts*, <http://yosemite.epa.gov/OAR/global-warming.nsf/content/ImpactsStateImpacts.html>.

18. Tanja Cegnar, *The Exceptional Meteorological Conditions in Summer 2003 in Europe*, in WORLD HEALTH ORGANIZATION, EXTREME WEATHER AND CLIMATE EVENTS AND PUBLIC HEALTH RESPONSES, REPORT ON A WHO MEETING, BRATISLAVA, SLOVAKIA, Feb. 9-10, 2004, at 15, available at <http://www.euro.who.int/document/E83004.pdf>.

19. Shaoni Bhattacharya, *European Heatwave Caused 35,000 Deaths*, NEW SCIENTIST, Oct. 10, 2003, available at <http://www.newscientist.com/article.ns?id=dn4259>.

20. Peter N. Spotts, *Heat Wave Risk Rising With Emissions*, CHRISTIAN SCI. MONITOR, Dec. 2, 2004, at 3, available at <http://www.csmonitor.com/2004/1202/p03s01-sten.html>; Bhattacharya, *supra* note 19.

21. Cegnar, *supra* note 18, at 16.

22. Peter A. Stott et al., *Human Contribution to the European Heat Wave of 2003*, NATURE, Dec. 2, 2004, at 610.

23. *Id.* at 613.

24. See IPCC, THIRD ASSESSMENT REPORT, *supra* note 3, at 16 (Summary for Policymakers).

important component of the New York State and Wisconsin economies. Reduced lake levels due to global warming will necessitate costly dredging of harbors and channels in order to mitigate commercial shipping losses. And a drop in Great Lakes levels and river flows will necessitate reducing hydro-power production at facilities dependent upon the flow of water through the Great Lakes system.

Global warming also poses severe threats to agriculture. One of the plaintiffs, the state of Iowa, is particularly dependent upon agriculture, with over 90,000 farms statewide and agriculture-related businesses in every city and town. Iowa is a leader in corn, soybean, and livestock production. By increasing the frequency and duration of summertime heat waves, global warming will increase crop stress and reduce yields. Heat stress also reduces livestock productivity and can result in livestock death; the same heat wave that killed over 700 Chicagoans in 1995 also killed 4,000 feedlot cattle in Iowa and Nebraska, resulting in \$28 million in livestock losses in Iowa alone. Increased frequency of intense summertime precipitation will increase the likelihood of flooding of farm fields, further resulting in crop loss, soil loss, and property damage.

Global warming will disrupt ecosystems, a process that already has begun and that will accelerate in tandem with global warming. Different species with varying levels of temperature tolerance and varying abilities to change their range will migrate at different paces with the changing temperature; because species in an ecosystem are interdependent, changes in some species can disrupt the entire ecosystem. Some species will become extinct as a result of global warming. One recent study projects that 15-37% of species in studied areas will be committed to extinction by 2050 in a mid-range global warming scenario, with the level of extinctions dependent upon the level of warming.²⁵ The hardwood forests that give Connecticut, New Jersey, New York, Vermont, and Wisconsin their fall colors and that give Vermont and several other plaintiff states their maple sugar industry are threatened by global warming because the hardwood trees are already at the southern extent of their range. The Adirondack Park in New York, one of the most significant protected hardwood ecosystems in the world, is similarly threatened by global warming.

Global warming will cause New England, New Jersey, New York, Vermont, and Wisconsin to suffer a significant loss of suitable habitat for valuable trout species such as brown, brook, and rainbow. Populations of these cold-water species will decline as a result of warmer water temperatures. Similar disruptions of essential cold-water fish habitat will occur in California, which supports the southernmost populations of some chinook salmon, coho salmon, and steelhead trout species. The warmer stream temperatures from global warming pose a direct risk to these species' continued survival. In addition, the reduced late-season snowmelt in California will reduce the flow in numerous streams and rivers during spawning season for California salmon, including several endangered or threatened runs of salmon. Increased flooding early

in the season from premature snowmelt will scour streambeds of salmon eggs.

All of these serious impacts from global warming could be exacerbated under the abrupt climate change scenario. The earth's climate could undergo an abrupt and dramatic change if a "radiative forcing agent" causes the earth's climate to reach a tipping point.²⁶ Emissions of CO₂ from fossil fuel combustion could create such a radiative forcing agent because of the heat-trapping effect of CO₂.²⁷ An abrupt change in the earth's climate can transpire in a period as short as 10 years.²⁸ The rapidity of this shift would greatly magnify all of the injuries from global warming discussed above by shortening the time period for humans and ecosystems to respond and adapt to the changing climate.²⁹

The greater the emissions of GHGs, the greater the climate change, and the greater the injuries.³⁰ The IPCC's predicted high-end warming scenario of 10.4°F by the year 2100 would constitute a nearly unthinkable global catastrophe. In order to stabilize the planet's climate or even to reduce the rate of climate change, it is necessary to reduce emissions of GHGs and to do so now.³¹

There are significant costs of delaying action to reduce CO₂ emissions. The longer the delay in making significant reductions, the larger and steeper the later cuts in emissions will need to be in order to maintain any particular level of CO₂ in the atmosphere.³² Moreover, delay will commit future generations to higher levels of CO₂ in the atmosphere and hence more catastrophic global warming impacts.

C. Deception and Denial of Global Warming by Industry

Despite the overwhelming evidence provided by the science of global warming, the coal, oil, and electric industries conducted a well-heeled campaign of deception and denial. For years, the industries have funded and engaged in an extensive campaign to deceive the American people and policymakers about the science of global warming and to scare them about the eco-

26. See ABRUPT CLIMATE CHANGE, *supra* note 14, at v; see also NOAA, *Abrupt Climate Change*, <http://www.ngdc.noaa.gov/paleo/ctl/abrupt.html> (last visited Oct. 15, 2005).

27. ABRUPT CLIMATE CHANGE, *supra* note 14, at v, 1.

28. *Id.* at 1.

29. *Id.* at 16 ("there is little doubt that the rate, magnitude, and regional extent of abrupt transitions to different climate states could have far-reaching implications for society and ecosystems"); see also RICHARD A. POSNER, *CATASTROPHE, RISK AND RESPONSE* 163 (2004) ("[A]brupt global warming is more likely to be catastrophic than gradual global warming because it would deny or curtail opportunities for adaptive responses, such as switching to heat-resistant agriculture or relocating population away from coastal regions.")

30. IPCC, *THIRD ASSESSMENT REPORT*, *supra* note 3 (Scientific Basis Summary); IPCC, *WORKING GROUP II, CLIMATE CHANGE 2001: IMPACTS, ADAPTATION, AND VULNERABILITY, SUMMARY FOR POLICYMAKERS* 5 (2001), available at <http://www.ipcc.ch/pub/wg2SPMfinal.pdf>.

31. IPCC, *THIRD ASSESSMENT REPORT*, *supra* note 3, at 12.

32. POSNER, *supra* note 29, at 161-62:

[Doing nothing] might well be the right approach were it not for the practically irreversible effect of greenhouse-gas emissions on the atmospheric concentration of those gases. Because of that irreversibility, stabilizing the atmospheric concentration of greenhouse gases at some future date might require far deeper cuts in emissions than if the process of stabilization begins now.

25. Chris D. Thomas et al., *Extinction Risk From Climate Change*, *NATURE*, Jan. 9, 2004, at 145.

conomic consequences of emissions reductions.³³ A bewildering array of organizations with euphemistic names like “The Cooler Heads Coalition,” the “Global Climate Coalition,” and the “Science and Environmental Policy Project” sprang up in the 1990s as the global warming science matured and policymakers became serious about tackling the problem with mandatory emissions reductions.³⁴ The industry’s “education” campaign continues today.

One of the most forceful of these industry groups was the Global Climate Coalition (GCC), formed in 1989 by automobile, oil, coal, and electric power corporations. GCC members included, among many others, defendant American Electric Power Service Corporation, defendant Southern Company, the Edison Electric Institute, the National Coal Association, the American Petroleum Institute, Exxon Corporation, Ford Motor Company, General Motors Corporation, the American Automobile Manufacturers Association, Amoco Corporation, and Shell Oil Corporation. In 1998 and 1999, however, GCC members began dropping out due to the public relations problems of being associated with this cynical attempt to undermine the growing science on global warming. Perhaps they also feared the liability implications. But the dropping out became form over substance as the GCC simply turned its membership into trade associations rather than individual corporations, and the major trade associations for the automobile, oil, coal, and power industries became the new GCC members.

One tactic in the campaign by the GCC and others was the use of industry-funded “skeptics” to cast doubt on the science,³⁵ a tactic that continues today. For the most part, they have some scientific training but are not climatologists. They are not “skeptics” in the positive sense of the scientific tradition, that is, exercising an open and critical mind and subject to persuasion by the best evidence. Rather, their skepticism is one-sided and thus takes issue only with scientific evidence that would tend to harm the interests of their corporate paymasters. Tellingly, their criticisms are almost never published in peer-reviewed journals. Rather, they splash their “findings” on the pages of the *Wall Street Journal* editorial page, in the *Washington Times*, or in industry-funded “journals.”

One of the GCC’s more notorious deceptions was the widespread distribution in 1998 of a petition supposedly signed by 17,000 scientists opposing the Kyoto Protocol, accompa-

nied by a “scientific study” concluding that emissions of CO₂ posed no climatic threat and instead amounted to “a wonderful and unexpected gift from the industrial revolution.”³⁵ The petition mimicked the format of reports of NAS and was so misleading about its origin that the NAS took the unusual step of distancing itself from the petition in order to mitigate the confusion. It later turned out that the organization that assembled the petition, the Oregon Institute for Science and Medicine, is run out of a tin shed in Oregon by a biochemist who also promotes nuclear shelters and home schooling. And the 17,000 supposed scientists? They had apparently signed up via the Internet and the list included names of fictional TV characters from M*A*S*H, television weathermen, deceased persons, and names of singers from the Spice Girls.

A somewhat similar petition had been organized two years earlier by Dr. Fred Singer, one of the most notorious of the industry-funded skeptics. Titled the “Leipzig Declaration on Climate Change,” the petition stated “there does not exist today a general scientific consensus about the importance of greenhouse warming from rising levels of CO₂.”³⁶ The declaration was allegedly signed by 100 “independent scientists.” According to Singer, the petition “critiques the scientific basis of global warming theory and warns against hasty and ill-considered policies to restrict emissions of CO₂ by controlling the burning of coal, oil, and gas.”³⁷ But again it turned out that the vast majority of the signatories were not climatologists—the eclectic signers included dentists, lab assistants, civil engineers, and some people who could not be located.

When contacted by Danish Broadcasting, one-third of the European signatories claimed they had never signed the declaration.

While funny at some level for their Keystone Kops qualities, these highly publicized pseudo-science pronouncements were deadly serious efforts by highly sophisticated industries to discredit the science of global warming. The repeated trotting out of the skeptics to counter the mainstream scientific consensus on global warming continues today. Unfortunately, the industry’s efforts have been successful in convincing many people that there is still a serious scientific debate over whether global warming is even happening. For our litigation strategy, the disinformation campaign’s significance was in its resemblance to the tobacco industry’s years of deception and denial regarding the health effects of smoking. We were not the first to make this connection.³⁸

33. See, e.g., Jeff Nesmith, *Industry Promotes Skeptical View of Global Warming*, COX NEWS SERV., May 29, 2003; Jennifer Lee, *Exxon Backs Groups That Question Global Warming*, N.Y. TIMES, May 28, 2003, at C5; John H. Cushman Jr., *Industrial Group Plans to Battle Climate Treaty*, N.Y. TIMES, Apr. 26, 1998, at A1 (reporting that Southern Company participated in “ambitious proposal to spend millions of dollars to convince the public that [a treaty on global warming] is based on shaky science”); William K. Stevens, *Science Academy Disputes Attack on Global Warming*, N.Y. TIMES, Apr. 22, 1998, at A20; Mary O’Driscoll, *Greenhouse Ads Target “Low-Income” Women, “Less-Educated” Men*, THE ENERGY DAILY, June 24, 1991; Matthew L. Wald, *Pro-Coal Ad Campaign Disputes Warming Idea*, N.Y. TIMES, July 8, 1991, at D2 (the Edison Electric Institute (EEI) helped organize a campaign to “reposition global warming as theory (not fact)”); see also David A. Grossman, *Warming Up to a Nor-So-Radical Idea: Tort-Based Climate Change Litigation*, 28 COLUM. J. ENVTL. L. 1, 4 (2003) (discussing “some fossil fuel companies’ efforts to encourage public uncertainty and inaction on global warming”).

34. David Ivanovich, *Industry Backs Global Warming Skeptics*, Hous. CHRON. (Business Section), Oct. 6, 1996, at 1.

35. ARTHUR B. ROBINSON ET AL., ENVIRONMENTAL EFFECTS OF INCREASED ATMOSPHERIC CARBON DIOXIDE (Oregon Inst. Sci. & Med. 1998); Arthur B. Robinson & Zachary W. Robinson, *Science Has Spoken: Global Warming Is a Myth*, WALL ST. J., Dec. 4, 1997.

36. The Leipzig Declaration emerged from a conference, “The Greenhouse Controversy,” cosponsored by the Science and Environmental Policy Project and the European Academy for Environmental Affairs in Leipzig Germany in November 1995, revised in 1997, available at <http://www.sepp.org/leipzig.html>.

37. Fred S. Singer, *Disinformation About Global Warming?*, WASH. TIMES, Nov. 13, 1996.

38. See David Rubenstein, *Six Environmental Groups Slapped by Coal Association: The Global Warming Debate Heats Up*, CORPORATE LEGAL TIMES, July 2000, at 69.

II. Genesis of the Lawsuit

In the five years leading up to the filing of *Connecticut v. American Electric Power* in 2004, our work was an on-again, off-again process. A case was considered but put on hold, lawyers interested in shaping a case continued to meet to discuss strategy, an industry trade group attacked environmental organizations with a lawsuit of its own, and the George W. Bush Administration made two decisions that removed important legal defenses from potential industry defendants—all helping to spur action and lay the foundation for the eventual lawsuit.

In 1999, I met with lawyers from the NRDC to learn more about global warming and see if there might be a way to hold the responsible polluters liable. At the time, I was working for a law firm that had pursued a series of high-profile class actions, including the *Exxon Valdez* case on behalf of Native Alaskans and the *Swiss Banks* case on behalf of Holocaust victims. The meeting with the NRDC attorneys was productive in generating ideas, but none of the ideas seemed capable of supporting a robust legal claim. We agreed to keep looking at the issue, but the idea was never taken seriously by my law firm and, over the ensuing months, it was placed on the back burner, seemingly relegated to the “potential case memo” stage in perpetuity.

A. Industry Attacks With a Lawsuit

But in April 2000, the Western Fuels Association—an association of utilities that burn coal and that own coal fields in Wyoming—brought a lawsuit against several environmental organizations, including the Rainforest Action Network, Friends of the Earth, Inc., Ozone Action, and the Earth Island Institute.³⁹ Filed in Wyoming federal court and based on the Lanham Act, the lawsuit alleged that the environmental groups had made false statements regarding the harms from global warming in a full page *New York Times* advertisement. The Lanham Act prohibits commercial competitors from disparaging each other’s products, and Western Fuels tried to claim that it was a commercial competitor of the environmental groups. Western Fuels also operated an advocacy arm called the Greening Earth Society, which claimed that rising concentrations of CO₂ are actually good for the planet. The utilities were simply trying to find a friendly judicial forum to “disprove” the science of global warming. The strategy of seeking a favorable forum was blatant: Western Fuels listed the governor of Wyoming as one of its witnesses. The environmental groups retained my law firm to defend them, and we were successful. In April 2001, the court dismissed the case on procedural grounds—lack of personal jurisdiction and improper venue—and Western Fuels never refiled in a proper forum.

Although doomed as legal strategy, the case against global warming science filed by Western Fuels helped to reignite the discussion among environmental groups as to how to go on the offensive against the polluters for their massive CO₂ emissions. The circle of interested parties widened. A series of

meetings ensued with new participants and ideas. The NRDC became more serious about pursuing such a case. The potential case memo was dusted off and expanded, and serious interest in the idea began to take hold. Except at my law firm. The partners still exhibited a distinct lack of interest in the case, perhaps not seeing it as a money maker. Even though I was a lowly associate, the idea would not leave me, and fortuitous events kept prodding it along.

In June 2001, two months after the *Western Fuels* case was dismissed, the NAS issued a landmark report on global warming. The Bush Administration, populated by former fossil fuel industry executives hostile to the very concept of global warming, had requested the NAS to review the IPCC report. In a fairly obvious attempt to undermine the IPCC, the White House had posed a series of one-sided questions to the NAS. But contrary to the Administration’s wish, the NAS announced that “[g]reenhouse gases are accumulating in earth’s atmosphere as a result of human activities, causing surface air temperatures and subsurface ocean temperatures to rise,” and that “[the] IPCC’s conclusion that most of the observed warming of the last 50 years is likely to have been due to the increase in greenhouse gas concentrations accurately reflects the current thinking of the scientific community on this issue.”⁴⁰ The NAS’ stiff rebuke of global warming skeptics blared in large type across the front pages of the nation’s newspapers.

B. Two Legal Defenses Removed

In that same period, two other events with important legal consequences for the global warming lawsuit unfolded. In early 2001, the Bush Administration announced that contrary to the president’s campaign promise, it would not support amendment of the Clean Air Act (CAA) to impose new emissions limits on CO₂. Such an amendment, if enforced with regulations issued by EPA, would have provided industry with a possible defense of preemption against a global warming lawsuit based on federal common law. The announcement thus removed the potential defense argument that the U.S. Congress and EPA had established the federal legal standards controlling limits on CO₂ emissions and that a court could not require stricter federal limits.

Further, the Bush White House expressly disavowed U.S. participation in the Kyoto Protocol—a 1997 supplement to the UNFCCC that for the first time imposed legally binding emissions limits on ratifying countries.⁴¹ With the United States disavowing it, another potential legal defense to a tort suit—foreign affairs preemption—was eliminated. How could a defendant in a global warming case argue that the lawsuit would interfere with foreign affairs when the United States was expressly disavowing the only treaty that would impose binding emissions limits?

40. COMMITTEE ON THE SCIENCE OF CLIMATE CHANGE, NATIONAL RESEARCH COUNCIL, CLIMATE CHANGE SCIENCE: AN ANALYSIS OF SOME KEY QUESTIONS 1, 5 (2001), available at <http://book.nap.edu/html/climatechange>.

41. Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 11, 1997, 37 I.L.M. 22, U.N. Doc. FCCC/CP/1997/L.7/Add. 1, available at <http://unfccc.int/resource/docs/convkp/kpeng.pdf>.

39. *Western Fuels Ass’n v. Turning Point Project*, No. 00-CV-074 (D. Wyo. 2001).

All signs seemed to point in one direction: it was time to bring a lawsuit against the global warming polluters. The science was strong. Two legal hurdles had been removed. All other developed nations were committing to do their fair share while emissions from the United States spiraled ever higher.

C. A Legal Team Comes Together

Toward the end of 2001, I opened my own law firm and, with the help of a small nonprofit organization, began digging deep into the factual and legal issues that I thought would be key to succeeding in a global warming case. A couple of months into the investigation, I was contacted by the attorney general's office of Connecticut. Attorney General Blumenthal had heard about my work, and his environmental division invited me to Hartford to discuss the matter in person. It turned out that the attorneys general of several states had also been considering legal action on global warming.

The meeting in Hartford resulted in an agreement to work together to continue the investigation. Over the next year, the attorneys general offices and I intensively researched the potential case, always knowing that any case would be strenuously contested by the best defense lawyers in the country. We knew a lawsuit would have to pass muster with a court constrained to follow existing law and not authorized to invent new law. That meant that creativity and thinking outside the box were "in," but inventing new legal claims or new methods of proof were definitely "out."⁴² Although I was at the center of the lengthy investigation and preparation of the two cases, I officially represented the three plaintiff nonprofit organizations—Open Space Institute, Inc., Open Space Conservancy, Inc., and Audubon Society of New Hampshire—that filed the second case. While respecting privilege and confidentiality, the numerous attorneys on both cases worked together on a cooperative basis, creating a powerful partnership.

D. Developing a Legal Strategy

By the end of 2002, the basic outline of the case had come into focus. The most promising approach would be to file a public nuisance claim against the major electric power companies. Interest in the case continued to build in the offices of several state attorneys general. Yet, our investigation had generated a whole new series of issues that required further research and investigation, and over the next 18 months we systematically analyzed these issues. At the end of that process, we were ready to file a complaint. Along the way, lights had turned on at key moments, and we began to believe, quite firmly, that it would indeed be possible to hold global warming polluters liable.

The long list of likely injuries from global warming were all set forth in the dual complaints filed by the government and land trust plaintiffs in *Connecticut v. American Electric Power* and *Open Space Institute Inc. v. American Electric Power*.

42. Although successful, my experience representing environmental defendants in *Western Fuels*, described above, provided me some painful insight into how vigorously the industry would attack claims about its contributions to global warming.

In addition, the state plaintiffs alleged that the impacts from global warming constitute a fundamental threat to their rights as sovereigns:

The foregoing threatened injuries to the plaintiff States are more than a collection of disparate harms. Together they constitute a threat of a fundamental transformation. The risk of wholesale change in climate and complete ecological disruption in the plaintiffs' jurisdictions constitutes an assault on their sovereign and quasi-sovereign interests. The States have an interest independent of and behind the titles of their citizens and in all the earth and air within their domains. By altering the plaintiff States' natural climate, global warming injures interests that are fundamental to the rights of these sovereigns, namely, their interest in the integrity of an ecological system that supports their natural heritage and upon which all of their natural resources and much of their economies depend.⁴³

The notion of the states' right to protect "all the earth and air within their domains" is not a novel one—the words were penned by Justice Oliver Wendell Holmes and have been the law of the land for 100 years.⁴⁴

III. The Lawsuit Takes Shape: Strategic Choices about Science and Policy

A. The Factual Investigation

The proper investigation of a potential case entails an extensive examination of both factual and legal issues. In an environmental case, causation is often a significant evidentiary hurdle. Toxic tort cases in particular are known for the challenges of proving causation. But here the basic question of fact—whether emissions of CO₂ from the combustion of fossil fuels were causing global warming—had already been answered by scientists worldwide, as evidenced by the reports in 2001 by the IPCC and the NAS.

B. Selection of the Defendants

An important question in the shaping of the lawsuits was which of the potential defendants to sue. In most cases, there is a range of potential defendants, and the selection of the defendants is based upon a mixture of factual and legal considerations. With respect to global warming emissions from the United States, the most culpable industry was obvious—the electric power industry is responsible for significantly more of the CO₂ emissions in the United States than any other industry. Approximately 40% of the CO₂ emissions in the United States comes from electric power plants⁴⁵; by comparison, cars

43. *Connecticut v. American Electric Power*, Complaint, ¶ 146.

44. *Georgia v. Tennessee Copper Co.*, 206 U.S. 230, 237 (1907) ("the State has an interest independent of and behind the titles of its citizens, in all the earth and air within its domain").

45. See U.S. DOE, EMISSIONS OF GREENHOUSE GASES IN THE UNITED STATES 2004, at 19, 22 (2005) available at http://www.eia.doe.gov/oiaf/1605/ggrpt/coemissions_tbls.html [hereinafter *Greenhouse Gases in the U.S. 2004*] (total U.S. CO₂

and light-duty trucks are responsible for about 20% of emissions.⁴⁶ The U.S. Department of Energy (DOE) projects that CO₂ emissions from the electric power sector will increase by 41% by the year 2025 if no action is taken to restrain such emissions. This increase will raise the electric power sector's annual emissions to approximately 3.5 billion tons. This rate of increase is significantly faster than the projected growth rate of emissions from the economy as a whole over the same period.⁴⁷

Moreover, of the four industries that bear the most responsibility for the problem—coal, oil, automobile, and electric power—only the electric power industry is a direct emitter of GHGs. The other industries sell products (or commodities) which, when used by others, inevitably emit CO₂. We considered that a traditional public nuisance environmental claim usually goes after the polluter. To be sure, there is substantial precedent for suing the maker of a product in public nuisance when the product inevitably causes environmental or other harm to public rights.⁴⁸ But where, as here, there are major emitters contributing directly to the pollution problem, the simplest case is to go after the emitters.

The electric power industry became our target. It quickly became clear to us that there is a remarkable concentration of ownership in the U.S. electric power sector. The 100 largest power producers in the United States represent only 5% of the number of companies that generate electric power, but they generate about 90% of the nation's electricity.⁴⁹ A relatively small number of companies is responsible for the lion's share of the emission of CO₂. In fact, 50 companies are responsible for three-quarters of the emissions from the U.S. electric power sector. Of these, just 18 companies are responsible for 50% of the emissions, and just 5 companies for 25%.⁵⁰

emissions in 2004 were 5,973 million metric tons and electric utility emissions were 2298.6 tons or 38.5% of total; electric utility emissions do not include emissions from industrial electric generation where primary business is not generation of electricity); U.S. DOE & U.S. EPA, CARBON DIOXIDE EMISSIONS FROM THE GENERATION OF ELECTRIC POWER IN THE UNITED STATES 2 (2000), available at http://www.eia.doe.gov/oiaf/1605/ggrpt/cdemissions_tbls.html (all electric generation, including industrial, was responsible for 40.5% of U.S. CO₂ emissions in 1999). The entire transportation sector, including all cars, trucks, trains, boats, and jet planes, is responsible for 32% of U.S. CO₂ emissions. See *Greenhouse Gases in the U.S. 2004*, supra, at 19, 20 (transportation emissions in 2004 were 1933.7 million metric tons out of total of 5,973 million metric tons).

46. *Greenhouse Gases in the U.S. 2004*, supra note 45, at 22 (gasoline is 60% of transportation sector's CO₂ emissions, which is 33% of total U.S. CO₂ emissions).

47. See *id.* at 19, 22 (27.5% increase for power sector from 1990 to 2004, compared to 19.4% for economy as a whole); ENERGY INFORMATION ADMIN., U.S. DOE, ANNUAL ENERGY OUTLOOK 2003 WITH PROJECTIONS TO 2005, at 92 (2003), available at [http://tonto.eia.doe.gov/FTP/ROOT/forecasting/0383\(2003\).pdf](http://tonto.eia.doe.gov/FTP/ROOT/forecasting/0383(2003).pdf).

48. An example of an environmental case where a product manufacturer has been held susceptible to liability in public nuisance is *In re MTBE Prods. Liab. Litig.*, 175 F. Supp. 2d 593 (S.D.N.Y. 2001) (denying motions to dismiss public nuisance claims alleging that oil refiner defendants added a chemical to gasoline knowing it would contaminate groundwater). Public nuisance claims against handgun manufacturers have had mixed success, with some courts permitting such claims and others dismissing them. Compare *City of Chicago v. Beretta U.S.A. Corp.*, 821 N.E.2d 1099 (Ill. 2004) (dismissing public nuisance claim), with *City of Cincinnati v. Beretta U.S.A. Corp.*, 768 N.E.2d 1136 (Ohio 2002) (permitting public nuisance claim).

49. NRDC, BENCHMARKING AIR EMISSIONS OF THE 100 LARGEST ELECTRIC POWER PRODUCERS IN THE UNITED STATES—2002, at 13 (2004), available at <http://www.nrdc.org/air/pollution/benchmarking/default.asp>.

50. *Id.* at 3.

Moreover, many of the biggest emitters also have high emissions rates, i.e. high CO₂ emissions for each unit of energy they produce. For example, the nation's two largest CO₂ emitters, American Electric Power Company and Southern Company, emit about 1,830 and 1,665 pounds of CO₂, respectively, for each megawatt hour (Mwh) of power they produce.⁵¹ By comparison, FPL Group (which owns Florida Power and Light) and Public Service Enterprise Group emit about 920 and 745 pounds of CO₂ per Mwh, respectively.⁵² We found that the companies that have the most resources to address the problem, and which are industry leaders in other respects, are also primary producers of dirty power even though cleaner power technologies are widely available and used.

We could have sued dozens or even scores of defendants. Indeed, many such cases involving environmental harm or other large-scale torts have been filed by well-armed plaintiffs' lawyers.⁵³ But our legal research was also revealing a robust theory of joint and several liability (discussed further below), so we could proceed against just one defendant if need be. Ultimately, balancing the need for judicial manageability and our desire to obtain relief against a meaningful slice of the electric power industry, we settled on the top five CO₂ emitters in the nation: American Electric Power Company, Tennessee Valley Authority, Southern Company, Xcel Energy Inc., and Cinergy Corporation. These five companies are the giants in the electric power industry, have high emissions rates, play a leadership role in shaping the industry's response to global warming, and have the resources to reduce emissions significantly. Our complaint alleged that these five companies together emit approximately 650 million tons of CO₂ every year—25% of the entire industry's CO₂ emissions and 10% of all U.S. CO₂ emissions from human activities. A court order requiring these five companies to reduce their emissions would constitute one of the single greatest reductions in GHGs ever effected.

C. Ensuring Consumer Protection

As part of their commitment to consumer protection, the attorneys general wanted to be sure that reduction of CO₂ emissions was possible without sharp increases in electricity prices. Our investigation convinced us that this was indeed the case for several reasons.

First, industries in general and the electric power industry in particular have a history of greatly exaggerating their projected costs of complying with pollution controls. The power industry had overstated the costs of complying with emissions limits for sulfur dioxide (SO₂) and nitrogen oxides in the debate over adoption of the original CAA in the 1970s, and again in the debate in the 1980s over tightening of those emissions limits.⁵⁴ In essence, over the last 30 years, while legal

51. *Id.* at 14, tbl. 1.

52. *Id.*

53. See, e.g., *In re MTBE Prods. Liab. Litig.*, 379 F. Supp. 2d 348 (S.D.N.Y. 2005) (consolidated cases naming over 100 defendants alleged to have polluted groundwater).

54. See PRAVEEN AMAR, NESCAUM, ENVIRONMENTAL REGULATION AND TECHNOLOGY INNOVATION: CONTROLLING MERCURY EMISSIONS FROM COAL-FIRED BOIL-

controls on power plant emissions have reduced the emissions of acid rain and smog-forming compounds by 90%, electricity remained affordable. The reason for this is basic economics: an increase in demand for pollution control technologies and methods unleashes technological innovation as well as large-scale production, both of which bring down the costs of such technologies and methods.

Second, studies of the costs of reducing CO₂ emissions from the electric power sector had demonstrated that emissions reductions could be achieved at low or no cost to the consumer.⁵⁵ In fact, one proposal to control CO₂ emissions would financially benefit consumers by creating a “sky trust” that in recognition that the atmosphere is a commonly owned natural resource like groundwater, would require CO₂ emitters to pay “rent” for the privilege of storing CO₂ in our atmosphere. The rental payments would create a stream of income that like the Alaska Permanent Fund that redirects oil profits back to Alaska residents, flows back as dividends to the citizen owners via a trustee.⁵⁶ A bill introduced by Sen. James Jeffords (Ind.-Vt.) would have established such a sky trust. Not surprisingly, it was defeated by industry lobbying.

Third, the power industry itself had commissioned a smoking-gun cost study, which concluded that reducing CO₂ emissions 10% below 1990 levels by the year 2010 would result in only a 4S10% increase in the price of electricity. The study was viewed with alarm by the power industry because it was “not damaging enough.” So the industry kept the study under wraps, even discussing shredding all copies of the study.⁵⁷

Finally, it is worth noting that leading executives in the power industry have now stated themselves that they could reduce emissions. For example, Wayne Brunetti, chairman and chief executive officer (CEO) of defendant Xcel Energy Inc., had said, “Give us a date, tell us how much [carbon dioxide] we need to cut, give us the fl exibility to meet the goals, and we’ll get it done.”⁵⁸ Michael Morris, the chairman, president, and CEO of defendant American Electric Power Company, has promised that “[i]f CO₂ mandates come down the road, we will live with them.”⁵⁹ James E. Rogers, chairman and CEO of defendant Cinergy Corporation acknowledged that “[i]n regard to CO₂, my starting point on this issue is that one day we will live in a carbon-constrained world.”⁶⁰

IV. The Fundamental Legal Claim: Public Nuisance

The legal investigation canvassed numerous potential legal claims. Public nuisance soon emerged as the strongest common law claim.

A. The Federal Common Law of Public Nuisance

The *Restatement (Second) of Torts* §821B(1) defines a public nuisance simply as “an unreasonable interference with a right common to the general public.” Modern environmental and energy statutes are, in fact, codifications of the common law of public nuisance:

The theory of nuisance lends itself naturally to combating the harms created by environmental problems. . . . The deepest doctrinal roots of modern environmental law are found in principles of nuisance. . . . Nuisance actions have involved pollution of all physical media—air, water, land—by a wide variety of means. . . . Nuisance actions have challenged virtually every major industrial and municipal activity which is today the subject of comprehensive environmental regulation. . . . Nuisance theory and case law is the common law backbone of modern environmental and energy law.⁶¹

The plaintiffs’ view is that the kinds of harms at issue from global warming—harm to human health from heat and increased air pollution, property damage from flooding, and ecological destruction—all clearly fall within the traditional harms protected against by the doctrine of public nuisance.

Public nuisance is not simply another species of tort but rather is a quasi-criminal exercise of the police power.⁶² For this reason, injunctive relief is a common remedy under public nuisance, and the claim is especially powerful when invoked by a sovereign or other governmental authority. Public nuisance is an ancient doctrine but is not outdated—it continues to play a vital role in complementing the states’ federal and state statutory enforcement tools.⁶³

Moreover, because CO₂ emissions are inherently interstate and ambient in nature, we realized that a public nuisance claim would be governed by *federal* common law. The federal common law of public nuisance is grounded in the rights of states as sovereigns to defend themselves against harmful activity, such as pollution, that crosses state borders. Municipalities and citizens also have been accorded the right to invoke the federal common law of public nuisance.⁶⁴ The federal com-

ERS xiv (2000), available at <http://www.nescaum.org/airtopics/mercury.html> (“Once again, a pattern emerges in which early estimates consistently overstate actual compliance costs, often by a factor of two or more.”).

55. KAREN PALMER & DALLAS BURTAW, *ELECTRICITY, RENEWABLES, AND CLIMATE CHANGE: SEARCHING FOR A COST-EFFECTIVE POLICY* 13 (2004), available at <http://www.rff.org/rff/Publications/Reports.cfm> (renewable portfolio standard requiring 20% of electricity to be produced from renewable energy sources would cut emissions by 17% while increasing electricity price only 4.2%; 10% standard would have “negligible” impact on price); *id.* at 57 (cap on CO₂ emissions from electricity utility sector could cut emissions 13% with only 3.4% increase in price of electricity).

56. PETER BARNES, *WHO OWNS THE SKY? OUR COMMON ASSETS AND THE FUTURE OF CAPITALISM* 61-78 (2001).

57. *Is EEI Keeping ICF Study Results Quiet?*, AIR DAILY, Dec. 3, 1997.

58. John Carey, *Global Warming*, BUS. WK., Aug. 16, 2004, at 62.

59. Jeffrey Ball, *AEP and Cinergy to Outline Ways to Cut Emissions*, WALL ST. J., Feb. 19, 2004, at A8.

60. GreenBiz.com, *Cinergy: Awakening a Sustainability Giant*, http://www.greenbiz.com/news/reviews_third.cfm?NewsID%27409 (last visited Oct. 15, 2005).

61. *Cox v. City of Dallas*, 256 F.3d 281, 291, 31 ELR 20767 (5th Cir. 2001) (internal citation omitted) (quoting WILLIAM H. RODGERS JR., *HANDBOOK ON ENVIRONMENTAL LAW* §2.1, at 100 (1977)).

62. *Id.* at 290.

63. *See, e.g.*, *New York v. Shore Realty Corp.*, 759 F.2d 1032, 1049-50, 15 ELR 20358 (2d Cir. 1985) (state not entitled to injunctive relief under federal Superfund statute but injunction affirmed under pendent public nuisance claim).

64. *See, e.g.*, *National Sea Clammers Ass’n v. New York City*, 616 F.2d 1222, 1233, 10 ELR 20155 (3d Cir. 1980) (“We hold that the common law nuisance remedy recognized in *Illinois v. City of Milwaukee* is available in suits by private parties.”), *rev’d on other grounds*, 453 U.S. 1, 11 n.17 (1981) (“We therefore need not discuss the question whether the federal common law of nuisance could ever be the basis of a suit for damages by a private party.”); *City of Evansville v. Kentucky Liquid Recycling, Inc.*, 604 F.2d 1008, 9 ELR 20679 (7th Cir. 1979)

mon law of public nuisance extends back over 100 years to cases such as *Georgia v. Tennessee Copper Co.*⁶⁵ In that 1907 case, the state of Georgia sued private companies emitting SO₂ into the air from a neighboring state. The U.S. Supreme Court, in an opinion by Justice Holmes, held that the right of a state to defend itself against an interstate nuisance was inherent in the constitutional structure forming the union:

When the states by their union made the forcible abatement of outside nuisances impossible to each, they did not thereby agree to submit to whatever might be done. They did not renounce the possibility of making reasonable demands on the ground of their still-remaining quasi-sovereign interests; and the alternative to force is a suit in this Court.⁶⁶

In language of historic importance to environmental law, the Court enjoined the pollution:

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 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.⁶⁷

The federal common law of nuisance is thus a powerful doctrine applicable to interstate or ambient pollution and is grounded in the constitutional structure forming the Union.

Over 60 years later, in *Illinois v. City of Milwaukee (Milwaukee I)*,⁶⁸ a unanimous decision dealing with sewage pollution shortly before enactment of the modern Clean Water Act (CWA), the Court reaffirmed the constitutional basis of the federal common law of public nuisance, holding that it applies in cases of interstate or ambient pollution of air or water. The Court further held that interstate pollution cases are federal questions under 28 U.S.C. §1331 and thus may be filed in federal district court.⁶⁹ On the same day that it issued *Milwaukee I*, the Court observed, in a separate case by states against automobile manufacturers for contributing to smog, that “[a]ir pollution is, of course, one of the most notorious types of public nuisance in modern experience.”⁷⁰

Federal common law claims for ambient or interstate pollution are, of course, less common than they once were

because, beginning in the early 1970s, Congress and EPA began to regulate many of the most important interstate water and air pollutants. Generally, where EPA has issued regulations pursuant to a federal statute, the applicable federal law is expressed in the statute and regulations, preempting federal common law. Nine years after the enactment of the CWA, the Court addressed this preemption argument in *City of Milwaukee v. Illinois (Milwaukee II)*,⁷¹ a case in which the earlier sewage pollution case returned to the Court for resolution of the preemption issues. The Court held that where Congress has enacted a sweeping prohibition on sewage pollution and EPA had subsequently enacted regulations on point, the federal common law claim was preempted.⁷²

But in the area of air pollution, no such sweeping prohibition ever has been enacted that would preempt a global warming case. Rather, the CAA selectively regulates only certain pollutants and thus it differs substantially from the facts of *Milwaukee II* preemption.⁷³ In particular, EPA has never issued regulations controlling emissions of CO₂. In fact, EPA currently takes the position that it has no legal authority under the CAA to regulate CO₂ or other GHGs,⁷⁴ and a legal challenge to that position was recently rejected.⁷⁵ In the absence of federal regulation by Congress and EPA, the plaintiffs knew that the pathway of the common law remained clear.

It was conceivable that at some point during the life of our global warming case, the federal government might do an about-face and begin regulating CO₂ emissions from power plants. If that were to happen, the defendants’ argument for preemption of our federal common law claim would be much stronger but it would not end the entire case, which is also based on state common law. Where federal common law is preempted, state common law public nuisance applies in interstate pollution cases. As the Court held in *International Paper Co. v. Ouellette*,⁷⁶ although federal common law was preempted under its decision in *Milwaukee II*, state common law applied to Vermont citizens’ claims against a New York paper company for pollution of Lake Champlain. The only restriction on application of state common law to interstate pollution cases is that the law of the source state must apply.⁷⁷ Our global warming complaints thus plead state common law

(municipality is proper plaintiff in federal common law public nuisance action); *New England Legal Found. v. Costle*, 475 F. Supp. 425, 441 n.18, 10 ELR 20438 (D. Conn. 1979) (“It may not be essential for the state to be a formal party to a federal common law nuisance action, however, where the interests of the state are sufficiently implicated in a dispute of clearly interstate nature.”), *aff’d*, 666 F.2d 30, 11 ELR 20888 (2d Cir. 1981).

65. 206 U.S. 230 (1907).

66. *Id.* at 237 (citing *Missouri v. Illinois*, 180 U.S. 208, 241 (1901)). *Missouri v. Illinois*, involving Chicago’s discharge of sewage into the Mississippi River, was the first case to set forth the rationale for the states’ right to pursue a federal cause of action against interstate harm as a quid pro quo for their ceded right in forming the Union to make war against one another.

67. *Tennessee Copper Co.*, 206 U.S. at 238.

68. 406 U.S. 91, 103, 2 ELR 20201 (1972) (*Milwaukee I*) (“When we deal with air and water in their ambient or interstate aspects, there is a federal common law.”).

69. For this reason, the Court declined to exercise its original jurisdiction. *Id.* at 105.

70. *Washington v. General Motors Corp.*, 406 U.S. 109, 114, 2 ELR 20183 (1972) (declining to exercise original jurisdiction).

71. 451 U.S. 304, 11 ELR 20406 (1981) (*Milwaukee II*).

72. *Id.* at 320. (“There is thus no question that the problem of effluent limitations has been thoroughly addressed through the administrative scheme established by Congress, as contemplated by Congress.”).

73. *New England Legal Found. v. Costle*, 666 F.2d 30, 32 n.2, 11 ELR 20888 (2d Cir. 1981) (“[T]he Clean Air Act differs substantially from the Water Pollution Control Act in areas which the majority of the Court in [*Milwaukee II*] found were especially significant.”).

74. *Control of Emissions from New Highway Vehicles and Engines*, 68 Fed. Reg. 52922, 52928 (Sept. 8, 2003).

75. *Massachusetts v. EPA*, 415 F.3d 50, 35 ELR 20148 (D.C. Cir. 2005). [Editors’ Note: In a landmark decision, the Court recently reversed the U.S. Court of Appeals for the District of Columbia Circuit, finding that CO₂ is an air pollutant under the CAA, and that EPA had failed to adequately justify its refusal to take regulatory action with respect to GHG emissions from new motor vehicles. *Massachusetts v. EPA*, 127 S. Ct. 1438, 37 ELR 20075 (2007).]

76. *International Paper Co. v. Ouellette*, 479 U.S. 481, 17 ELR 20327 (1987).

77. *Id.* at 497.

public nuisance in the alternative to the primary claim of federal common law public nuisance.⁷⁸

V. Joint and Several Liability

Joint and several liability is a key aspect of public nuisance law in a pollution case. In a public nuisance suit, the defendant need not create the nuisance but rather need only *contribute* to the nuisance in order to be liable.⁷⁹ It is immaterial that there may be numerous polluters or that each polluter's contributions alone would not have created the nuisance.⁸⁰ Where the emissions or effluent from numerous polluters mixes together, liability under public nuisance is joint and several.⁸¹

Three cases from the 19th century dealing with water pollution demonstrate the principle of joint and several liability in multiple polluter situations very similar to the global warming context. In *People v. Gold Run Ditch & Mine Co.*,⁸² California brought a public nuisance abatement action against one of several mining companies that were dumping mine tailings in a river, causing downstream flooding. The trial court had found that the evidence was insufficient to declare that a defendant's pollution alone would have caused the harms:

On the American river and its tributaries a vast amount of mining was done in early times, and up to this time a great deal is being done, besides that by the defendant. No other mine contributes annually more detritus to the river than the defendant; still I am unable to say that defendant's mine alone, without reference to the debris from other mines, materially contributes to the evils mentioned; or, in other words, if there were no mining operations save those of the defendant, I am not prepared to say that it would materially injure the valley lands, or the navigation of the river. It is the aggregate of debris from all the mines, which produces the injuries mentioned in these findings.⁸³

Notwithstanding the relatively small contribution of the defendant, on appeal the California Supreme Court reversed the trial court and held that "in an action to abate a public or private nuisance, all persons engaged in the commission of the

wrongful acts which constitute the nuisance may be enjoined, jointly or severally."⁸⁴

Likewise, in *Woodyear v. Schaefer*,⁸⁵ a nuisance action by a downstream landowner in Maryland, the Maryland Supreme Court rejected the defendant's argument that its pollution arising from the dumping of animal blood and byproducts from its slaughterhouse into the stream was alone insignificant in light of the large number of co-contributors.

It is no answer to a complaint of nuisance that a great many others are committing similar acts of nuisance upon the stream. Each and every one is liable to a separate action, and to be restrained. . . . Each standing alone, might amount to little or nothing. But it is when all are united together, and contribute to a common result, that they become important as factors, in producing the mischief complained of. And it may only be after from year to year, the number of contributors to the injury has greatly increased, that sufficient disturbance of the appellant's rights has been caused to justify a complaint. One drop of poison in a person's cup, may have no injurious effect. But when a dozen, or twenty, or fifty, each put in a drop, fatal results may follow. It would not do to say that neither was to be held responsible.⁸⁶

The *Woodyear* court ordered an injunction against the defendant's water pollution.

An 1885 Maine case, *The Lockwood Co. v. Lawrence*,⁸⁷ involved a downstream owner who sought an injunction against 16 sawmill operators who were dumping wood shavings and refuse wood into the stream above the plaintiff's property. The plaintiff acknowledged that "it is impossible to distinguish what particular share of damage each has inflicted or will inflict," but he alleged that each was contributing something to the nuisance.⁸⁸ The court held that injunctive relief was proper notwithstanding that each defendant's contribution, if isolated, alone might have been harmless:

In the case at bar, it may be that the act of any one respondent alone might not be sufficient cause for any well grounded action on the part of the complainants; but when the individual acts of the several respondents, through the combined results of these individual acts, produce appreciable and serious injury, it is a single result, not traceable perhaps to any particular one of these respondents, but a result for which they may be liable in equity as contributing to the common nuisance, as we have before stated.⁸⁹

78. Federal and state common law public nuisance claims cannot simultaneously apply. If one applies, the other does not. *International Paper Co.*, 479 U.S. at 488 ("the implicit corollary of [*Milwaukee I*] was that state common law was preempted"); *Milwaukee II*, 451 U.S. at 314 n.7 ("if federal common law exists, it is because state law cannot be used").

79. *Cox v. City of Dallas*, 256 F.3d 281, 292 n.19, 31 ELR 20767 (5th Cir. 2001); *City of New York v. Beretta U.S.A. Corp.*, 315 F. Supp. 2d 256, 281 (E.D.N.Y. 2004) ("Satisfaction of the causation requirement for liability in public nuisance actions requires proof that a defendant, alone or with others, created, contributed to, or maintained the alleged interference with the public right.") (emphasis added).

80. RESTATEMENT (SECOND) OF TORTS §840E (1979) ("the fact that other persons contribute to a nuisance is not a bar to the defendant's liability for his own contribution").

81. See, e.g., *Michie v. Great Lakes Steel*, 495 F.2d 213, 4 ELR 20324 (6th Cir. 1974) (imposing joint and several liability in air pollution case for damages); *Velsicol Chem. Corp. v. Rowe*, 543 S.W.2d 337 (Tenn. 1976) (finding joint and several liability for emissions from chemical plant that impacted nearby residents).

82. 4 P. 1152 (Cal. 1884).

83. *Id.* at 1156 (quoting trial court).

84. *Id.* at 1157.

85. 57 Md. 1 (Md. 1881).

86. *Id.* at 9S10. The court also gives this illustration:

Suppose one person leaves a wheelbarrow standing on a way, that may cause no appreciable inconvenience, but if a hundred do so, that may cause a serious inconvenience, which a person entitled to the use of the way, has a right to prevent; and it is no defense to any person among the hundred, to say that what he does, causes of itself no damage to the defendant.

Id. at 12 (quoting HORACE WOOD, A PRACTICAL TREATISE ON THE LAW OF NUISANCES (Albany 1875)).

87. 77 Me. 297 (Me. 1885).

88. *Id.* at 303.

89. *Id.* at 310.

These three cases demonstrate the long-standing legal principle that every polluter contributing to a public or private nuisance may be individually enjoined even if the defendant's pollution standing alone would not by itself create a nuisance.

The federal district court in *Milwaukee II*, applying federal common law, followed the same reasoning as these 19th century cases based on state law and reached the same result.⁹⁰ In that case, the two state plaintiffs, Illinois and Michigan, sued four Wisconsin municipalities and sewerage commissions that were contributing to the eutrophication of Lake Michigan with nutrient discharges from inadequately treated sewage. Three of the six defendants settled, but the city of Milwaukee and its city and county sewage commissions went to trial and argued that elimination of their nutrient discharges would make no measurable difference in the water quality of the lake. The court rejected this argument:

If defendants' argument were to be adopted, it would be impossible to impose liability on any polluter. If any one point source can defend successfully on the ground that its discharge alone is not causing the problem and that, without its discharge, the problem would still exist, then that defense would have to be equally available to all point sources. What is a good defense for Milwaukee would have to be a good defense for any other point discharger, especially since Milwaukee is the largest point discharger. I believe it is sufficient for plaintiffs to show that defendants' nutrient discharges constitute a significant portion of the total nutrient input to the lake. The correct rule would seem to be that any discharger who contributes an aliquot of a total combined discharge which causes a nuisance may be enjoined from continuing his discharge. Either that is true or it is impossible to enjoin point dischargers.⁹¹

Federal courts continue to apply this principle of joint and several liability as a matter of federal common law in multiple-polluter cases under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)⁹²—the federal Superfund statute. Such cases typically involve numerous responsible parties who have contributed hazardous waste to a dump site. Congress did not legislatively establish joint and several liability in CERCLA; rather, federal courts have developed joint and several liability in such cases as a matter of federal common law ever since the seminal Ohio district court decision of *United States v. Chem-Dyne Corp.*⁹³ in 1983. The *Chem-Dyne* court's adoption of joint and several liability as a matter of federal common law is now a basic tenet of Superfund law.⁹⁴

The courts are thus very familiar with applying joint and several liability under federal common law in multiple-polluter cases. To our team developing the legal strategy for the

case, it became clear that defendants who emit millions of tons of CO₂ to the atmosphere would be unable to defend the case on the basis that their emissions alone do not create the entire nuisance but merely contribute to it. Public nuisance provided us a powerful claim against this group of defendants.

VI. The Case Is Filed and the Defendants Move to Dismiss

In July 2004, we filed our global warming case in federal court in the Southern District of New York as two related lawsuits on behalf of eight states, New York City, and three nonprofit land trust entities. The complaints in *Connecticut v. American Electric Power* and *Open Space Institute v. American Electric Power* allege that the power company defendants are liable under the federal common law of public nuisance or, in the alternative, under state public and private nuisance law. The cases seek only injunctive relief, namely, a reduction in CO₂ emissions from defendants' numerous electric power-generating facilities.

Shortly after experiencing the adrenaline rush of the press conference and an initial splash of media coverage,⁹⁵ we received the defendants' barrage of motions requesting the court to dismiss the case. Defendants' primary arguments were that the application of federal common law would violate the separation-of-powers doctrine, that federal common law was preempted by federal statutes (an argument that itself is a species of separation of powers), and that the plaintiffs lacked standing. Defendants also argued that private parties cannot sue under the federal common law of public nuisance and thus, they contended, the land trusts were improper plaintiffs. Four defendants also moved to dismiss for lack of personal jurisdiction. Defendant Tennessee Valley Authority moved to dismiss on the basis that as a federal government corporation, it has sovereign immunity.

The district court, however, ultimately found its own grounds for dismissal—the nonjusticiable political question doctrine. In September 2005, it dismissed the complaints *sua sponte* and denied all of defendants' motions as moot.⁹⁶ This section reviews the court's political question holding and the major legal arguments raised by the defendants' motions on separation of powers, preemption, and standing.

A. Nonjusticiable Political Question

The political question doctrine is a species of separation of powers holding that certain questions are not legal but rather political and thus must be resolved by the political branches rather than by the judiciary.⁹⁷ Defendants did not invoke the political question doctrine in the district court. Rather, their primary thrust to have the lawsuits dismissed in the district court was a generalized separation-of-powers argument. They contended that because no court had ever heard a nuisance

90. No. 72 C 1253, 1973 U.S. Dist. LEXIS 15607 (N.D. Ill. Mar. 6, 1978) (granting injunction), *aff'd in part, rev'd in part*, Illinois v. City of Milwaukee, 599 F.2d 151 (7th Cir. 1979), *vacated on other grounds*, City of Milwaukee v. Illinois, 451 U.S. 304 (1981) (*Milwaukee II*).

91. *Milwaukee II*, 1973 U.S. Dist. LEXIS 15607, at **21-22.

92. 42 U.S.C. §§9601-9675, 9607, ELR STAT. CERCLA §§101-405.

93. 572 F. Supp. 802, 808 (S.D. Ohio 1983).

94. *See, e.g.*, United States v. Alcan Aluminum Corp., 990 F.2d 711, 722, 23 ELR 20706 (2d Cir. 1993).

95. *See, e.g.*, Editorial, *A Novel Tactic on Warming*, N.Y. TIMES, July 28, 2004, at A14; *see* Carey, *supra* note 58.

96. *Connecticut v. American Elec. Power Co., Inc.*, No. 04 CV 05669, 2005 U.S. Dist. LEXIS 19964, at *27 (S.D.N.Y. Sept 19, 2005).

97. *See Baker v. Carr*, 369 U.S. 186, 210 (1962).

case where the harms were caused by global warming, the plaintiffs were seeking to create an entirely new cause of action (“global warming nuisance”) and that a court’s adoption of that theory would invade the exclusive authority of the political branches.

In opposing the motions to dismiss in the district court, the plaintiffs argued that the defendants’ generalized separation-of-powers argument obscured specific separation-of-powers doctrines such as the political question doctrine that governed their objections. Plaintiffs referred the court to Second Circuit case law to demonstrate why the political question argument could not succeed. The defendants responded that “[t]he *Baker v. Carr* test for determining when the political question doctrine bars adjudication of a recognized cause of action is thus wholly irrelevant.”⁹⁸ The district court pressed defendants on this point in oral argument and they again disavowed the doctrine as a basis for their motions to dismiss: “[I]n all honesty, that is not the motion that we filed.”⁹⁹ Nonetheless, the district court proceeded to address the political question doctrine and dismissed the case precisely on that basis. The pending appeal in the Second Circuit will address this issue.

We believe that the district court’s dismissal was erroneous on multiple grounds. The Court has identified a series of factors for determining whether a case presents a nonjusticiable political question doctrine:

[1] a textually demonstrable constitutional commitment of the issue to a coordinate political department; or [2] a lack of judicially discoverable and manageable standards for resolving it; or [3] the impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion; or [4] the impossibility of a court’s undertaking independent resolution without expressing lack of the respect due coordinate branches of the government; or [5] an unusual need for unquestioning adherence to a political decision already made; or [6] the potentiality of embarrassment from multifarious pronouncements by various departments on one question.¹⁰⁰

In our case, the district court stated that “several of these indicia have formed the basis” for its holding that “[p]laintiffs raise a nonjusticiable political question,” but the court did not discuss any of these factors other than factor three.¹⁰¹ According to the district court, hearing the cases would require the court to balance environmental and economic concerns and to take into account the availability of alternative energy resources, the effect of any relief upon negotiations with foreign countries, and the implications for national security. This, the court held, it could not do without an initial policy determination by the political branches.¹⁰²

98. Reply in Support of Defendants’ Motions to Dismiss the Complaints at 10, *Connecticut v. American Electric Power Co.*, 2005 U.S. Dist. LEXIS 19964 (S.D.N.Y. 2005) (filed Dec. 17, 2004) (available from author).

99. Transcript of Oral Argument at 59, *Connecticut v. American Electric Power Co.*, 2005 U.S. Dist. LEXIS 19964 (S.D.N.Y. 2005) (Aug. 12, 2005) (available from author).

100. *Vieth v. Jubelirer*, 541 U.S. 267, 277-78 (2004) (plurality opinion) (quoting *Baker*, 369 U.S. at 217).

101. *Connecticut v. American Electric Power Co.*, 2005 U.S. Dist. LEXIS 19964, at *20.

102. *Id.* at *20-22.

In plaintiffs’ view, the district court’s political question ruling was in error for at least two reasons. First, the court ignored the fact that there already has been an initial policy determination by the political branches. That policy determination is that domestic GHG emissions from power plants and other sources should be reduced in order to mitigate their contribution to global warming. For example, the Global Climate Protection Act of 1987 provides that “United States policy should seek to . . . identify technologies and activities to limit mankind’s adverse effect on the global climate by (A) slowing the rate of increase of concentrations of greenhouse gases in the atmosphere in the near term; and (B) stabilizing or reducing atmospheric concentrations of greenhouse gases over the long term.”¹⁰³ In §103 of the CAA, Congress established an engineering research program aimed at “preventing or reducing multiple air pollutants, including carbon dioxide, from stationary sources, including fossil fuel power plants.”¹⁰⁴ In addition, the United States is a Party to the UNFCCC,¹⁰⁵ which requires the United States and other industrialized nations to return their domestic emissions, jointly or individually, to 1990 levels, and provides as follows:

Each of these Parties [Annex I countries, i.e. the developed nations, including the United States] shall adopt national policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs. These policies and measures will demonstrate that developed countries are taking the lead in modifying longer-term trends in anthropogenic emissions¹⁰⁶

Thus, even if there somehow were, in our case, an “impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion,”¹⁰⁷ the political branches have provided that initial policy determination. In fact, under *Milwaukee I*, the courts are to look to such policy pronouncements from Congress as a guide in fashioning federal common law.¹⁰⁸ Following that directive with respect to global warming yields guidance for the courts from the political branches, not conflict with those branches.

Second, as we are arguing on appeal, the district court has strayed from binding case law on the political question doctrine. In *Ohio v. Wyandotte Chemical Corp.*,¹⁰⁹ the state of Ohio sued polluters who were dumping mercury into watercourses

103. The Global Climate Protection Act of 1987, Pub. L. No. 100-204, tit. XI, §1103(a), reprinted at 15 U.S.C. §2901 note.

104. 42 U.S.C. §7403(g)(1).

105. See UNFCCC, *supra* note 7 and accompanying text.

106. *Id.* art. 4, § 2(a); see also, *id.* art. 3, ¶ 1: The parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof.

107. *Baker v. Carr*, 369 U.S. 186, 217 (1962).

108. *Milwaukee I*, 406 U.S. at 103 n.5 (court hearing federal common law claim devises remedy by “looking at the policy of the legislation [relating to the subject matter] and fashioning a remedy that will effectuate that policy”); see also *In re Oswego Barge Corp.*, 664 F.2d 327, 339 n.15, 12 ELR 20119 (2d Cir. 1981) (“Judge made law may be fashioned when Congress has provided ‘enough federal law’ so that a legislative purpose is clear. . . .”).

109. 401 U.S. 493, 1 ELR 20124 (1971).

in Canada and the United States that eventually flowed into Lake Erie. The Court held that the political question doctrine does not bar interstate nuisance cases:

Nor is the nature of the cause of action asserted a bar to the exercise of our jurisdiction. While we have refused to entertain, for example, original actions designed to exact compliance with a State's penal laws, or that seek to embroil this tribunal in "political questions," this Court has often adjudicated controversies between States and between a State and citizens of another State seeking to abate a nuisance that exists in one State yet produces noxious consequences in another. In short, precedent leads almost ineluctably to the conclusion that we are empowered to resolve this dispute in the first instance.¹¹⁰

Even where a lawsuit challenges the constitutionality of action by one of the political branches on an issue that is undoubtedly a matter of political importance, the Court has rejected the argument that there is a nonjusticiable political question:

It is correct that this controversy may, in a sense, be termed "political." But the presence of constitutional issues with significant political overtones does not automatically invoke the political question doctrine. Resolution of litigation challenging the constitutional authority of one of the three branches cannot be evaded by courts because the issues have political implications in the sense urged by Congress.¹¹¹

Put another way, the district court in our case had conflated the *political issues* involved with global warming with the doctrine of *political questions*. The Second Circuit warned against such a mistake in *Kadic v. Karadzic*,¹¹² a case against the leader of the Bosnian Serb insurgency for human rights violations that occurred in Bosnia:

Karadzic maintains that these suits were properly dismissed because they present nonjusticiable political questions. We disagree. Although these cases present issues that arise in a politically charged context, that does not transform them into cases involving nonjusticiable political questions. "The doctrine 'is one of "political questions," not one of "political cases."'"¹¹³

Nor does the foreign relations component of global warming transmute our case into a political question. As the Second Circuit held in *Kadic*, "[n]ot every case 'touching foreign relations' is nonjusticiable."¹¹⁴ There, the court found no bar under the political question doctrine and reviewed the six *Baker v.*

Carr factors in a manner that demonstrates there is no political question at issue in our case. The first three factors do not indicate a political question in cases "based on the common law of torts."¹¹⁵ The court also reasoned that the other factors "appear to be relevant only if judicial resolution of a question would contradict prior decisions taken by a political branch in those limited contexts where such contradiction would seriously interfere with important governmental interests."¹¹⁶ Given the pronouncements by the political branches in favor of limiting domestic emissions of CO₂, discussed above, it is impossible for there to be such a contradiction. If anything, the assertion that a dispute may touch upon foreign affairs suggests another reason to apply federal common law.¹¹⁷

B. Separation of Powers Generally

In their motions to dismiss, defendants advanced a generalized separation of powers argument. Defendants contended that the plaintiffs were seeking to create a novel cause of action for "global warming nuisance" that would intrude upon the political branches. Plaintiffs responded that the federal common law of public nuisance was created long ago in cases such as *Tennessee Copper Co.*¹¹⁸ and applies to interstate and ambient air pollution under *Milwaukee I.*¹¹⁹ The fact that a plaintiff's public nuisance claim is predicated upon harm from a physical process that has not been previously litigated does not mean that there is a novel claim. Novel fact patterns do not equate to novel legal claims. The collection of harms at issue in the *Connecticut v. American Electric Power*—harm to public health from heat and air pollution, damage to vegetation, interference with navigation, interference with water supplies, interference with comfort, risk to public safety, and inundation of land—are classic public nuisance harms that have been litigated in prior cases.¹²⁰

In reply, defendants argued that *Erie Railroad Co. v. Tompkins*¹²¹ swept away the federal common law of public nuisance in 1938, and thus any recognition of a federal common law public nuisance action would constitute impermissible judicial lawmaking. *Erie*, however, did not terminate the federal common law of public nuisance; it disavowed the existence only of a "federal general common law."¹²² On the same day that

115. *Kadic*, 70 F.3d at 249.

116. *Id.*

117. See *Texas Indus. Inc. v. Radcliff Materials, Inc.*, 451 U.S. 630, 641 (1981) (federal common law exists for "interstate and international disputes implicating the conflicting rights of States or our relations with foreign nations").

118. 206 U.S. at 230.

119. 406 U.S. at 91.

120. See, e.g., *New Jersey v. New York City*, 283 U.S. 473 (1931) (ocean dumping); *North Dakota v. Minnesota*, 263 U.S. 365 (1923) (flooding of land); *Tennessee Copper*, 206 U.S. at 230 (air pollution from smelter causing damage to forests and crops); *Missouri v. Illinois*, 180 U.S. 208 (1901) (sewage pollution of river); *Pennsylvania v. Wheeling & Belmont Bridge Co.*, 54 U.S. 518 (1852) (interference with navigation). Heat itself has been held to be a public nuisance. See, e.g., *McClung v. Louisville & N.R. Co.*, 51 So. 2d 371 (Ala. 1951) (finding nuisance where defendant erected a stove so near a partition wall with a bar that the barroom became uncomfortable to stay in); *Abel v. Bryant*, 353 S.W.2d 322 (Tex. Civ. App. 1962) (heat emanating from air conditioning units constituted a nuisance); *E.W. Face & Son v. Cherry*, 84 S.E.10 (Va. 1915) (heat from brick kiln constituted a nuisance).

121. 304 U.S. 64 (1938).

122. *Id.* at 78 (emphasis added).

110. *Id.* at 496 (citations omitted). Although *Wyandotte's* separate holding that state law applies in interstate nuisance actions was reversed in *Milwaukee I*, the remainder of *Wyandotte* remains good law. See, e.g., *Digital Equip. Corp. v. AltaVista Tech., Inc.*, 960 F. Supp. 457, 469 n.26 (D. Mass. 1997) (relying on *Wyandotte's* assertion that personal jurisdiction can be exercised when acts committed beyond a state's boundaries create a nuisance in a state).

111. *Immigration & Naturalization Serv. v. Chadha*, 462 U.S. 919, 942S43, 13 ELR 20663 (1983).

112. 70 F.3d 232 (2d Cir. 1995).

113. *Id.* at 249 (quoting *Klinghoffer v. S.N.C. Achille Lauro Ed Altri-Gestione*, 937 F.2d 44, 49 (2d Cir. 1991)) (quoting *Baker v. Carr*, 369 U.S. 186, 217 (1962)).

114. *Id.* (quoting *Baker*, 369 U.S. at 217).

it decided *Erie*, the Court in *Hinderlider v. La Plata River & Cherry Creek Ditch Co.*¹²³ recognized the continued vitality of federal *specialized* common law where necessary to protect uniquely federal interests, and the Court has continued to recognize such specialized federal common law ever since.¹²⁴ Indeed, in *Milwaukee I*, the Court relied upon the simultaneous decisions in *Erie* and *Hinderlider* (both opinions written by Justice Louis D. Brandeis) in establishing the modern framework for the federal common law of public nuisance.¹²⁵

In their brief to the district court in our case, defendants relied heavily upon a recent Court case, *Sosa v. Alvarez-Machain*,¹²⁶ where the Court held that it would not recognize a federal claim under the Alien Tort Claims Act because of separation-of-powers concerns.¹²⁷

However, in *Sosa*, the Court in fact held that “*Erie* did not in terms bar any judicial recognition of new substantive rules, no matter what the circumstances, and post-*Erie* understanding has identified limited enclaves in which federal courts may derive some substantive law in a common law way.”¹²⁸ One of those limited enclaves is, of course, for interstate pollution as set forth in *Milwaukee I*, a situation that does not require the kind of case-by-case analysis the Court established in *Sosa* for alien tort claims.

Fundamentally, defendants’ generalized separation-of-powers argument turns upon a cramped view of the proper role of the judiciary. The Court repeatedly has held that the federal judiciary has an unflagging duty to exercise its jurisdiction and to decide cases.¹²⁹ This duty cannot be lightly divested. The Court recently held that not even a state of war declared by the political branches can curtail the right and duty of the judiciary to hear cases.¹³⁰ As the Second Circuit noted in a case against the Palestinian Liberation Organization with significant international implications: “The department to whom

this issue has been ‘constitutionally committed’ is none other than our own—the Judiciary.”¹³¹

C. Preemption of Federal Common Law

Preemption of federal common law is a separation-of-powers doctrine addressing the circumstances under which statutes and regulations can displace federal common law.¹³² The Court held in *County of Oneida v. Oneida Indian Nation of New York State*¹³³ that preemption of federal common law occurs only where Congress has spoken directly to the particular issue. In order to “speak directly” to the “particular” issue, Congress must regulate the conduct at issue and provide a remedy. Preemption cannot be read to sweep too broadly.

In evaluating a federal statute that is alleged to preempt federal common law, courts should follow the Court’s “long-standing” principle that federal statutes invading the federal common law are “to be read with a presumption favoring the retention of long-established and familiar principles, except when a statutory purpose to the contrary is evident.”¹³⁴

In *Milwaukee II*, the Court found preemption based on the comprehensive remedial scheme in the 1972 CWA Amendments enacted after *Milwaukee I*.¹³⁵ The statutory scheme spoke directly to the very pollutant at issue (sewage), resulting in a permit that set numerical limits on the discharges. In its most recent description of *Milwaukee II*, the Court again emphasized that federal common law was preempted in that case because Congress had provided a remedy for the harm from the very pollutant at issue.¹³⁶ In striking contrast to *Milwaukee II*, in *Connecticut v. American Electric Power* there is no federal regulation of CO₂ emissions. This absence of any regulation precludes any finding of preemption.

Defendants also attempted to base their preemption argument on the federal statutes that require research on global warming, together with congressional resolutions on climate change, and even bills that would have (if they had passed) regulated CO₂.¹³⁷ Defendants characterized these items as

123. 304 U.S. 92, 110 (1938).

124. See, e.g., *Banco Nacional de Cuba v. Sabbatino*, 376 U.S. 398, 426 (1964); *United States v. Chem-Dyne Corp.*, 572 F. Supp. 802, 808, 13 ELR 20986 (S.D. Ohio 1983) (“Although *Erie* eliminated the power of federal courts to create federal general common law, the power to fashion federal specialized common law remains untouched when it is ‘necessary to protect uniquely federal interests.’”) (quoting *Texas Indus., Inc.*, 451 U.S. at 640). Judge Henry Friendly has written that “*Erie* caused the principle of a specialized federal common law to develop within a quarter century into a powerful unifying force.” Henry Friendly, *In Praise of Erie—And of the New Federal Common Law*, 39 N.Y.U. L. REV. 383, 407 (1964).

125. See 406 U.S. at 105 & n.7.

126. 542 U.S. 692 (2004).

127. *Id.* at 729.

128. *Id.* Justice Antonin Scalia declined to join the federal common law portion of the Court’s opinion in *Sosa* “because the judicial lawmaking role it invites would commit the Federal Judiciary to a task it is neither authorized nor suited to perform.” *Id.* at 739 (Scalia, J. concurring in part and concurring in the judgment). The *Sosa* majority disagreed, however, and reaffirmed the continuing vitality of federal common law. *Id.* at 729.

129. See *Quackenbush v. Allstate Ins. Co.*, 517 U.S. 706, 716 (1996) (“[F]ederal courts have a strict duty to exercise the jurisdiction that is conferred upon them by Congress.”); *Colorado River Water Conservation Dist. v. United States*, 424 U.S. 800, 817 (1976) (noting that there is a “virtually unflagging obligation of the federal courts to exercise the jurisdiction given them”); *Garcia v. Akwesasne Hous. Auth.*, 268 F.3d 76, 80 (2d Cir. 2001) (same).

130. *Hamdi v. Rumsfeld*, 542 U.S. 507, 536 (2004) (“[T]he position that the courts must forgo any examination of the individual case . . . cannot be mandated by any reasonable view of separation of powers, as this approach serves only to condense power into a single branch of government.”).

131. *Klinghoffer*, 937 F.2d at 49.

132. *Milwaukee II*, 451 U.S. at 315. Preemption of state law is a different doctrine, see *id.* at 316-17 & n.9, and is based upon the Supremacy Clause.

133. 470 U.S. 226, 236-37 (1985) (citing *Milwaukee II*, 451 U.S. at 315).

134. *United States v. Texas*, 507 U.S. 529, 534 (1993) (citations omitted).

135. 451 U.S. at 320.

There is thus no question that the problem of effluent limitations has been thoroughly addressed through the administrative scheme established by Congress, as contemplated by Congress. This being so there is no basis for a federal court to impose more stringent limitations than those imposed under the regulatory regime by reference to federal common law, as the District Court did in this case.

Milwaukee II is thus the post-legislative application of the *Milwaukee I* rationale that federal courts have power to hear nuisance actions until comprehensive new federal laws preempt the field. *Milwaukee I*, 406 U.S. at 108 n.9 (quoting *Texas v. Pankey*, 441 F.2d 236, 241-42 (1971)).

136. See *Arkansas v. Oklahoma*, 503 U.S. 91, 99, 22 ELR 20552 (1992) (stating that Congress had addressed the problems identified in *Milwaukee I* by providing remedies to downstream states).

137. In addition to the statutes calling for further research, defendants rely upon the following statutes and reports as a basis for their preemption argument: (1) a 1997 non-binding Senate resolution expressing certain views as to how the executive branch should conduct international negotiations on what became the Kyoto Protocol, S. Res. 98, 105th Cong. (1997); (2) temporary budget riders barring EPA and other agencies from using funds to implement the Kyoto Protocol prior to treaty ratification, see, e.g., Pub. L. No. 105-276, 232, 112

“Congress’s considered judgment concerning the proper response to the issue of global warming” and a “dec[is]ion *not* to regulate or limit carbon dioxide emissions at this time.”¹³⁸ Whether considered individually or added together, however, these statutes and other materials do not speak directly to the particular issue that governs preemption in *Connecticut v. American Electric Power*. They neither establish a regulatory regime for CO₂ emissions nor create any affirmative policy that CO₂ emissions should not be limited. They are silent on those important questions.¹³⁹

Defendants also asserted that the CAA establishes a regulatory system as comprehensive as the post-1972 water pollution control regime that the Court found preemptive in *Milwaukee II*. To the contrary, the CAA more closely resembles the pre-1972 Federal Water Pollution Control Act (FWPCA) than the comprehensive scheme in the post-1972 version of the CWA. When Congress amended the FWPCA in 1972, enacting an entirely new system of effluent limitations and permits,¹⁴⁰ the amendments prohibited *all* discharges to navigable waters from *all* point sources, allowing only those discharges that are covered by permits. It thus left no room for federal common law.¹⁴¹ In contrast, the CAA selectively regulates only certain pollutants and specified categories of sources. CO₂ is not currently regulated from any source, and EPA has determined that CO₂ regulation does not fall within the scope of the statute.¹⁴²

The Second Circuit noted this difference between the CWA and the CAA in *New England Legal Foundation v. Costle*¹⁴³:

[T]he Clean Air Act differs substantially from the Water Pollution Control Act. . . . For example, Justice Rehnquist, writing for the majority in [*Milwaukee II*] found it especially significant that under the Water Pollution Control Act the EPA regulated every point source of water pollution. Under

the Clean Air Act, in contrast, the states and the EPA are not required to control effluents from every source, but only from those sources which are found by the states and the agency to threaten national ambient air quality standards.¹⁴⁴

Because of this key difference, the Second Circuit was careful to leave open the question of the CAA’s preemptive effect upon federal common law where EPA has not expressly approved of the challenged conduct.¹⁴⁵

In contrast to the silence of Congress on the regulation of CO₂ emissions, statutes that actually establish and define remedies do preempt federal common law. The Second Circuit has clearly set forth the dividing line. For example, in *Oswego Barge*,¹⁴⁶ the court held that provisions of the CWA, by establishing a “comprehensive remedial scheme” for recovery of oil spill cleanup costs by the United States, preempted maritime tort claims by the United States insofar as the cleanup costs arose from oil spilled in American waters.¹⁴⁷ Significantly, the court further held that the statute did not preempt a maritime tort claim for cleanup costs in Canadian waters because such waters are outside the scope of the statute.¹⁴⁸ In short, the

144. *Id.* at 32 (citing *Milwaukee II*, 451 U.S. at 318).

145. The only other appellate opinion addressing the issue also focused, like *Costle*, on this difference between the CAA and the CWA and called for rejection of the preemption defense. See *National Audubon Soc’y v. Department of Water*, 869 F.2d 1196, 1213, 19 ELR 20198 (9th Cir. 1988) (Reinhardt, J., dissenting on other grounds) (“the structure of the Clean Air Act is closer to that of the pre-1972 Federal Water Pollution Control Act (FWPCA)—which the Supreme Court held in *Milwaukee I* did not preempt federal common law . . . —than it is to that of the Clean Water Act”). Although Judge Reinhardt’s opinion was a dissent, the majority opinion in *National Audubon Society* decided the case on grounds other than preemption, concluding that the air pollution at issue was not interstate in nature but rather “essentially a domestic dispute” in California that did not trigger federal common law. *Id.* at 1205. Two district courts have found that the CAA preempts federal common law but these cases addressed only regulated, local air pollution, not interstate or unregulated pollution. See *Reeger v. Mill Serv., Inc.*, 593 F. Supp. 360, 363, 14 ELR 20900 (W.D. Pa. 1984) (local emissions from a hazardous waste facility); *United States v. Kin-Buc, Inc.*, 532 F. Supp. 699, 703, 12 ELR 20459 (D.N.J. 1982) (local air pollution from a landfill). Scholarly opinion on the issue of preemption of federal common law concurs that the Court has left room for continuing federal common law to fill in areas where there is no federal regulation of interstate pollution. See, e.g., Kenneth M. Murchison, *Interstate Pollution: The Need for Federal Common Law*, 6 VA. J. NAT. RESOURCES L. 1, 36 (1986) (“Detailed examination of the relevant federal statutes as they apply to particular problems is necessary in order to identify such gaps in the regulatory structure. Federal common law should continue to provide the rule of decision in cases falling within these gaps.”); see also John E. Bryson & Angus MacBeth, *Public Nuisance, The Restatement (Second) of Torts, and Environmental Law*, 2 ECOLOGY L.Q. 241 (1972) (“The extent of federal public nuisance law could be significantly limited if courts find a sweeping preemption of the common law by federal legislation. However, [*Milwaukee I*] indicates that, barring real inconsistency, preemption should not be found.”).

146. 664 F.2d at 332.

147. *Id.* at 339.

148. *Id.* at 344S45; see also *Senator Linie GMBH & Co. KG v. Sunway Line, Inc.*, 291 F.3d 145, 167 (2d Cir. 2002) (“[B]y setting forth in detail the rights, duties, liabilities, and immunities of carriers, [the statute] extensively governs the relations of carriers and shippers . . .”); *Cleveland v. Beltman N. Am. Co.*, 30 F.3d 373, 381 (2d Cir. 1994) (“the issue of a shipper’s compensation for actual loss or injury to its property has been comprehensively and directly addressed by [the statute]”); *Illinois v. Outboard Marine Corp.*, 680 F.2d 473, 478, 12 ELR 20797 (7th Cir. 1982) (Congress had “obviously considered” the “problem of pre-1972 discharges, and specifically the appropriate role in the statutory scheme for remedies against polluters”). *Outboard Marine* has been distinguished where the legislative intent to preempt is not clear. See *Cayuga Indian Nation of N.Y. v. Cuomo*, 565 F. Supp. 1297, 1320 (N.D.N.Y. 1983) (holding that there was no “ample basis for discerning such an expansive preemptive effect” in the Trade and Intercourse Acts).

Stat. 2461 (1998); and (3) the National Energy Policy Report produced by Vice President Richard Cheney’s energy task force, NATIONAL ENERGY POLICY DEVELOPMENT GROUP, NATIONAL ENERGY POLICY: RELIABLE, AFFORDABLE, AND ENVIRONMENTALLY SOUND ENERGY FOR AMERICA’S FUTURE (2001). The Senate resolution cited by defendants contains no policy statement opposing domestic emission reductions, and in any event does not have the force of law. *Chong Yia Yang v. California Dep’t of Social Servs.*, 183 F.3d 953, 958 n.3 (9th Cir. 1999) (“sense of Congress resolutions do not have the force of law.”). The appropriations riders defendants cite prohibited EPA only from spending money to implement a treaty that was never ratified by the United States. The Cheney report is not law and itself is the subject of litigation regarding how it came to its notoriously one-sided conclusions. See *Cheney v. U.S. Dist. Court for the Dist. of Columbia*, 542 U.S. 367 (2004).

138. See *Connecticut v. American Electric Power Co.*, Memorandum of Law in Support of Defendants’ Motions to Dismiss the Complaints for Lack of Subject Matter Jurisdiction and for Failure to State a Claim Upon Which Relief Can Be Granted (Sept. 30, 2004), at 26 (copy on file with author).

139. The Court has held that silence cannot abrogate federal common law. See *United States v. Texas*, 507 U.S. at 535 (“Congress’s mere refusal to legislate with respect to the prejudgment-interest obligations of state and local governments falls far short of an expression of legislative intent to supplant existing common law in that area.”) (citation omitted); see also *Atkinson v. Inter-American Dev. Bank*, 156 F.3d 1335, 1342 (D.C. Cir. 1998) (“Congress does not express its intent by a failure to legislate.”).

140. *EPA v. California*, 426 U.S. 200, 204-05 (1976).

141. See *Milwaukee II*, 451 U.S. at 318; *Middlesex County Sewerage Auth. v. National Sea Clammers Ass’n*, 453 U.S. 1, 21-22, 11 ELR 20684 (1981).

142. *Control of Emissions from New Highway Vehicles and Engines*, 68 Fed. Reg. 52922, 52928 (Sept. 8, 2003).

143. 666 F.2d 30, 32 n.2, 11 ELR 20888 (2d Cir. 1981).

court that will hear an appeal from the trial court's ruling on these motions in *Connecticut v. American Electric Power* will be faced with an absence of any comprehensive federal remedial scheme with respect to CO₂ emissions and thus, under existing precedent, an absence of preemption.

D. Standing

A final defense raised by the utility companies in the early round of dis-positive motions filed in *Connecticut v. American Electric Power* was the oft-invoked attack on the plaintiffs' standing.¹⁴⁹ Defendants challenged not only the standing of the land trust plaintiffs but also the standing of the government plaintiffs. Defendants argued that the allegations of plaintiffs' complaints, taken as true, failed to establish the injury-in-fact, causation, and redressability elements of standing. Such facial attacks on the legal sufficiency of the complaints—without the benefit of any factual evidence—rarely succeed because plaintiffs are entitled to produce some facts to support their allegations.¹⁵⁰ The district court correctly recognized that it could not decide the standing issue on a motion to dismiss because “an analysis of Plaintiffs' standing would involve an analysis of the merits of Plaintiffs' claims.”¹⁵¹ Even though the judge declined to rule on standing, defendants will likely raise the issue again in the pending appeal.

Shortly before the district court's decision, the U.S. Court of Appeals for the District of Columbia Circuit decided that a group of states did have standing to litigate global warming. In *Massachusetts v. U.S. Environmental Protection Agency*,¹⁵² the plaintiff states challenged an EPA ruling that it lacked statutory authority under the CAA to regulate the emissions of CO₂ and other GHGs. Because the case was an appeal from an agency ruling directly to the court of appeals, the plaintiffs had to establish their Article III standing in the court of appeals in the first instance. To do so, the plaintiffs produced affidavits from experts setting forth some of the very same harms that are at issue in *Connecticut v. American Electric Power*. The court, via the separate opinions of two judges, agreed that the plaintiffs had adduced sufficient evidence of standing to overcome summary judgment.¹⁵³ *Massachusetts v.*

EPA is thus at odds with the argument made by the defendants in *Connecticut v. American Electric Power* that it is impossible to establish standing in a global warming case.

In response to the defendants' challenge to their standing in the district court, the state plaintiffs in *Connecticut v. American Electric Power* invoked their *parens patriae* authority.¹⁵⁴ Under this doctrine, the plaintiff states' quasi-sovereign interest in the “health and well-being” of their residents establishes an “actual controversy,” for purposes of Article III, between the states and defendants.¹⁵⁵ The U.S. Constitution provides states with the right to seek resolution of disputes with other states or residents of other states in the federal courts, in place of “diplomacy and war.”¹⁵⁶ *Parens patriae* standing effectuates this right of states to seek redress in the federal courts when activities outside their borders affect the health and well-being of their residents.¹⁵⁷

A state has *parens patriae* standing when it can: (1) “articulate an interest apart from the interests of particular private parties”; (2) “express a quasi-sovereign interest,” such as an interest in the “health and well-being—both physical and economic—of its residents in general”; and (3) “allege[] injury to a sufficiently substantial segment of its population,” which harm may include the “indirect effects of the injury.”¹⁵⁸

The states in *Connecticut v. American Electric Power* easily satisfy these requirements for *parens patriae* standing. First, the impacts of global warming affect the interests of all the states' citizens, not just a group of private actors. Second, the states' interest in protecting their residents from the harms posed by global warming is a quasi-sovereign interest; indeed, an environmental public nuisance case is the consummate example of a state's pursuit of a quasi-sovereign interest.¹⁵⁹ Third, the requirement that a state allege injury to a “substantial segment” of its population is satisfied by actions brought to benefit even relatively small portions of a state's population.¹⁶⁰ Thus, an action such as *Connecticut v. American Electric Power*, which is brought to protect millions of current and future residents of the plaintiff states from the harms attributable to global warming, e.g., deaths in heat waves and

149. Due to constraints of time and space, this section addresses only the standing of the governmental plaintiffs under *parens patriae* and the impact of joint and several liability upon the standing of all plaintiffs. Other aspects of standing are beyond the scope of this chapter.

150. See, e.g., *Baur v. Veneman*, 352 F.3d 625, 641-42 (2d Cir. 2003) (“Given the allegations in Baur's complaint and the supporting materials submitted by the parties, we believe that Baur has adequately alleged a credible threat of harm from downed cattle, and because this case remains at the pleading stage, no more is required.”).

151. *Connecticut v. American Electric Power*, at *18 n.6.

152. 415 F.3d 50, 35 ELR 20148 (D.C. Cir. 2005), *rev'd*, *Massachusetts v. EPA*, 127 S. Ct. 1438, 37 ELR 20075 (2007).

153. See *id.* at 55 (“If we were to analogize the situation here to one in which EPA filed such a summary judgment motion, we would conclude that petitioners had submitted enough evidence raising genuine issues of material fact to defeat the motion.”) (opinion of Randolph, J.); *id.* at 64S67 (evidence demonstrates that Massachusetts has sufficiently demonstrated its standing due to injuries from global warming, causal connection to GHG emissions and reduction in harm from reducing emissions) (Tatel, J., dissenting on other grounds). [Editors' Note: In its recent decision, the Court ruled that Massachusetts had standing to challenge EPA's refusal to regulate GHG emissions under the CAA. *Massachusetts v. EPA*, 127 S. Ct. at 1438.]

154. At least one commentator has analyzed standing to remedy harms caused by global warming, although his article focused on private litigants' standing, rather than that of sovereign states. See David R. Hodas, *Standing and Climate Change: Can Anyone Complain About the Weather?*, 15 J. LAND USE & ENVTL. L. 451 (Summer 2000 Supp.).

155. See *Connecticut v. Cahill*, 217 F.3d 93, 97, 30 ELR 20735 (2d Cir. 2000); *Alfred L. Snapp & Son, Inc. v. Puerto Rico*, 458 U.S. 592, 602 (1982); *Maryland People's Counsel v. Federal Energy Regulatory Comm'n*, 760 F.2d 381, 320 (D.C. Cir. 1985).

156. *Puerto Rico*, 458 U.S. at 602 (quoting *Georgia v. Pennsylvania Ry. Co.*, 324 U.S. 439, 450-51 (1945)).

157. See *Pennsylvania Ry. Co.*, 324 U.S. at 451; see also *Tennessee Copper Co.*, 206 U.S. at 237.

158. *Puerto Rico*, 458 U.S. at 607; *New York v. Mid Hudson Med. Group, P.C.*, 877 F. Supp. 143, 146 (S.D.N.Y. 1995).

159. *Puerto Rico*, 458 U.S. at 604 (citing “numerous examples”). In *Puerto Rico*, the Court noted that “[o]ne helpful indication in determining whether an alleged injury to the health and welfare of its citizens suffices to give the State standing to sue as *parens patriae* is whether the injury is one that the State, if it could, would likely attempt to address through its sovereign lawmaking powers.” *Id.* at 607. In this case, many of the plaintiff states have taken steps to address CO₂ emissions from sources within their borders.

160. See *id.* at 599, 609 (holding that Puerto Rico's interest in preserving 787 jobs was adequate interest, even if the jobs would have only a “slight impact” on Puerto Rico's economy and total population of three million).

inundation caused by sea level rise, easily satisfies this last element of the test. The state plaintiffs should easily qualify for *parens patriae* standing and not be subjected to the traditional Article III standing test.¹⁶¹

Finally, standing for all plaintiffs in *Connecticut v. American Electric Power* is interrelated with the joint and several nature of liability in the case. As set forth above, liability for a nuisance caused by pollution is joint and several among all those who contribute to the pollution.¹⁶² As the Court instructed in *Friends of the Earth, Inc. v. Laidlaw Environmental Services, Inc.*,¹⁶³ courts may not “raise the standing hurdle higher than the necessary showing for success on the merits in an action.”¹⁶⁴ Defendants cannot, therefore, defeat standing based upon arguments about each individual defendant’s role in causing (or abating) global warming. To do so would be to raise, impermissibly, the standing hurdle higher than the necessary showing for success on the merits. Whatever the contours of the standing analysis, it is clear that defendants may not use standing arguments to evade the court’s power to adjudicate their joint and several liability.

VII. The Future Trial on the Merits: Global Warming as a Public Nuisance

The plaintiffs in *Connecticut v. American Electric Power* fully expect to prevail on appeal and to commence discovery shortly after remand. Eventually, absent a settlement, there will be a bench trial.¹⁶⁵ Will plaintiffs be able to establish a public nuisance? We are confident that any neutral court hearing the evidence in the case will agree that global warming presents an extraordinary threat to human health, safety, and the environment, and will find that the power company defendants must reduce their GHG emissions. Because that merits stage is somewhat far off in the future, this section will address the merits issues only briefly.

The only opinion to set forth the elements of the federal common law of public nuisance appears to be the 1979 decision in *Milwaukee II*, where the U.S. Court of Appeals for the Seventh Circuit stated that “[t]he elements of a claim based on the federal common law of nuisance are simply that the defendant is carrying on an activity that is causing an injury or threat of injury to some cognizable interest of the plaintiff.”¹⁶⁶

The *Restatement (Second) of Torts* gives the following examples of “circumstances that may sustain a holding that an interference with a public right is unreasonable”:

- (a) Whether the conduct involves a significant interference with the public health, the public safety, the public peace, the public comfort or the public convenience, or
- (b) whether the conduct is proscribed by a statute, ordinance or administrative regulation, or
- (c) whether the conduct is of a continuing nature or has produced a permanent or long-lasting effect, and, as the actor knows or has reason to know, has a significant effect upon the public right.¹⁶⁷

The comments to the restatement make clear that these factors are merely illustrative and the court may look to other indicia of unreasonableness.¹⁶⁸

Regardless of whether one uses the Seventh Circuit’s broad definition of the restatement factors, plaintiffs’ case that global warming fits the definition of a public nuisance is overwhelming. The harms include significant threats to cherished public rights, such as public safety (heat deaths, flooding), public health (heat stress, increase in ground-level ozone smog), the integrity of natural resources such as water supplies and forests, public property damage via inundation of coastal land, and interference with navigation. These are typical public harms for traditional public nuisance claims. The harms from global warming, moreover, are as “long-lasting” and “permanent” as it is possible to be inasmuch as the effects of global warming will be felt for centuries. Heat itself has been held to be a nuisance.¹⁶⁹ Thus the harms from global warming present a quintessential public nuisance.

Finally, plaintiffs believe that they have a strong case for seeking injunctive relief in this global warming case because, as the Court has emphasized, “[e]nvironmental injury, by its nature, can seldom be adequately remedied by money damages and is often permanent or at least of long duration, i.e. irreparable. If such injury is sufficiently likely, therefore, the balance of harms will usually favor the issuance of an injunction to protect the environment.”¹⁷⁰ Scientists are virtually certain that global warming will cause higher temperatures and that these temperatures will cause a range of harms, from California’s already melting snowpack to the destruction of ecosystems, increasing heat stress in the summer, and alteration of weather.

Defendants might argue that because most of the threats from global warming are future threats rather than presents harms, injunctive relief is inappropriate. This argument cannot succeed for at least three reasons. First, it is blackletter law that a court may enjoin an ongoing nuisance or a threatened nuisance without waiting for harm to ensue.¹⁷¹ Second,

161. See *Abrams v. Heckler*, 582 F. Supp. 1155, 1159-63 (S.D.N.Y. 1984) (applying three-part *Valley Forge* standing test to state’s standing on its own behalf, but not to its standing as *parens patriae*); *City of New York v. Heckler*, 578 F. Supp. 1109, 1120-23 (E.D.N.Y. 1984) (same), *aff’d*, 742 F.2d 729 (2d Cir. 1984), *aff’d*, 476 U.S. 467 (1986).

162. See *supra* notes 80-95 and accompanying text.

163. 528 U.S. 167, 30 ELR 20246 (2000).

164. *Id.* at 181; see also *Interfaith Community Org. v. Honeywell Int’l, Inc.*, 399 F.3d 248, 257, 35 ELR 20043 (3d Cir. 2005) (multiple polluter case heeding “*Laidlaw*’s instruction that we may not ‘raise the standing hurdle higher than the necessary showing for success on the merits’”) (quoting *Laidlaw*, 528 U.S. at 181).

165. The right of a jury trial extends only to cases seeking monetary damages, which this case does not seek.

166. *Milwaukee II*, 599 F.2d at 165.

167. RESTATEMENT (SECOND) OF TORTS §821B(2) (1979).

168. *Id.* at cmt. e.

169. See *supra* note 121.

170. *Amoco Prod. Co. v. Village of Gambell*, 480 U.S. 531, 545, 17 ELR 20574 (1987).

171. See, e.g., *Valmonte v. Bane*, 18 F.3d 992, 999 (2d Cir. 1994) (one does not need to “await the consummation of threatened injury to obtain preventative relief”) (quoting *Pennsylvania v. West Virginia*, 262 U.S. 553, 593 (1923)); *California Tahoe Reg’l Planning Agency v. Jennings*, 594 F.2d 181, 193, 9 ELR 20131 (9th Cir. 1979) (“[T]he equitable powers of the federal courts are not limited to stopping nuisances already in operation. Long ago the Supreme Court noted that courts of equity ‘can, not only prevent nuisances that are threatened, and

the evidence will demonstrate that the nuisance, i.e., global warming, already is in progress and has changed the climate in the plaintiffs' jurisdiction, thus removing this case from the category of speculative future conditions. Third, some of the harms set forth in the complaints already have begun, most notably the reduction in California's snowpack—an egregious injury to a vital resource of a sovereign state.

Defendants may also argue that the economic consequences to their shareholders or to the economy in general would be ruinous.¹⁷² But under federal common law, the consequences to a private company (and its shareholders) are not taken into account in determining whether to issue an injunction against a public nuisance causing harm to a sovereign state. This was made clear in *Tennessee Copper Co.*, where the Court held that “[t]his court has not quite the same freedom to balance the harm that will be done by an injunction against that of which the plaintiff complains, that it would have in deciding between two subjects of a single political power.”¹⁷³ The Court also noted that “[t]he possible disaster to those outside the State must be accepted as a consequence of [Georgia] standing upon her extreme rights.”¹⁷⁴ Based upon *Tennessee Copper Co.*, the Seventh Circuit has held:

[W]hen the polluting activity is shown to endanger the public health, injunctive relief is generally appropriate. Similarly while determining whether to issue an injunction generally involves a balancing of the interests of the parties, the balance is of less importance when the plaintiff is a sovereign state. And if the pollution endangers the public health, injunctive relief is proper, without resort to any balancing.¹⁷⁵

With respect to the economy generally, plaintiffs expect the evidence will demonstrate an enormous benefit to the U.S. economy of reducing GHG emissions, due to the effects of efficiency, conservation, and increasing demand for clean energy technologies, among other factors.¹⁷⁶ Finally, once it hears the evidence regarding the need to reduce emissions immediately in order to forestall the worst effects of global warming, the court is unlikely to be persuaded by a wait and see approach.¹⁷⁷

before irreparable mischief ensues, but arrest or abate those in progress.”) (quoting *Mugler v. Kansas*, 123 U.S. 623, 673 (1887)); *Illinois v. City of Milwaukee*, 1973 U.S. Dist. LEXIS 15607 (N.D. Ill. Mar. 6, 1978) (granting injunction against risk of future harm), *aff'd in part, rev'd in part*, *Illinois v. City of Milwaukee*, 599 F.2d 151, 165, 9 ELR 20347 (7th Cir. 1979), *vacated on other grounds*, *City of Milwaukee v. Illinois*, 451 U.S. 304, 11 ELR 20406 (1981) (“*Milwaukee II*”).

172. Defendant Tennessee Valley Authority has no shareholders and thus could not make this argument.

173. 206 U.S. at 238.

174. *Id.* at 239.

175. *Illinois v. City of Milwaukee*, 599 F.2d at 166, *rev'd on other grounds*, *Milwaukee II*, 451 U.S. at 304 (citations omitted).

176. See, e.g., ALISON BAILIE ET AL., *THE PATH TO CARBON-DIOXIDE FREE POWER: SWITCHING TO CLEAN ENERGY IN THE UTILITY SECTOR* (2003), available at <http://www.tellus.org/index.asp?action=4>.

177. The Chairman of the IPCC, Dr. Rajendra Pachauri, recently warned that the world “already has reached the level of dangerous concentrations of carbon dioxide in the atmosphere” and called for immediate and “very deep” cuts in CO₂ emissions. According to Dr. Pachauri: “Climate change is for real. We have just a small window of opportunity and it is closing rather rapidly. There is not a moment to lose.” Geoffrey Lean, *Global Warming Approaching Point of No Return, Warns Leading Climate Expert*, INDEP., Jan. 23, 2005, available at <http://www.commondreams.org/headlines/05/0123-01.htm> (last visited Mar. 17, 2005).

VIII. Conclusion

As this book goes to press, the plaintiffs are awaiting a ruling from the Second Circuit. Thus, it is difficult at this early stage to draw any firm conclusions from the global warming public nuisance case. Nonetheless, a few lessons that can help practitioners in similar cases are evident from the journey that brought us to this point.

First, in a case focused on science, there is no substitute for delving deeply into the scientific literature and reviewing the science with the experts, as we did. Our countless hours spent on the science of global warming gave us confidence in our case and helped us craft a legal claim that we believe is fully justified by the current state of scientific knowledge and the broad consensus within the scientific community on the effects of global warming. Second, working in cooperative partnerships provides great benefits. The cooperative work among the attorneys general offices and lawyers for non-profit organizations allowed us to achieve far more than any of us could have achieved on our own. Third, we learned to be persistent. On a number of occasions we felt stymied by various factors that could have turned us back, including the difficulty of understanding numerous scientific disciplines, a time-consuming and resource-intensive investigation, and the challenge of keeping busy organizations and lawyers focused on a long-term problem whose consequences will be felt most severely not by us, but by our children and grandchildren.

Finally, I believe we learned something about faith—faith in ourselves as lawyers and faith in the legal system. At certain points along the way we had to stop questioning ourselves and just move forward. We had addressed all the major factual and legal issues necessary to bring a case on an issue of such great importance. Of particular comfort to me has been a quotation from the German poet Johann Wolfgang von Goethe, sent along by a friend and colleague who had provided critical help along the way:

There is one elemental truth,
the ignorance of which kills countless ideas
and splendid plans
that the moment one definitely commits oneself,
then Providence moves all.
All sorts of things occur to help one
that would never have otherwise occurred.
A whole stream of events issue from the decision,
raising in one's favor all manner of incidents
and meetings and material assistance
which no one could have dreamed would come
his or her way.
Whatever you can do or dream, you can begin it.
Boldness has genius, power and magic in it.
Begin it now.¹⁷⁸

178. According to the Goethe Society of North America, this inspirational quote, attributed to Goethe, may actually be from W.H. MURRAY, *THE SCOTTISH HIMALAYA EXPEDITION* (1951), see <http://www.goethesociety.org/pages/quotescom.html>.

While we do not purport to have any particular boldness or genius as lawyers, we do believe that through this lawsuit, we have brought to bear an important additional tool for addressing an environmental problem of exceptional importance. We are enormously grateful for the encouragement of many people, and we know that many are counting on us to succeed. We are endeavoring to live up to these hopes and expectations, and we are keeping our faith in the legal system.