

# Greenhouse Gas Dissonance: The History of EPA's Regulations and the Incongruity of Recent Legal Challenges

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## I.

## INTRODUCTION

This article analyzes the U.S. Environmental Protection Agency's (EPA) greenhouse gas (GHG) regulations and notes the cognitive dissonance between the temperance of the regulations and the intemperance of the challenges to them. Part II dis-

cusses the long history of GHG regulation under the Clean Air Act (CAA or Act), starting from 1998 when then-EPA General Counsel Jonathan Cannon issued a legal opinion concerning the possibility of GHG regulation under the Act and spanning to the present day. This turbulent history, driven by shifting administration policies and a seminal decision of the United States Supreme Court, has set the stage for EPA's current actions to regulate GHGs under the Act. Part III elucidates how this protracted history has resulted in EPA's existing GHG regulations being carefully transparent and based on efficiency. This part specifically evaluates four EPA actions that impact GHG emissions from mobile sources and stationary sources, analyzing the Agency's efficiency-based focus in disparate regulatory spheres. These actions include: 1) the Endangerment Finding—a science based determination that GHGs endanger human health or welfare; 2) the Vehicle Emission Standards—fleet-wide measures designed to reduce GHG emissions from cars and light trucks; 3) the Tailoring Rule—an action designed to smooth implementation of the Act's stationary source requirements and initially, to focus only on the largest sources of GHG emission; and 4) the State Implementation Rules—actions designed to allow sources in states currently lacking the authority to issue GHG permits to nonetheless obtain legally-required permits. Part IV analyzes the disproportionate challenges from various parties seeking to overturn EPA's GHG regulations. This part highlights incongruities in litigants' positions, from states challenging vehicle standards designed to benefit consumers, to large industries challenging regulations designed to exempt small sources from GHG permitting requirements, and finally, to states challenging rules intended to ensure that states have authority to issue legally-required greenhouse gas permits. Part V discusses the current state of EPA's GHG regulations, focusing on the historic GHG litigation currently unfolding in the D.C. Circuit that could ultimately be addressed by the Supreme Court of the United States. Finally, Part VI concludes by attempting to situate the current GHG regulations within the larger spectrum—both regulatory and legislative—of efficiency-focused policies designed to reduce GHG emissions, noting some of the challenges these prospective actions may face in light of the experience with the current regulations.

## II.

HISTORY OF GREENHOUSE GAS REGULATIONS—  
WHO IS INVOLVED AND HOW?

Spanning from 1998 to the present, the history of GHG regulation is already long and complex. It is also a story without an ending. Legal challenges to these rules are currently being resolved in the D.C. Circuit and have a good chance of being taken up, at least in part, by the Supreme Court, so it is unclear how and when the GHG story will conclude.

A. *EPA Issues Legal Opinion Confirming its Authority over Carbon Dioxide*

On April 10, 1998, then-EPA General Counsel Jonathan Cannon issued a legal opinion addressing the question of whether EPA possessed the authority to establish pollutant controls for carbon dioxide.<sup>1</sup> The so-called Cannon Memo was prepared at the request of Congressman Tom DeLay. In this five-page memorandum, Cannon concluded that “EPA’s regulatory authority under the Clean Air Act extends to air pollutants, which . . . are defined broadly under the Act and include” carbon dioxide, the most significant GHG emitted due to human activities.<sup>2</sup> Cannon also noted EPA’s nonuse of this authority despite carbon dioxide being putatively within its regulatory ambit, as then-EPA Administrator Carol Browner had not signaled whether EPA would exercise regulatory authority under the Act.<sup>3</sup>

The Cannon Memo, a diminutive but influential legal opinion, would eventually lead to the regulation of GHG emissions in America. But such regulation would not come quickly. Indeed, no direct regulation of GHGs occurred for more than a decade.<sup>4</sup>

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1. Memorandum from Jonathan Z. Cannon, Env’tl. Prot. Agency Gen. Counsel, to Carol M. Browner, Env’tl. Prot. Agency Adm’r 1 (Apr. 10, 1998), available at <http://www.law.umaryland.edu/environment/casebook/documents/epaco2memo1.pdf>.

2. *Id.* at 5.

3. *Id.*

4. This article does not focus on other short or long-term climate forcers such as black carbon. Here, “GHGs” refers to the six GHGs that EPA declared endanger human health and welfare in its Endangerment Finding: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>). See Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496 (proposed Dec. 15, 2009) (to be codified at 40 C.F.R. ch. I).

### B. *Bush Administration EPA Disavows GHG Regulation*

On October 20, 1999, more than a year after the Cannon Memo, the International Center for Technology Assessment along with eighteen other organizations filed a petition (ICTA Petition) requesting that EPA regulate certain GHGs, namely “carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and hydrofluorocarbon (HFC) emissions from new motor vehicles and engines.”<sup>5</sup> EPA received some 50,000 public comments in response to its January 23, 2001 request for public comment on the ICTA Petition, yet the petition laid dormant at the agency for almost four years.

Finally, on September 8, 2003, President George W. Bush’s EPA denied the ICTA Petition. In a direct reversal of the 1998 Cannon Memo, which had been the agency position in the interim, EPA concluded that regulating motor vehicle GHG emissions under the Act was neither permissible nor advisable.<sup>6</sup> EPA proclaimed that:

[a]fter careful consideration of petitioners’ arguments and the public comments, EPA concludes that it cannot and should not regulate GHG emissions from U.S. motor vehicles under the CAA. Based on a thorough review of the CAA, its legislative history, other congressional action and Supreme Court precedent, EPA believes that the CAA does not authorize regulation to address global climate change. Moreover, even if CO<sub>2</sub> were an air pollutant generally subject to regulation under the CAA, Congress has not authorized the Agency to regulate CO<sub>2</sub> emissions from motor vehicles to the extent such standards would effectively regulate car and light truck fuel economy, which is governed by a comprehensive statute administered by [the Department of Transportation].<sup>7</sup>

Both policy and legal concerns were given for the agency’s denial of the ICTA Petition. The EPA’s denial notice asserted that not regulating GHG emissions from motor vehicles dovetailed with President Bush’s “comprehensive global climate change policy,” which included the need for long-term research on ways to reduce GHGs other than by regulation of motor vehicle emissions.<sup>8</sup> The agency argued that regulating GHG emissions from motor vehicles “would require EPA to make scientific and tech-

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5. Control of Emissions From New Highway Vehicles and Engines, 68 Fed. Reg. 52,922, 52,923 (Sept. 8, 2003).

6. *Id.* at 52,925.

7. *Id.*

8. *Id.*

nical judgments without the benefit of the studies being developed to reduce uncertainties and advance technologies. . . . [and] would also result in an inefficient, piecemeal approach to addressing the climate change issue.”<sup>9</sup> Foreign policy was also implicated, the agency declared, as “[u]nilateral EPA regulation of motor vehicle GHG emissions could also weaken U.S. efforts to persuade key developing countries to reduce the GHG intensity of their economies.”<sup>10</sup> Additionally, the denial notice disclaimed any mandatory duty to regulate GHGs, arguing that section 202(a)(1) of the CAA “provides the Administrator with discretionary authority to address emissions in addition to those addressed by other section 202 provisions.”<sup>11</sup>

C. *D.C. Circuit Upholds Bush EPA’s Decision Not to Regulate GHG Emissions From New Motor Vehicles*

After the EPA’s 2003 denial of the ICTA Petition, the consequent petition for judicial review of the denial snaked its way through the courts. First, “twelve states, three cities, an American territory, and numerous environmental organizations” challenged the agency’s decision not to regulate GHG emissions from new motor vehicles in the D.C. Circuit Court of Appeals.<sup>12</sup> The D.C. Circuit had exclusive jurisdiction over the issue under CAA section 307(b)(1) because EPA’s refusal to promulgate nationally applicable regulations governing motor vehicle GHG emissions in response to petitions constituted final agency action under the Act.<sup>13</sup>

While the court noted that the Act requires the EPA Administrator to regulate emissions that in his judgment “may reasonably be anticipated to endanger public health or welfare,” it proclaimed that the Act affords the Administrator “considerable discretion” in making that determination.<sup>14</sup> The court explained that “Congress does not require the Administrator to exercise his discretion [under CAA section 202(a)(1)] solely on the basis of his assessment of scientific evidence” and that policy judgments of the sort that “Congress makes when it decides whether to en-

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9. *Id.* at 52,391.

10. *Id.* at 52,931.

11. *Id.* at 52,929.

12. *Massachusetts v. Envtl. Prot. Agency*, 415 F.3d 50, 53 (D.C. Cir. 2005), *rev’d*, 549 U.S. 497 (2007).

13. *Id.* at 53 (quoting Clean Air Act § 307(b)(1), 42 U.S.C. § 7607(b)(1) (2006)).

14. *Id.* at 57–58 (quoting 42 U.S.C. § 7521(a)(1)).

act legislation regulating a particular area” may be taken into account.<sup>15</sup> The court declared that the EPA Administrator, in declining to regulate, validly depended upon policy considerations “that, in his judgment, warranted regulatory forbearance at this time . . . [i]n addition to the scientific uncertainty about the causal effects of [GHGs] on the future climate of the earth.”<sup>16</sup> The court echoed the language contained in EPA’s 2003 denial, noting that, among other things, new motor vehicles are merely a subset of GHG emission sources, so “promulgating regulations under [section] 202 would ‘result in an inefficient, piecemeal approach to the climate change issue.’”<sup>17</sup> The court proclaimed that existing precedent required “‘uphold[ing] agency conclusions based on policy judgments’ ‘when an agency must resolve issues’ ‘on the frontiers of scientific knowledge.’”<sup>18</sup> The court found “a determination of endangerment to public health [caused by GHG motor vehicle emissions]” such an issue; it thus held the Administrator properly exercised his discretion under [section] 202(a)(1) in denying the petition for rulemaking.<sup>19</sup>

D. *The Supreme Court’s First Move: Elucidating Parameters Governing Executive Branch Action on GHGs in Massachusetts v. EPA*

EPA’s disavowal of both authority and desire to regulate GHGs withstood challenge in the D.C. Circuit but would be short-lived. The Supreme Court granted review of the D.C. Circuit’s decision. On April 2, 2007, the Court handed down its landmark decision in *Massachusetts v. EPA*, overturning the D.C. Circuit’s decision in a move that ultimately would cause EPA to reverse its position and regulate GHG emissions.<sup>20</sup>

The Court held that the Act’s broad definition of air pollutant encompasses GHGs, affirmatively settling the debate over whether these emissions fall under EPA’s bailiwick.<sup>21</sup> The Court

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15. *Id.* at 58.

16. *Id.* (citing Control of Emissions From New Highway Vehicles and Engines, 68 Fed. Reg. 52,922, 52,929 (Sept. 8, 2003)).

17. *Id.* (quoting Control of Emissions From New Highway Vehicles and Engines, 68 Fed. Reg. at 52,931).

18. *Id.* (quoting *Envtl. Def. Fund v. Env’tl. Prot. Agency*, 598 F.2d 62, 82 (D.C. Cir. 1978)).

19. *Id.* (quoting *Ethyl Corp. v. Env’tl. Prot. Agency*, 541 F.2d 1, 24 (D.C. Cir. 1976)).

20. 549 U.S. 497 (2007).

21. *Id.* at 529.

dismissed EPA's assertion that Congress did not endeavor for EPA to regulate climate change contributors, which had led the agency to conclude that carbon dioxide is not an air pollutant under the Act.<sup>22</sup> The Act defines "air pollutant" to include "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."<sup>23</sup> The Court recognized that this "sweeping definition of 'air pollutant' . . . embraces all airborne compounds of whatever stripe, and underscores that intent through the repeated use of the word 'any.'"<sup>24</sup> In holding that the CAA barred EPA's narrow interpretation of "air pollutant," the Court stated the definition of air pollutant "unambiguously inclu[des]" GHGs, because "[c]arbon dioxide, methane, nitrous oxide, and hydrofluorocarbons are without a doubt 'physical [and] chemical . . . substance[s], which [are] emitted into . . . the ambient air.'"<sup>25</sup>

In addition to declaring GHGs outside of the Act's ambit, EPA had also denied the ICTA Petition based on a number of policy concerns, as discussed in Part II.B above. The agency explicated its "alternative basis" for refusing to regulate GHG emissions, noting that current regulation would be imprudent even if it does boast the ability to regulate.<sup>26</sup> The Court noted how EPA "offered a laundry list of reasons not to regulate," which included "a number of voluntary Executive Branch programs already provide an effective response to the threat of global warming, that regulating [GHGs] might impair the President's ability to negotiate with 'key developing nations' to reduce emissions, and that curtailing motor-vehicle emissions would reflect 'an inefficient, piecemeal approach to address the climate change issue.'"<sup>27</sup>

The Court rejected the slew of Bush EPA policy claims that regulation would be impertinent, asserting that such policy judgments have "nothing to do with whether [GHG] emissions contribute to climate change."<sup>28</sup> Consequently, the Court declared EPA's reasons for choosing not to regulate GHGs from new mo-

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22. *Id.* at 528–29.

23. *Id.* (quoting Clean Air Act § 302(g), 42 U.S.C. § 7602(g) (2006)).

24. *Id.* at 528–29.

25. *Id.*

26. *Id.* at 532.

27. *Id.* at 533.

28. *Id.* at 533–34.

tor vehicles “divorced from the statutory text.”<sup>29</sup> CAA section 202(a)(1) requires that the Administrator

by regulation prescribe . . . 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.<sup>30</sup>

The Court acknowledged that while the Act requires EPA to form a “judgment” before the Agency’s regulatory hand can be forced, the Administrator does not possess “a roving license to ignore the statutory text” and must “exercise discretion within defined statutory limits.”<sup>31</sup> External concerns can be valid, as the agency maintains marked leeway in harmonizing its regulations with those of other agencies, and determining how and when to issue regulations.<sup>32</sup> But the Court declared that “once EPA has responded to a petition for rulemaking,” as here, such latitude ends and the agency’s “reasons for action or inaction must conform to the [CAA].”<sup>33</sup>

To conform to the Act, the Court explained, EPA can avert regulation only after it decides “that [GHGs] 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.”<sup>34</sup> EPA cannot comply with CAA section 202(a)(1) by “noting the uncertainty surrounding various features of climate change and concluding that it would therefore be better not to regulate at this time.”<sup>35</sup> The Court declared the statutory question to be whether there is adequate proof that GHGs endanger public health or welfare and not that “EPA would prefer not to regulate [GHGs] because of some residual uncertainty” in the droves of climate science.<sup>36</sup> EPA could thus only avoid issuing an endangerment finding “[i]f the scientific uncertainty is so profound that it precludes EPA from making a rea-

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29. *Id.* at 532–33.

30. Clean Air Act § 202(a)(1), 42 U.S.C. § 7521(a)(1) (emphasis added).

31. *Mass. v. EPA*, 549 U.S. at 532–33.

32. *Id.* at 533.

33. *Id.* (noting that “[t]o the extent that this constrains agency discretion to pursue other priorities of the Administrator or the President, this is the congressional design”).

34. *Id.* at 532–33.

35. *Id.* at 534.

36. *Id.*

soned judgment as to whether [GHGs] contribute to global warming.”<sup>37</sup>

The regulatory options available to EPA if it were to make a positive endangerment finding were briskly considered in *Massachusetts v. EPA*. The Court did not officially address whether EPA must regulate GHG emissions from motor vehicles following an endangerment finding, asserting that it “need not and d[id] not reach the question . . . [of] whether policy concerns can inform EPA’s actions in the event that it makes such a finding.”<sup>38</sup> The Court did, however, easily conclude that EPA could regulate GHG emissions from new motor vehicles under section 202(a)(1) of the Act following an endangerment finding.<sup>39</sup>

E. *Senate Sub-committee Testimony Addresses Uncertainty in a Post-Massachusetts v. EPA World*

Less than a month after *Massachusetts v. EPA* was decided, the Senate Committee on Environment and Public Works (EPW) held an April 2007 hearing to ascertain the implications of the Supreme Court’s decision. Former-EPA Administrator William K. Reilly and then-Administrator Stephen L. Johnson offered testimony on the newly defined authority that flowed to the agency from the *Massachusetts v. EPA* decision. Reilly and Johnson delivered speeches with different tones but both touched on the uncertainty surrounding how EPA should and would implement *Massachusetts v. EPA*.<sup>40</sup>

Former-Administrator William K. Reilly, who led EPA from 1989 to 1993 under President George H.W. Bush, discussed how the discourse and modeling on climate change had evolved since the 1980s. When Reilly was named EPA Administrator, he received a briefing on climate change by then-president of the National Academy of Sciences, Dr. Frank Press. The climate change work contained in Dr. Press’s brief was rooted in computer modeling, and the dearth of accompanying empirical evidence relegated the climate change debate to discussion of the assumptions underlying these models.<sup>41</sup> But the debate progressed beyond

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37. *Id.*

38. *Id.* at 534–35.

39. *Id.* at 528–29.

40. Statement of the Honorable William K. Reilly before the Senate Committee on Environment and Public Works 1–2 (Apr. 24, 2007), available at [http://epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore\\_id=1719990c-c571-4b54-9c55-3920df107cab](http://epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=1719990c-c571-4b54-9c55-3920df107cab).

41. *Id.* at 2.

computer modeling alone, as Reilly declared that decades later the models “now comport well with the mounting evidence from field observations and related research in any number of areas, from wildlife behavior to snow pack and melting glaciers, to sea level rise, changes in precipitation, temperature records that cannot be dismissed as merely the result of urban heat island effect, and more.”<sup>42</sup> For Reilly, the increased precision in climate modeling combined with empirical evidence of climate change was too compelling for the Senate EPW to ignore. Believing that an “unrealistic level of certainty” of climate change cannot be required before combative action is taken, Reilly admonished the committee that “addressing serious and urgent problems such as climate change” requires alacrity notwithstanding whether a change of course subsequently appears most prudent.<sup>43</sup>

Contrary to Reilly’s view that direct action to combat climate change was the only path forward, former-EPA Administrator Johnson, serving under President George W. Bush, predominantly discussed various Bush EPA policies that indirectly impacted GHG emissions. Johnson argued that GHGs could be suppressed without direct GHG regulation under the Act, noting that under President Bush, GHGs declined 1.9 percent in 2003 and 2.4 percent in 2004 and 2005 while the economy grew 3.4 percent from 2004 to 2005.<sup>44</sup> Johnson asserted that one program expected to net indirect GHG reductions was EPA’s Renewable Fuel Standard (RFS) program. This program required at least 7.5 billion gallons of renewable fuel to be blended into motor vehicle fuel sold in the United States by 2012.<sup>45</sup> The RFS program’s estimated 3.9 billion gallon decrease in petroleum use would prospectively cut annual GHG emissions “by up to 13.1 million metric tons by 2012—the equivalent of preventing the emissions of 2.3 million cars.”<sup>46</sup> Johnson also highlighted the EPA and Bush administration’s commitment to non-regulatory market-based

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42. *Id.*

43. *Id.*

44. Statement of Stephen L. Johnson before the Senate Committee on Environment and Public Works 3 (Apr. 24, 2007) *available at* [http://epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore\\_id=a22ac455-717e-45e0-a31a-0b3742d83210](http://epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=a22ac455-717e-45e0-a31a-0b3742d83210) [hereinafter Johnson EPW Testimony].

45. Press Release, Env’tl. Prot. Agency, Bush Administration Establishes Program to Reduce Foreign Oil Dependency, Greenhouse Gases (Apr. 10, 2006), *available at* <http://yosemite.epa.gov/opa/admpress.nsf/bd4379a92ceceac8525735900400c2719f276d4de20fe075852572b9005cb19c!OpenDocument>.

46. *Id.*

energy efficiency programs such as Energy STAR.<sup>47</sup> The Bush EPA's focus on energy efficiency would later be adopted by Johnson's successor and current-EPA Administrator Lisa Jackson and would form the cornerstone of GHG regulation under the Act.<sup>48</sup>

In lieu of focusing on any substantive uncertainties of underlying climate science, then-Administrator Johnson addressed the procedural uncertainty created by *Massachusetts v. EPA*. While various Bush administration programs might prospectively decrease GHG emissions indirectly, other procedures would be required to fulfill the Supreme Court's mandate that the agency determine whether science adequately confirms that GHGs threaten human health or welfare. The agency's array of options post-*Massachusetts v. EPA* included whether the public comment period on the original ICTA Petition should be reopened, whether EPA should hold public hearings, and whether the agency should or was required to employ rulemaking procedures addressing the Court's decision.<sup>49</sup> Although the Supreme Court rejected EPA's policy reasons for refusing to regulate GHGs following the ICTA Petition, it "explicitly left open the issue of whether EPA can consider policy considerations when writing regulations in the event EPA were to make an Endangerment Finding."<sup>50</sup>

F. *EPA Administrator Determines EPA Must Issue Positive Endangerment Finding but OMB Refuses to Open E-mail Containing Proposed Endangerment Finding*

On January 31, 2008, Bush EPA Administrator Johnson transmitted an e-mail to the president noting that the decision in *Massachusetts v. EPA* "combined with the latest science of climate change requires the Agency to propose a positive endangerment finding."<sup>51</sup> Administrator Johnson did not rush to this conclusion.

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47. Johnson EPW Testimony, *supra* note 44, at 9.

48. See ENVTL. PROT. AGENCY, PSD AND TITLE V PERMITTING GUIDANCE FOR GREENHOUSE GASES 3 (2010), available at <http://www.lawandenvironment.com/uploads/file/GHG%20Bact%20guidance.pdf> [hereinafter BACT GUIDANCE].

49. Johnson EPW Testimony, *supra* note 44, at 17-18.

50. *Id.* at 17. EPA's Endangerment Finding for GHGs is discussed at Part III.A, *infra*.

51. Letter from Stephen L. Johnson, Adm'r, Env'tl. Prot. Agency, to President George W. Bush (Jan. 31, 2008), available at [http://democrats.energycommerce.house.gov/sites/default/files/documents/EnclosureLetter\\_PresdidentfromStephenJohnson\\_2.8.2011\\_2.pdf](http://democrats.energycommerce.house.gov/sites/default/files/documents/EnclosureLetter_PresdidentfromStephenJohnson_2.8.2011_2.pdf).

Instead, he acknowledged that “a robust interagency policy process involving principal meetings over . . . eight months ha[d] enabled [him] to formulate a . . . prudent and cautious yet forward thinking” plan to address GHGs under the Act.<sup>52</sup>

In his e-mail to the president, Administrator Johnson insisted the agency conclude that GHG emissions endanger human health and the environment, a conclusion that had been agreed to in a November 2007 cabinet-level meeting.<sup>53</sup> Despite EPA’s deliberate interagency approach in addressing the Supreme Court’s decision in *Massachusetts v. EPA*, officials at the Office of Management and Budget refused to open the e-mail containing EPA’s draft endangerment finding.<sup>54</sup> As a result, the document ended up “in e-mail limbo, without official status” and no endangerment finding was released.<sup>55</sup>

G. *Bush EPA Issues Advanced Notice of Proposed Rulemaking to Solicit Comments on Regulating GHGs Under the Act*

The Bush administration did not rush to take advantage of EPA’s newly confirmed authority to regulate GHG emissions under the CAA or to fulfill the Supreme Court’s mandate that it consider whether an endangerment finding was warranted by the science. On July 30, 2008, more than six months after the Bush administration refused to open EPA Administrator Johnson’s e-mail containing a positive endangerment finding, EPA issued an Advanced Notice of Proposed Rulemaking (ANPR) on GHGs.<sup>56</sup> Short of declaring that GHGs endanger human health and welfare, the ANPR sought “comment on analyses and policy alternatives” given the “complexity and magnitude of the question of whether and how [GHGs] could be effectively controlled” under the Act.<sup>57</sup>

In the ANPR, the uncertainty as to the proper form of GHG regulation was juxtaposed with the agency’s affirmation of cli-

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52. *Id.*

53. *Id.*

54. See Felicity Barringer, *White House Refused to Open Pollutants E-Mail*, N.Y. TIMES, June 25, 2008, available at <http://www.nytimes.com/2008/06/25/washington/25epa.html>.

55. *Id.*

56. Regulating Greenhouse Gas Emissions Under the Clean Air Act, 73 Fed. Reg. 44,354 (proposed July 30, 2008) (to be codified at 40 C.F.R. ch. I) [hereinafter ANPR].

57. *Id.* at 44,355.

mate change science. The ANPR preamble explained that “it is widely recognized that [GHGs] have a climatic warming effect by trapping heat in the atmosphere” and that “[w]arming of the climate system is unequivocal.”<sup>58</sup> The agency’s concern was whether the Act was the appropriate vehicle to address this “serious global challenge.”<sup>59</sup> If in response to *Massachusetts v. EPA* the agency returned a positive endangerment finding, it would be required to regulate motor vehicle GHG emissions. The agency also suggested that by operation of the Act, regulating new motor vehicle emissions “would or could lead to regulation of other sources of GHG emissions” under the Act, such as large power plants.<sup>60</sup>

The GHG regulation debate was not solely EPA’s struggle, as the ANPR also reflected the regulation controversy occurring inside government. Pre-release inter-agency review of EPA’s ANPR was frenzied. EPA explained that the outgrowth presumably triggered by inception of GHG regulation caused numerous federal agencies to deliver “critical comments” to EPA.<sup>61</sup> A supplemental letter released with the ANPR from then-Office of Information and Regulatory Affairs (OIRA) Administrator Susan Dudley referred to the Act as “a deeply flawed and unsuitable vehicle for reducing [GHG] emissions.”<sup>62</sup> She contended that because interagency review of the ANPR had aroused “serious” issues and because no inter-agency consensus was timely reached, the ANPR “cannot be considered [Bush] Administration policy or representative of the views of the Administration.”<sup>63</sup> Administrator Dudley advised EPA to elicit public comment on the issues raised during the interagency review.<sup>64</sup> Those issues included problems with the ANPR’s “legal, analytical, economic, science and policy interpretations.” OIRA’s purported problems with the ANPR installed it as regulation gatekeeper, as Administrator Dudley announced that OIRA would not review a notice of proposed rulemaking before EPA considered the issues raised dur-

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58. *Id.* at 44,396.

59. *Id.*

60. *Id.* at 44,397.

61. *Id.* at 44,354.

62. Letter from Susan E. Dudley, Adm’r, Office of Info. & Regulatory Affairs, to Stephen L. Johnson, Adm’r, Env’tl. Prot. Agency 1 (July 10, 2008) available at <http://www.epa.gov/climatechange/emissions/downloads/ANPRPreamble4.pdf>.

63. *Id.*

64. *Id.*

ing interagency review.<sup>65</sup> Twenty days after receiving Administrator Dudley's letter, EPA released its GHG ANPR as a non-consensus public comment-seeking document.

In addition to internal executive branch discourse, EPA's ANPR injected more uncertainty into the GHG regulatory debate. The ANPR revealed EPA's hesitation to regulate GHG emissions under the CAA at all.<sup>66</sup> Administrator Johnson proclaimed regulating GHGs under the Act "would inevitably result in a very complicated, time-consuming and, likely, convoluted set of regulations . . . [and] would largely pre-empt or overlay existing programs that help control [GHGs] and would be relatively ineffective at reducing [GHG] concentrations given the potentially damaging effect on jobs and the U.S. economy."<sup>67</sup> Johnson's claim that the Act "is ill-suited for the task of regulating global [GHGs]" nettled those who saw regulation as a legal requirement that necessarily followed from *Massachusetts v. EPA*. However, the Supreme Court was careful in *Massachusetts v. EPA* to insist that EPA was not required to regulate "[i]f the scientific uncertainty is so profound that it precludes EPA from making a reasoned judgment as to whether [GHGs] contribute to global warming."<sup>68</sup> Given EPA's robust discussion of climate change in the ANPR, however, it seemed EPA would inevitably issue an endangerment finding to officially confirm that GHG emissions contribute to climate change that endangers human health and welfare, requiring the agency to then issue GHG regulations by operation of the Act.

#### H. *Change of President, Change of EPA Guard: Obama-Appointed EPA Administrator Lisa Jackson Signals GHG Regulation*

In 2009, newly elected President Obama appointed Lisa Jackson as head of the EPA, and she wasted little time placing her EPA administration in contraposition to the prior Johnson administration. In a memo sent to all EPA employees, Administrator Jackson noted that "[w]hen a court has determined EPA's

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65. *Id.* at 2.

66. See Administrator Johnson's foreword in the ANPR, professing his belief that GHGs should not be addressed by rulemaking under the Clean Air Act. ANPR, *supra* note 56, at 44,354–55.

67. *Id.*

68. *Massachusetts v. Env'tl. Prot. Agency*, 549 U.S. 497, 534 (2007). For discussion of EPA's conclusions on climate science, see Part III.A, *infra*.

responsibilities under our governing statutes, EPA cannot turn a blind eye to the court's decision or procrastinate in complying."<sup>69</sup> This statement served not only as a not-so-subtle jab to her predecessor's failure to issue GHG regulation, but also as a prelude to action. Jackson announced that the agency "will move ahead to comply with the Supreme Court's decision recognizing EPA's obligation to address climate change under the Clean Air Act."<sup>70</sup>

I. *The Supreme Court's Second Move: Reaffirming EPA's Authority to Regulate GHGs under the Act in AEP v. Connecticut*

Recently, in *American Electric Power v. Connecticut (AEP)*, the Supreme Court reiterated the central holdings of *Massachusetts v. EPA*.<sup>71</sup> The Court's 2011 decision reasserted that GHGs are "air pollutants" and that EPA has the ability to regulate them under the CAA.

The issue in this June 20, 2011 case was whether federal common law public nuisance claims could be brought against carbon-dioxide emitting power plants.<sup>72</sup> The Supreme Court denied these GHG nuisance claims on the grounds that by passing the CAA, "Congress delegated to EPA the decision whether and how to regulate carbon-dioxide emissions from power plants; the delegation is what displaces federal common law."<sup>73</sup> The Court explained that whether and to what extent EPA had regulated GHGs under the Act was irrelevant as common law displacement is the byproduct of congressional passage of the Act.

Justice Ginsburg's majority opinion in *AEP* implicitly reaffirmed *Massachusetts v. EPA* by retreading its language and conclusions. *AEP* recounted that three years earlier, *Massachusetts v. EPA* first confirmed GHGs are within the Act's ambit by "ma[king] plain that emissions of carbon dioxide qualify as air pollution subject to regulation under the Clean Air Act."<sup>74</sup> *AEP*

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69. Memorandum from Lisa P. Jackson, Adm'r, Env'tl. Prot. Agency, to all EPA employees (Jan. 23, 2009), available at <http://blog.epa.gov/administrator/2009/01/26/opening-memo-to-epa-employees/>.

70. *Id.*

71. *Am. Elec. Power Co., Inc. v. Connecticut*, 131 S.Ct. 2527, 2529 (2011).

72. *Id.* at 2529.

73. *Id.* at 2531. The Supreme Court further explained that even "were EPA to decline to regulate carbon-dioxide emissions altogether at the conclusion of its ongoing § 7411 rulemaking, the federal courts would have no warrant to employ the federal common law of nuisance to upset the agency's expert determination." *Id.* at 2538-39.

74. *Id.* at 2530 (internal citation omitted).

also reiterated the scope of EPA's authority by noting GHGs "qualify as 'air pollutant[s]' within the meaning of the governing [CAA] provision . . . [and] are therefore within EPA's regulatory ken."<sup>75</sup> The Court proclaimed that the "expert" EPA was designated by Congress as the "primary regulator of [GHGs]" and that "[f]ederal judges lack the scientific, economic, and technological resources an agency can utilize in coping with issues of this order."<sup>76</sup> The *AEP* decision makes clear that today the Supreme Court still believes in the veracity of *Massachusetts v. EPA*.

### III.

#### EPA'S GHG REGULATIONS AND THEIR UNDERLYING THEMES

As discussed in Part II above, the interplay between two successive EPA administrations and the judiciary advanced the climate change regulatory discourse. The stage was set first by environmental groups and various sovereigns pushing EPA to regulate GHG emissions from new motor vehicles. The Bush EPA resisted, balking at such regulation. This resistance resulted in the Supreme Court pushing the agency, in *Massachusetts v. EPA*, to make a science-based determination under the Act on whether GHGs endanger human health or welfare. Again the Bush administration resisted, refusing to open an email from EPA that contained a positive endangerment finding. Instead, the administration forced EPA to issue an ANPR soliciting public advice. A change in presidential administration was required before EPA would respond to the Supreme Court's decision in *Massachusetts v. EPA*, issue its Endangerment Finding for GHGs under the CAA, and establish new motor vehicle and stationary source regulations.

This section focuses on four EPA rulemakings in 2010 and 2011 that made regulation of GHGs under the Act a reality. Part III.A addresses the Endangerment Finding, which fulfilled EPA's obligation under the Act and *Massachusetts v. EPA* to make a science-based determination on whether GHGs endanger human health or welfare. As the Supreme Court noted in *Massachusetts v. EPA*, once EPA makes a positive endangerment finding for a pollutant, it must issue standards governing emissions of that pol-

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75. *Id.* at 2532–33 (internal citation omitted).

76. *Id.* at 2539–40.

lutant from motor vehicles. Part III.B discusses this required motor vehicle regulation, dubbed the Vehicle Rule. Part III.C details GHG regulation of stationary sources. Finally, Part III.D analyzes EPA's fourth and final regulatory action that smoothed permitting of facilities required to obtain preconstruction permits before new construction or major modification can occur.

A. *EPA Move Number One: A Science-Based Assessment of Endangerment*

As discussed in Part II.D above, the Supreme Court in *Massachusetts v. EPA* overturned the D.C. Circuit's decision, reversing EPA's denial of the ICTA Petition requesting the agency to regulate GHGs emitted from new motor vehicles. On remand, the Court directed EPA to determine whether GHGs endanger human health and welfare or else provide a reasonable explanation for declining to do so.<sup>77</sup> The Court declared that residual uncertainty in climate change science is irrelevant to the CAA's science-based endangerment inquiry; therefore, EPA could only validly refuse to regulate "[i]f the scientific uncertainty is so profound that it precludes EPA from making a reasoned judgment as to whether [GHGs] contribute to global warming."<sup>78</sup>

On December 15, 2009, following a change in both presidential and EPA administrations, EPA published a GHG Endangerment Finding based on meticulous review of national and international scientific research. Distilled from EPA's extensive review of climate science, the Agency defined "air pollution" under CAA section 202(a) "to be the mix of six long-lived and directly-emitted [GHGs]: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydroflouorocarbons (HFCs), perflouorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>)."<sup>79</sup> The agency concluded that GHG air pollution "may reasonably be anticipated to endanger the public health and welfare of current and future generations."<sup>80</sup> Along with its Endangerment Finding, EPA released a Cause or Contribute Finding that concluded, "[C]ombined emissions of these [GHGs] from new motor vehicles and new motor

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77. *Massachusetts v. Env'tl. Prot. Agency*, 549 U.S. 497, 532–33 (2007).

78. *Id.* at 534.

79. Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496, at 66,497, 66,516–22 (Dec. 15, 2009) (to be codified at 40 C.F.R. ch. 1).

80. *Id.* at 66,523.

vehicle engines contribute to the [GHG] air pollution that endangers public health and welfare.”<sup>81</sup>

If process is the metric for thoroughness, then EPA’s Endangerment Finding came on the heels of a measured review of climate change science and public input. The agency’s response to public comments alone occupied eleven volumes and more than 500 pages. Outside of its attention to significant public feedback, EPA’s 210-page Technical Support Document highlights more than one hundred published scientific studies on climate science and includes EPA’s summary of climate science and relevant emissions data. In addition to these studies, peer-reviewed syntheses of climate change research by the Intergovernmental Panel on Climate Change (IPCC), the U.S. Global Climate Research Program (USGCRP), and the National Research Council (NRC) “serve[d] as the primary scientific basis supporting the Administrator’s endangerment finding.”<sup>82</sup> EPA methodically evaluated these foundational studies, which “represent[ed] the current state of knowledge on the key elements for the endangerment analysis . . . by reviewing the process employed to develop each assessment, by reviewing their substantive content in light of in-house expertise, and by taking into consideration the depth of scientific consensus represented in the assessments.”<sup>83</sup> In addition to the faith EPA places on the veracity of the IPCC report, the U.S. Senate also considers the report credible, noting it is “viewed throughout most of the international scientific and global diplomatic community as the definitive statement on the state-of-the-art knowledge about global climate change.”<sup>84</sup> The conclusions reached in the IPCC Report have been corroborated by independent reviews of climate change science.<sup>85</sup>

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81. *Id.* at 66,496.

82. *Id.* at 66,497.

83. Brief for Respondents at 12, *Coal. for Responsible Regulation, Inc. v. Envtl. Prot. Agency*, No. 09-1322 and consolidated cases (D.C. Cir. filed Aug. 18, 2011), 2011 WL 5884464 at \*12. .

84. S. Exec. Rep. No. 102-55, 102d Cong., 2d Sess. at 3, 9 (1992).

85. *See* ENVTL. PROT. AGENCY, ENDANGERMENT AND CAUSE OR CONTRIBUTE FINDINGS FOR GREENHOUSE GASES UNDER SECTION 202(A) OF THE CLEAN AIR ACT: EPA’S Response to Public Comments, Vol. 1: General Approach to the Science and Other Technical Issues 9–15, available at [http://www.epa.gov/climatechange/endangerment/downloads/rt\\_volume\\_1.pdf](http://www.epa.gov/climatechange/endangerment/downloads/rt_volume_1.pdf); ENVTL. PROT. AGENCY, EPA’S RESPONSE TO THE PETITIONS TO RECONSIDER THE ENDANGERMENT AND CAUSE OR CONTRIBUTE FINDINGS FOR GREENHOUSE GASES UNDER SECTION 202(A) OF THE CLEAN AIR ACT, VOL. 2: ISSUES RAISED BY PETITIONERS ON EPA’S USE OF IPCC 5–6, available at <http://epa.gov/climatechange/endangerment/downloads/response-volume2.pdf>.

After EPA reviewed the climate science in compliance with the Supreme Court's mandate in *Massachusetts v. EPA*, it first concluded that GHGs "exert a climate warming effect by trapping outgoing, infrared heat that would otherwise escape to space."<sup>86</sup> EPA then connected this trapping effect to global warming, ultimately concluding "The scientific evidence is compelling that [such] elevated concentrations of heat-trapping [GHGs] are the root cause of recently observed climate change."<sup>87</sup> EPA highlighted this broad GHG climate change causation link in its supplemental technical support document to the Endangerment Finding that found "the global average net effect of the increase in atmospheric [GHG] concentrations, plus other human activities (e.g., land use change and aerosol emissions), on the global energy balance since 1750 has been one of warming."<sup>88</sup> EPA found that recent historic GHG levels mirror recent warming. According to "three major global temperature datasets, developed by NOAA, NASA, and the United Kingdom's Hadley Center," the climate has undergone an "unambiguous warming trend over the last 100 years, with the greatest warming occurring over the past 30 years."<sup>89</sup> These studies further observed, "[E]ight of the 10 warmest years on record have occurred since 2001; that the 10 warmest years have all occurred in the past 12 years; and that the 20 warmest years have all occurred since 1981."<sup>90</sup>

EPA connected anthropogenic emissions to this climatic warming. The agency determined, confirmed by the "latest assessment of the USGCRP[,] . . . [that] current atmospheric [GHG] concentrations are now at elevated and essentially unprecedented levels as a result of both historic and current anthropogenic emissions."<sup>91</sup> According to the EPA, the science revealed that GHG air pollution had never been higher. Since pre-industrial times and primarily as a result of human activity, global atmospheric GHG concentration increases include carbon dioxide by about thirty-eight percent, methane by 149 percent, and nitrous oxide

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86. Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496, 66,499 (Dec. 15, 2009) (to be codified at 40 C.F.R. ch. 1).

87. *Id.* at 66,518.

88. *Id.* at 66,517.

89. *Id.*

90. *Id.*

91. *Id.*

by twenty-three percent.<sup>92</sup> In concluding that such increases are unequivocally linked to climate change, the agency relied on many scientific reports, including an “IPCC conclusion from 2007 [that] has been re-confirmed by the June 2009 USGCRP assessment [positing] that most of the observed increase in global average temperatures since the mid-20th century is [ninety to ninety-nine percent] likely due to the observed increase in anthropogenic [GHG] concentrations.”<sup>93</sup> The EPA’s Technical Support Document explains that natural factors alone cannot possibly be the sole cause of increased warming, as “the observed warming can only be reproduced with models that contain both natural and anthropogenic forcings, and the warming of the past half century has taken place at a time when known natural forcing factors alone (solar activity and volcanoes) would likely have produced cooling, not warming.”<sup>94</sup>

The impacts of global warming are also detailed in the Endangerment Finding. EPA’s conclusion of endangerment was broadly based on the “risks associated with changes in air quality, increases in temperatures, changes in extreme weather events, increases in food- and water-borne pathogens, and changes in aeroallergens.” It was also based on “[t]he impact on mortality and morbidity associated with increases in average temperatures, which increase the likelihood of heat waves.”<sup>95</sup> While EPA relied only on impacts in the United States in assessing the GHG threat for endangerment purposes, the worldwide impacts only “strengthen[ed] the case for endangerment of public health and welfare because impacts in other world regions can in turn adversely affect the United States.”<sup>96</sup>

#### B. *EPA Move Number Two: Improving Fuel Economy with the Vehicle Rule*

After EPA finalized its Endangerment Finding, the Act automatically triggered a requirement that the agency regulate motor vehicle emissions. Section 202(a) mandates that once EPA determines emissions of GHGs “from any class or classes of new motor vehicles or new motor vehicle engines” cause or contribute to air pollution “which may reasonably be anticipated to endanger

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92. *Id.*

93. *Id.* at 66,518.

94. *Id.*

95. *Id.* at 66,497.

96. *Id.*

public health and welfare,” the agency “shall by regulation prescribe (and from time to time revise) . . . standards applicable to the emission of [that] air pollutant.”<sup>97</sup> On May 7, 2010, EPA took the first step toward regulation of new motor vehicles by implementing a coordinated federal “[GHG] and fuel economy program for passenger cars, light-duty-trucks, and medium-duty passenger vehicles” (National Program).<sup>98</sup> The National Program consists of EPA’s Vehicle Rule, which establishes GHG emissions standards under the Act, and the National Highway Traffic Safety Administration’s (NHTSA) Corporate Average Fuel Economy (CAFE) standards. The coordinated National Program “address[es] the urgent and closely intertwined challenges of energy independence and security and global warming.”<sup>99</sup> The National Program will accomplish these goals by requiring vehicle manufacturers to meet increasingly stringent standards from 2012 to 2016, with an “estimated combined average fuel economy level of 34.1 mpg in model year 2016.”<sup>100</sup> The joint rulemaking is expected to net “approximately 960 million metric tons of total carbon dioxide equivalent emissions reductions and approximately 1.8 billion barrels of oil savings over the lifetime of vehicles sold in model years 2012 through 2016.”<sup>101</sup>

### 1. Efficiency of Compliance for Vehicle Manufacturers

In addition to the increased efficiency of manufactured vehicles themselves, the EPA-NHTSA joint rulemaking “also results in important regulatory convergence and certainty to automobile companies.”<sup>102</sup> The rule “allow[s] automakers to produce and sell a single fleet nationally, mitigating the additional costs that manufacturers would otherwise face in having to comply with multiple sets of Federal and State standards.”<sup>103</sup> Without the National Program, vehicle manufacturers would be forced to separately comply with “NHTSA’s CAFE standards, EPA’s GHG standards, and the GHG standards applicable in California and other

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97. Clean Air Act § 202(a), 42 U.S.C. § 7521(a) (2006).

98. Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards: Final Rule, 75 Fed. Reg. 25,324, 25,325–26 (May 7, 2010) (to be codified at 40 C.F.R. pts. 85, 86, 600 and 49 C.F.R. pts. 531, 533, 536–38).

99. *Id.* at 25,326.

100. *Id.* at 25,330.

101. *Id.* at 25,328.

102. *Id.* at 25,329.

103. *Id.* at 25,326.

States adopting the California standards.”<sup>104</sup> Manufacturer compliance with the National Program can be accomplished by producing a “single national fleet, greatly simplifying the industry’s technology, investment and compliance strategies.”<sup>105</sup>

## 2. Benefits for Consumers

According to estimates by EPA and NHTSA, the standards set by their joint rule will save consumers money. Consumers will see decreased fuel costs as a result of more efficient vehicles because “EPA and NHTSA expect that automobile manufacturers will meet these standards by utilizing technologies that will reduce vehicle GHG emissions and improve fuel economy.”<sup>106</sup> Although the National Program will result in an increased up-front cost, consumers will save money over the life of the vehicle. The average cost for a model year 2016 vehicle is projected to increase by less than \$1,000 as a result of the National Program.<sup>107</sup> The analyses also show, however, that “[t]he average U.S. consumer who purchases a vehicle outright is estimated to save enough in lower fuel costs over the first three years to offset these higher vehicle costs.”<sup>108</sup> Financing in lieu of cash payment still provides benefits, as consumers who take out the typical five year, sixty month loan to purchase a new motor vehicle “will see immediate savings due to their vehicle’s lower fuel consumption in the form of a net reduction in annual costs of \$130–\$180 throughout the duration of the loan (that is, the fuel savings will outweigh the increase in loan payments by \$130–\$180 per year).”<sup>109</sup> Ultimately, a consumer purchasing a new model year 2016 motor vehicle by loan or otherwise could net savings of over \$3,000 over the vehicle’s lifetime.<sup>110</sup>

In addition to fuel savings, consumers are likely to reap additional benefits. EPA estimates the National Program will result in “reduced refueling and accidents, congestion and noise.”<sup>111</sup>

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104. *Id.* at 25,329.

105. *Id.*

106. *Id.* at 25,328.

107. *Id.* at 25,328–29.

108. *Id.*

109. *Id.* at 25,329.

110. *Id.* at 25,328–29. As EPA notes, “[a]ssumptions that underlie these conclusions are discussed in greater detail in the agencies’ respective regulatory impact analyses and in Section III.H.5 and Section IV” of the federal register notice for the LDV Rule. *Id.* at 25,329.

111. *Id.* at 25,347.

EPA's increased regulatory focus on technological improvements is expected to offer consumers greater selection and reliability, in addition to savings at the gas pump.

### 3. Improving Energy Security

The Vehicle Rule will also make strides in improving domestic energy security by reducing America's dependence on foreign oil. Decreasing dependence on foreign oil has been "a national objective since the first oil price shocks in the 1970s," yet "[n]et petroleum imports now account for approximately sixty percent of U.S. petroleum consumption."<sup>112</sup> The National Program seeks to decrease this number by regulating the petroleum-reliant light-duty vehicle fleet, which is over ninety percent dependent on oil-based fuels.<sup>113</sup> Addressing vehicle emissions is an important step toward reducing America's oil dependence because the transportation sector "accounts for about two-thirds of U.S. petroleum consumption."<sup>114</sup>

Importing foreign oil is widely acknowledged as problematic as it exposes the United States to a system of highly concentrated supply producers, increasing the risk of oil supply disruptions and dramatic price fluctuations.<sup>115</sup> As a result of America's dependence on and importation of oil, "[t]ight global oil markets led to prices over \$100 per barrel in 2008, with gasoline reaching as high as \$4 per gallon in many parts of the U.S., causing financial hardship for many families" and damaging the American economy.<sup>116</sup> Foreign oil dependence can also hinder the U.S. economy, as oil imports at the expense of U.S. asset exports have contributed in large part to unprecedented trade deficits.<sup>117</sup>

#### C. *EPA Move Number Three: Exempting Small Sources Through the Tailoring Rule*

By operation of the Act, stationary sources that emit large amounts of any regulated air pollutant under the Act are subject to the Prevention of Significant Deterioration (PSD) program. Generally, the PSD program requires large stationary sources of

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112. *Id.* at 25,326-67.

113. *See id.* at 25,328-29.

114. *Id.* at 25,327.

115. *Id.* at 25,326-27.

116. *Id.* at 25,327.

117. *Id.* (adding that "[l]ight-duty vehicles account for about sixty percent of transportation oil use, which means that they alone account for about forty percent of all U.S. oil consumption").

pollution to invest in available emissions control technologies at the same time these facilities make large capital investments that will significantly increase their emissions.

Specifically, section 169(1) defines a major emitting facility as any one of a specified list of facilities that emit or has the potential to emit 100 tons per year (TPY) or more “of any air pollutant,” or, if not specifically listed, any other facility that emits or has the potential to emit 250 TPY “of any air pollutant.”<sup>118</sup> Section 165 requires, among other things, that major emitting facilities be “subject to the best available control technology for each pollutant subject to regulation under this chapter emitted from, or which results from, such facility.”<sup>119</sup> Section 169(3) defines this best available control technology (BACT) as “the maximum degree of reduction of each pollutant subject to regulation under this chapter emitted from or which results from any major emitting facility, which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such facility.”<sup>120</sup>

The PSD program began applying to GHGs on January 2, 2011, the date GHGs became regulated under the Act by EPA’s vehicle emission standards.<sup>121</sup> As a result of the unique chemical properties of GHGs, however, combustion sources emit these gases on a far larger scale by weight—two to three orders of magnitude greater<sup>122</sup>—than air pollutants for which there are

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118. Clean Air Act § 169(1), 42 U.S.C. § 7479(1) (2006).

119. § 165(a)(4), § 7475(a)(4).

120. § 169(3), § 7479(3).

121. In a separate action, EPA determined that a pollutant was “subject to regulation” for purposes of the PSD program and Title V when the pollutant is subject to either a CAA provision or a CAA regulation that requires actual control of emissions of that pollutant. *See* Reconsideration of Interpretation of Regulations that Determine Pollutants Covered by Clean Air Act Permitting Programs, 75 Fed. Reg. 17,004, 17,004 (Apr. 2, 2010) (to be codified at 40 C.F.R. pts. 50, 51, 70, and 71).

122. *See, e.g.*, Christine Simeone, Alliance for Climate Prot. et al., Comment Regarding 74 Fed. Reg. 55,292 Before the Env’tl. Prot. Agency 3 (Dec. 28, 2009), *available at* [www.Catf.us/resources/filings/EPA\\_GHG\\_Tailoring\\_Rule/Tailoring\\_Rule\\_Comments\\_CATF\\_EDF\\_NRDC\\_SC\\_EA\\_ACP\\_PENN\\_CS\\_EPA-HQ-OAR-2009-0517.pdf](http://www.Catf.us/resources/filings/EPA_GHG_Tailoring_Rule/Tailoring_Rule_Comments_CATF_EDF_NRDC_SC_EA_ACP_PENN_CS_EPA-HQ-OAR-2009-0517.pdf) (“For example, a natural gas fired boiler burning 50 million BTU/hr heat input at a ‘high NOx rate’ of 0.5 lb/MMBTU produces approximately 25,000 TPY of CO<sub>2</sub>, but only about 109 TPY of NOx, if it were assumed to be operating at full potential 24 hours per day, 365 days of the year; a ‘low NOx rate’ or 0.1 lb NOx/MMBTU boiler of the same size would generate 21.9 TPY of NOx but 25,000 TPY of CO<sub>2</sub>.”).

National Ambient Air Quality Standards.<sup>123</sup> The universe of combustion sources that emit greater than 100 or 250 TPY of GHGs is much larger than that currently covered by the PSD program. As a result, EPA promulgated the Tailoring Rule, a phased approach to ensure that PSD and Title V requirements initially apply only to the largest sources of GHG emissions.<sup>124</sup>

The first phase of the Tailoring Rule, which began on January 2, 2011, applies the PSD or Title V requirements to sources' GHG emissions only if the sources are already subject to PSD or Title V due to emissions of non-GHG pollutants.<sup>125</sup> As of January 2, 2011, the relevant PSD requirements, most notably the BACT standards, apply to projects that increase net GHG emissions by at least 75,000 TPY of carbon dioxide equivalent (CO<sub>2</sub>e). These requirements, however, only apply if the project also significantly increases emissions of at least one non-GHG pollutant. Similarly, the Title V program requires that only existing sources with or new sources obtaining Title V permits for non-GHG pollutants address GHGs during this first phase.<sup>126</sup>

The second phase of the Tailoring Rule, which began on July 1, 2011, incorporates additional large sources of GHG emissions. New sources as well as existing sources not already subject to Title V that emit or have the potential to emit at least 100,000 TPY CO<sub>2</sub>e are now subject to the PSD and Title V requirements.<sup>127</sup> "In addition, sources that emit or have the potential to emit at least 100,000 TPY CO<sub>2</sub>e and that undertake a modification that increases net emissions of GHGs by at least 75,000 TPY CO<sub>2</sub>e will also be subject to PSD requirements."<sup>128</sup>

The Tailoring Rule also includes EPA's enforceable commitment to issue a supplemental notice of proposed rulemaking, in

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123. See § 109, 42 U.S.C. § 7409. These pollutants include ozone, particulate matter, carbon monoxide, nitrogen oxides, sulfur dioxide, and lead. *What Are the Six Common Air Pollutants?*, ENVTL. PROT. AGENCY, <http://www.epa.gov/oaqps001/urbanair/> (last updated July 1, 2010) (describing the health impacts of criteria pollutants). Criteria pollutants are the byproducts of combustion processes, while GHGs are the products of combustion. This distinction accounts for facilities' emission of GHGs on a far larger scale than their emission of criteria pollutants. For example, see footnote 18.

124. Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, 75 Fed. Reg. 31,514 (June 3, 2010) (to be codified at 40 C.F.R. pts. 51, 52, 70, and 71) [hereinafter Tailoring Rule].

125. *Id.* at 31,516.

126. *Id.*

127. *Id.*

128. *Id.*

which EPA will propose or solicit comment on a third step of the phase-in that would include more sources beginning by July 1, 2013.<sup>129</sup> EPA also plans to evaluate whether it can permanently exclude certain sources from permitting requirements.<sup>130</sup>

EPA estimates that under the Tailoring Rule, the PSD program will apply to facilities responsible for nearly seventy percent of the national GHG emissions from stationary sources, including the nation's largest GHG emitters like power plants, refineries, and cement production facilities.<sup>131</sup> The Tailoring Rule, however, exempts small sources of GHG pollution like farms, churches, restaurants, and small commercial facilities.<sup>132</sup> Facilities subject to PSD requirements for GHGs under the Tailoring Rule thresholds must apply BACT to their GHG emissions. While states are the permitting authority that will likely perform this case-by-case analysis, EPA has issued guidance suggesting what BACT might be for GHG emissions.<sup>133</sup> The guidance for GHGs utilizes EPA's traditional five-step process for determining BACT and emphasizes the importance of BACT options that improve energy efficiency.<sup>134</sup> Much like the fuel economy and GHG emission standards for vehicles, these measures can result in cost savings for the facility owner.<sup>135</sup>

Like the Vehicle Rule, the EPA projects that the Tailoring Rule and the BACT guidance will not have an overwhelming effect on regulated sources.<sup>136</sup> The purpose of the Tailoring Rule is to exempt smaller sources from regulation. Both the Vehicle Rule and the BACT guidance are focused on efficiency improvements, which will save fuel. The Tailoring Rule thus also preserves states' scarce administrative resources, ensuring states retain the resources necessary to implement the Act and issue permits for other pollutants.<sup>137</sup>

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129. *Id.*

130. *Id.*

131. BACT GUIDANCE, *supra* note 48, at 3.

132. *Id.*

133. *Id.* at 1.

134. *Id.* at 18–19, 22.

135. *See id.* at 22.

136. Tailoring Rule, 75 Fed. Reg. 31,514, 31,516 (June 3, 2010) (to be codified at 40 C.F.R. pts. 51, 52, 70, and 71).

137. Absent the Tailoring Rule, state permitting authorities that administer these programs would face upwards of six million annual permit applications—an unworkable increase from the approximately 15,000 permit applications these agencies currently process. *See id.* at 31,540, 31,597. Administering these six million permit

D. *EPA Move Number Four: Facilitating State Implementation with the Greenhouse Gas SIP Call*

The Act is founded on cooperative federalism, which affords states the opportunity to implement the Act's requirements within their borders, provided the state's actions are consistent with federal requirements.<sup>138</sup> If state actions are inconsistent with federal law, EPA possesses the ability to revoke<sup>139</sup> or limit state authority and substitute federal law.<sup>140</sup> While this model provides states considerable discretion as to how to implement the Act, states cannot delay or fail to enforce baseline requirements of the Act.<sup>141</sup>

In the wake of EPA's actions to ensure smooth application of the PSD program to sources that emit GHGs, states needed to ensure that they possessed authority under their state implementation plans (SIPs) to issue such permits and that their GHG permitting thresholds were consistent with the Tailoring Rule thresholds. Many SIPs operated automatically to incorporate new requirements under the Act, obviating the need for those states to undertake SIP revisions to incorporate GHGs into the PSD program.<sup>142</sup> Other states, however, lacked authority to regulate GHGs under their current SIPs, which required them to undertake SIP revisions or allow EPA to remedy the inadequacy through a federal implementation plan (FIP).<sup>143</sup> In states with SIPs lacking such authority, state legislatures were forced to decide whether to revise their state law to authorize SIP revisions. Because legislatures are not always in session, some states had difficulty revising their SIPs before January 2, the date on which the PSD program would begin applying to sources of GHG emissions. As a result, EPA took several actions, including the Greenhouse Gas SIP Call and the Greenhouse Gas FIP, designed to

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requests would cost state agencies roughly \$22 billion, or an increase of over 30,000 percent. *Id.* at 31,540.

138. See *Alaska Dep't of Env'tl. Conservation v. Env'tl. Prot. Agency*, 540 U.S. 461, 488–90 (2004).

139. See Clean Air Act § 110(k)(3), 42 U.S.C. § 7410(k)(3) (2006) (commanding EPA to disapprove SIPs that do not meet the Act's requirements).

140. See § 110(k)(3), 42 U.S.C. § 7410(k)(3); see also § 110(a)(2)(J), 42 U.S.C. § 7410(a)(2)(J), and § 7410(c), 42 U.S.C. § 7410(c).

141. See § 110(a)(2)(J), § 7410(a)(2)(J) (requiring SIPs to contain measures necessary to meet all requirements of the Act).

142. NAT'L ASS'N OF CLEAN AIR AGENCIES, GHG PROGRAMS READY TO GO BY JANUARY 2ND 1 (Oct. 28, 2010), available at [http://www.eenews.net/assets/2010/10/28/document\\_gw\\_01.pdf](http://www.eenews.net/assets/2010/10/28/document_gw_01.pdf) [hereinafter NACAA REPORT].

143. *Id.*

ensure that states had the requisite authority to issue PSD permits covering GHGs.<sup>144</sup>

In its GHG SIP Call, EPA found thirteen state SIPs substantially inadequate because they failed to incorporate GHGs into their PSD program.<sup>145</sup> The agency proposed revised SIP submittal deadlines for these states under CAA section 110(k)(5).<sup>146</sup> EPA established a maximum deadline of twelve months from signature of the SIP Call for states to submit SIP revisions but allowed for substantially shorter times—as little as three weeks—for states expressly advising EPA that they would not object to such shorter period.<sup>147</sup> For states failing to submit a revised SIP by the deadline, EPA would issue a FIP, which would provide the state with federal authority to issue PSD permits for GHGs.<sup>148</sup> EPA indicated that the purpose of a shorter period is to “ensure that a FIP is in effect as a backstop to avoid any gap in PSD permitting.”<sup>149</sup> For states electing a shorter period, EPA likewise indicated its willingness to delegate administration of the FIP to the state agency while the state completed its SIP revisions.<sup>150</sup>

These GHG implementing measure are efficient, given that they provide substituted federal authority for only the pieces of a state’s SIP that don’t allow for GHG permitting. Moreover, absent the SIP Call and the FIP, states without authority under their state SIPs to issue GHG permits would be unable to issue such permits after January 2, 2011. As a result, facilities in these states that could not obtain PSD permits after January 2, 2011 would face potential delays in anticipated expansions. In light of these challenges, EPA’s FIP rule provides interstitial federal authority, focusing on a small portion of certain states’ PSD programs and providing authority only so long as is necessary for

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144. *Id.*

145. Action to Ensure Authority to Issue Permits Under the Prevention of Significant Deterioration Program to Sources of Greenhouse Gas Emissions: Finding of Substantial Inadequacy and SIP Call, 75 Fed. Reg. 77,698, 77,700 (Dec. 13, 2010) (to be codified at 40 C.F.R. pt. 52) [hereinafter GHG SIP Call]. These states include Arizona, Arkansas, California, Connecticut, Florida, Idaho, Kansas, Kentucky, Nebraska, Nevada, Oregon, Texas, and Wyoming. States might have inadequate SIPs because the SIPs specifically delineate regulated pollutant or because SIPs might not automatically update when new pollutants become regulated under the CAA.

146. Clean Air Act § 110(k)(5), 42 U.S.C. § 7410(k)(5) (2006) (EPA “may establish reasonable deadlines (not to exceed 18 months after the date of such notice) for the submission of such plan revisions.”).

147. GHG SIP Call, 75 Fed. Reg. at 77,703.

148. *Id.* at 77,700.

149. *Id.* at 77,703.

150. *Id.*

states to revise their SIPs while retaining authority to issue PSD permits covering GHGs.

#### IV.

##### CHALLENGES TO EPA'S RULES ARE DISPROPORTIONATE AND OFTEN DISCONNECTED FROM THESE RULES' ACTUAL IMPACTS

This section examines the legal challenges to EPA's rules in the D.C. Circuit, describing several of the major litigants and analyzing the disconnect between some of these litigants' legal positions and the actual impacts of EPA's rules. Often, litigants have adopted legal positions that, if successful, could result in harm to the membership they represent or the citizens in their state.

##### A. *The Non-Profit Coalition for Responsible Regulation and the Endangerment Finding*

Despite EPA's substantial record supporting the Endangerment Finding,<sup>151</sup> some groups have emerged that are directly challenging the science underpinning the Endangerment Finding. In particular, the Coalition for Responsible Regulation (CRR)—a nonprofit organization incorporated in Texas on November 10, 2009—has been one of the more outspoken deniers of EPA's scientific conclusions. In filings before the Court of Appeals for the D.C. Circuit, CRR relies on, among other things, the hacking of e-mails from the Climate Research Unit at the University of East Anglia and concludes that “[t]he current EPA Administration arrived in 2009 with pre-formed convictions that human GHG emissions are causing significant and harmful global climate change.”<sup>152</sup>

Notably, CRR bases its challenge on a fundamental denial of the scientific data underpinning climate change. This departure from the approaches of its co-litigants suggests either a disagreement on the relative merits of the legal challenge or a strategic decision to highlight climate change skepticism, regardless of likelihood of success on the merits.

A closer examination of CRR may provide a partial answer to this question. CRR appears to be closely linked to the largest private owner of coal reserves in the country. State records show

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151. See *supra* Part III.A.

152. Joint Opening Brief of Non-State Petitioners and Supporting Intervenors, *Coal. for Responsible Regulation, Inc. v. Evtl. Prot. Agency*, No. 09-1322 and consolidated cases (D.C. Cir. filed Nov. 14, 2011), 2011 WL 5884467 at \*5.

that all three members of CRR's board of directors share the same Houston address as the Quintana Minerals Corporation, though none of the coalition's incorporating papers mention the company. Quintana Minerals is owned by Corbin Robertson Jr., and his family is the nation's largest private holder of coal reserves.<sup>153</sup> Robertson has also joined forces with H. Leighton Steward, a well-known climate change denier, to campaign against climate science through two advocacy groups—CO2 is Green and Plants Need CO2.<sup>154</sup> CRR's strong ties to organizations that serve as conduits for scientific misinformation may partially explain its peculiar legal strategy and its uncommon emphasis on climate change denialism.

### B. *States and the Vehicle Rule*

EPA's GHG regulations for passenger cars, light-duty trucks, and medium-duty passenger vehicles have a myriad of well-documented benefits, including reducing GHG emissions, saving consumers money, reducing fuel consumption, and promoting national security.<sup>155</sup> Auto manufacturers, states, and non-governmental organizations have all voiced their support for these measures.<sup>156</sup> For instance, Ford noted that it "recognizes the benefit for the country of a National Program to address GHGs and fuel economy and the historic announcement of EPA and NHTSA's intent to jointly propose a rule to set standards for both."<sup>157</sup> Indeed, in their brief opposing a judicial stay<sup>158</sup> of the Vehicle Rule, auto manufacturers stated that "[b]ecause the fuel economy of (and the resulting GHG emissions from) a motor vehicle goes to the very heart of its design and manufacture, the industry

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153. Daniel Fisher, *Fuel's Paradise*, FORBES.COM (Jan. 20, 2003), <http://www.forbes.com/forbes/2003/0120/060.html>.

154. Steven Mufson, *New Groups Revive the Debate Over Causes of Climate Change*, THE WASH. POST (Sept. 25, 2010), <http://www.washingtonpost.com/wp-dyn/content/article/2009/09/24/AR2009092404797.html>.

155. See *supra* Part III.B.

156. See *Regulations & Standards, Transportation & Climate*, ENVTL. PROT. AGENCY, <http://www.epa.gov/otaq/climate/regulations.htm> (last updated Jan. 9, 2012).

157. Letter from Alan R. Mulally, President & CEO, Ford Motor Corp., to Lisa Jackson, Adm'r, Env'tl. Prot. Agency, and Ray LaHood, Sec'y, Dep't of the Treasury (May 17, 2009), available at <http://www.epa.gov/otaq/climate/regulations/ford.pdf>.

158. A stay would preserve the status quo pending the outcome of the litigation, which would mean that GHG emissions standards for vehicles would not take effect for the 2012 model year, as planned. See Petitioners' Motion for Partial Stay of EPA's Greenhouse Gas Regulations, Coal. for Responsible Regulation, Inc. v. Env'tl. Prot. Agency, No. 10-1092 and consolidated cases (D.C. Cir. Sept. 15, 2010).

has long sought a uniform, nationwide approach to regulating these matters that provides the regulatory certainty needed for advance product planning.”<sup>159</sup> As a result, these manufacturers concluded that staying these rules would “result in tremendous hardship” to the entire industry.<sup>160</sup>

Although automakers directly regulated by these rules have not challenged them, several states, including Texas and Virginia, have filed legal challenges seeking to overturn the Vehicle Rule.<sup>161</sup> As above, these challenges are incongruous given the cross-cutting support for the rule and its significant benefits to both consumers and the environment.

### C. *Large Emitters and the Tailoring Rule*

EPA has long interpreted that, by operation of the CAA, major sources of any regulated air pollutant under the Act must obtain a permit applying the BACT to emissions of that pollutant.<sup>162</sup> GHGs however, because of their unique chemical properties, are often emitted in quantities significantly greater than other pollutants subject to regulation under the Act.<sup>163</sup> In recognition of these unique properties and the administrative burdens that would result from immediately applying the PSD program at the 100/250 TPY statutory thresholds, EPA promulgated the Tailoring Rule. This action was designed to ensure smooth application of the PSD program to the largest sources of GHG emissions and to exempt small sources of GHG pollution.<sup>164</sup>

The National Association of Manufacturers (NAM), along with several other large industrial trade organizations, have filed

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159. *Intervenors Alliance of Auto. Mfrs. & Ass'n of Int'l Auto. Mfrs.' Opposition to Motions for Stay at 9, Coal. for Responsible Regulation, Inc. v. Env'tl. Prot. Agency*, No. 09-1322 and consolidated cases (D.C. Cir. petition for review filed Dec. 23, 2009).

160. *Id.* at 10.

161. *See* Final Brief of State Petitioners & Supporting Intervenors 2, *Coal. for Responsible Regulation, Inc. v. Env'tl. Prot. Agency*, No. 09-1322 and consolidated cases (D.C. Cir. filed Nov. 28, 2011), 2011 WL 5942206 at \*2 (describing greenhouse-gas emissions as contributing to “the perceived but undefined danger variously referred to as ‘climate change’ or ‘global warming’”).

162. *See* Clean Air Act § 165(a), 42 U.S.C. § 7475(a) (2006); *see also supra* Part III.C.

163. *See supra* Part III.C.

164. *See id.* (describing how the Tailoring Rule avoids administrative burdens while ensuring a significant amount of greenhouse gas emissions are covered by the PSD program).

suit to overturn the Tailoring Rule on the grounds that: (1) EPA has improperly read the Act's triggering language, and (2) the absurd results and administrative necessity doctrines EPA employs to temporarily elevate the statutory emissions thresholds are inapposite.<sup>165</sup> NAM and other large industrial organizations, however, represent large, individual GHG emitters, most of which exceed EPA's elevated emissions triggering thresholds for GHGs. In other words, the Act would require these large emitters to apply the PSD program to their emissions of GHGs with or without the small source regulatory relief the Tailoring Rule provides. As above, then, these challenges to the Tailoring Rule are disconnected from the rhetoric surrounding EPA's rules. Indeed, the prevailing narrative from those challenging EPA's GHG rules has focused on the rules' pervasive, far-reaching, and onerous requirements.<sup>166</sup> Yet if these challenges to the Tailoring Rule are successful, NAM and others will vastly expand the scope and administrative burdens associated with PSD permitting for GHGs, undermining EPA's efforts to apply the program in a measured fashion.<sup>167</sup>

The challenges to the Tailoring Rule, like the challenges to the Endangerment Finding and the Vehicle Rule, reveal oddities that underscore the disproportionate response to GHG regulation in each of these cases. There is additional uncertainty in the Tailoring Rule litigation, however, as to whether litigants even have standing to advance their claims. The familiar three-part constitutional inquiry litigants must satisfy to establish standing requires litigants to suffer an injury caused by the action at issue that may be redressed by a favorable decision in the litigation.<sup>168</sup> In this case, litigants challenging a rule that by its terms is deregulatory may fail to satisfy all three prongs of the standing inquiry. The potential standing issues in this case further emphasize the disconnect between the asserted harms emanating from GHG regulation and the actual impacts of these regulations.

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165. See Joint Opening Brief of Non-State Petitioners & Supporting Intervenors at 29, 40, *Coal. for Responsible Regulation, Inc. v. Env'tl. Prot. Agency*, No. 09-1322 and consolidated cases (D.C. Cir. filed Nov. 14, 2011), 2011 WL 5884467 at \*29, \*40.

166. See, e.g., *id.*

167. See *supra* Part III.C (describing regulatory relief the Tailoring Rule provides).

168. See *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560-61 (1992).

#### D. *Texas and the GHG SIP Call*

Texas has filed challenges to EPA's GHG SIP Call and the FIP for the state of Texas.<sup>169</sup> Notably, Texas is the only state that has refused to change its own regulations. At the same time, Texas is challenging the GHG SIP Call and its FIP, which provide the only means for Texas sources to obtain PSD permits covering their GHG emissions absent a change in Texas law.<sup>170</sup>

Texas has often indicated its concern that compliance with EPA's GHG regulations will harm business interests in Texas.<sup>171</sup> Ironically, if Texas's challenge to the GHG SIP Call and FIP are successful, business interests in Texas will suffer. Absent federal authority in Texas, new sources or sources undertaking major modifications will not be able to obtain a PSD permit covering their GHG emissions.<sup>172</sup> As a result, these sources will experience potentially costly delays going forward.

Additionally, Texas has indicated its fundamental quarrel with EPA's implementing regulations revolves around what it considers to be federal imposition of requirements in an arena traditionally left to the states.<sup>173</sup> Again, ironically, if Texas's challenge to the SIP Call were to succeed, it would undermine GHG permitting authority in the other twelve states subject to the SIP Call and impose Texas's vision of the Act on states seeking to comply with the Act's requirements in good faith.

### V.

#### CURRENT STATE OF THE LITIGATION CHALLENGING THE GHG REGULATIONS

The U.S. Court of Appeals for the D.C. Circuit will decide the fate of EPA's GHG regulations over the coming year. Petitioners

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169. *See supra* Part III.D (describing the SIP Call and FIP).

170. *See* Letter from Bryan W. Shaw, Ph.D., Chairman, Texas Comm'n on Env'tl. Quality, and Greg Abbot, Att'y Gen. of Texas, to Lisa Jackson, Adm'r, Env'tl. Prot. Agency, available at [www.eenews.net/assets/2010/08/04/document\\_gw\\_01.pdf](http://www.eenews.net/assets/2010/08/04/document_gw_01.pdf) ("On behalf of the State of Texas, we write to inform you that Texas has neither the authority nor the intention of interpreting, ignoring, or amending its laws in order to compel the permitting of greenhouse gas emissions."); *see also* NACAA REPORT, *supra* note 142.

171. *See, e.g.*, State of Texas' Motion for Stay of EPA's Endangerment Finding, Timing Rule, and Tailpipe Rule at 41, 43, Coal. for Responsible Regulation, Inc. v. Env'tl. Prot. Agency, No. 09-1322 and consolidated cases (D.C. Cir. petition for review filed Dec. 23, 2009).

172. *See supra* Part III.D.

173. State of Texas' Motion for Stay of EPA's Endangerment Finding, Timing Rule, and Tailpipe Rule, *supra* note 171, at 30-31.

filed challenges to these regulations in late 2009 and early 2010 and several petitioners in the case sought a judicial stay to these rules, claiming that the GHG regulations would result in irreparable harm to business.<sup>174</sup> The D.C. Circuit, however, denied the petitioners' request to stay EPA's rules, concluding that "with regard to each of the challenged rules, petitioners have not shown that the harms they allege are 'certain,' rather than speculative, or that the 'alleged harm[s] will directly result from the action[s] which the movant[s] seeks to enjoin.'" <sup>175</sup> As of this writing, the petitioners have filed merit briefs in each of the consolidated challenges, and EPA is in the process of crafting responses.

## VI.

### CONCLUSION

This article focuses on the interplay between two successive executive branch administrations and the judiciary in shaping GHG regulation under the CAA. It is perhaps instructive, however, to situate these measures within the larger spectrum of regulatory actions available to address climate change. Efficiency is necessarily a function of the statutory structure being evaluated, and more flexible statutory schemes may present opportunities simply unavailable in other parts of the Act.

While the structure of the PSD program allows for facility-specific emissions reductions, the facility-specific nature of the inquiry does not enable cost-effective reductions across facilities. The provisions under section 111 of the Act governing new source performance standards (NSPS), however, are more broadly drawn. Within individual industrial source categories, NSPS may allow for capping emissions and trading among facilities.

Though extant structures like the NSPS may provide even greater opportunities for efficient reductions in GHG emissions, they must overcome challenges similar to those faced by the currently existing GHG rules. Namely, cap-and-trade mechanisms have been vilified in the political sphere, making their adoption challenging legislatively or as part of NSPS.

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174. See, e.g., Petitioners' Motion for Partial Stay of EPA's Greenhouse Gas Regulations at 2, *Coal. for Responsible Regulation, Inc. v. Env'tl. Prot. Agency*, No. 09-1322 and consolidated cases (D.C. Cir. petition for review filed Dec. 23, 2009).

175. See *Coal. for Responsible Regulation, Inc. v. Env'tl. Prot. Agency*, No. 09-1322 and consolidated cases, slip op. at 3 (D.C. Cir. Dec. 10, 2010) (order denying stay request) (internal quotation omitted).

Of course, congressional legislation addressing GHG emissions could create the greatest degree of flexibility to cost-effectively reduce emissions across facilities. Congress, however, has continually failed to pass GHG legislation. In the event that Congress eventually passes legislation, such legislation will have a tremendous impact on EPA's rules and will likely recalibrate the interplay between the three branches of government by inserting the legislature into an arena currently inhabited by the executive and the judiciary.

As a result, the story of GHG regulation is far from complete, though to this point, efficient regulatory mechanisms have proven the most difficult to adopt and implement. The persistence of this trend will likely influence the durability of the current regulations and the development of additional regulations under other statutory authority.