

CONTROL OF MOTOR VEHICLE GREENHOUSE GAS EMISSIONS

From draft of Chapter 10, *Energy Economics and the Environment* (3d ed, 2010) (Prof. Joel B. Eisen)

C. DOMESTIC CLIMATE CHANGE CONTROL POLICIES

At the end of 2009, the United States' position on domestic GHG controls was being watched closely around the world, just as it was when the Kyoto Protocol was developed. Yet until very recently, the United States stood apart from its international allies on the question of using mandatory national schemes to reduce GHG emissions. Many nations, particularly in Europe, developed mandatory programs, but the United States showed little appetite for them. Federal effort centered almost exclusively on voluntary reduction programs. There was some Congressional support for mandatory reduction policies, including comprehensive climate bills introduced from 2003 on and a "sense of the Senate" resolution in the Senate version of the Energy Policy Act of 2005 that called for Congress to "enact a comprehensive and effective national program of mandatory, market-based limits and incentives on emissions of greenhouse gases that slow, stop, and reverse the growth of such emissions." Still, well after the Kyoto Protocol was ratified in 2005, the United States had no national scheme in place.

While the United States stood virtually alone among developed nations in refusing to adopt reductions programs, the Bush Administration had continued to promote its voluntary GHG reduction efforts. James Connaughton, then-chairman of the White House's Council on Environmental Quality, stated, "The U.S., in the last three years of the Bush administration, has dedicated more resources to the issue of climate change than any other nation of the world and most other nations of the world combined." Other nations were not quick to agree. "141 countries have not allowed this process to be blocked by the unilateral power play of one country," said German Environment Minister Juergen Trittin in response. *See* Alistair Doyle, *Feted and Hated, Kyoto Global Warming Pact Starts*, Reuters, Feb. 17, 2005. The last three years of the Bush Administration saw no progress, and in fact, as described below, willful opposition to GHG emissions reduction efforts.

The election of President Obama in 2008 changed this lack of interest on the federal level in regulating GHG emissions dramatically. More importantly, perhaps, industry voices had changed substantially since the 1980s, when concern about global warming began to be voiced. At that time, the energy industries sought out people who had serious questions about the mainstream theories. Funding for the work of many of these skeptics was provided by the Global Climate Coalition (GCC), a joint venture financed primarily by the oil, coal, and automobile industries which styled itself as a "voice for business in the global warming debate." Mainstream scientists were quite disdainful of these industry-funded experts. *See* Ross Gelbspan, *The Heat Is On: The High Stakes Battle Over Earth's Threatened Climate* (Addison-Wesley 1997).

Things have changed considerably since then. True, prominent industry organizations such as the Chamber of Commerce and American Petroleum Institute continue to resist efforts to reduce GHGs. *See* www.api.org/globalclimate and <http://www.uschamber.com>. Active organizations (funded by energy companies and others) sponsor research by academic skeptics and advocate publicly for caution about responding to climate change. *See* Andrew C. Revkin, *Skeptics Dispute Climate Worries and Each Other*, N.Y. Times, Mar. 8, 2009 (reporting on a three-day "International Conference on Climate Change" sponsored by the noted skeptic group

the Heartland Institute). But a large and growing number of companies are acknowledging the threat of climate change and pledging to take action. Some major utilities, oil companies and other large emitters of GHGs are working closely with Congress to promote a climate bill. 2007 saw the formation of the U.S. Climate Action Partnership, a major collaborative effort involving numerous corporations and environmental groups that issued the reports “A Call To Action” and “A Blueprint for Legislative Action” – the latter, coming in early 2009, being a detailed framework containing recommendations for a GHG reduction bill. In October 2009, hundreds of CEOs participating in a “Business Advocacy Day for Jobs & Competitiveness” lobbied Congress on behalf of strong climate legislation. That same month, “28 companies and labor and green groups — including United Technologies, Johnson & Johnson, GE, Weyerhaeuser, the Nature Conservancy and the Environmental Defense Action Fund — are launching” a million-dollar ad campaign “in support of comprehensive clean energy and climate change legislation.” Brad Johnson, American Companies Tell The Senate: ‘We Can Lead’ On Clean Energy, ThinkProgress, Oct. 5, 2009, <http://wonkroom.thinkprogress.org>.

In 2009, it could no longer be said that energy industries were monolithically opposed to federal regulation of global warming. But it was not clear what form that regulation would take. Proposals in Congress for comprehensive climate bills and proposed rules at the EPA were proceeding more or less on parallel tracks. Some industry groups, led by the U.S. Chamber of Commerce and the National Association of Manufacturers, opposed all progress, working against climate bills *and* threatening to bring lawsuits if the EPA regulated GHGs directly. Several of America’s largest utility companies – including Exelon, PG&E, and Duke Energy – resigned publicly from the U.S. Chamber of Commerce in 2009 over this anti-regulation strategy.

In the meantime, states, regions and localities were unwilling to wait for federal action. Many had already been active “laboratories of democracy” for quite a few years, with some state programs dating to the 1990s. Numerous state and regional programs for GHG reduction were underway at the beginning of the Obama Administration. Some, such as California’s sweeping GHG reduction law and the regional cap-and-trade scheme in the Northeast, the Regional Greenhouse Gas Initiative, were viewed as possible models for national laws and programs.

Many questions about the eventual shape of the nation’s GHG regulatory scheme remained up in the air in late 2009. The issue took on more seriousness as the international community prepared to gather at Copenhagen in December. Negotiators both at home and abroad pressed for hard evidence that the United States had a strong commitment to implement domestic controls of GHG emissions. But what did that mean? Would the states and regions carry the load, or would a comprehensive federal scheme overtake (or, perhaps, coexist with) state, local and regional programs? If a federal program was created, would it be based on existing environmental laws or a new strategy altogether? Would industry prefer direct regulation to legislation, and if so, why? Keep all these questions in mind as we examine the wide array of GHG reduction laws and programs already in place or proposed.

1. FEDERAL GOVERNMENT STRATEGIES

a. REGULATION UNDER THE CLEAN AIR ACT: PRELUDES

Throughout the Bush Administration, in keeping with its stance in favor of voluntary action, the EPA steadfastly refused to regulate CO₂ emissions under the nation’s premier air pollution control law, the federal Clean Air Act (“CAA”). Its intransigence led to a landmark

environmental law decision in 2007 against the EPA in the United States Supreme Court (*Massachusetts v. EPA*). Two years after that decision, the Obama Administration EPA issued three proposed rules to regulate CO₂ emissions directly under the CAA, and granted California a waiver required under the CAA to approve that state's emissions standards for automobiles.

**(1) JUSTIFYING CAA REGULATION:
MASSACHUSETTS V. EPA**

In *Massachusetts v. EPA*, 547 U.S. 497 (2007), the Supreme Court held that CO₂ meets the CAA's definition of "air pollutant" and that the EPA had the authority to regulate it. The EPA had rejected this position during the Bush Administration. *See* Nicholle Winters, Note, Carbon Dioxide: A Pollutant in the Air, But Is the EPA Correct That It Is Not An "Air Pollutant"?, 104 Colum. L. Rev. 1996 (2004). The issue first arose in 1999, when a group of 19 private organizations filed a rulemaking petition asking EPA to regulate CO₂ emissions from new motor vehicles, using its authority to control emissions from mobile sources under CAA §202 (42 U.S.C. §7521). If CO₂ was not an "air pollutant," the EPA had no authority to grant the petition and regulate CO₂ emissions from automobiles. In 2003, the EPA's general counsel, Robert Fabricant, reversed a position taken by the agency's two previous general counsels on this issue. Fabricant declared that CO₂ does not fall under the CAA's definition of an air pollutant and that the EPA did not have the authority to regulate. On the same day, the EPA denied the rulemaking petition. *See* Control of Emissions From New Highway Vehicles and Engines, 68 Fed. Reg. 52,922 (2003). It stated that it did not have the authority to regulate CO₂ emissions from automobiles, and would refuse to exercise it even if it did. The EPA put forth numerous reasons for this refusal, including a contention that global warming was an international problem and that any EPA regulation of CO₂ emissions from automobiles would be a "piecemeal approach" to climate change. *Id.*

Twelve states and numerous other parties challenged these actions in the U.S. Court of Appeals for the D.C. Circuit. A divided panel of the D.C. Circuit upheld the EPA's decision. Circuit Judge Randolph's opinion for the Court stated that the EPA properly exercised the discretion given to it under CAA §202(a)(1) in denying the petition for rulemaking. Circuit Judge Sentelle wrote separately in a concurring opinion that the plaintiffs did not have "standing" to bring the lawsuit. The standing requirement comes from Article III of the Constitution, which limits federal court jurisdiction to "Cases" and "Controversies." Who has standing to sue the EPA (or any other agency) to force it to address GHG emissions – or for damage caused by GHG emissions? *See* Bradford C. Mank, Standing and Global Warming: Is Injury to All Injury to None?, 35 *Env'tl L.* 1 (2005) for a discussion of the issue.

To demonstrate standing, a litigant must show that it has suffered a concrete and particularized injury that is either actual or imminent, that the injury is fairly traceable to the defendant, and that a favorable decision will likely redress that injury. *See Lujan v. Defenders of Wildlife*, 504 U. S. 555 (1992). There are also "prudential limitations" on standing; for example, under section 702 of the Administrative Procedure Act as interpreted by the Supreme Court, the plaintiff's suit must fall within the "zone of interests" protected by the specific statute or regulation. *Bennett v. Spear*, 520 U.S. 154 (1997). Judge Sentelle believed the plaintiffs did not allege particularized injuries to themselves because global warming affects everyone in the world. A plaintiff seeking direct regulation of GHG emissions may be no more affected than anyone else on Earth, and the Supreme Court has stated that a "generalized grievance" is not suitable for federal court. Circuit Judge Tatel dissented from both this and Judge Randolph's

opinion.

The Supreme Court's decision addressed both issues: the plaintiffs' standing and the underlying challenge to the EPA's refusal to regulate CO₂ emissions. On the standing issue, the Court held that Massachusetts had standing to challenge the EPA's refusal to regulate GHG emissions from motor vehicles, stating that states deserve a "special solicitude" when it comes to establishing standing. The Court based this conclusion on *Georgia v. Tennessee Copper*, a 1907 case that held that Georgia could invoke the Supreme Court's original jurisdiction to protect a quasi-sovereign interest in the health and well-being of its citizens. Using the familiar *Lujan* test, the Court found that the petitioners had satisfied the injury in fact element. Massachusetts "owns a substantial portion of the state's coastal property" and therefore "alleged a particularized injury in its capacity as a landowner": sea level rise and a loss of property along its coastline: "petitioners' unchallenged affidavits" established that "global sea levels rose somewhere between 10 and 20 centimeters over the 20th century as a result of global warming" and as a consequence "[t]hese rising seas have already begun to swallow Massachusetts' coastal land." Justice Stevens stated, "(t)hat these climate-change risks are 'widely shared' does not minimize Massachusetts' interest in the outcome of this litigation." The Court also found that "(t)he severity of that injury will only increase over the course of the next century" as sea levels continue to rise and that "(r)emediation costs alone . . . could run well into the hundreds of millions of dollars."

The Court also found that causation and redressability were satisfied. On causation, it noted the EPA's failure to dispute the existence of a causal connection between GHG emissions and global warming, and held that its refusal to regulate at a minimum, "contributes" to Massachusetts' injuries. On redressability, the Court stated, "Agencies, like legislatures, do not generally resolve massive problems in one fell swoop." It rejected an argument by the EPA that regulation of GHG emissions from new vehicles would have little impact because of increasing emissions from developing countries such as China and India, stating: "A reduction in domestic emissions would slow the pace of global emissions increases, no matter what happens elsewhere."

The Court then turned to the remaining two questions: whether EPA has the statutory authority to regulate GHG emissions from new motor vehicles; and if so, whether its stated reasons for refusing to do so were consistent with the CAA.

Massachusetts v. EPA
547 U.S. 497 (2007)

Justice **Stevens** delivered the opinion of the Court.

I
Section 202(a)(1) of the Clean Air Act provides:

"The [EPA] Administrator shall by regulation prescribe (and from time to time revise) in accordance with the provisions of this section, standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines, which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare"

The Act defines "air pollutant" to include "any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive . . . substance or matter which is emitted into or otherwise enters the ambient air." § 7602(g). "Welfare" is also defined broadly: among other things, it includes "effects on . . . weather . . . and climate." § 7602(h).

When Congress enacted these provisions, the study of climate change was in its infancy.

II

In concluding that it lacked statutory authority over greenhouse gases, EPA observed that Congress "was well aware of the global climate change issue when it last comprehensively amended the [Clean Air Act] in 1990," yet it declined to adopt a proposed amendment establishing binding emissions limitations. EPA further reasoned that Congress' "specially tailored solutions to global atmospheric issues,"--in particular, its 1990 enactment of a comprehensive scheme to regulate pollutants that depleted the ozone layer--counseled against reading the general authorization of § 202(a)(1) to confer regulatory authority over greenhouse gases.

EPA stated that it was "urged on in this view" by this Court's decision in *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120 (2000). In that case, relying on "tobacco[']s unique political history," we invalidated the Food and Drug Administration's reliance on its general authority to regulate drugs as a basis for asserting jurisdiction over an "industry constituting a significant portion of the American economy," *ibid.*

EPA reasoned that climate change had its own "political history": Congress designed the original Clean Air Act to address local air pollutants rather than a substance that "is fairly consistent in its concentration throughout the world's atmosphere." Because of this political history, and because imposing emission limitations on greenhouse gases would have even greater economic and political repercussions than regulating tobacco, EPA was persuaded that it lacked the power to do so. In essence, EPA concluded that climate change was so important that unless Congress spoke with exacting specificity, it could not have meant the agency to address it.

Having reached that conclusion, EPA believed it followed that greenhouse gases cannot be "air pollutants" within the meaning of the Act. The agency bolstered this conclusion by explaining that if carbon dioxide were an air pollutant, the only feasible method of reducing tailpipe emissions would be to improve fuel economy. But because Congress has already created detailed mandatory fuel economy standards subject to Department of Transportation (DOT) administration, the agency concluded that EPA regulation would either conflict with those standards or be superfluous.

Even assuming that it had authority over greenhouse gases, EPA explained in detail why it would refuse to exercise that authority. The agency began by recognizing that the concentration of greenhouse gases has dramatically increased as a result of human activities, and acknowledged the attendant increase in global surface air temperatures. EPA nevertheless gave controlling importance to the NRC Report's statement that a causal link between the two "'cannot be unequivocally established.'" Given that residual uncertainty, EPA concluded that regulating greenhouse gas emissions would be unwise.

The agency furthermore characterized any EPA regulation of motor-vehicle emissions as a "piecemeal approach" to climate change, and stated that such regulation would conflict with the President's "comprehensive approach" to the problem. According to EPA, unilateral EPA regulation of motor-vehicle greenhouse gas emissions might also hamper the President's ability to persuade key developing countries to reduce greenhouse gas emissions. *Id.*, at 52931.

IV

Article III of the Constitution limits federal-court jurisdiction to "Cases" and "Controversies." [*The Court discusses standing and concludes, as discussed previously, that Massachusetts and the other plaintiffs have established standing.*]

V

The scope of our review of the merits of the statutory issues is narrow. As we have repeated time and again, an agency has broad discretion to choose how best to marshal its limited resources and personnel to carry out its delegated responsibilities. See *Chevron* . . .

We "may reverse any such action found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." § 7607(d)(9).

VI

Because EPA believes that Congress did not intend it to regulate substances that contribute to climate change, the agency maintains that carbon dioxide is not an "air pollutant" within the meaning of the provision.

The statutory text forecloses EPA's reading. The Clean Air Act's sweeping definition of "air pollutant" includes "any air pollution agent or combination of such agents, including any physical, chemical. . . substance or matter which is emitted into or otherwise enters the ambient air" § 7602(g) (emphasis added). On its face, the definition embraces all airborne compounds of whatever stripe, and underscores that intent through the repeated use of the word "any." Carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons are without a doubt "physical [and] chemical . . . substance[s] which [are] emitted into . . . the ambient air." The statute is unambiguous.

Rather than relying on statutory text, EPA invokes postenactment congressional actions and deliberations it views as tantamount to a congressional command to refrain from regulating greenhouse gas emissions. Even if such postenactment legislative history could shed light on the meaning of an otherwise-unambiguous statute, EPA never identifies any action remotely suggesting that Congress meant to curtail its power to treat greenhouse gases as air pollutants.

EPA's reliance on *Brown & Williamson Tobacco Corp.*, 529 U.S. 120, is similarly misplaced. In holding that tobacco products are not "drugs" or "devices" subject to Food and Drug Administration (FDA) regulation pursuant to the Food, Drug and Cosmetic Act (FDCA), we found critical at least two considerations that have no counterpart in this case.

First, we thought it unlikely that Congress meant to ban tobacco products, which the FDCA would have required had such products been classified as "drugs" or "devices." Here, in contrast, EPA jurisdiction would lead to no such extreme measures. EPA would only regulate emissions. Second, in *Brown & Williamson* we pointed to an unbroken series of congressional enactments that made sense only if adopted "against the backdrop of the FDA's consistent and repeated statements that it lacked authority under the FDCA to regulate tobacco." We can point to no such enactments here. Prior to the order that provoked this litigation, EPA had never disavowed the authority to regulate greenhouse gases, and in 1998 it in fact affirmed that it had such authority. There is no reason, much less a compelling reason, to accept EPA's invitation to read ambiguity into a clear statute.

EPA finally argues that it cannot regulate carbon dioxide emissions from motor vehicles because doing so would require it to tighten mileage standards, a job (according to EPA) that

Congress has assigned to DOT. The two obligations may overlap, but there is no reason to think the two agencies cannot both administer their obligations and yet avoid inconsistency.

While the Congresses that drafted § 202(a)(1) might not have appreciated the possibility that burning fossil fuels could lead to global warming, they did understand that without regulatory flexibility, changing circumstances and scientific developments would soon render the Clean Air Act obsolete. The broad language of § 202(a)(1) reflects an intentional effort to confer the flexibility necessary to forestall such obsolescence. . . . Because greenhouse gases fit well within the Clean Air Act's capacious definition of "air pollutant," we hold that EPA has the statutory authority to regulate the emission of such gases from new motor vehicles.

VII

The alternative basis for EPA's decision--that even if it does have statutory authority to regulate greenhouse gases, it would be unwise to do so at this time--rests on reasoning divorced from the statutory text. While the statute does condition the exercise of EPA's authority on its formation of a "judgment," 42 U.S.C. § 7521(a)(1), that judgment must relate to whether an air pollutant "cause[s], or contribute[s] to, air pollution which may reasonably be anticipated to endanger public health or welfare," *ibid.* Put another way, the use of the word "judgment" is not a roving license to ignore the statutory text. It is but a direction to exercise discretion within defined statutory limits.

Once EPA has responded to a petition for rulemaking, its reasons for action or inaction must conform to the authorizing statute. Under the clear terms of the Clean Air Act, EPA can avoid taking further action only if it determines that greenhouse gases do not contribute to climate change or if it provides some reasonable explanation as to why it cannot or will not exercise its discretion to determine whether they do. *Ibid.* To the extent that this constrains agency discretion to pursue other priorities of the Administrator or the President, this is the congressional design.

EPA has refused to comply with this clear statutory command. Instead, it has offered a laundry list of reasons not to regulate. Although we have neither the expertise nor the authority to evaluate these policy judgments, it is evident they have nothing to do with whether greenhouse gas emissions contribute to climate change. Still less do they amount to a reasoned justification for declining to form a scientific judgment. In particular, while the President has broad authority in foreign affairs, that authority does not extend to the refusal to execute domestic laws. . . .

Nor can EPA avoid its statutory obligation by noting the uncertainty surrounding various features of climate change and concluding that it would therefore be better not to regulate at this time. If the scientific uncertainty is so profound that it precludes EPA from making a reasoned judgment as to whether greenhouse gases contribute to global warming, EPA must say so. That EPA would prefer not to regulate greenhouse gases because of some residual uncertainty--which, contrary to Justice Scalia's apparent belief, is in fact all that it said--is irrelevant. The statutory question is whether sufficient information exists to make an endangerment finding.

In short, EPA has offered no reasoned explanation for its refusal to decide whether greenhouse gases cause or contribute to climate change. Its action was therefore "arbitrary, capricious, . . . or otherwise not in accordance with law." 42 U.S.C. § 7607(d)(9)(A). We need not and do not reach the question whether on remand EPA must make an endangerment finding, or whether policy concerns can inform EPA's actions in the event that it makes such a finding. Cf. *Chevron* . . . We hold only that EPA must ground its reasons for action or inaction in the statute.

VIII

The judgment of the Court of Appeals is reversed, and the case is remanded for further proceedings consistent with this opinion.

It is so ordered.

Chief Justice **Roberts**, with whom Justice **Scalia**, Justice **Thomas**, and Justice **Alito** join, dissenting.

Global warming may be a "crisis," even "the most pressing environmental problem of our time." Indeed, it may ultimately affect nearly everyone on the planet in some potentially adverse way, and it may be that governments have done too little to address it. It is not a problem, however, that has escaped the attention of policymakers in the Executive and Legislative Branches of our Government, who continue to consider regulatory, legislative, and treaty-based means of addressing global climate change.

Apparently dissatisfied with the pace of progress on this issue in the elected branches, petitioners have come to the courts claiming broad-ranging injury, and attempting to tie that injury to the Government's alleged failure to comply with a rather narrow statutory provision. I would reject these challenges as nonjusticiable. Such a conclusion involves no judgment on whether global warming exists, what causes it, or the extent of the problem. Nor does it render petitioners without recourse. This Court's standing jurisprudence simply recognizes that redress of grievances of the sort at issue here "is the function of Congress and the Chief Executive," not the federal courts. *Lujan* . . . I would vacate the judgment below and remand for dismissal of the petitions for review. [*The dissent goes on to criticize the majority's holding on standing.*]

Justice **Scalia**, with whom The **Chief Justice**, Justice **Thomas**, and Justice **Alito** join, dissenting.

I join The Chief Justice's opinion in full, and would hold that this Court has no jurisdiction to decide this case because petitioners lack standing. The Court having decided otherwise, it is appropriate for me to note my dissent on the merits.

I

A

As the Court recognizes, the statute "condition[s] the exercise of EPA's authority on its formation of a 'judgment.'" There is no dispute that the Administrator has made no such judgment in this case.

The question thus arises: Does anything require the Administrator to make a "judgment" whenever a petition for rulemaking is filed? Without citation of the statute or any other authority, the Court says yes. Why is that so? When Congress wishes to make private action force an agency's hand, it knows how to do so. Where does the CAA say that the EPA Administrator is required to come to a decision on this question whenever a rulemaking petition is filed? The Court points to no such provision because none exists.

Instead, the Court invents a multiple-choice question that the EPA Administrator must answer when a petition for rulemaking is filed. The Administrator must exercise his judgment in one of three ways: (a) by concluding that the pollutant does cause, or contribute to, air pollution that endangers public welfare (in which case EPA is required to regulate); (b) by concluding that the pollutant does not cause, or contribute to, air pollution that endangers public welfare (in

which case EPA is not required to regulate); or (c) by "provid[ing] some reasonable explanation as to why it cannot or will not exercise its discretion to determine whether" greenhouse gases endanger public welfare, ante, at ____, 167 L. Ed. 2d, at 277 (in which case EPA is not required to regulate).

The Court, with no basis in text or precedent, rejects all of EPA's stated "policy judgments" as not "amount[ing] to a reasoned justification," effectively narrowing the universe of potential reasonable bases to a single one: Judgment can be delayed only if the Administrator concludes that "the scientific uncertainty is [too] profound." Ibid. The Administrator is precluded from concluding for other reasons "that it would . . . be better not to regulate at this time." Such other reasons--perfectly valid reasons--were set forth in the agency's statement.

When the Administrator makes a judgment whether to regulate greenhouse gases, that judgment must relate to whether they are air pollutants that "cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare." But the statute says nothing at all about the reasons for which the Administrator may defer making a judgment--the permissible reasons for deciding not to grapple with the issue at the present time. Thus, the various "policy" rationales that the Court criticizes are not "divorced from the statutory text" except in the sense that the statutory text is silent, as texts are often silent about permissible reasons for the exercise of agency discretion. The reasons the EPA gave are surely considerations executive agencies regularly take into account (and ought to take into account) when deciding whether to consider entering a new field: the impact such entry would have on other Executive Branch programs and on foreign policy. There is no basis in law for the Court's imposed limitation.

EPA's interpretation of the discretion conferred by the statutory reference to "its judgment" is not only reasonable, it is the most natural reading of the text. The Court nowhere explains why this interpretation is incorrect, let alone why it is not entitled to deference under Chevron . . . As the Administrator acted within the law in declining to make a "judgment" for the policy reasons above set forth, I would uphold the decision to deny the rulemaking petition on that ground alone.

B

Even on the Court's own terms, however, the same conclusion follows. As mentioned above, the Court gives EPA the option of determining that the science is too uncertain to allow it to form a "judgment" as to whether greenhouse gases endanger public welfare. Attached to this option (on what basis is unclear) is an essay requirement: "If," the Court says, "the scientific uncertainty is so profound that it precludes EPA from making a reasoned judgment as to whether greenhouse gases contribute to global warming, EPA must say so." But EPA has said precisely that--and at great length, based on information contained in a 2001 report by the National Research Council (NRC) entitled *Climate Change Science: An Analysis of Some Key Questions*. I simply cannot conceive of what else the Court would like EPA to say.

II

A

Even before reaching its discussion of the word "judgment," the Court makes another significant error when it concludes that "§ 202(a)(1) of the Clean Air Act authorizes EPA to regulate greenhouse gas emissions from new motor vehicles in the event that it forms a 'judgment' that such emissions contribute to climate change." For such authorization, the Court relies on what it calls "the Clean Air Act's capacious definition of 'air pollutant.'"

"Air pollutant" is defined by the Act as "any air pollution agent or combination of such agents, including any physical, chemical, . . . substance or matter which is emitted into or otherwise enters the ambient air." 42 U.S.C. § 7602(g). The Court is correct that "[c]arbon dioxide, methane, nitrous oxide, and hydrofluorocarbons" fit within the second half of that definition: They are "physical, chemical, . . . substance[s] or matter which [are] emitted into or otherwise ente[r] the ambient air." But the Court mistakenly believes this to be the end of the analysis. In order to be an "air pollutant" under the Act's definition, the "substance or matter [being] emitted into . . . the ambient air" must also meet the first half of the definition--namely, it must be an "air pollution agent or combination of such agents." The Court simply pretends this half of the definition does not exist.

It is perfectly reasonable to view the definition of "air pollutant" in its entirety: An air pollutant can be "any physical, chemical, . . . substance or matter which is emitted into or otherwise enters the ambient air," but only if it retains the general characteristic of being an "air pollution agent or combination of such agents." This is precisely the conclusion EPA reached. Once again, in the face of textual ambiguity, the Court's application of Chevron deference to EPA's interpretation of the word "including" is nowhere to be found.[FN2] Evidently, the Court defers only to those reasonable interpretations that it favors.

FN2 Not only is EPA's interpretation reasonable, it is far more plausible than the Court's alternative. As the Court correctly points out, "all airborne compounds of whatever stripe" would qualify as "physical, chemical, . . . substance[s] or matter which [are] emitted into or otherwise ente[r] the ambient air," 42 U.S.C. § 7602(g). It follows that everything airborne, from Frisbees to flatulence, qualifies as an "air pollutant." This reading of the statute defies common sense.

B

Using (as we ought to) EPA's interpretation of the definition of "air pollutant," we must next determine whether greenhouse gases are "agent[s]" of "air pollution." If so, the statute would authorize regulation; if not, EPA would lack authority.

Unlike "air pollutants," the term "air pollution" is not itself defined by the CAA; thus, once again we must accept EPA's interpretation of that ambiguous term, provided its interpretation is a "permissible construction of the statute." *Chevron* In deciding whether it had authority to regulate, EPA had to determine whether the concentration of greenhouse gases assertedly responsible for "global climate change" qualifies as "air pollution." EPA began with the commonsense observation that the "[p]roblems associated with atmospheric concentrations of CO₂ bear little resemblance to what would naturally be termed "air pollution." Regulating the buildup of CO₂ and other greenhouse gases in the upper reaches of the atmosphere, which is alleged to be causing global climate change, is not akin to regulating the concentration of some substance that is polluting the air.

We need look no further than the dictionary for confirmation that this interpretation of "air pollution" is eminently reasonable. The definition of "pollute," of course, is "[t]o make or render impure or unclean." Webster's New International Dictionary 1910 (2d ed. 1949). And the first three definitions of "air" are as follows: (1) "[t]he invisible, odorless, and tasteless mixture of gases which surrounds the earth"; (2) "[t]he body of the earth's atmosphere; esp., the part of it near the earth, as distinguished from the upper rarefied part"; (3) "[a] portion of air or of the air considered with respect to physical characteristics or as affecting the senses." *Id.*, at 54. EPA's

conception of "air pollution"--focusing on impurities in the "ambient air" "at ground level or near the surface of the earth"--is perfectly consistent with the natural meaning of that term.

Once again, the Court utterly fails to explain why this interpretation is incorrect, let alone so unreasonable as to be unworthy of Chevron deference.

The Court's alarm over global warming may or may not be justified, but it ought not distort the outcome of this litigation. This is a straightforward administrative-law case, in which Congress has passed a malleable statute giving broad discretion, not to us but to an executive agency. No matter how important the underlying policy issues at stake, this Court has no business substituting its own desired outcome for the reasoned judgment of the responsible agency.

* * *

The unexpected decision in favor of the plaintiffs in *Massachusetts* was hailed almost immediately as a pivotal moment in modern environmental law, and rightly so. For the first time, plaintiffs in a global warming lawsuit established standing. That holding alone has been cited numerous times since then in federal and state global warming lawsuits. (See the discussion of *Connecticut v. AEP*, below.) Did *Massachusetts* open the door to a flood of climate change litigation, or did the "special solicitude" language, which accords unique treatment to a state bringing suit, serve as a limitation on individual parties bringing climate lawsuits? Time will tell. See Bradford C. Mank, *Standing and Future Generations: Does Massachusetts v. EPA Open Standing for Generations to Come?*, 34 Colum. J. Env'tl. L. 1 (2009).

On the subject of GHG controls under Title II, what exactly did the plaintiffs *win*? After this decision, was the EPA required to regulate CO2 emissions from automobiles? Not necessarily. CO2 was defined as an air pollutant and the EPA's grounds for refusing to regulate under Title II were limited, but it still could decline to do so.

And it promptly did. For the rest of the Bush Administration, the EPA held off on regulating automobile CO2 emissions. EPA Administrator Stephen Johnson did not issue the key foundational document for regulation, an "endangerment finding" (a formal finding, tracking the CAA's language, that CO2 emissions can "reasonably be anticipated to endanger public health or welfare"). In 2008, he released proposals by his staff for controlling GHG emissions and called for comment through November. He argued that the CAA was "ill-suited" for regulating GHGs, that regulations would be "complicated, time-consuming and, likely, convoluted," and that they would be "relatively ineffective at reducing greenhouse gas concentrations given the potentially damaging effect on jobs and the U.S. economy." Renee Schoof, *Union slams EPA chief for ignoring staff on global warming*, McClatchy Newspapers, Aug. 5, 2008.

This was not the posture of a responsive agency head, and it earned him a number of forced marches to Congress to explain his dilatory tactics to disapproving legislators. It didn't help Administrator Johnson's cause that at the same time he looked like he was putting off the federal GHG regulations, he was being criticized (and eventually sued) for delay in granting a waiver to California to approve its state GHG emissions standards for automobiles (see below). At the end of 2008, the EPA had still not taken the first steps to regulate GHG emissions of any sort, and in the wake of the Supreme Court's sweeping pronouncements on the subject, the delay looked like an unwarranted and overtly political act.

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b. CAA RULES AND CALIFORNIA'S VEHICLE EMISSIONS STANDARDS WAIVER

In 2009, the EPA issued three proposed rules to regulate CO₂ emissions directly under the CAA. As noted above, the CAA regulatory scheme distinguishes between “mobile sources” and “stationary sources.” Accordingly, one new rule, made jointly with the National Highway Traffic and Safety Administration (“NHTSA”), responded to *Massachusetts v. EPA* and addressed GHG emissions from mobile sources. Another addressed emissions from major stationary sources that emit more than specified amounts of GHGs. A third rule addressed reporting of GHG emissions. The EPA also granted California’s waiver to implement its own auto GHG emissions standards.

**(1) VEHICLE GHG EMISSIONS STANDARDS
(CAA SECTION 202(A)) AND CALIFORNIA WAIVER
(CAA SECTION 209)**

The first standards to regulate GHG emissions from automobiles were developed in California, which is in a unique position under CAA section 209 as the only state with authority to develop motor vehicle pollution standards (as long as they are no less strict than federal requirements). In 2004, California’s Air Resources Board adopted rules that require CO₂ emissions reductions for new passenger cars, SUVs and pickup trucks sold in California starting in model year 2009. *See* <http://www.arb.ca.gov>. CAA section 177 permits other states to adopt California motor vehicle standards as long as they are identical to the California standards, and at least ten states (Oregon, Washington, and eight states in the Northeast) formally adopted the California standards. Under California’s standard, originally slated to take effect in 2006, the average reduction of GHGs from new California cars and light trucks would be about 22 percent in 2012 and about 30 percent in 2016. *Id.* The additional cost per vehicle that would be necessary to meet these standards was a point of dispute. The state estimated it at around \$1000 when the rules are fully implemented in 2016, while the auto industry put it at about \$3000. *See* Danny Hakim, Schwarzenegger Vows to Defend Emissions Law, N.Y. Times, Dec. 8, 2004, at C1.

Two legal hurdles stood in the way of California’s standards. The first was a required waiver from the EPA under CAA section 209. In the thirty years since 1975, California had asked for this waiver over 90 times. The EPA had approved every one of these requests, disapproving only of partial aspects of three requests. The Bush Administration EPA treated this request differently. After California made the request in 2005, it took no action for two years. The delay appeared to be political. A story in a Los Angeles newspaper in July 2007 described a lobbying campaign by the Department of Transportation on behalf of automakers against the waiver request. Lisa Friedman, Smog fighters furious at Bush administration, L.A. Daily News, July 7, 2007. In 2007, the Senate Environment and Public Works Committee approved a bill by Senator Barbara Boxer of California setting a September 30 deadline for the EPA to respond to the waiver request. Numerous members of Congress and state Governors wrote to the EPA demanding action. None was forthcoming. In April 2007, California’s Governor, Arnold Schwarzenegger, threatened to sue the EPA to compel a decision on the waiver request, and, when the EPA did not act by November 2007, it joined 14 states in suing the EPA to compel it to act.

In December 2007, the EPA denied the waiver request, stating it “differs in a basic way from the previous local and regional air pollution problems addressed in prior waivers” on two grounds: (1) that new fuel economy standards under the EISA of 2007 were more effective at addressing the problem (even though independent analyses concluded otherwise), and (2) that

global warming was “fundamentally global in nature” and required a global solution. Administrator Johnson wrote that California had not shown a “need to meet compelling and extraordinary conditions,” a criterion under which the EPA can deny a waiver request. One month later, California and a number of other states challenged that denial in the U.S. Court of Appeals for the Ninth Circuit. That same month, Senator Boxer released documents showing that Administrator Johnson had rejected the advice of his own staff in denying the waiver request. Boxer Statement on California Waiver Decision Documents, Jan. 23, 2008. Internal documents leaked to the press showed key EPA officials pleading with Johnson to grant the waiver, terming it one of the most important decisions of his tenure. Once the Obama Administration took office, the issue was reopened, and on June 30, 2009, the EPA granted California’s waiver request. An excellent timeline of the waiver request saga is at <http://www.cleancarscampaign.org>.

Meanwhile, automakers challenged the California rules in federal courts across the nation. Plaintiffs in *Central Valley Chrysler Jeep v. Witherspoon*, brought in California, argued the state wasn’t regulating pollution, but setting fuel economy standards, which the federal Energy Policy and Conservation Act (“EPCA”) preempts. *Green Mountain Chrysler Plymouth Dodge Jeep v. Crombie*, was decided in Vermont (a state which adopted the California standards), and was the first case to rule on the preemption issue. Auto industry plaintiffs alleged that the GHG standards were “related to” fuel economy standards and fell within EPCA’s express preemption provision. They also claimed the regulations were impliedly preempted because they were *de facto* fuel economy standards (because, in their view, there was a direct correlation between CO₂ emissions and fuel burned in a vehicle). The District Court rejected all of these claims. *Green Mountain Chrysler Plymouth Dodge Jeep v. Crombie*, 508 F. Supp. 2d 295 (D. Vt. 2007). Among the many holdings in his 240-page decision, District Judge Sessions disagreed that there was a direct relationship between fuel economy standards and GHG emission standards. Relying on testimony from an automobile industry expert, he observed that automakers had a number of means at their disposal to reduce GHG emissions, only one of which was to increase vehicle fuel economy. For more about the case, see Kevin O. Leske, *A Closer Look at Green Mountain Chrysler v. Crombie*, 32 Vermont L.R. 439 (2008).

Crombie and *Witherspoon* are less important now, because the EPA and the NHTSA acted in 2009 to set national fuel economy and GHG standards. With the California standards already on track for a waiver approval, harmonizing federal standards with them could have been a problem. If the EPA had imposed a different GHG emissions standard, automakers might have been subject to three different standards: the California GHG standards, the new CAFE standards, and the new EPA GHG standards. The EPA and the NHTSA dealt with this by negotiating an agreement with California and the automakers on a unified national program to establish a combined national fuel economy standard and GHG emissions standard that meshes with the California standards. California agreed to amend its own standards to conform to the new federal standard from 2012 to 2016, retaining flexibility to set its own standards before 2012 and after 2016. Automakers got a benefit, too: the ability to build cars and trucks that simultaneously satisfy both the national standards and the California standards (in the states where they apply). As has always been the case for automakers, having uniform national standards was important to them. “We’re cool with this,” Chrysler spokesman Scott Brown told *Car and Driver* magazine. “Most important is that it’s clear [standards] instead of piecemeal—we love that.” Shad Balch, environment and energy spokesman for General Motors, stated, “We love it. Now we know what to build.” Some were not so pleased with the new standards, reciting the well-worn argument that automakers would have to build smaller, more expensive (and less

safe) cars to meet the standard. Steve Siler and Mike Dushane, Obama's CAFE Fuel Economy Standards to Create Fleet of Tiny, Expensive Vehicles, Car and Driver, May 2009.

In April 2009, the EPA took the initial step toward the first-ever federal rule to regulate GHG emissions from automobiles. It responded to *Massachusetts* with two proposed findings that are the prerequisites to regulating GHG emissions from vehicles under CAA section 202(a): the “endangerment finding” that GHGs in the atmosphere endanger the public health and welfare, and the “cause and contribute” finding that GHG emissions from new motor vehicles and new motor vehicle engines contribute to the atmospheric concentrations of GHGs and hence to the threat of climate change. Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 18,886 (Apr. 24, 2009). The EPA also proposed to “define a single air pollutant that is the collective class of the six greenhouse gases.” *Id.* at 18,904. It viewed “this collective approach . . . [as] most consistent with the treatment of greenhouse gases by those studying climate change science and policy” where greenhouse gases are commonly evaluated on “a collective [carbon dioxide]-equivalent basis.” *Id.*

In September 2009, the EPA and the NHTSA jointly proposed a “National Program” to reduce GHG emissions from passenger cars, light-duty trucks such as SUVs, and medium-duty passenger vehicles. The new standards would apply for model years 2012 through 2016 (the standard and the target date conforming with California’s as well, as noted above). Like other federal vehicle emissions standards, the new standards are expressed in grams per mile of CO₂ emissions. However, because the agencies expected that automakers would meet the new targets largely by making higher mileage cars and trucks, the targets also translate to a miles per gallon (“mpg”) equivalent. The combined standard would require vehicles to meet an estimated combined average emissions level of 250 grams of CO₂ per mile in 2016, or the equivalent of 35.5 mpg if automakers met the standard solely through fuel economy improvements. The new target of 35.5 mpg represents a small increase in and acceleration of the EISAct’s requirement of an average of 35.0 mpg by 2020.

The new national standards are based on the existing EPA test procedure, which is weighted by 55% city driving and 45% highway driving. They would establish different targets for cars and light-duty trucks based on each vehicle’s “footprint” in square feet. Generally, the larger the vehicle, the higher the CO₂ emissions target, as this table shows:

TABLE 2 FROM EPA’S REGULATORY ANNOUNCEMENT (Model Year 2016 CO₂ and Fuel Economy Targets for Various MY 2008 Vehicle Types)

This change in methods ensures that switching to more small vehicles does not necessarily enable automakers to meet the standards. Smaller vehicles have stricter emissions requirements, so footprint systems encourage improvements in efficiency, regardless of a vehicle’s size. See International Council on Clean Transportation, Policy Update, Notice of Proposed Rulemaking to Establish Vehicle GHG Emissions and Fuel Economy Standards by U.S. EPA and U.S. DOT, Sept. 30, 2009, <http://www.theicct.org/>.

In the proposed rule, the agencies observed that automakers could meet the standard by using technologies available today (as Judge Sessions discussed in *Green Mountain v. Crombie*): [T]here is a wide range of technologies available for manufacturers to consider in upgrading vehicles to reduce greenhouse gas emissions and improve fuel economy. These include engine improvements, such as use of gasoline direct

injection and downsized engines that use turbochargers to provide performance similar to that of larger engines, the use of advanced transmissions, increased use of start-stop technology, improvements in tire performance, reductions in vehicle weight, increased use of hybrid and other advanced technologies, and the initial commercialization of electric vehicles and plug-in hybrids.

Id. See Chapter __ for further discussion of these and other technologies.

The EPA proposed to award automakers credits toward the new standards for improvements to vehicle air conditioning systems. It also proposed several means of compliance flexibility for automakers. These include a system of averaging, banking, and trading (“ABT”) of credits both among vehicles an automaker produces and between companies, and several credit provisions for use of advanced technologies and early GHG reductions that would apply in the program’s first few years.

The new standards would go beyond previous federal government efforts but would not be as strict as those already in place in China and Europe, much less the tighter standards envisioned in other nations. International Council on Clean Transportation, *supra*. If the Obama Administration intended these standards to show that the United States was making progress on GHG reductions in the transportation sector, it would have to face the reality that international negotiators would not be overly impressed. Still, the new standards were undeniably a clean break from the inaction of the past.