

**COURTS CAP THE “TRADE”:
REGULATION OF COMPETITIVE MARKETS WHEN COURTS
OVERTURN STATE AND FEDERAL CAP-AND-TRADE
REGULATION**

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† Portions of Sections III and IV of this Article appear and are discussed by the author in *Carbon Outlasts the Law: States Walk the Constitutional Line*, published by the *Boston College Environmental Affairs Law Review*. For further discussion of these topics, see Steven Ferrey, *Carbon Outlasts the Law: States Walk the Constitutional Line*, 41 B.C. ENVTL. AFF. L. REV. 309 (2014).

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I. THE TROUBLED DESTINY OF CAP-AND-TRADE

The recent air regulations of the U.S. Environmental Protection Agency (EPA) have adopted a cap-and-trade scheme that economists love. The traditional model of environmental regulation of individual sources of emissions to the environment has been supplanted by setting a regional cap on emissions, allocating parties allowances to emit, and letting entities buy and sell the allowances which are a license to emit pollutants: Cap and Trade.¹ “Cap-and-trade” has taken on iconic status; it is the mechanism for the Kyoto Protocol on international climate change;² it is the new mode of Washington market-based air regulation;³ it is the metric for modern environmental regulation.

¹ *Cap and Trade*, ENVTL. PROT. AGENCY, <http://www.epa.gov/captrade/basic-info.html> (last visited Oct. 13, 2014) (“Cap and trade is a market-based policy tool for protecting human health and the environment by controlling large amounts of emissions from a group of sources. A cap and trade program first sets an aggressive cap, or maximum limit, on emissions. Sources covered by the program then receive authorizations to emit in the form of emissions allowances, with the total amount of allowances limited by the cap. Each source can design its own compliance strategy to meet the overall reduction requirement, including the sale or purchase of allowances, installation of pollution controls, and implementation of efficiency measures, among other options. Individual control requirements are not specified under a cap and trade program, but each emission source must surrender allowances equal to its actual emissions in order to comply. Sources must also completely and accurately measure and report all emissions in a timely manner to guarantee that the overall cap is achieved.”).

² See STEVEN FERREY, UNLOCKING THE GLOBAL WARMING TOOLBOX: KEY CHOICES FOR CARBON RESTRICTION AND SEQUESTRATION 51–54 (Stephen Hill & Tony Quinn eds., 2010).

³ See *infra* Part II.

The federal courts have begged to differ: the federal environmental agency has been sued every year for the past half-dozen years regarding cap-and-trade programs and has been ruled to have acted illegally every year. To be effective, EPA policy choices must survive legal challenge. Cap-and-trade is the target of a recent barrage of litigation challenging its legality at both the federal and state levels.⁴ The result has been an almost unbroken string of federal court decisions finding the EPA's various cap-and-trade air regulations to be illegal in various iterations year after year.⁵ State cap-and-trade environmental regulation has been implemented recently in a few states to mitigate climate change, and suits involving California,⁶ Massachusetts,⁷ and New York⁸ cap-and-trade regulation have set back environmental climate control programs in each of these states.

There are defined legal boundaries in a federalist system. U.S. Clean Air Act⁹ regulations proceed with distinct roles at both the federal and state levels. Crossing these jurisdictional boundaries triggers legal challenges. When establishing environmental regulations based on science and numeric values, a reasonable quantitative method and determination, a factual scientific basis, and regulatory precision are essential for factual and legal support. Trading of capped pollution rights, while flexible and market-based, is not always authorized for all pollutants in congressional legislation.¹⁰

Although new in design, its record of success to date is, at best, mixed at the federal level, and mixed when looking at state cap-and-trade regulation of global warming gases, with several appeals still pending.¹¹ Cap-and-trade at the federal level until 2014 has been a neutron bomb, destroying progress of the regulatory programs around it. This Article sifts through the aftermath in the legal blast zone at both the federal and state levels. Part II examines the full history of federal EPA cap-and-trade regulation that has been challenged successfully in federal courts every year since 2008. We examine lessons on what is still standing after several years of litigation against cap-and-trade, and the recent reversal in the Supreme Court.

Part III shifts our focus to litigation pursuant to state law claims against state environmental cap-and-trade regulation of global warming gases. These

⁴ See *infra* Parts II, III.

⁵ See *infra* Part II.

⁶ See *infra* Part IV.A.

⁷ See *infra* Part IV.B.1.

⁸ See *infra* Part III.F.

⁹ 42 U.S.C. §§ 7401–7431 (2013).

¹⁰ This issue will be raised when the EPA attempts to utilize section 111(d) of the Clean Air Act for trading greenhouse gas (GHG) emission credits for power generation facilities. Section 111(d) does not explicitly contemplate a tradable credit, as do other parts of the Act. See 42 U.S.C. § 7411(d); see also 42 U.S.C. § 7651b(b).

¹¹ See *infra* Parts II–IV.

claims assert administrative law violations by state environmental agencies. Part IV analyzes the legal flip-side of state cap-and-trade challenges pursuant to the dormant Commerce Clause of the U.S. Constitution rather than state-law claims. Again, the record is less than reassuring. Part V compares the results to date and draws conclusions about the future legal fate of cap-and-trade mechanisms as a sustainable regulatory tool at the federal and state levels.

As the new mechanism of regulatory choice at the state, federal, and international levels, the brief but tumultuous career of cap-and-trade regulation is sculpting the contours of 21st century environmental regulation in a market economy. We start with legal challenges to federal cap-and-trade regulation.

II. THE “CHECKMATE” LEGAL RECORD OF FEDERAL “CAP-AND-TRADE” REGULATION

Federal cap-and-trade has had a notably distinct legal fate in comparison to cap-and-trade environmental legislation at the state level.¹² We will start on the federal legal front. The key initial question is how the EPA has devised and used cap-and-trade, and the follow-up question is how environmental cap-and-trade regulatory mechanisms have fared in the courts. Cap-and-trade mechanisms are a relatively new phenomenon in the past two decades, which nonetheless is approximately half the period of modern environmental law.¹³ They have been challenged, and in a majority of cases have been overturned, with the D.C. Circuit hearing most of these challenges.¹⁴

Cap-and-trade as an environmental regulatory mechanism was initiated in Title IV of the Clean Air Act Amendments of 1990 for sulfur dioxide emissions in a national allowance trading program.¹⁵ Aimed at lowering acid rain and improving public health, the Acid Rain Program set up a cap-and-trade approach to regulate the amount of sulfur dioxide (SO₂) and nitrogen oxide (NO_x) emissions.¹⁶ According to an EPA study, SO₂ emissions from power plants were 9% lower than 2000 levels and 41% lower than 1980 levels; NO_x emissions had a 13% reduction in 2002 from 2000 levels, and a 33% decline from 1990 levels.¹⁷ SO₂ emission levels were well below projected levels with

¹² See *infra* Part III.

¹³ Modern environmental regulation and law began in 1970, with passage of, in quick succession, the Clean Air Act Amendments, the Clean Water Act, the National Environmental Policy Act, and other federal regulations. See STEVEN FERREY, ENVIRONMENTAL LAW: EXAMPLES & EXPLANATIONS 41 (6th ed. 2012) [hereinafter EXAMPLES & EXPLANATIONS].

¹⁴ See *infra* Part II.

¹⁵ See 42 U.S.C. §§ 7651–7661.

¹⁶ *Cap and Trade: Acid Rain Program Results*, ENVTL. PROT. AGENCY, <http://www.epa.gov/capandtrade/documents/ctresults.pdf> (last visited Sept. 27, 2014).

¹⁷ *Id.*

8.95 million tons emitted in 2007, well below the emissions cap of 9.5 million tons.¹⁸

Sulfur¹⁹ was the first criteria pollutant²⁰ so regulated, with nitrogen²¹ following. Cap-and-trade was employed for the Ozone Transport Commission to control cross-border ozone pollution in northeast states through an NO_x trading program.²² This evolved into the larger 22-state region of the Ozone Transport Assessment Group NO_x Budget Trading Program, including the NO_x State Implementation Plan (SIP) Call requiring states to revise their SIPs to take account of cross-border NO_x pollution, allowing banking and cap-and-trading of credits.²³

Nitrogen and sulfur remained the primary targets of cap-and-trade regulation. In 2005, the EPA promulgated the Clean Air Interstate Rule (CAIR) cap-and-trade regulation to cover sulfur dioxide and nitrogen oxides.²⁴ California also promulgated a cap-and-trade program in southern California's air control management district.²⁵ In recent years, cap-and-trade has shifted as the preferred tool for regulation of carbon dioxide, which is not a criteria pollutant under the Clean Air Act.²⁶ The Regional Greenhouse Gas Initiative (RGGI)²⁷ and California's Assembly Bill 32 carbon regulation program²⁸ both adopted cap-and-trade programs.

These cap-and-trade regulatory mechanisms, employed by the environmental agencies of both the federal and state governments, have been the subject of consistent challenges, typically ultra vires claims, abuse of administrative process, or claims that the regulatory choice is arbitrary and capricious. The agencies have not fared well attempting to justify their cap-and-

¹⁸ *Acid Rain Program 2007 Progress Report*, ENVTL. PROT. AGENCY, <http://www.epa.gov/airmarkets/progress/arp07.html> (last updated Apr. 14, 2009).

¹⁹ STEVEN FERREY, ENVIRONMENTAL LAW 184 (6th ed. 2013) [hereinafter ENVIRONMENTAL LAW].

²⁰ For a discussion of the criteria of pollutants and their impacts on health and the environment, see *id.* at 182–85.

²¹ *Id.* at 184.

²² 42 U.S.C. § 7511c(a) (2013).

²³ 40 C.F.R. §§ 51, 72, 75, 96 (2012).

²⁴ 40 C.F.R. §§ 51, 72–74, 77–78, 96 (2012).

²⁵ EPA, EPA'S EVALUATION OF THE RECLAIM PROGRAM IN THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT i, 1, 12 (2002), available at <http://epa.gov/Region09/air/reclaim/reclaim-report.pdf>.

²⁶ ENVIRONMENTAL LAW, *supra* note 19, at 184, 246–50 (providing a list of the criteria pollutants as well as carbon control mechanisms in the United States, the European Union, and internationally).

²⁷ Memorandum of Understanding, Regional Greenhouse Gas Initiative (Dec. 20, 2005) [hereinafter Memorandum of Understanding], available at http://www.rggi.org/docs/mou_12_20_05.pdf.

²⁸ CAL. HEALTH & SAFETY CODE § 38501 (2007).

trade programs under applicable law.²⁹ There have been typically two, but at least one, new cap-and-trade environmental regulatory programs legally stricken by the federal courts in each of the past half dozen years, which includes most of the limited number of cap-and-trade programs that exist:

- 2008: Challenged by states and stricken by the D.C. Circuit Court of Appeals was the EPA's mercury rule, in which the court characterized the EPA's rationale as "the logic of the Queen of Hearts, substituting EPA desires for the plain text [of the Clean Air Act]."³⁰
- 2008: CAIR's 2005 cap-and-trade program required states to prohibit emissions that "contribute[] significantly to nonattainment in, or interfere with maintenance by, any other State with respect to . . . [National Ambient Air Quality Standards]."³¹ The D.C. Circuit struck this cap-and-trade regulation as "arbitrary and capricious," "not otherwise in accordance with the law," and "fundamentally flawed."³²

²⁹ See *infra* Parts II–III.

³⁰ *New Jersey v. EPA*, 517 F.3d 574, 582 (D.C. Cir. 2008).

³¹ *North Carolina v. EPA*, 531 F.3d 896, 908 (D.C. Cir. 2008) *modified on reh'g*, 550 F.3d 1176 (D.C. Cir. 2008); see also 42 U.S.C. § 7408(a)(1)(A) (2013). CAIR was promulgated to comply with section 110(a)(2)(D)(i)(I) of the Clean Air Act addressing interstate air pollution. CAIR was intended to reduce or eliminate the impact of upwind sources on attainment of National Ambient Air Quality Standards in downwind states relating to particulates and smog. In part, CAIR was a response to concerns that the NO_x SIP Call cap-and-trade system addressed in *Michigan v. EPA*, 213 F.3d 663 (D.C. Cir. 2000), was not sufficiently reducing interstate air pollution. See Patricia Ross McCubbin, *Cap and Trade Programs Under the Clean Air Act: Lessons from the Clean Air Interstate Rule and the NO_x SIP Call*, 18 PENN ST. ENVTL. L. REV. 1, 10 n.51 (2009) (noting that 23 states were required to reduce both annual SO₂ and NO_x emissions, while 20 states were required to reduce NO_x emissions during the May through September ozone season).

³² *North Carolina v. EPA*, 531 F.3d at 918, 930. The D.C. Circuit decided to "vacate CAIR because very little [would] 'survive[] remand in anything approaching recognizable form.'" *Id.* at 929 (citations omitted). The court held that CAIR was "arbitrary and capricious" and "not otherwise in accordance with the law." *Id.* at 918. The EPA's state apportionment decisions were found to be "fundamentally flawed" and unfair. The court opined that the "EPA must redo its analysis from the ground up" because the decisions allow upwind sources to purchase tradable allowances rather than actually reduce their pollution and contribute to congressional requirements to have emission sources within the state measurably reduce pollution. *Id.* at 929–30. EPA quantitative trading budgets were never rationalized; the EPA had insufficiently explained how it arrived at the 50% and 65% reduction figures. *Id.* at 918. The cap-and-trade system could externalize responsibility by transferring actual reduction from the regulated state to other tradable sources, thus allowing upwind states to continue creating pollution contributing to downwind state nonattainment with Clean Air Act goals. *Id.*

- 2009: Challenged by an environmental organization and stricken again by the D.C. Circuit was the EPA's cap-and-trade emission trading program in ozone nonattainment areas pursuant to the Clean Air Act Amendments of 1990.³³
- 2009: A challenge to the application of the RGGI cap-and-trade system in New York, one of the states implementing it, resulted in New York promptly settling in favor of the challenging plaintiffs.³⁴
- 2010: The D.C. Circuit Court of Appeals invalidated the EPA's cap-and-trade regulation for hydrochlorofluorocarbons, which originally were regulated by the Montreal Protocol and are a global warming gas.³⁵
- 2011: California's Low Carbon Fuel Standard was challenged on constitutional grounds. The federal trial court found the regulation unconstitutional³⁶ but was subsequently reversed by a split court of appeals.³⁷
- 2012: After CAIR cap-and-trade was stricken in 2008, the EPA issued and substituted the Cross-State Air Pollution Rule (CSAPR) addressing interstate air transport of SO₂ and NO_x contributing to ground-level ozone and fine particle pollution from fossil fuel-fired power plants in 27 eastern states.³⁸ The D.C. Circuit

³³ Natural Res. Def. Council, Inc. v. EPA, 571 F.3d 1245 (D.C. Cir. 2009).

³⁴ *Indeck Energy Sues State Questioning Legality of Regional Greenhouse Gas Program*, CLEAN TECH. BUS. REV. (Jan. 29, 2009), http://wind.cleantechnology-business-review.com/news/indeck_energy_sues_state_questioning_legality_of_regional_greenhouse_gas_program_090129 [hereinafter *Indeck Energy*].

³⁵ Arkema, Inc. v. EPA, 618 F.3d 1 (D.C. Cir. 2010).

³⁶ Rocky Mountain Farmers Union v. Goldstene, 843 F. Supp. 2d 1071 (E.D. Cal. 2011).

³⁷ Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070 (9th Cir. 2013).

³⁸ Clean Air Act, 42 U.S.C. § 7410(a)(2)(D) (2013); Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals, 76 Fed. Reg. 48,208, 48,216 (Aug. 8, 2011) (to be codified at 40 C.F.R. pts. 51, 52, 72, 78, 97). CSAPR requires significant reductions in SO₂ and NO_x, Hazardous Air Pollutants including mercury from electric power, and certain PM_{2.5} precursor emissions, with intrastate and limited interstate trading. *Fact Sheet: The Cross-State Air Pollution Rule: Reducing the Interstate Transport of Fine Particulate Matter and Ozone*, ENVTL. PROT. AGENCY, <http://www.epa.gov/airtransport/CSAPR/pdfs/CSAPRFactsheet.pdf> (last visited Nov. 19, 2014) [hereinafter *Cross-State Air Pollution Rule*]. SO₂ is a precursor to PM_{2.5} formation and NO_x is a precursor to both ozone and PM_{2.5} formation. *Id.* This rule is part of a suite of other state and federal rules that, together, would result in power plant emissions reductions of 73% for sulfur dioxide (SO₂) and

struck the CSAPR, in part, because it did not defer to SIPs and state discretion in implementation under the split federal-state authority of the Clean Air Act.³⁹ The court took a “hard look” and held that one level of government cannot cross the federalist line of its jurisdiction “down the rabbit hole.”⁴⁰ The EPA asked the Supreme Court for certiorari, and was opposed in this motion by 14 states, while 9 states supported certiorari.⁴¹ The Supreme Court granted certiorari⁴² and, in 2014, reversed the D.C. Circuit decision.⁴³

- 2012: Not involving cap-and-trade regulation but crossing the federalist line of jurisdiction, the Fifth Circuit struck the EPA’s taking control of the Texas New Source Review permit provisions of the Clean Air Act as an arbitrary and capricious disruption of cooperative federalism.⁴⁴
- 2013: The D.C. Circuit upheld federal imposition of air quality standards on states whose plans were not able to achieve federal clean air requirements.⁴⁵
- 2013: California’s cap-and-trade system for carbon control was unsuccessfully challenged as beyond state

54% for nitrous oxide (NO_x). *Id.* The EPA estimates that if all affected power plants were in full compliance with CSAPR, “[a]pproximately 70% of the power generated from coal-fired power plants [in states covered by the rule would] come from units with state-of-the-art SO₂ controls,” and roughly 50% of that power would “come from units with state-of-the-art NO_x controls.” *Id.*

³⁹ *EME Homer City Generation, L.P. v. EPA*, 696 F.3d 7 (D.C. Cir. 2012). While employing a different mechanism than CAIR to address cross-state pollution, the court found that it required some states to reduce emissions by more than they contributed to downwind state pollution. *Id.* Fifteen states sought review of CSAPR, while six states intervened to support the rule. *Id.*

⁴⁰ *Id.*

⁴¹ *EPA v. EME Homer City Generation, L.P.*, 133 S. Ct. 2857 (2013). Briefs were filed on May 29, 2013, and oral arguments were heard on December 10, 2013. *Environmental Protection Agency v. EME Homer City Generation*, SCOTUS BLOG, <http://www.scotusblog.com/case-files/cases/environmental-protection-agency-v-eme-homer-city-generation/> (last visited Oct. 19, 2014).

⁴² *See EME Homer City Generation*, 133 S. Ct. 2857.

⁴³ *See id.*

⁴⁴ *Texas v. EPA*, 690 F.3d 670 (5th Cir. 2012).

⁴⁵ *Texas v. EPA*, 726 F.3d 180 (D.C. Cir. 2013). The D.C. Circuit upheld the EPA’s imposition of Federal Clean Air Act implementation plans for states that failed to require Prevention of Significant Deterioration permits for stationary sources that emit GHGs. *Id.* While the challenge was dismissed on standing, it distinguished the environmental regulation from the higher concern on federal coercion of the states identified in the prior Supreme Court decision on the Affordable Care Act. *Id.*

authority because it raised extensive amounts of revenue, with that decision now on appeal.⁴⁶

As the chess pieces of government have been moved on the board, there have been several “checks” and “checkmates” of regulatory environmental initiatives.

A. *Mercury: The First Planet in Orbit Around the D.C. Circuit and No Free Discretion for Use of Cap-and-Trade*

We will address each of these chronologically, starting with mercury. Mercury is the first planet from the sun. It is also a pollutant that is regulated as a toxic chemical by the Clean Air Act.⁴⁷ Despite the tight orbit of Mercury, mercury poses a more serious chemical threat when emitted by coal-burning power plants and other sources in the United States. It is in this latter capacity that cap-and-trade regulation was applied to mercury.

In 2000, the EPA determined that mercury emitted by electric generation units (EGUs) was a Hazardous Air Pollutant (HAP) and therefore regulated EGUs’ emissions of mercury under section 112 of the Clean Air Act.⁴⁸ Four years after this determination, the EPA decided it would be more effective to regulate EGUs with a cap-and-trade system under section 111 of the Clean Air Act⁴⁹ and proceeded to remove EGUs from the list of HAPs in section 112.⁵⁰ When challenged, the Federal D.C. Circuit Court in 2008 determined that the EPA acted outside its authority by removing EGU HAPs from section 112 in a manner other than that prescribed by Congress.⁵¹ Section 112 allows the EPA to delist a HAP only if the agency determines that “emissions from no source in the category or subcategory concerned . . . exceed a level which is adequate to protect public health with an ample margin of safety and no adverse environmental effect will result from emissions from any source.”⁵² The EPA did not meet this standard when it removed EGUs from the section 112 list, which was the basis for the court striking this alternative cap-and-trade system.

The court rejected each of the EPA’s three arguments in support of its administrative action. The agency first argued that its action was appropriately

⁴⁶ Cal. Chamber of Commerce v. Cal. Air Res. Bd., No. 34-2012-80001313 (Cal. App. Dep’t Super. Ct. Aug. 28, 2013), available at http://www.calchamber.com/Headlines/Documents/Joint_Ruling_on_Submitted_Matters.pdf.

⁴⁷ 42 U.S.C. § 7411 (2013).

⁴⁸ New Jersey v. EPA, 517 F.3d 574, 579 (D.C. Cir. 2008).

⁴⁹ 42 U.S.C. § 7411.

⁵⁰ New Jersey v. EPA, 517 F.3d at 579–80.

⁵¹ *Id.* at 582.

⁵² 42 U.S.C. § 7412(c)(9).

within its administrative discretion under the *Chevron*⁵³ standard of agency deference, which requires the court to analyze the EPA's decision by first asking "whether Congress has directly spoken to the issue."⁵⁴ If Congress did directly speak to the issue, then the EPA does not have interpretive discretion and it must follow Congress's manifested intent.⁵⁵ If Congress did not speak directly to the issue, then the court moves to the second step, which asks "whether the agency's answer is based on a permissible construction of the statute."⁵⁶ The second step allows for significant agency discretion in interpreting the EPA's authority.

The EPA argued that the second *Chevron* step was applicable in this case because section 112(c)(9)—which contains the instructions for removing a HAP from section 112—is made ambiguous by section 112(n)(1), which says: "[I]f EPA makes a determination under section 112(n)(1)(A) that power plants should not be regulated at all under section 112 . . . [then] this determination *ipso facto* must result in removal of power plants from the section 112(c) list."⁵⁷

The EPA argued that this language allowed it to bypass the section 112(c)(9) delisting requirements if it determined that power plants should be regulated by another section of the Clean Air Act.⁵⁸ The court disagreed, finding that section 112(n)(1)(A) is not applicable after the EPA has listed a pollutant as a HAP, and therefore, there was no ambiguity.⁵⁹ As such, the first step of the *Chevron* standard applied and the EPA was bound to satisfy the delisting requirements set forth in section 112(c)(9) of the Act.⁶⁰

The EPA also argued that an agency has the inherent authority to reverse an earlier administrative determination or ruling if it has a principled basis for doing so.⁶¹ According to the court, the agency could have reversed its decision to regulate EGUs under section 112 prior to listing them, but after

⁵³ See *Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837 (1984).

⁵⁴ *Id.* It does this by "employing traditional tools of statutory construction . . ." *Id.* at 843 n.9. If the court deems the statutory language "clear," it simply "give[s] effect to the unambiguously expressed intent of Congress." *Id.* at 843. If, however, "the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency's answer is based on a permissible interpretation of the statute." *Id.* If the agency interpretation is permissible, the court defers to that interpretation, and "does not simply impose its own construction of the statute." *Id.* at 842–43. The *Chevron* test can also be deemed not to apply. See *United States v. Mead Corp.*, 533 U.S. 218 (2001).

⁵⁵ *Chevron*, 467 U.S. at 842.

⁵⁶ *Id.* at 843.

⁵⁷ *New Jersey v. EPA*, 517 F.3d 574, 582 (D.C. Cir. 2008).

⁵⁸ *Id.* at 582–83.

⁵⁹ *Id.* at 583.

⁶⁰ *Id.* at 582–83.

⁶¹ *Id.*

listing EGUs it may not reverse its decision because Congress expressly limited the EPA's ability to delist HAPs.⁶²

Finally, the EPA argued that because it had previously removed HAPs from the list without satisfying the requirements of section 112, it should not be estopped from doing so in this instance.⁶³ The D.C. Circuit quickly dispatched this argument by stating, "[W]e do not see how merely applying an unreasonable statutory interpretation for several years can transform it into a reasonable interpretation."⁶⁴ "Check."

In this first case of mercury to orbit around the D.C. Circuit, the EPA's discretion was narrowed. One lesson for agencies is that there is not unlimited discretion to substitute a cap-and-trade market for direct conventional regulation. If the cap-and-trade system of the EPA is inconsistent with express language or existing obligations imposed by the Clean Air Act, or the EPA tried to regulate a pollutant that was already governed by another section of the Act without delisting the pollutant, the cap-and-trade system was not permissible. The EPA must follow the direct requirements of congressional legislation, without unlimited license to substitute administrative innovation.

B. CAIR and the Requirement for Regulatory Precision

Second, the Clean Air Interstate Rule (CAIR), promulgated by the EPA in 2005, required 28 upwind states to "reduce or eliminate the impact of upwind sources on out-of-state downwind nonattainment of NAAQS [(National Ambient Air Quality Standards)] for" sulfur dioxide (SO₂) and nitrogen oxides (NO_x).⁶⁵ CAIR was intended to reduce or eliminate the impact of upwind sources on attainment of particulate and smog NAAQS in downwind states. The designated states were to revise their SIPs to include control measures that would sufficiently reduce their emission of these pollutants. CAIR also instituted an interstate trading program for SO₂ and NO_x that would govern all upwind pollutants not already addressed by an approved SIP.

The first flaw found by the D.C. Circuit in CAIR was the regional trading system. CAIR allowed states to trade their emissions allowances regionally, which the court found violated section 110(a)(2)(D)(i)(I) of the Clean Air Act, the so-called "good neighbor" provision. The good neighbor provision "prohibits sources 'within the State' from 'contribut[ing] significantly

⁶² *Id.* at 583.

⁶³ *Id.*

⁶⁴ *Id.* (quoting *F.J. Vollmer Co. v. Magaw*, 102 F.3d 591, 598 (D.C. Cir. 1996)).

⁶⁵ *North Carolina v. EPA*, 531 F.3d 896, 903 (D.C. Cir. 2008), *modified on reh'g*, 550 F.3d 1176 (D.C. Cir. 2008). Critics of CAIR stated that CAIR's long term goals were not strict enough but admitted that the regulation was a step in the right direction. *Id.* at 910. On the other hand, industry officials were concerned that the standards imposed by CAIR were too strict but favored the trading system, which allowed them to mitigate the economic burden imposed by the standards. *Id.*

to nonattainment *in . . . any other State.*”⁶⁶ CAIR violated this provision because it allowed sources in one state to purchase unused allowances from another state in the region to continue polluting in large amounts that contributed significantly to a downwind state’s nonattainment.⁶⁷ The cap-and-trade system did not guarantee that each state would prohibit sources “*within the state* [from] contribut[ing] significantly to nonattainment in . . . any other state” because CAIR theoretically allowed one source to maintain or increase its pollution levels, thereby doing nothing to stop it from violating the good neighbor provision.⁶⁸

The D.C. Circuit stated that CAIR was flawed because it ignored the “interfere with maintenance” language in section 110(a)(2)(D)(i)(I) of the Clean Air Act.⁶⁹ Section 110(a)(2)(D)(i)(I) requires SIPs to prohibit sources from interfering with a downwind state’s maintenance of air standard attainment.⁷⁰ CAIR did not independently address the “interfere with maintenance” provision because the EPA intended to apply the maintenance provision in conjunction with the “significantly contribute” provision in an effort to avoid giving greater weight to what the EPA called the “potentially lesser environmental effect” addressed by the “maintenance” provision.⁷¹ However, the court found that CAIR’s failure to attribute independent

⁶⁶ *Id.* at 907 (emphasis in original) (quoting 42 U.S.C. § 7410(a)(2)(D)(i)(I) (2013)). CAIR’s 2005 cap-and-trade program required states to prohibit emissions that “contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to . . . [NAAQS].” *Id.* at 908 (emphasis omitted). CAIR was promulgated to comply with section 110(a)(2)(D)(i)(I) of the Clean Air Act addressing interstate air pollution. *Id.*

⁶⁷ *Id.* at 907; *see also* Robert B. McKinstry, Jr. et al., *The New Climate World: Achieving Economic Efficiency in a Federal System for Greenhouse Gas Control Through State Planning Combined with Federal Programs*, 34 N.C. J. INT’L L. & COM. REG. 767, 811–12 (2009) (reiterating that the focus of the court’s objection to CAIR was that it allowed states to interfere with attainment of NAAQS in another state).

⁶⁸ *North Carolina v. EPA*, 531 F.3d at 907 (emphasis added) (quoting 42 U.S.C. § 7410(a)(2)(D)(i)(I) (2013)). The court noted that it is possible for CAIR to accomplish the goals of the good neighbor provision, but that the EPA is not exercising its duty to enforce that provision unless “it is promulgating a rule that achieves something measurable toward the goal of prohibiting sources ‘within the State’ from contributing to nonattainment or interfering with maintenance ‘in any other State.’” *Id.* The court did not expand on what would constitute “something measurable” and simply concluded that CAIR was not enough. *See McCubbin, supra* note 31, at 19–20. However, this ambiguous standard does leave the door open to subsequent cap-and-trade systems. *See id.* at 20.

⁶⁹ *North Carolina v. EPA*, 531 F.3d at 908.

⁷⁰ *Id.*

⁷¹ *Id.* at 910 (quoting Rulemaking on Section 126 Petition from North Carolina to Reduce Interstate Transport of Fine Particulate Matter and Ozone, 71 Fed. Reg. 25,328, 25,337 (Apr. 28, 2006)).

significance to this additional language in section 110(a)(2)(D)(i)(I) was an unlawful nullification of that language.⁷²

The court also held that the EPA’s allocation of state emission budgets for SO₂ and NO_x were “arbitrary and capricious” in violation of the Administrative Procedure Act⁷³ because the agency did not adequately explain how the budgets relate to the goals sought by the “good neighbor” provision.⁷⁴ In order for the EPA to cap state emissions according to the “good neighbor” provision, the EPA must show that the chosen cap relates to, and makes measurable progress towards, the objectives of the “good neighbor” provision.⁷⁵ The court found that the EPA did not provide any evidence to show how the budgets it allocated related to the objectives in section 110(a)(2)(D)(i)(I).⁷⁶

The D.C. Circuit struck this cap-and-trade regulation as “arbitrary and capricious,” “not otherwise in accordance with the law,” and “fundamentally flawed.”⁷⁷ The D.C. Circuit ultimately struck CAIR because its regional trading system was too broad and allowed one area within the region to sustain or increase its significant contribution to a downwind state’s nonattainment or maintenance of attainment. The EPA’s state apportionment decisions were found to be “fundamentally flawed,” unfair, and had to be redone “from the ground up” because they allowed upwind sources to purchase tradable allowances rather than actually reduce their pollution and contribute to congressional requirements to have emission sources within the state measurably reduce pollution.⁷⁸ The court also struck CAIR on procedural grounds, finding that the EPA failed to adequately explain how it determined state emissions budgets and to address provisions of the Clean Air Act that it was required to enforce independently.

⁷² *Id.* at 910–11 (asserting that “[a]ll the policy reasons in the world cannot justify reading a substantive provision out of a statute”).

⁷³ *Id.* at 921; *see also* 5 U.S.C. §§ 500–596 (2013).

⁷⁴ *North Carolina v. EPA*, 531 F.3d at 918. EPA quantitative trading budgets were never rationalized; the EPA had insufficiently explained how it arrived at the 50% and 65% reduction figures. *Id.*

⁷⁵ *Id.* at 916.

⁷⁶ *Id.* at 918.

⁷⁷ *Id.* at 918, 929 (“We must vacate CAIR because very little will ‘survive[] remand in anything approaching recognizable form.’” CAIR is “arbitrary and capricious” and “not otherwise in accordance with the law.”). In part, CAIR was a response to concerns that the NO_x SIP Call cap-and-trade system addressed in *Michigan v. EPA*, 213 F.3d 663 (D.C. Cir. 2000), was not sufficiently reducing interstate air pollution. *See McCubbin, supra* note 31, at 9. The cap-and-trade system could externalize responsibility by transferring actual reduction from the regulated state to other tradable sources, thus allowing upwind states to continue creating pollution contributing to downwind state nonattainment with Clean Air Act goals.

⁷⁸ *North Carolina v. EPA*, 531 F.3d at 929.

The court created limits in this second decision about interpreting a statute by implementing a mechanism which allows one state, region, or source to maintain or increase its pollution levels, thereby creating an obligation to decrease pollution elsewhere, contrary to primary principles of the Clean Air Act. While this externalization would not be achieved only by a cap-and-trade environmental scheme, cap-and-trade inherently involves trading a set amount of emissions credits in order to achieve an emission compliance level. A trading market in the right to pollute is the fundamental principle of a cap-and-trade policy. Externalization is a known element of such markets. There have been some efforts to attempt to restrict the market in which trades could be executed.

This potential issue could be avoided by legislatively limiting a source's ability to trade allowances so as not to allow the source to bypass Clean Air Act obligations. This decision also underscored that when dealing with quantitative factors, such as pollutants and emissions, facts matter in picking levels of regulation and the value of credits. When picking regulatory values, there needs to be a principally derived quantitative value, rather than an approximation. "Checkmate."

C. *Cap-and-Trade Budgets: Efficiency and Equity*

Challenged by an environmental organization and stricken again by the D.C. Circuit was the EPA's cap-and-trade emission trading program in ozone nonattainment areas pursuant to the Clean Air Act Amendments of 1990.⁷⁹ In *Natural Resource Defense Council v. EPA*, the D.C. Circuit addressed the NO_x SIP Call cap-and-trade system for nitrogen oxides (NO_x).⁸⁰ This EPA system established an emissions budget for 22 states and the District of Columbia that limited the state's total emissions during the summer ozone season. The NO_x SIP Call allowed states to meet their emissions target by installing control technology on sources within the state or by purchasing emissions allowances from any other states subject to the SIP Call system.⁸¹

Section 172(c)(1) of the Clean Air Act requires nonattainment areas to achieve "such reduction in emission from existing sources in the area" through the application of Reasonably Available Control Technology (RACT).⁸² This cap-and-trade system provided that a nonattainment state did not need to file a Clean Air Act NO_x RACT analysis for emission sources subject to the cap-and-trade system.⁸³ The EPA argued that compliance with the cap-and-trade system

⁷⁹ *Natural Res. Def. Council v. EPA*, 571 F.3d 1245 (D.C. Cir. 2009).

⁸⁰ *Id.* at 1255–56.

⁸¹ *Id.* at 1256.

⁸² 42 U.S.C. § 7502(c)(1) (2013).

⁸³ *Id.*

would be sufficient because it would result in greater than RACT-level emission reductions from state sources.

The D.C. Circuit found that this provision of the cap-and-trade system violated the RACT requirements of section 172(c)(1) of the Clean Air Act because there was no guarantee that all nonattainment areas would achieve RACT level reductions.⁸⁴ The preamble to the EPA cap-and-trade CAIR Phase 2 Rule stated that it is *likely* that the region subject to the program would achieve a beyond-RACT degree of control.⁸⁵ The EPA argued that this greater regional reduction satisfies the "in the area" language of section 172(c)(1). Further, the EPA stated that it expected sources subject to the cap-and-trade program to collectively achieve beyond-RACT reductions in emissions and that "most" sources would opt to install control technology rather than purchasing emissions allowances because the former option is cheaper.⁸⁶

The court determined that this expectation did not satisfy the "in the area" language because it did not guarantee that each individual nonattainment area within the region would satisfy the RACT requirement of the Clean Air Act and achieve attainment of air quality standards. The court contrasted actual pollution reduction with the avoidance of reduction by purchasing tradable credits, where "[e]ven if most sources in a nonattainment area installed controls rather than purchasing allowances, a small number of sources purchasing allowances and increasing emissions could mean that overall emissions from sources in the area remained unchanged or even increased."⁸⁷ It is possible that each area will achieve RACT-level reductions but it is not guaranteed that each area will, which is what the Clean Air Act requires.

The court also discounted the EPA's attempt to rely on the language in section 172(c)(6) of the Clean Air Act to justify its action. Section 172(c)(6) requires SIPs to include emission control measures and lists "auctions of emission rights" as an acceptable measure available to states to achieve attainment.⁸⁸ The EPA argued that the NO_x SIP Call system is consistent with this express authorization of auctions.⁸⁹ The court found that this was an inappropriate interpretation of section 172(c)(6) because this language is intended to guide state implementation of SIPs; "it does not authorize the EPA to replace the RACT requirement with a cap-and-trade program."⁹⁰

The D.C. Circuit Court again found issue with the trading element of the cap-and-trade system because it provided the possibility for some

⁸⁴ Natural Res. Def. Council v. EPA, 571 F.3d at 1256.

⁸⁵ *Id.*

⁸⁶ *Id.* at 1257.

⁸⁷ *Id.*

⁸⁸ 42 U.S.C. § 7502(c)(6) (2013).

⁸⁹ Natural Res. Def. Council v. EPA, 571 F.3d at 1258.

⁹⁰ *Id.*

nonattainment areas to meet the requirements of the cap-and-trade system but to violate the 172(c)(1) RACT requirements of the Act. This case suggests that new cap-and-trade programs may need to be less market friendly in light of the fact that existing provisions of the Clean Air Act may require sources to install control measures regardless of how many emission allowances a source has purchased. “Check.”

Again in this case, there are lessons for cap-and-trade regulation. The Clean Air Act, since the earliest days of 1967, has maintained a structure where there are more than 250 discrete U.S. regions in which the EPA is mandated by Congress to control air quality.⁹¹ EPA discretion does not translate to likely or speculative outcomes, where there are alternatives to achieve goals with more certainty. The EPA cannot create regulations that provide sources with the option of avoiding other responsibilities and obligations imposed by the Clean Air Act, even if the regulations would likely achieve comparable or better results. An agency cannot speculate that a market equitably distributes responsibility. And competitive markets are not meant to function equitably among participant sources, only to function efficiently among those with market assets. Efficiency of operation does not necessarily translate to equity of operation consistent with congressional regulatory requirements.

Any cap-and-trade system, whether it is intended to improve air quality regionally or to reduce anthropogenic greenhouse gases (GHGs), may not conflict with other provisions and responsibilities under the Clean Air Act. An agency may need an express grant of congressional cap-and-trade authority when the statute does not contemplate it expressly.⁹² Wholesale replacement of other regulatory mandates with a cap-and-trade mechanism cannot be substituted.

D. Global Warming and Substantial Basis

The Montreal Protocol obligated the United States to reduce its emissions of hydrochlorofluorocarbons (HCFCs) over the course of multiple “stepdown” phases.⁹³ The United States is required to reduce its HCFC emissions by 35% by 2004, 65% by 2010, 90% by 2015, 99.5% by 2020 and 100% by 2030.⁹⁴ In 2003, the EPA issued a final rule creating a cap-and-trade system that assigned baseline emission allowances to each participating company on a one-time basis to be used for each of the step-down phases.⁹⁵

⁹¹ 42 U.S.C. §§ 7402, 7407.

⁹² See *Ass’n of Irrigated Residents v. Cal. Air Res. Bd.*, 206 Cal. App. 4th 1487, 1487 (2012) (showing that AB 32 in California provided for discretion for a cap-and-trade option for implementation, if so selected by CARB).

⁹³ See *Arkema, Inc. v. EPA*, 618 F.3d 1, 1–3 (D.C. Cir. 2010).

⁹⁴ *Id.* at 2.

⁹⁵ *Id.* at 4.

The rule allowed companies to trade their allowances with each other and between regulated HCFCs within the same company, subject to EPA approval, on an annual or permanent basis.⁹⁶ The preamble to the rule explained that permanent transfers of baseline allowances would “permanently reduce[]” the transferor’s quantity of baseline allowances and “permanently increase[]” the transferee’s quantity of baseline allowances for all relevant periods.⁹⁷ In 2010, the EPA issued another rule stating that the participating companies could not permanently trade their allowances for HCFCs within the same company, but continued to recognize permanent transfers between companies.⁹⁸

The petitioners in this case argued that the EPA’s former rule allowing permanent trades conflicted with the new rule proscribing permanent trades, concluding that the new rule was “arbitrary and capricious” and an inappropriate, retroactive action.⁹⁹ The EPA countered by arguing that the two rules did not conflict with one another because the EPA never intended inter-company transfers of allowances to be permanent, and even if the agency did change its policy, the EPA adequately explained the policy shift.¹⁰⁰

The main issue in this case was whether the EPA intended all permanent transfers to extend beyond subsequent step-down phases, or if the EPA intended the transfers to last only until the next phase began. The court found that the EPA did allow permanent transfers of inter-company allowances to extend beyond the subsequent step-down phases, despite the EPA’s argument that it was the author of the regulations and it knew what it said.¹⁰¹ The D.C. Circuit cited a transfer form that allowed the transfer of “current year allowances” and “baseline year allowances.”¹⁰² The petitioners filed this form with the EPA indicating that they were transferring allowances for the baseline year and the EPA approved these transfers in a series of “Non-Objection Notices.”¹⁰³

According to the court, this evinced the EPA’s intent for transfers of “baseline year allowances” to extend through to the remaining step-down periods.¹⁰⁴ The court substantiates this conclusion by referring to letters the EPA sent to the petitioners that provided tables illustrating the companies’

⁹⁶ *Id.* at 4–5.

⁹⁷ Protection of Stratospheric Ozone: Allowance System for Controlling HCFC Production, Import and Export, 68 Fed. Reg. 2820, 2835 (Jan. 21, 2003) (to be codified at 40 C.F.R. pt. 82).

⁹⁸ *Arkema*, 618 F.3d at 5.

⁹⁹ *Id.* at 6.

¹⁰⁰ *Id.* at 6–7.

¹⁰¹ *Id.* at 9.

¹⁰² *Id.* at 7.

¹⁰³ *Id.*

¹⁰⁴ *Id.*

baseline allowances, which reflected as permanent the baseline trades already approved by the EPA.¹⁰⁵ The court states that these letters also evince the EPA's intent to recognize baseline trades in perpetuity.¹⁰⁶ In light of the court's conclusion, the EPA's new rule operated retroactively in contradiction of its original rule and as such, was impermissible.¹⁰⁷ The court upheld other aspects of the trading system in this cap-and-trade program by striking another of the EPA's actions that fell outside the scope of its authority. The D.C. Circuit Court of Appeals invalidated the EPA's retroactive application of the cap-and-trade regulation for HFCs.¹⁰⁸

While this case does not address the legal substance of a cap-and-trade program, its outcome validates the claims of, and favors, source emitters. The EPA's explanation of its actions does not operate to validate those actions and does not create greater agency license. Under systems allowing sources to permanently trade baseline allowances, sources would not need to adopt more efficient technologies or conform to lower emissions standards for a number of years, effectively maintaining or nominally reducing pollution levels for a longer period of time.

E. CSAPR and Federalist Lines "Down the Rabbit Hole"

After CAIR cap-and-trade was stricken in 2008 by the D.C. Circuit Court of Appeals, the EPA issued and substituted the Cross-State Air Pollution Rule (CSAPR) addressing interstate air transport of SO₂ and NO_x contributing to ground-level ozone and fine particle pollution from fossil fuel-fired power plants in 27 eastern states.¹⁰⁹ The Clean Air Act affords states a period of time to submit a new or revised SIP after the EPA sets emission standards.¹¹⁰ If the state fails to submit a timely or sufficient SIP, the EPA may enforce a Federal Implementation Plan (FIP).¹¹¹ CSAPR imposed an FIP on the states before they could file an SIP and have it reviewed as to adequacy.¹¹² The EPA argued that

¹⁰⁵ *Id.* at 8.

¹⁰⁶ *Id.*

¹⁰⁷ *Id.* at 9.

¹⁰⁸ *Id.* at 1.

¹⁰⁹ 42 U.S.C. § 7410(a)(2)(D) (2013); Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals, 76 Fed. Reg. 48,208, 48,216 (Aug. 8, 2011) (to be codified as 40 C.F.R. pts. 51, 52, 72, 78, and 97); *see also Cross-State Air Pollution Rule*, *supra* note 38; *supra* note 38 and accompanying text.

¹¹⁰ 42 U.S.C. § 7410(a)(1).

¹¹¹ 42 U.S.C. § 7410(c)(1)(A).

¹¹² *EME Homer City Generation, L.P. v. EPA*, 696 F.3d 7, 28 (D.C. Cir. 2012). Critics of CSAPR suggested that the rule was passed too quickly and that it illustrated the EPA's "unusual sense of urgency, even at the expense of procedural obligations under the [Clean Air Act] and the Administrative Procedures Act . . ." Margaret Campbell & Byron Kirkpatrick, *The Cross-State Air Pollution Rule and EPA's Rush to Regulate*, 43 No. 3 ABA TRENDS 6 (2012).

states are obligated to comply with National Ambient Air Quality Standards (NAAQS) and the “good neighbor” provision simultaneously, and that the regulated states had failed to submit an appropriate SIP, entitling the EPA to enforce an FIP.¹¹³

The D.C. Circuit Court found the EPA’s argument flawed because the “good neighbor” provision requires the EPA to determine a state’s reduction obligation before requiring the state to comply with it.¹¹⁴ States are not obligated to submit an SIP illustrating how they plan to comply with an emission standard before the EPA determines what that standard is. By finding that the states had failed to file a sufficient SIP to comply with their obligations under CSAPR, the EPA attempted to define “the target *after* the States’ chance to comply with the target ha[d] already passed.”¹¹⁵ The Clean Air Act allows the federal government to set national standards but it allows states the right to choose the means by which they attain those standards.¹¹⁶ The court concluded that the EPA crossed this federalism barrier by forcing states by default to conform to an FIP without giving them the opportunity to file an SIP.

The court also struck CSAPR because of its flawed method for determining the emission reduction obligation imposed on states. To first establish if a state would be subject to CSAPR, the EPA determined if “downwind areas that EPA modeling predicted would not attain, or absent regulation would not maintain, the NAAQS.”¹¹⁷ If a state exceeded these quantitative air quality thresholds, they would be subject to CSAPR. The EPA then applied a cost-based standard to determine what level of emissions reduction each regulated upwind state would need to achieve. The cost-based standard asked “how much pollution each upwind state’s power plants could eliminate if the upwind State’s plants applied all controls available at or below a given cost-per-ton of pollution reduction.”¹¹⁸ The cost-per-ton did not take into consideration how much pollution each upwind state contributed to each downwind state, as determined in the first step.¹¹⁹

The circuit court did not have a problem with the method for determining whether an upwind state should be subject to CSAPR.¹²⁰ However, the cost-based standard used to determine an upwind state’s obligation was impermissibly flawed, according to the circuit court, because the EPA may not force a state to reduce its emissions beyond those that significantly contribute

¹¹³ *EME Homer City Generation*, 696 F.3d at 32.

¹¹⁴ *Id.*

¹¹⁵ *Id.* at 33.

¹¹⁶ *Id.*

¹¹⁷ *Id.* at 15.

¹¹⁸ *Id.* at 16–17.

¹¹⁹ *Id.* at 17.

¹²⁰ *Id.* at 25.

to a downwind state's nonattainment or those that interfere with the maintenance of a downwind state's attainment.¹²¹ By forcing all contributing upwind states to impose all control measures within the cost-per-ton-of-pollution standard, the EPA was forcing states to reduce insignificant emissions—emissions that did not significantly contribute to a downwind state's nonattainment or maintenance of attainment.¹²²

The court also found that CSAPR forced upwind states to share the burden of other upwind states' significant contributions downwind.¹²³ The D.C. Circuit stated that “the ‘significance’ of each upwind State’s contribution cannot be measured in a vacuum, divorced from the impact of the other upwind States. Rather, the collective burden must be allocated among the upwind States in proportion to the size of their contributions to the downwind State’s nonattainment.”¹²⁴

By not providing a basis for proportionally triaging each upwind state's contribution, CSAPR forced upwind states to impermissibly bear responsibility for other states' violations of the “good neighbor” provision.¹²⁵ The court did determine that the EPA was afforded some discretion when defining each state's proportional reduction obligation.¹²⁶ After the court reemphasized that the EPA has a duty to “ratchet back” the upwind states' obligations if it determines that the collective reductions of upwind states would reduce emissions beyond what is necessary for downwind states to attain NAAQS, the D.C. Circuit acknowledged that this proportionality may not always be possible and that the EPA was entitled to some leniency on this issue.¹²⁷

Ultimately, the D.C. Circuit Court struck this latest Clean Air Act cap-and-trade mechanism developed by the EPA after, again, finding that the EPA had acted outside the scope of its authority.¹²⁸ The D.C. Circuit struck the CSAPR, in part, because it did not defer to SIPs and state discretion in implementation under the federalism split authority of the Clean Air Act.¹²⁹

¹²¹ *Id.* at 26.

¹²² *Id.* at 20.

¹²³ *Id.*

¹²⁴ *Id.* at 20–21.

¹²⁵ *Id.* at 13.

¹²⁶ *Id.* at 19.

¹²⁷ *Id.* at 22. One of the criticisms of this opinion is that it does not craft an acceptable rule for the EPA to follow. See Bryan Dooley, Note, *EME Homer City Generation, L.P. v. EPA: The Search for Meaningful Regulation of Interstate Pollution Under the Clean Air Act*, 14 MINN. J.L. SCI. & TECH. 893, 918 (2013). It merely states that CSAPR goes too far while acknowledging that it is impractical for the EPA to create perfectly proportional obligations, without indicating what it would accept as a happy medium between CSAPR and CAIR. *Id.*

¹²⁸ *EME Homer City Generation*, 696 F.3d at 37.

¹²⁹ *Id.* at 12. While employing a different mechanism than CAIR to address cross-state pollution, the court found that it required some states to reduce emissions by more than they

By imposing an FIP before states had the opportunity to submit an SIP, the EPA violated fundamental principles of federalism.¹³⁰

The EPA also, according to the circuit court, misinterpreted the Clean Air Act by requiring states to reduce emissions beyond their significant proportional contribution to downwind states’ nonattainment. The court took a “hard look” and held that one level of government cannot cross the federalist line of its jurisdiction “down the rabbit hole.”¹³¹ The EPA asked the Supreme Court for certiorari, and was opposed in this motion by 14 states, while nine states supported certiorari.¹³² The Supreme Court granted certiorari.¹³³

In a 6-2 opinion, the Supreme Court reversed the D.C. Circuit’s holding in April 2014, reaffirming deference to agency discretion in devising Clean Air Act regulations, as per *Chevron*. The Court noted that “[t]he statute therefore calls upon the Agency to address a thorny causation problem: How should EPA allocate among multiple contributing upwind States responsibility for a downwind State’s excess pollution?”¹³⁴ The Court allowed the EPA leeway to devise its air control scheme for interstate cross-state pollution.¹³⁵ The majority opinion denominates the allocation choices the EPA made as “sensible,” “equitable,” “efficient” and “mak[ing] good sense,”¹³⁶ citing *Chevron*.¹³⁷

The Court concluded that the EPA must give states a reasonable opportunity to allocate their emission budgets before issuing FIPs.¹³⁸ The Clean

contributed to downwind state pollution. *Id.* at 25. Fifteen states sought review of CSAPR, while six states intervened to support the rule. *See id.* at 9–10.

¹³⁰ For a similar holding of the Fifth Circuit on EPA deference to SIPs, see *Texas v. EPA*, 690 F.3d 670 (5th Cir. 2012). For a contrary view of the D.C. Circuit, see *Texas v. EPA*, 726 F.3d 180 (D.C. Cir. 2013).

¹³¹ *EME Homer City Generation*, 696 F.3d. at 33.

¹³² *EME Homer City Generation*, 696 F.3d 7, *petition for cert. filed*, 2013 WL 1309078 (Mar. 29, 2013) (No. 12–1182).

¹³³ *See EME Homer City Generation*, 696 F.3d 7, *cert. granted*, 133 S. Ct. 2857 (June 24, 2013) (No. 12–1182).

¹³⁴ *EPA v. EME Homer City Generation, L.P.*, 134 S. Ct. 1584, 1604 (2014).

¹³⁵ *Id.* at 1590.

¹³⁶ *Id.* at 1594 (“[C]urtailing interstate air pollution poses a complex challenge for environmental regulators. . . . The overlapping and interwoven linkages between upwind and downwind States with which EPA had to contend number in the thousands. . . . Rather, as the gases emitted by upwind polluters are carried downwind, they are transformed, through various chemical processes, into altogether different pollutants. The offending gases at issue in these cases—nitrogen oxide (NO_x) and sulfur dioxide (SO₂)—often develop into ozone and fine particulate matter (PM_{2.5}) by the time they reach the atmospheres of downwind States.”).

¹³⁷ Under *Chevron*, Congress’s silence effectively delegates authority to the EPA to select from among reasonable options. *See United States v. Mead Corp.*, 533 U.S. 218, 229 (2001). The EPA’s chosen allocation method was held to be a “permissible construction of the statute.” *Chevron U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 843 (1984).

¹³⁸ *EME Homer City Generation*, 134 S. Ct. at 1588.

Air Act was held to mandate SIP compliance with the “good neighbor” provision, which requires SIPs to “contain adequate provisions . . . prohibiting . . . any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will . . . contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any . . . [NAAQS].”¹³⁹ The plain text was held to support the federal agency disapproval of an SIP, which without more, triggers the EPA’s obligation to issue an FIP.

The Supreme Court’s dissenting opinion, agreeing with the D.C. Circuit Court majority, concluded that “[t]oo many important decisions of the Federal Government are made nowadays by unelected agency officials exercising broad lawmaking authority, rather than by the people’s representatives in Congress. . . . Today, the majority approves [an] undemocratic revision of the Clean Air Act.”¹⁴⁰

Integrating elements of the D.C. Circuit’s concern, the government must exercise some care not to impose a sanction in advance of going through the appropriate administrative process to arrive at the standard. This would become an important element in the upcoming future challenge to the California carbon control legislation.¹⁴¹ There also is an interesting thread in these court decisions of ensuring that an institution of government treats all states fairly. It is based on congressional intent under the Clean Air Act, rather than constitutional requirements for states not to discriminate against each other’s commerce, which would surface in later challenges to California cap-and-trade regulation.¹⁴²

The federalism line, demarcating state and federal power to administer environmental laws, is an important new subtext to many of these battles. As adjudicated in the D.C. Circuit, CSAPR exceeded the EPA’s procedural authority and violated cooperative federalism because it ignored express language in the Clean Air Act which affords states a reasonable opportunity to design and submit an SIP before being subjected to an FIP. The D.C. Circuit Court, but not the Supreme Court majority, also found that CSAPR regulated too extensively and concluded that the EPA only has the regulatory authority to follow the language of the Clean Air Act *exactly*, no more and no less. The Supreme Court showed more deference to the agency’s exercise of discretionary regulation.

The Clean Air Act scheme has been interpreted “as erecting a statutory federalism bar” that “prohibits EPA from using the SIP process to force States to adopt specific control measures.”¹⁴³ If an SIP would result in compliance

¹³⁹ *Id.* at 1595 (citing 42 U.S.C. § 7410(a)(2)(D)(i) (2006)).

¹⁴⁰ *Id.* at 1610 (Scalia, J., dissenting).

¹⁴¹ *See infra* Part III.B–C.

¹⁴² *See infra* Part IV.A.

¹⁴³ *EME Homer City Generation, L.P. v. EPA*, 696 F.3d 7, 29 (D.C. Cir. 2012).

with EPA standards, the EPA may not question the choices of the state as to how it complies with them.¹⁴⁴ Moreover, the EPA cannot condition its approval of SIPs on the adoption of specific control measures by states.¹⁴⁵ States have the “first-implementer role,”¹⁴⁶ while the EPA “is relegated . . . to a secondary role.”¹⁴⁷ Again, “checkmate.”

This federalism line has emerged recently as the critical legal metric in the context of a variety of recent legal challenges to state sustainable energy and carbon control measures.¹⁴⁸ Its parallel echo here in the enforcement of state and federal Clean Air Act obligations is interesting. In these air regulations, it was the federal government which was found to have exceeded its authority in compelling state action.¹⁴⁹ This reflects the split federal-state authority written into the text of the Clean Air Act.

By contrast, the federalism issue in sustainable energy and carbon control regulation has, in a majority of cases, found an excessive degree of state regulation of energy commerce pursuant to both state administrative procedural requirements and the Constitution of the United States. These state procedural excesses have quicker and more procedural remedies of reissuing state regulations in conformance with state procedural law. To date, they have set back the implementation of state regulation by a year.¹⁵⁰ However, the constitutional challenges raise even more profound issues. They are not violations of procedure, but allege fundamental exceedance of limits on state power to exercise or discriminate in the exercise of regulation of commerce. These are discussed more in Sections III and IV, where the state administrative challenges and the constitutional challenges are examined.

F. 2012 and 2013: Cooperative Air Federalism

There are two different federal courts of appeal which have rendered decisions on the line between state and federal power to impose air regulation on new or modified pollution sources. The two decisions are not in sync.

In *Texas v. EPA*, a 2012 decision, the Fifth Circuit reversed the EPA’s decision to reject an SIP revision submitted by Texas because the EPA infringed on the state’s discretionary authority established by the Clean Air Act’s inherent federalism principles.¹⁵¹ The Flexible Permit Program was submitted by Texas to the EPA as a revision to the Texas SIP and as a new

¹⁴⁴ *Train v. Natural Res. Def. Council*, 421 U.S. 60, 79 (1975).

¹⁴⁵ *Virginia v. EPA*, 108 F.3d 1397, 1401–10 (D.C. Cir. 1997).

¹⁴⁶ *EME Homer City Generation*, 696 F.3d at 28.

¹⁴⁷ *Id.* at 29 (quoting *Train*, 421 U.S. at 79).

¹⁴⁸ See *infra* Parts III, IV.A.

¹⁴⁹ See *supra* Part II.E; *EME Homer City Generation*, 696 F.3d at 25–28.

¹⁵⁰ See *infra* Part III.B.

¹⁵¹ *Texas v. EPA*, 690 F.3d 670, 686 (5th Cir. 2012).

feature of the state's Minor New Source Review (NSR) procedure.¹⁵² Under this program, when a source was modified, it could avoid any new regulatory review as long as the source's increased emissions did not exceed a cap specified by the permit.¹⁵³

The Clean Air Act requires all SIPs to contain NSR procedures for allocating pre-construction permits for all new or modified pollution sources.¹⁵⁴ The Act distinguishes between major and minor pollution sources, requiring more stringent standards for major sources than for minor sources.¹⁵⁵ The EPA did not approve the Texas program because it would allow major sources of pollution to avoid Major NSR.¹⁵⁶

The Fifth Circuit disagreed, finding that the EPA's interpretation of the SIP was not authoritative and that the program did in fact require major sources to comply with Major NSR.¹⁵⁷ The state has very broad discretion, within the Clean Air Act, to prescribe all of the detailed "micro" level choices through which the SIP achieves its numeric cumulative quantitative targets of air pollution.¹⁵⁸ The EPA may only deny a state's "micro" choices if the EPA objectively determines that they "would interfere with any applicable requirement concerning attainment and reasonable further progress [of NAAQS] or any other applicable requirement."¹⁵⁹ In other words, the state has discretion to determine how and where it achieves air quality standards, with the EPA only exercising its power with regard to this same issue if the means chosen by the state will not timely achieve the required quantitative federal air quality value. The court stressed that a state's authority allocated by the cooperative federalism within the Clean Air Act "would be hollow indeed if the state were not even responsible for its own sentence structure."¹⁶⁰

The EPA also disapproved of the Texas program's monitoring, records-keeping and recording (MRR) provisions, stating that they conferred too much discretion to the state and that they were vague and not replicable.¹⁶¹ The EPA unsuccessfully argued that the Clean Air Act does not authorize this type of "director discretion" and that this implementation was "too vague and not

¹⁵² *Id.* at 676.

¹⁵³ *Id.*

¹⁵⁴ *Id.* at 674.

¹⁵⁵ *Id.* at 674–75.

¹⁵⁶ *Id.* at 677. The Texas program did not expressly state that it did not apply to major sources.
Id.

¹⁵⁷ *Id.* at 677–78.

¹⁵⁸ See STEPHEN FERREY, ENVIRONMENTAL LAW 187 (5th ed. 2010).

¹⁵⁹ 42 U.S.C. § 7410(l) (2013).

¹⁶⁰ *Texas v. EPA*, 690 F.3d at 679.

¹⁶¹ *Id.* at 681. The program allowed Texas to insert MRR provisions into each individual permit as opposed to using a "one-size-fits-all" approach. *Id.*

replicable.”¹⁶² Again, the court found that the EPA does not have the authority to force states to use specific language in its SIPs and that it failed to adequately show how the director discretion within the program violated the Clean Air Act.¹⁶³

The EPA argued that the program did not provide “objective and replicable methodologies for establishing emission caps.”¹⁶⁴ Specifically, the EPA took the position that the method used by Texas to determine emission caps did not use express language limiting the caps to minor sources and was not replicable.¹⁶⁵ The court quickly dispatched this argument by revisiting its previous discussions: the EPA may not force the state to implement particular language and replicability is not a standard by which the EPA may reject an SIP.¹⁶⁶

In a similar friction between state and federal government, the federal government was held capable of imposing air regulatory requirements on the states, if the states do not properly exercise authority under the Clean Air Act. The Federal D.C. Circuit Court of Appeals upheld the EPA’s imposition of FIPs on states that failed to require Prevention of Significant Deterioration permits for new or modified major stationary sources which emit GHGs.¹⁶⁷

The Clean Air Act delegates the actual sculpting of implementation decisions to the states, limiting the federal authority from imposing “one-size-fits-all” uniformity on state determinations of how to meet federal air quality decisions within their states. The EPA may not violate cooperative federalism by stepping into the states’ dominion. Future cap-and-trade systems might be voluntary or provide an incentive, so that the EPA does not infringe on the states’ area of regulation. So generally, states get discretion on the details.

However, in the cases discussed above, none of the Clean Air Act decisions involved states exercising a decision *not* granted by federal statutes, and there was no perceived discrimination against interstate commerce. This poses a distinction from the new round of cap-and-trade litigation surrounding state carbon control and renewable energy legislation, where state regulation is

¹⁶² *Id.* at 682–83. The EPA suggested that Texas should mimic the MRR language in a similar federal program to comply with the Clean Air Act. *Id.* at 684.

¹⁶³ *Id.* at 682–84. The court noted that the EPA had approved “director discretion” provisions in other SIPs mere months before rejecting the same provision in the Texas program. *Id.* at 682–83. As such, the EPA was not allowed to reject an SIP for containing the same provision it had recently approved. *Id.* at 683. The EPA had a third ground for rejecting the Texas program that largely mimics their argument for the first two grounds. *Id.* at 684–85.

¹⁶⁴ *Id.* at 685.

¹⁶⁵ *Id.*

¹⁶⁶ *Id.* at 685–86.

¹⁶⁷ *Texas v. EPA*, 726 F.3d 180 (D.C. Cir. 2013). While the challenge was dismissed on standing grounds, it distinguished the environmental regulation from the higher concern on federal coercion of the states identified in the prior Supreme Court decision on the Affordable Care Act. *Id.*

driven from independent state law or triggers constitutional concerns where states discriminate against commerce originating in other states, as next addressed.¹⁶⁸

III. CAP-AND-TRADE REGULATORY CHALLENGES TO STATE CARBON CONTROL

States also recently have enacted cap-and-trade regulation focused on regulating climate-warming gas emissions in the state. The Regional Greenhouse Gas Initiative (RGGI)¹⁶⁹ and California's Assembly Bill (AB) 32 carbon regulation program¹⁷⁰ both adopted cap-and-trade programs. RGGI in originally seven, eventually ten, and now nine, eastern states, regulates its cap-and-trade allowances only for CO₂ emissions from power plants.¹⁷¹ California's AB 32 regulates all carbon emissions from all major industries in the state.¹⁷² RGGI is more limited than California in covered entities and industries, the kinds of GHG emissions controlled, and the amount of emissions targeted and controlled: RGGI controls just CO₂ while California controls all six GHGs; RGGI controls just larger electric generation facilities while California controls, in three phases, electric generation and all other larger industrial emitters of GHGs, including transportation fuels.

This state regulation is similar to federal cap-and-trade regulations in that both involve air regulation. Air moves, and both RGGI and California carbon credits are tradable.¹⁷³ However, while conventional "criteria" air pollution regulated by the federal and state governments causes problems in proximity to that pollution, GHG emissions have no specific local impact and have a universal warming impact. A molecule of GHG released anywhere in the world has identical impact on climate change, regardless of where it is released, as pointed out by experts to the Ninth Circuit.¹⁷⁴

¹⁶⁸ See *infra* Part III.

¹⁶⁹ Memorandum of Understanding, *supra* note 29.

¹⁷⁰ CAL. HEALTH & SAFETY CODE § 38501 (2014).

¹⁷¹ REG'L GREENHOUSE GAS INITIATIVE, GOALS, PROPOSED TASKS, SHORT-TERM ACTION ITEMS 1 (2003), available at <http://www.rggi.org/docs/actionplanfinal.pdf>.

¹⁷² See *Assembly Bill 32 Overview*, AIR RES. BD., CAL. ENVTL. PROT. AGENCY, <http://www.arb.ca.gov/cc/ab32/ab32.htm> (last visited Oct. 12, 2014).

¹⁷³ See AIR RES. BD., CAL. ENVTL. PROT. AGENCY, APPENDIX J: ALLOWANCE ALLOCATION J-5 (2010) [hereinafter ALLOWANCE ALLOCATION], available at <http://www.arb.ca.gov/regact/2010/capandtrade10/capv4appj.pdf>; REG'L GREENHOUSE GAS INITIATIVE, REG'L GREENHOUSE GAS INITIATIVE MODEL RULE 4, 38–40 (Dec. 31, 2008), available at <http://www.rggi.org/docs/Model%20Rule%20Revised%2012.31.08.pdf>.

¹⁷⁴ See Brief of Amicus Curiae Ken Caldeira et al. in Support of Defendants-Appellants at 27, *Rocky Mountain Farmers Union v. Goldstene*, 843 F. Supp. 2d 1071 (E.D. Cal. 2011) (Nos. 12-15131, 12-15135) ("Greenhouse gas emissions contribute to the problem of global climate change wherever they are emitted."). The majority opinion of the Ninth Circuit concedes that

A. California’s AB 32 Carbon Control

California is the twelfth largest GHG producer in the world.¹⁷⁵ California’s carbon emissions are greater than two-thirds of the Annex I developed nations regulated under the Kyoto Protocol. AB 32, the California Global Warming Solutions Act of 2006 (GWSA), requires the California Air Resources Board (CARB) to develop a comprehensive plan to reduce GHG emissions in the state to its historic 1990 levels by the year 2020.¹⁷⁶ This equates to an eventual estimated 25% to 29% reduction from business-as-usual GHG emission levels.¹⁷⁷ The GWSA sets a target of reducing statewide emissions to 427 million metric tons of carbon dioxide equivalent (MMTCO₂E) of GHGs by the year 2020, and highlights reduction measures that were adopted in 2011 to meet this goal.¹⁷⁸ California’s goal was based on projections that it was on pace to emit 507 or more MMTCO₂E by 2020.¹⁷⁹

CARB is designated in the statute as the state agency “charged with monitoring and regulating sources of GHG emissions in order to reduce those emissions.”¹⁸⁰ Among regulatory options available, CARB chose to implement a cap-and-trade system for GHGs, as opposed to a carbon fee or carbon tax to implement the statute. California’s comprehensive cap-and-trade program, prior to lawsuits which delayed it,¹⁸¹ was to commence in 2012.

The scientific scope of GHG emissions regulated by California is broad, regulating multiple gases.¹⁸² California regulates GHG emissions from

“[o]ne ton of carbon dioxide emitted when fuel is produced in Iowa or Brazil harms Californians as much as one emitted when fuel is consumed in Sacramento.” *Rocky Mountain Farmers Union v. Corey*, 730 F.3d 1070, 1081 (9th Cir. 2013).

¹⁷⁵ CAL. ENERGY COMM’N & CAL. PUB. UTIL. COMM’N, PROPOSED FINAL OPINION SUMMARY ON GREENHOUSE GAS REGULATORY STRATEGIES 2 (Sept. 2008), available at <http://www.energy.ca.gov/2008publications/CEC-100-2008-004/CEC-100-2008-004.PDF>.

¹⁷⁶ *Assembly Bill 32 Overview*, *supra* note 172. California’s GWSA was signed into law by Governor Schwarzenegger on September 27, 2006.

¹⁷⁷ PROPOSED FINAL OPINION SUMMARY, *supra* note 175, at 1; AIR RES. BD., CAL ENVTL. PROT. AGENCY, FACTS ABOUT CALIFORNIA GREENHOUSE GAS EMISSIONS INVENTORY (Jan. 2, 2009), available at <http://www.arb.ca.gov/cc/factsheets/ghginv.pdf>.

¹⁷⁸ See PROPOSED FINAL OPINION SUMMARY, *supra* note 175, at 1.

¹⁷⁹ *Id.*; see AIR RES. BD., CAL. ENVTL. PROT. AGENCY, STATUS OF SCOPING PLAN RECOMMENDED MEASURES 1 (last visited Nov. 19, 2014), available at http://www.arb.ca.gov/cc/scopingplan/status_of_scoping_plan_measures.pdf.

¹⁸⁰ AIR RES. BD., CAL. ENVTL. PROT. AGENCY, CAP-AND-TRADE PROGRAM RES. 12–33 (Sept. 20, 2012), available at <http://www.arb.ca.gov/cc/capandtrade/res12-33.pdf>.

¹⁸¹ See *infra* Part III.B.4.

¹⁸² CAL. CODE OF REGS. tit. 17, § 95802(a)(123) (2012).

“Emissions” means the release of greenhouse gases into the atmosphere from sources and processes in a facility, including from the combustion of transportation fuels such as natural gas, petroleum products, and natural gas liquids. In the context of offsets, “emissions” means the release of

all aspects of its economy, not just power generators.¹⁸³ Electric generators are required to meet a CO₂ emissions level no greater than that achievable by a combined-cycle, gas-fired generator.¹⁸⁴

The program establishes a declining limit on approximately 85% of the state's total GHG emissions, declining over time to reach its goal. The program covers about 350 businesses with 600 facilities in the first phase. "Covered sources" must surrender "compliance instruments" to CARB that are equal to their GHG emissions.¹⁸⁵ Covered entities can acquire allowances or purchase them. The entity must retire compliance credits or instruments equal to 30% of its annual emissions by November 1 of the following year, with the balance of 70% "trued-up" for a multi-year compliance period.¹⁸⁶

The CARB system creates two types of tradable compliance instruments to meet the cap: allowances¹⁸⁷ and offsets.¹⁸⁸ One can obtain an allowance allocation from CARB, purchase allowances at auction, or purchase them from miscellaneous dealers legally on the secondary market.¹⁸⁹ In the first compliance period, approximately 90% of allowances to meet the cap are allocated free of charge to regulated entities.¹⁹⁰ California administers an

greenhouse gases into the atmosphere from sources and processes within an offset project boundary."

Id.

¹⁸³ *Assembly Bill 32 Overview*, *supra* note 172.

¹⁸⁴ *See* CAL. PUB. UTIL. CODE §§ 8340–8341 (2007). Any new contracts for a term of five years or more for the procurement of "Baseload" generation is defined as electricity generation that is designed and intended to operate at an annualized plant capacity factor of 60% or greater. Baseload generation must comply with a performance standard of emitting no more than 1100 pounds CO₂/MWh emitted from power generation. CAL. PUB. UTIL. CODE § 8340(a). This is a level that conventional coal-fired electric generation will not be able to meet, generating about 1770 pounds CO₂/MWh. *See* CAL. PUB. UTIL. CODE § 8340(a); Seth Hilton, *The Impact of California's Global Warming Legislation on the Electric Utility Industry*, 19 THE ELECTRICITY J. 10, 10–16 (2006).

¹⁸⁵ AIR RES. BD., CAL. ENVTL. PROT. AGENCY, CHAPTER 1: HOW DOES THE CAP-AND-TRADE PROGRAM WORK? 12 (2012) [hereinafter HOW DOES THE CAP-AND-TRADE PROGRAM WORK?], available at <http://www.arb.ca.gov/cc/capandtrade/guidance/chapter1.pdf>.

¹⁸⁶ CAL. CODE OF REGS. tit. 17, § 94812(b) (2012).

¹⁸⁷ HOW DOES THE CAP-AND-TRADE PROGRAM WORK?, *supra* note 185, at 12. Allowances issued by CARB deliver the right to emit one metric ton of carbon. *Id.*

¹⁸⁸ *Id.* Offsets can be valid for up to eight years from the date of issuance. CAL. ENVTL. PROT. AGENCY: AIR RES. BD., CHAPTER 6: WHAT ARE THE REQUIREMENTS FOR OFFSET CREDITS AND HOW ARE THEY ISSUED? 47 (Dec. 12, 2012) [hereinafter REQUIREMENTS FOR OFFSET CREDITS], available at <http://www.arb.ca.gov/cc/capandtrade/guidance/chapter6.pdf>.

¹⁸⁹ *See* HOW DOES THE CAP-AND-TRADE PROGRAM WORK?, *supra* note 185, at 14. The first auction of allowances occurred November 14, 2012. *Id.* at 16.

¹⁹⁰ ALLOWANCE ALLOCATION, *supra* note 173, at J-67; *see also* Allowance Allocation, AIR RES. BD., CAL. ENVTL. PROT. AGENCY (Aug. 1, 2014), <http://www.arb.ca.gov/cc/capandtrade/allowanceallocation/allowanceallocation.htm>.

emissions allowance declining-sum exercise as the state moves through compliance periods.¹⁹¹

“Offsets” are a key element of most carbon control and cap-and-trade programs, as well as of several air control regulations. Offsets are tradable reductions of carbon produced by projects which are not otherwise subject to the cap-and-trade program, whether in California or another relevant state.¹⁹² Offsets create credits for other carbon reduction by an uncovered entity in recognized, eligible carbon emissions which can be sold to and used for compliance by those entities which are regulated.

In California, offsets can be employed to satisfy up to 8% of any individual covered source’s emissions.¹⁹³ These offset provisions in the carbon cap-and-trade program allow these 8% offsets to come from projects located in the lower 48 states, Canada, or Mexico, which are real, additional, quantifiable, permanent, verifiable (by a third-party), and enforceable for compliance.¹⁹⁴ There are “early action” offsets for projects reducing emissions from 2005 to 2014.¹⁹⁵ CARB identified four ways to create offset credits: forest projects, urban tree-planting projects, farming projects designed to manage emissions from manure, and ozone depleting substances projects.¹⁹⁶

California and the RGGI states, for the first time in history,¹⁹⁷ have reconfigured this environmental regulation to generate significant revenues for their states through cap-and-trade with credits auctioned rather than freely distributed. This auction is justified to prevent windfalls to participating

¹⁹¹ The assistance factor starts at 100% for all industries, but the amount by which it decreases varies by industry. CAL. CODE REGS. tit. 17, § 95870(e) (2012) (tbl.8-1). For example, sectors such as pharmaceutical and medicine manufacturing and aircraft manufacturing ratchet down to 30% in the third compliance period. *Id.* Other industries (e.g., crude petroleum and natural gas extraction, mineral mining, and certain types of manufacturing) deemed particularly susceptible to “leakage” remain at 100% throughout the program. *Id.* In addition, the number of allocated allowances is adjusted downward annually based on an “adjustment factor.” CAL. CODE REGS. tit. 17, § 95891(d) (2014) (tbl.9-2). For most industries, the adjustment factor declines from 0.981 in 2013 to 0.851 in 2020. *Id.* Therefore, California supports extraction of fossil fuel resources of all kinds by supporting their extraction of resources with donated allocations of allowances. *Id.* This may seem somewhat counterintuitive.

¹⁹² REQUIREMENTS FOR OFFSET CREDITS, *supra* note 188, at 1. Offsets are awarded for projects carried out pursuant to one of four protocols adopted by CARB: U.S. Forestry Projects, Urban Forest Projects, Livestock Projects, and Ozone Depleting Substances Projects. *Id.* at 9.

¹⁹³ *Id.* at 1.

¹⁹⁴ *Id.* at 8. An offset represents a one MTCO₂E reduction from a project in an uncapped sector. CARB requires that offsets be “real, additional, quantifiable, permanent, verifiable, and enforceable.” CAL. CODE REGS. tit. 17, § 95802(a)(328) (2014).

¹⁹⁵ REQUIREMENTS FOR OFFSET CREDITS, *supra* note 188, at 3, 83.

¹⁹⁶ AIR RES. BD., CAL. ENVTL. PROT. AGENCY, AN OVERVIEW OF ARB EMISSIONS TRADING PROGRAM OVERVIEW 1 (Jan. 21, 2011), available at http://www.arb.ca.gov/cc/factsheets/emissions_trading_program.pdf.

¹⁹⁷ FERREY, *supra* note 2, at 82–83.

emitters.¹⁹⁸ The ten northeast RGGI states raised approximately \$1 billion of RGGI proceeds realized from their auctions in 2009–2011.¹⁹⁹ The California Chamber of Commerce claims that CARB itself projected to raise a total of \$12–\$70 billion in California.²⁰⁰

As the law was scheduled to become effective in 2012, California enacted four pieces of legislation to direct the flow of the substantial auction revenues which would be raised.²⁰¹ The cost of California carbon credits advanced in auctions from an initial price of \$10.09 in November 2012, to \$13.62 in February 2013, to \$14.00 in May 2013.²⁰² Approximately 350 businesses with approximately 590 facilities are required to obtain and surrender credits to the state in the first phase of the program.²⁰³

It goes without saying that California is different. It is different on cap-and-trade in that it has enacted a vigorous cap-and-trade statute regulating global warming gases and climate change. The federal government has not done so. California's cap-and-trade legislation is different legally in that it has been challenged as to (1) compliance with state environmental and administrative law requirements on the agency implementing the statute and (2) on constitutional violations of the dormant Commerce Clause of the Constitution. California violations of state environmental and administrative process laws can be cured by a delay to re-promulgate administrative orders, regulations, or plans. Federal constitutional violations cannot be cured by state re-promulgation of similar statutes or regulations. Some of these challenges have been in state court, and the constitutional violations have been in federal court.

¹⁹⁸ *Id.* at 191.

¹⁹⁹ *Id.*; see also *RGGI Benefits*, REGIONAL GREENHOUSE GAS INITIATIVE, http://www.rggi.org/rggi_benefits (last visited Nov. 6, 2014) (as determined individually by each state: 65% efficiency; 17% for direct assistance (welfare assistance); 6% renewable energy; and 6% for GHG abatement).

²⁰⁰ See *infra* note 201 and accompanying text.

²⁰¹ Joint Ruling on Submitted Matters at 3–4, *Cal. Chamber of Commerce v. Cal. Air Res. Bd.*, No. 34-2012-80001313 (Cal. Super. Ct. 2013). Senate Bill (SB) 1018 requires that auction proceeds be deposited in a Greenhouse Gas Reduction Fund and authorizes auction funds to be lent to the State General Fund. *Id.* at 3. AB 1464 states that the Director of Finance may allocate or otherwise use an amount of at least \$500 million of the funds raised, while making commensurate reductions to General Fund expenditure authority, for the purpose of advancing the goals of AB 32. *Id.* at 4. Governor Brown subsequently requested such a loan of \$500 million in 2013. AB 1532 provides that the uses of funds to be deposited in the Greenhouse Gas Reduction Fund may be determined after the revenues have been collected, and California SB 535 in 2012 was enacted to require at least 25% of the funds raised from auction of carbon credits to benefit disadvantaged communities, and a least 10% used for projects in communities that are identified as disadvantaged. *Id.* at 4.

²⁰² Carolyn Whetzel, *State's Greenhouse Gas Allowances Sell for \$14 Per Ton in Third Auction*, 44 ENV'T REP. 1556 (2013).

²⁰³ *Id.*

B. Cap-and-Trade Scoping Plan Challenge

CARB's scoping plan for selecting the mechanism for implementation of carbon control in California was challenged by a group representing lower-income state citizens. In 2011, California lost this suit against its carbon control cap-and-trade regulation, resulting in an additional year of delay in start of the entire regulatory program until CARB "[came] into complete compliance with its obligations" in 2013 and made any revisions to comply with court order on legal requirements.²⁰⁴

The petitioners in this original matter were a group of individuals who joined forces with several non-profit organizations who asked the court for a writ of mandate.²⁰⁵ The petition alleged specifically that the scoping plan:

(a) fails to achieve the maximum technologically feasible and cost-effective reductions; (b) fails to require emissions reduction measures for significant sources of emissions, namely industrial and agricultural sources; (c) does not develop any policies to avoid the pitfalls of other greenhouse gas emission trading programs and fails to address how ARB will monitor and enforce reductions in a regional market; (d) fails to assess the likely impacts of proposed policy choices and regulatory programs and fails to propose policies to ensure that compliance with chosen measures will not disproportionately impact already overburdened communities; and (e) fails to prevent increases in criteria and toxic co-pollutant emissions.²⁰⁶

The petitioners argued that CARB violated California's AB 32 by

(1) excluding whole sectors of the economy from GHG emission controls and including a cap and trade program without determining whether potential reduction measures achieved the maximum technologically feasible and cost-effective reductions; (2) failing to adequately evaluate the total cost and total benefit to the environment, economy and public health before adopting the program Scoping Plan; and (3) failing to consider all relevant information regarding GHG

²⁰⁴ See *Ass'n of Irrigated Residents v. Cal. Air Res. Bd.*, 206 Cal. App. 4th 1487 (Cal. App. Ct. 2012); Lisa Weinzimer & Geoffrey Craig, *Delaying California GHG Cap-and-Trade Regime a Year Draws Support from Stakeholders*, ELECTRIC UTIL. WK., July 4, 2011, at 11–12. The court issued a writ of mandate enjoining CARB from any further cap-and-trade rulemaking until it had complied with the CEQA by analyzing alternatives to cap-and-trade and public comments. This delayed the plan until 2013. Tentative Statement of Decision: Order Granting in Part Petition for Writ of Mandate, No. CPF-09-509562, 2011 WL 312702 (Cal. Super. Ct. 2011).

²⁰⁵ Tentative Statement of Decision: Order Granting in Part Petition for Writ of Mandate, *supra* note 204, at 2.

²⁰⁶ *Ass'n of Irrigated Residents*, 206 Cal. App. 4th at 1493.

emission reduction programs used throughout the United States and the World, as required by AB 32, prior to recommending a cap-and-trade option.²⁰⁷

The suit alleged that CARB did not literally seek “maximum technologically feasible and cost-effective reductions.”²⁰⁸ Additionally, the petitioners claimed that CARB violated the California Environmental Quality Act (CEQA) in the preparation of its Functional Equivalent Document.²⁰⁹

These claims all contested a failure to comply with required state law and administrative process, rather than federal or constitutional claims. As to basic administrative process, the court held that CARB did not abuse its discretion and was not arbitrary and capricious in making its program choices.²¹⁰ However, the court did find that CARB improperly approved its Scoping Plan prior to completing the legally required environmental review.²¹¹ This suggested a predetermined result apart from reaching a decision through a legally required comparison of alternatives.²¹² The court issued a writ of mandate enjoining CARB from any further cap-and-trade rulemaking until it complied with CEQA by analyzing alternatives to cap-and-trade and considered relevant public comments.²¹³ This delayed the program implementation for approximately a year until 2013.²¹⁴

When re-promulgated a year later in 2012 with a more robust consideration of alternatives, CARB’s Climate Change Scoping Plan and choice of the previous cap-and-trade option was upheld by a state court.²¹⁵ The

²⁰⁷ Tentative Statement of Decision: Order Granting in Part Petition for Writ of Mandate, *supra* note 204, at 2–3.

²⁰⁸ *Ass’n of Irrigated Residents*, 206 Cal. App. 4th at 1496. The court acknowledged California’s emissions goal for 2020 was stated in terms of “million metric tons of CO₂ emitted” (MMTCO₂E), seeking a reduction from 596 MMTCO₂E to the 1990 level of 427 MMTCO₂E. Even though CARB modified the goal to reduce another five MMTCO₂E as a “margin of safety” (to account for uncapped sectors of the California economy), the Association of Irrigated Residents argued that CARB still failed to meet its mandate, again citing the AB 32 Call for “maximum” feasible reductions. *Id.* at 1497.

²⁰⁹ *Id.* at 1493. This alleged that CEQA was violated by “(1) failing to adequately analyze the impacts of the measures described in the Scoping Plan; (2) failing to adequately analyze alternatives to the Scoping Plan; and (3) impermissibly approving and implementing the Scoping Plan prior to completing its environmental review.” Tentative Statement of Decision: Order Granting in Part Petition for Writ of Mandate, *supra* note 204, at 2–3.

²¹⁰ Tentative Statement of Decision: Order Granting in Part Petition for Writ of Mandate, *supra* note 204, at 3.

²¹¹ *Id.* at 31–33.

²¹² *Id.*

²¹³ *Id.* at 33.

²¹⁴ See *Ass’n of Irrigated Residents v. Cal. Air Res. Bd.*, 206 Cal. App. 4th 1487 (Cal. App. Ct. 2012).

²¹⁵ *Id.* at 1506.

court resolved very subjective issues of whether CARB was arbitrary and capricious in its choices, provided substantial evidence to support its decisions, and considered alternatives.²¹⁶ The state appeals court found that the California legislature intended to provide broad discretion to CARB and that CARB had not acted arbitrarily nor capriciously.²¹⁷ So, this temporarily successful state law challenge did not change the ultimate result; however, it required the California state agency to reinitiate that choice employing the correct administrative process. Note, again, these were all state law claims as to administrative process, whereunder states can redo the process or amend the statute and achieve similar ultimate outcomes to those originally proposed.

C. Cap-and-Trade Auction Litigation

The California decision to implement an auction process for allowance distribution, raising money from the auction of allowances to covered entities to emit carbon, was challenged by the California Chamber of Commerce.²¹⁸ The California Chamber of Commerce filed a lawsuit at the end of 2012 seeking to invalidate the cap-and-trade auction scheme under AB 32.²¹⁹ The complaint asserted that AB 32 does not authorize CARB to impose fees other than those needed to cover the ordinary administrative costs of implementing a state emissions regulatory program.²²⁰

The California Chamber of Commerce claims that CARB itself projected to raise a total of \$12–\$70 billion, which is well in excess of that necessary to regulate the conduct of the entities paying the fees.²²¹ CARB argued that the revenue raised from auctioning allowances under the cap-and-trade program is not a tax but a “regulatory fee,” which by law must be relative in amount to the burden placed on the payer and must be spent on programs that are related to the specific goal of the program of reducing GHG emissions, rather than for other fiscal purposes.²²² The California Chamber, in its complaint, alleged:

²¹⁶ *Id.* at 1502.

²¹⁷ *Id.* at 1506.

²¹⁸ *See* Cal. Air Res. Bd. v. Cal. Chamber of Commerce, No. 34-2012-80001313 (Cal. Super. Ct. 2013). The issuance and oversight of offsets has been performed by private parties, including the Climate Action Reserve.

²¹⁹ *Id.* at 2.

²²⁰ *Id.* at 5.

²²¹ *Id.*

²²² *Isaac v. City of L.A.*, 66 Cal. App. 4th 586, 596 (Cal. Ct. App. 1998). To constitute “regulatory fees” rather than taxes, “fees must not exceed the reasonable cost of the services necessary for the activity for which the fees are charged and for carrying out the purpose of the regulation; they may not be levied for unrelated purposes.” *Id.*

[T]he total silence in AB 32's legislative history regarding any large-scale grant of fee or tax raising authority to CARB—and the contradictory concession made by CARB itself—is further evidence supporting the conclusion that AB 32 did not grant the CARB any authority to impose fees/taxes beyond that necessary to cover ordinary administrative expense.²²³

A separate, subsequent 2013 suit brought by different plaintiffs challenged the California GHG allowance auctions under its emissions cap-and-trade program as an illegal unconstitutional tax or fee²²⁴ and raised similar concerns to the *California Chamber of Commerce* litigation.²²⁵ The *Morning Star Packing Co.* litigation added explicit examples of how the alleged unconstitutional tax is causing parties to bear increased costs and expenses.²²⁶

Morning Star Packing argued that the auction revenues cannot be characterized as valid regulatory fees, because the revenues are not limited to the reasonable costs of any regulatory program.²²⁷ It further asserted that CARB has not established any reasonable relationship between the revenues generated by bids made at auction and either the regulatory burdens posed by auction bidders or the benefits auction bidders receive from the regulatory program, and that the cap-and-trade regulation does not prohibit the revenue from being used for purposes that are unrelated to the regulatory program.²²⁸ It also argued that the cap-and-trade regulation is ultra vires because AB 32

²²³ Memorandum of Points and Authorities in Support of Verified Petition for Writ of Mandate and Complaint for Declaratory Relief at 17, *Cal. Chamber of Commerce v. Cal. Air Res. Bd.*, No. 34-2012-80001313, (Cal. Super. Ct. Nov. 13, 2012), available at http://www.calchamber.com/governmentrelations/documents/filed_mpa_11-13-12.pdf.

“Concession” alludes to a letter by AB 32 author Fabian Nunez, in which Nunez stated his intent “that any funds provided by Health and Safety Code Section 38597 are to be used solely for the direct costs incurred in administering this division.” *Id.* at 16 n.17.

²²⁴ Verified Petition for Writ of Mandate and Complaint for Declaratory Relief, *Morning Star Packing Co. v. Cal. Air Res. Bd.*, No. 34-2013-80001464 (Cal. Super. Ct. Apr. 16, 2013), available at <http://www.pacificlegal.org/document.doc?id=836>. The suit asks the court to declare that “the auction and revenue generating provisions” of the cap-and-trade regulation are unconstitutional under Proposition 13, the ballot initiative that requires a two-thirds vote on taxes, or under Proposition 26, a ballot initiative requiring a super-majority vote on some fees and levies. AB 32 did not pass on a two-thirds vote, nor did SB 1018, AB 1532, SB 535, and AB 1463, which stipulate how the auction revenues must be spent. *Id.* at 15–20. Plaintiff, Morning Star Packing, participated in CARB's two prior auctions, spending \$379,860 on allowances. *Id.* at 2–3.

²²⁵ See *supra* notes 222–24.

²²⁶ Verified Petition for Writ of Mandate and Complaint for Declaratory Relief at 3–8, *Morning Star Packing Co.*, No. 2013-80001464.

²²⁷ Petitioners' and Plaintiffs' Memorandum of Points and Authorities in Support of Motion for Issuance of Writ of Mandate at 2–3, *Morning Star Packing Co.*, No. 2013-80001464.

²²⁸ *Id.*

neither explicitly nor implicitly authorizes CARB to generate billions of dollars of revenues for California by selling emission allowances at auction.²²⁹

The state court, in August 2013, tentatively allowed CARB to auction allowances under AB 32.²³⁰ From the bench, the judge indicated that if the California precedent of *Sinclair Paint* applied to AB 32, it was an illegal tax.²³¹ In November 2013, there was a trial court decision which called it a close call but allowed the auctioning of allowances.²³²

D. In-State “Additionality” Discretion

Offsets are an alternative means to achieve compliance with cap-and-trade carbon regulation, allowing lower-cost reduction opportunities outside the capped state to be pursued and monetized as tradable credits applied in California. The quid pro quo for offsets has been the requirement for “additionality.”²³³ A 2012 lawsuit in California by advocates for low-income interests attacked the California climate control legislation on the basis that its compliance requirements would be met principally by offsets from out-of-state or even international locations without any assurance that the offsets would be “additional” to business-as-usual policies in California.²³⁴ Plaintiffs argued that the regulation was ultra vires to the administrative power of CARB, whose actions were arbitrary and capricious and not based on a solid administrative record.²³⁵ The California trial court in 2013 rejected both arguments,²³⁶

²²⁹ *Id.* at 18–19.

²³⁰ Joint Tentative Decision and Order for Appearances at 7, Cal. Chamber of Commerce v. Cal. Air Res. Bd., No. 34-2012-80001313 (Cal. Sup. Ct. Aug. 28, 2013).

²³¹ Carolyn Whetzel, *Court Upholds California’s Authority To Auction Greenhouse Gas Allowances*, 44 ENV’T REP. 2658 (2013).

²³² Joint Ruling on Submitted Matters, Cal. Chamber of Commerce v. Cal. Air Res. Bd., No. 34-2012-80001313 (Cal. Sup. Ct. Nov. 12, 2013), available at <http://blog.pacificlegal.org/wordpress/wp-content/uploads/2013/11/DECISION111413.pdf>.

²³³ “Additionality” is the requirement in most carbon control statutes or regulations that only “additional” or non-business-as-usual carbon-reduction projects legally qualify to create carbon “offsets,” “which are tradable credits for compliance with these carbon policies.” UNLOCKING THE GLOBAL WARMING TOOLBOX, *supra* note 3, at 204; see also RGGI MODEL RULE 106 (Jan. 5, 2007), available at http://www.rggi.org/docs/model_rule_corrected_1_5_07.pdf; PERVAZE A. SHEIKH & ROSS W. GORTE, CONG. RESEARCH SERV., RL34634, CLIMATE CHANGE AND INTERNATIONAL DEFORESTATION: LEGISLATIVE ANALYSIS CRS-5 tbl.1 (2008).

²³⁴ Petition for Writ of Mandate and Complaint for Declaratory and Injunctive Relief, Citizens Climate Lobby & Our Children’s Earth Found. v. Cal. Air Res. Bd., No. CGC-12-5195944 (Cal. Sup. Ct. Mar. 14, 2012), available at http://ggucuel.org/wp-content/uploads/3_28_12_Cal_GHG_Complaint.pdf.

²³⁵ *Id.*

²³⁶ The court concluded that plaintiffs had “failed to demonstrate that the Legislature foreclosed the use of standardized additionality mechanisms or demonstrate that [CARB] acted arbitrarily or capriciously in promulgating additionality standards.” Statement of Decision Re:

deferring to CARB's expertise and experience and demurring to CARB's methodology for offsets.²³⁷

E. The State Law Liquid Fuel/Ethanol Challenge

The purpose of the low carbon fuel standard (LCFS), an element of AB 32,²³⁸ is "to implement a low carbon fuel standard, which will reduce GHG emissions by reducing the full fuel-cycle, carbon intensity of the transportation fuel used in California."²³⁹ The LCFS rule is to reduce the carbon content of transportation fuels sold in California by 10% by the year 2020 from the year 2010 baseline.²⁴⁰ In a case distinct from a somewhat similar suit on the merits by other parties under constitutional principles in federal court,²⁴¹ the largest ethanol producer in the United States challenged the LCFS rule in California state court, alleging a failure to comply with the CEQA.²⁴² Plaintiff Poet, LLC challenged the LCFS regulations on the grounds that CARB violated the Administrative Procedure Act (APA) and CEQA during the adoption process.²⁴³ California was found to have violated both statutes.²⁴⁴

The GWSA required the LCFS program to be entirely in force by January 1, 2010.²⁴⁵ The trial court found against the challengers.²⁴⁶ On appeal, the plaintiffs contended that CARB violated the APA by excluding certain emails from consultants from the rulemaking file made available to the public.²⁴⁷ The appellate court held that California had, in fact, violated CEQA and the California APA by approving the regulation before the required review

Petition for Writ of Mandate at 34, *Citizens Climate Lobby & Our Children's Earth Found.*, No. CGC-12-519544.

²³⁷ *Id.* at 33.

²³⁸ For a discussion of AB 32 see *supra* Part III.A. For more detail on the LCFS see *infra* Part IV.A.

²³⁹ CAL. CODE REGS. tit. 17, § 95480 (2014).

²⁴⁰ *Id.* §§ 95480–95490.

²⁴¹ See *infra* Part IV.A.

²⁴² *Poet, LLC v. Cal. Air Res. Bd.*, 218 Cal. App. 4th 681, 698 (Cal. Ct. App. 2013). *Poet* argued that CARB failed to respond to numerous public comments, that it omitted documents from the rulemaking file, and that the LCFS will lead to increased GHG emissions, not the reductions it promises. *Id.* at 698. *Poet* alleged that CARB's LCFS rule exceeds the scope of authority delegated to it by the legislature. *Id.* at 727.

²⁴³ *Id.* at 698.

²⁴⁴ *Id.*

²⁴⁵ *Id.* at 697.

²⁴⁶ *Id.* at 709.

²⁴⁷ *Id.* at 741; *Summary of November 20, 2013 Conference Report for Civil Cases*, AT THE LECTERN (Nov. 22, 2013), <http://www.athelectern.com/summary-of-november-20-2013-conference-report-for-civil-cases/>.

under CEQA.²⁴⁸ The court also found that CARB had improperly deferred formulating required mitigation measures.²⁴⁹ However, after ruling against the state, the court refrained from enjoining the regulation under state law.²⁵⁰ The public was directed to submit comments about remedies for these violations.²⁵¹

At the end of 2013, the California Supreme Court denied CARB's request to review overturning the appellate court decision that CARB had improperly promulgated the LCFS program.²⁵² So this finding of LCFS illegality is final. Coupled with the *Rocky Mountain*²⁵³ challenge to the LCFS, this renders the majority of courts at trial and appellate levels and the majority of judges who heard litigation challenges to the LCFS cap-and-trade program to have ruled it to be illegal. The full court did not muster a majority for an appeal en banc.²⁵⁴

F. New York Cap-and-Trade Regulation Implementing RGGI Carbon Control

There was a successful suit in 2010 against New York's RGGI cap-and-trade carbon regulation.²⁵⁵ The RGGI commenced in January 2009 in originally seven and eventually ten northeastern states.²⁵⁶ CO₂ emissions from

²⁴⁸ *Poet, LLC*, 218 Cal. App. 4th at 698–99.

²⁴⁹ *Id.*

²⁵⁰ *Id.* at 756, 766.

²⁵¹ *Id.*

²⁵² See Carolyn Whetzel, *California Supreme Court Declines To Review Decision on Low-Carbon Fuel Standard*, ENERGY & CLIMATE REP. (BNA) (Nov. 29, 2013), http://climate.bna.com/climate/summary_news.aspx?ID=255482.

²⁵³ See *infra* Part IV.A.

²⁵⁴ Petition for Rehearing En Banc of the AFPM Plaintiffs-Appellees, *Rocky Mountain Farmers Union v. Corey*, 740 F.3d 507 (9th Cir. 2014) (Nos. 12-15131, 12-15135) [hereinafter Petition for Rehearing En Banc].

²⁵⁵ Complaint, *Indeck Corinth v. Paterson*, No. 369 (N.Y. App. Div. May 18, 2009); *Indeck Energy*, *supra* note 34. In a suit against the state of New York's RGGI program in 2009, New York's quick settlement had Consolidated Edison Company agreeing to pay the cogeneration project for the cost of its additional carbon allowances through the end of their pre-existing long-term contracts. In addition to the Indeck project, the Brooklyn Navy Yard Co-Generation Project and Selkirk Cogen Partners also received these complete settlements of all economic impact shifted to the utility and/or its ratepayers. See *Indeck Corinth, L.P. v. Paterson, et al.*, U.S. CHAMBER LITIG. CENTER, <http://www.chamberlitigation.com/indeck-corinth-lp-v-paterson-et-al> (last visited Oct. 12, 2014).

²⁵⁶ See *Seven Northeast States Launch Regional Greenhouse Gas Initiative*, ENV'T NEWS SERVICE (Dec. 20, 2005), <http://www.ens-newswire.com/ens/dec2005/2005-12-20-05.asp>. See generally *Model Rule*, REGIONAL GREENHOUSE GAS INITIATIVE, http://www.rggi.org/design/history/model_rule (last visited Oct. 12, 2014). Beginning in April 2003, Governor George Pataki of New York initiated the effort by inviting neighboring states to participate in a regional cap-and-trade emissions program. *Seven Northeast States Launch Regional Greenhouse Gas*

power plants in the region were capped at then-current levels,²⁵⁷ and the cap would remain in place until 2015. RGGI states would then begin the process of incrementally reducing emissions, with the goal of achieving a 10% reduction by 2019,²⁵⁸ which recently was amended to make it 45% more demanding at an earlier year.²⁵⁹ The ten northeast RGGI states raised approximately \$1 billion of RGGI auction proceeds realized from their auctions between 2009 and 2011.²⁶⁰

This suit was brought by an independent cogeneration project which had carbon compliance obligations imposed on it.²⁶¹ In 2009, Indeck Energy, the owner of a New York cogeneration power facility, sued the state of New York regarding the constitutionality of its carbon regulation program, part of the then ten-state RGGI, which imposes additional costs to purchase carbon emission allowances on wholesale power sellers.²⁶² New York quickly settled the suit, granting plaintiffs complete relief and not imposing any of the approximately \$3 million annual additional costs on the specific wholesale market plaintiffs, rather than let the court address the legality of its state program. The settlement had Consolidated Edison Company and its ratepayers agree to pay the cogeneration project for the cost of its additional carbon allowances through the end of their pre-existing long-term contracts.²⁶³

Initiative, supra. The market-based design of the RGGI Memorandum of Understanding is a cap-and-trade program. *Id.*

²⁵⁷ The regional base annual CO₂ emissions cap will be equal to 121 million short tons. Memorandum of Understanding, *supra* note 27, at 2.

²⁵⁸ Press Release, Reg'l Greenhouse Gas Initiative, States Reach Agreement on Proposed Rules for the Nation's First Cap-and-Trade Program To Address Climate Change (Aug. 15, 2006), available at http://rggi.org/docs/model_rule_release_8_15_06.pdf.

²⁵⁹ Gerald Silverman et al., *Majority of States in Regional Initiative in Early Stages of Implementing "Model Rule,"* 44 ENV'T REP. 1797 (2013). The new lower cap would limit emissions from larger power plants to 91 million tons in 2014, and then lower it by 2.5% annually from 2015 to 2020. *Id.* Two of the remaining nine RGGI states require new legislation to adapt their programs, while the other seven states can do so by regulatory changes. *Id.*

²⁶⁰ REG'L GREENHOUSE GAS INITIATIVE, INC., INVESTMENT OF PROCEEDS FROM RGGI CO₂ ALLOWANCES 4 (2011), available at http://www.rrgi.org/docs/Investment_of_RGGI_Allowance_Proceeds.pdf. As determined individually by each state, 52% of RGGI funds were used for energy efficiency, 11% for renewable energy, 14% to reduce consumer rates, and 1% for other programs. *Id.*

²⁶¹ William Funk, *Constitutional Implications of Regional CO₂ Cap-and-Trade Programs: The Northeast Regional Greenhouse Gas Initiative as a Case in Point*, 27 UCLA J. ENVTL. L. & POL'Y 353, 360 (2009) (discussing *Indeck Corinth* complaint).

²⁶² *Indeck Energy, supra* note 34.

²⁶³ *Id.* In a suit against the state of New York's RGGI program in 2009, New York's quick settlement had Consolidated Edison Company agreeing to pay the cogeneration project for the cost of its additional carbon allowances through the end of their pre-existing long-term contracts. *Id.* It allows the utility company to ask the New York Public Service Commission to pass through the cost of these allowances, or approximately \$3 million annually, to utility customers. *Id.* In addition to the Indeck project, the Brooklyn Navy Yard Co-Generation Project and Selkirk

The New York implementation of the RGGI carbon cap-and-trade program was challenged in an additional suit, which was dismissed on procedural grounds without reaching the merits. In the second New York RGGI case,²⁶⁴ New York ratepayers argued that the program, which was never passed by legislature, was improper if only implemented by regulation.²⁶⁵ This complaint was denied on two grounds: (1) that the plaintiff's lacked standing, and (2) that the doctrine of laches precluded the plaintiffs from bringing the claim.²⁶⁶ On appeal, the Appellate Division affirmed the judgment.²⁶⁷ The appellate court "assume[d], without deciding, that plaintiffs ha[d] standing to bring this action."²⁶⁸ Nonetheless, the court affirmed the dismissal because "certain claims are time-barred and the remaining claims have been rendered moot."²⁶⁹

Most of the various state law challenges above attacked the state's structural choices under a cap-and-trade mechanism as being unsupported pursuant to principles of state administrative law or in violation of the CEQA. These challenges contested the truncating of environmental considerations and review in favor of carbon control, the basic choice of a cap-and-trade mechanism, or the financial component of raising extensive revenues through auction. Most of these half-dozen challenges either concluded with the state losing the matter, the state escaping on procedural grounds in which the court would not hear the matter, or are still pending. When litigation avoided procedural defenses and advanced on the merits, the state defendants either settled in favor of challengers or lost a majority of the lawsuits that proceeded to a decision.

IV. CONSTITUTIONAL CHALLENGES TO STATE GHG CAP-AND-TRADE

States which regulate carbon through cap-and-trade regulations are concerned about the effects of their regulation imposing costs on in-state entities and ultimately state ratepayers, which makes that same power or fuel cost-disadvantaged, compared to out-of-state power or fuel not covered by cap-and-trade regulation. Such concerns can cause state cap-and-trade regulation to

Cogen Partners also received complete settlements with all corporate economic impact shifted to the utility and/or its ratepayers. *Id.*

²⁶⁴ *Thrun v. Cuomo (Thrun I)*, No. 4358-11 (N.Y. Sup. Ct. June 13, 2012); Geoffrey Craig & Gail Roberts, *Lawsuit Disputes Legality of New York Participation in RGGI, Citing Lack of Legislative Approval*, ELECTRIC UTIL. WK., July 4, 2011, at 10; Dan Wiessner, *Judge Allows New York to Participate in Environment Initiative*, THOMSON REUTERS, June 13, 2012.

²⁶⁵ Craig & Roberts, *supra* note 264.

²⁶⁶ *Thrun I*, No. 4358-11.

²⁶⁷ *Thrun v. Cuomo (Thrun II)*, 90 N.Y.S. 320, 324 (N.Y. App. Div. 2013).

²⁶⁸ *Id.* at 322.

²⁶⁹ *Id.*

be crafted in a manner to favor in-state entities and burden interstate commerce originating outside the regulating state. Power moves in interstate commerce. A significant number of independent renewable power generators now sell their power wholesale interstate to redistributing utilities or other retail competitors, which thereafter resell that power to retail customers.²⁷⁰ Wholesale electricity is moving constantly in interstate commerce at the speed of light.²⁷¹

A major practical and policy problem identified by the RGGI states,²⁷² as well as California,²⁷³ is so-called “leakage” into the state of less-costly power whose carbon content is not regulated or affected by state regulation by external states.²⁷⁴ Even where implementation of a particular cap-and-trade

²⁷⁰ *Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm’n*, 461 U.S. 190, 205–06 (1983).

When combined with federal preemption law, one crucial result of these energy market regulatory reforms has been “a massive shift in regulatory jurisdiction from the states to the FERC.” . . . The upshot of these federal and state innovations in electricity regulation is that state regulators, despite their continued authority over rates charged directly to consumers, have much less actual authority over those rates than they did [earlier]. Local utilities now obtain power largely through wholesale contracts subject to FERC’s exclusive regulation, rather than through self-generated and self-transmitted power. . . . Although state regulators formerly took an extremely active role so as to ensure the just and reasonable retail power rates, FERC has exclusive jurisdiction over the wholesale rates that now drive the electric power market and, as a practical matter, largely determine the rates ultimately charged to the public.

Pub. Util. Dist. No. 1 v. FERC, 471 F.3d 1053, 1066–67 (9th Cir. 2006), *vacated*, 547 F.3d 1081 (9th Cir. 2008).

²⁷¹ See STEVEN FERREY, *THE LAW OF INDEPENDENT POWER: DEVELOPMENT, COGENERATION, UTILITY REGULATION* (31st ed. 2013); Steven Ferrey, *Inverting Choice of Law in the Wired Universe: Thermodynamics, Mass, and Energy*, 45 WM. & MARY L. REV 1839, 1914 (2004).

²⁷² Memorandum of Understanding, *supra* note 27, at 6.

²⁷³ CAP & TRADE SUBGROUP, CLIMATE ACTION TEAM, CAP AND TRADE PROGRAM DESIGN OPTIONS 8 (MAR. 27, 2006), *available at* http://www.climatechange.ca.gov/climate_action_team/reports/2006report/2006-03-27_CAP_AND_TRADE.PDF.

²⁷⁴ See RGGI EMISSIONS LEAKAGE MULTI-STATE STAFF WORKING GRP., REG’L GREENHOUSE GAS INITIATIVE, POTENTIAL EMISSIONS LEAKAGE AND THE REGIONAL GREENHOUSE GAS INITIATIVE (RGGI): EVALUATING MARKET DYNAMICS, MONITORING OPTIONS, AND POSSIBLE MITIGATION MECHANISMS ES-1 (Mar. 14, 2007), *available at* http://www.rggi.org/docs/il_report_final_3_14_07.pdf. RGGI States such as New Jersey, New York, Maryland, and Delaware are bordered by states that are not signatories to RGGI and do historically produce a large volume of electricity from coal-fueled power plants. In the United States, Pennsylvania ranks third in the amount of electricity generated, of which 40% is produced by coal-fired power plants and 30% is exported to other states. Pennsylvania is the fourth-leading producer of coal in the nation. See *Existing U.S. Coal Plants*, SOURCEWATCH, http://www.sourcewatch.org/index.php/Existing_U.S._Coal_Plants (last visited Nov. 6, 2014). Including Pennsylvania, four of the five largest state users of coal-fired power border Pennsylvania or are one state away, and can wheel power to the Atlantic state regions. Similarly, California imports power from 11 states, including a large amount of coal-fired power. Energy Info. Admin., Dep’t of Energy, *A Quarter of California’s Electricity Comes from Outside the State*, TODAY IN ENERGY (Dec. 19, 2011),

energy regulation is otherwise within state authority, it still must be applied within the constraints of the dormant Commerce Clause of the U.S. Constitution, so as not to unduly burden interstate commerce.²⁷⁵ Geographically-based restriction on interstate commerce, whether discriminating for or against local commerce, raises dormant Commerce Clause concerns, which are now being ventilated in legal challenges. Laws that attempt directly or indirectly to regulate the conduct of out-of-state businesses also violate the Commerce Clause.²⁷⁶ These laws can assume the form of added taxes and charges on out-of-state goods.²⁷⁷ States are prohibited from attaching restrictions to any goods that they import from other states.²⁷⁸

Where a state statute provided a tax exemption for sales of two types of wine, both produced from products produced in the state, even though not needing to mention the state by name, the effect was practically state-specific discrimination, and it was found to be discriminatory and a violation of the dormant Commerce Clause.²⁷⁹ A state cannot regulate to favor or require use of its own in-state energy resources, even for a small percentage of total use,²⁸⁰ nor can it, by regulation, harbor energy-related resources originating in the state.²⁸¹ In-state fuels cannot be required to be used by a state even for the rationale to satisfy federal Clean Air Act requirements.²⁸² Income tax credits cannot be given by a state only to in-state producers of fuel additives.²⁸³ State regulation of biofuels was before the Supreme Court 25 years before it was

<http://www.eia.gov/todayinenergy/detail.cfm?id=4370> (map illustrating import to California of electricity from Southwest, Northwest, Canada, and Rocky Mountain States); CAL. ENERGY COMM'N, 2006 NET SYSTEM POWER REPORT 4 (2007), <http://www.energy.ca.gov/2007publications/CEC-300-2007-007/CEC-300-2007-007.PDF> (showing California imports approximately 10% of its total electricity from out of state coal plants).

²⁷⁵ U.S. CONST. art. I, § 8, cl. 3.

²⁷⁶ See, e.g., *Healy v. Beer Inst.*, 491 U.S. 324, 326–27, 343 (1989) (striking requirement that the price of beer was not higher than that charged out-of-state).

²⁷⁷ See, e.g., *Chem. Waste Mgmt. v. Hunt*, 504 U.S. 334, 336–37 (1992) (invalidating an Alabama law imposing an extra fee on imported hazardous waste).

²⁷⁸ *C & A Carbone, Inc. v. Clarkstown*, 511 U.S. 383, 393 (1994) (“States and localities may not attach restrictions to . . . imports in order to control commerce in other States.”).

²⁷⁹ *Bacchus Imps. v. Dias*, 468 U.S. 263, 265, 276 (1984); see also *Carbone*, 511 U.S. at 393.

²⁸⁰ See, e.g., *Wyoming v. Oklahoma*, 502 U.S. 437, 454–56 (1992) (overturning an Oklahoma statute involving only a 10% allocation of the market to in-state producers); see also *Alliance for Clean Coal v. Craig*, 840 F. Supp. 554, 560 (N.D. Ill. 1993).

²⁸¹ See, e.g., *New Eng. Power Co. v. New Hampshire*, 455 U.S. 331, 339 (1982) (citing state law prohibiting the out-of-state sale of its hydroelectric energy a “protectionist regulation” precluded by the Commerce Clause).

²⁸² See, e.g., *Alliance for Clean Coal v. Miller*, 44 F.3d 591, 596–97 (7th Cir. 1995) (holding that the Illinois Coal Act had intent to eliminate use of out-of-state coal by Illinois generators, and was therefore invalid under Commerce Clause).

²⁸³ *New Energy Co. v. Limbach*, 486 U.S. 269, 271, 278–80 (1988).

recently raised in California.²⁸⁴ In *New Energy Co. v. Limbach*, the Supreme Court struck as unconstitutional a state law that gave favorable tax treatment to ethanol produced in-state, and held that health impacts addressed by the state were only incidental benefits, while the Commerce Clause burden and violation were not legally permitted.²⁸⁵

A. *The Ninth Circuit Decision on Renewable Transportation CO₂ Emissions Cap-and-Trade*

1. The California Low Carbon Fuel Standard

The Low Carbon Fuel Standard (LCFS)²⁸⁶ was “designed to reduce California’s dependence on petroleum” and to “stimulate the production and use of alternative, low-carbon fuels in California.”²⁸⁷ The LCFS regulates transportation fuels that are “sold, supplied, or offered for sale in California”²⁸⁸ and focuses on the “carbon intensity of fuels.”²⁸⁹ The LCFS’s goal is to reduce the carbon content of transportation fuels sold in California by 10% by the year 2020 from the year 2010 baseline.²⁹⁰

CARB’s LCFS rule in California includes the lifecycle GHG emissions of fuel, including emissions produced during production and transportation of fuels to California.²⁹¹ Carbon intensity is not limited to how much carbon the fuel contains, but also includes the amount of carbon released in the full fuel cycle.²⁹² The provider’s carbon intensity score is affected by the location of the

²⁸⁴ *Id.*

²⁸⁵ *Id.* at 271, 279.

²⁸⁶ For more discussion of the LCFS program, see *supra* Part III.E.

²⁸⁷ AIR RES. BD., CAL. ENVTL. PROT. AGENCY, CALIFORNIA’S LOW CARBON FUEL STANDARD: FINAL STATEMENT OF REASONS 457 (2009), available at <http://www.arb.ca.gov/regact/2009/lcfs09/lcfsfsor.pdf>.

²⁸⁸ *Id.* at 330.

²⁸⁹ *Id.* at 148.

²⁹⁰ CAL. CODE REGS. tit. 17, §§ 95482–95483 (2014).

²⁹¹ *Rocky Mountain Farmers Union v. Goldstene*, 843 F. Supp. 2d 1071, 1081 (E.D. Cal. 2011).

²⁹² CAL. CODE REGS. tit. 17, § 95481(a)(38) (2014). The LCFS refers to this inclusive concept as the “lifecycle greenhouse gas emissions,” which is defined as

the aggregate quantity of greenhouse gas emissions (including direct emissions and significant indirect emissions such as significant emissions from land use changes), as determined by the Executive Officer, related to the full fuel lifecycle, including all stages of fuel and feedstock production and distribution, from feedstock generation or extraction through the distribution and delivery and use of the finished fuel to the ultimate consumer, where the mass values for all greenhouse gases are adjusted to account for their relative global warming potential.

Id.

commerce. Corn-derived ethanol produced in the Midwest is assigned a higher carbon intensity score than chemically similar corn-derived ethanol produced anywhere in California, regardless of its transportation within California.²⁹³ Thus, a chemically identical ethanol imported from the Midwest is deemed to have a higher carbon intensity than ethanol produced anywhere in California, making the Midwest product more expensive for fuel providers seeking to meet the California fuel standard requirements.²⁹⁴

The LCFS rule was challenged in two court cases alleging that it violates federal and state law. One was under California state law claims,²⁹⁵ and another under federal constitutional law.²⁹⁶ *Rocky Mountain Farmers Union v. Goldstene* challenged the LCFS rule as violating the dormant Commerce Clause of the Constitution.²⁹⁷ Specifically, the LCFS regulation incorporates into its calculations the differences between indirectly associated carbon emissions from transportation, the farming methods used to raise the agricultural produce, and the fuel used to produce the electricity in the state where the ethanol is produced.²⁹⁸

2. The Federal Trial Court Cap-and-Trade Decision

In December 2011, the federal District Court for the Eastern District of California upheld the plaintiffs' argument, invalidating certain parts of the LCFS rule and enjoining the rule's enforcement, as it "discriminates against out-of-state corn-derived ethanol while favoring in-state corn ethanol and impermissibly regulates extraterritorial conduct."²⁹⁹ The court held that the LCFS differentiates based on place of origin of the commerce and concluded

²⁹³ *Id.*

²⁹⁴ AIR RES. BD., CAL. ENVTL. PROT. AGENCY, LOW CARBON FUEL STANDARD QUESTION AND ANSWER GUIDANCE DOCUMENT 4 (2011), available at http://www.arb.ca.gov/fuels/lcfs/LCFS_Guidance_%28Final_v.1.0%29.pdf. See generally, CAL. CONSUMER ALLIANCE FOR RESPONSIBLE FUEL POLICIES, LOW CARBON FUEL STANDARD ISSUE BRIEF 11 (n.d.), available at <http://www.fuelingcalifornia.org/wp-content/uploads/LCFS-Issue-Brief-FINAL.pdf> ("Based on forecasts by the California Energy commission (CEC) and the Energy Information Administration (EIA), Sierra found that the availability of low carbon biofuel supplies will not be plentiful enough to achieve the carbon intensity reductions required by the LCFS past 2014. If there are not enough supplies to meet the LCFS standard's current timeline, there will be a large shortage of fuel available to consumers after 2014.").

²⁹⁵ See *supra* Part III.E.

²⁹⁶ *Goldstene*, 843 F. Supp. 2d at 1079.

²⁹⁷ *Id.*

²⁹⁸ *Id.* at 1088.

²⁹⁹ *Id.* at 1105. CARB attributed the difference in carbon intensity values to multiple scientific factors in addition to geographic location factors (emissions related to shipping or transportation of fuel). *Id.* at 1087–88. The court relied upon a "table" of Carbon Intensity values generated by CARB. *Id.* at 1087.

that the LCFS discriminates on its face against out-of-state corn-derived ethanol.³⁰⁰

The trial court found that the LCFS served a legitimate local purpose,³⁰¹ but that the defendants had not met their burden to show that there was not a nondiscriminatory means to adequately serve their objective.³⁰² The court found that CARB had several other means to address the state's purpose without discriminating against out-of-state fuel products.³⁰³ The court here incorporates the Supreme Court's *Dean Milk* requirement to choose the least discriminatory or intrusive on interstate commerce means to regulate when it balances local purpose against a statute which either discriminates on its face or impermissibly controls conduct outside its borders.³⁰⁴

The court held that the LCFS "may not impose a barrier to interstate commerce based on the distance that the product must travel in interstate commerce."³⁰⁵ The California federal trial court reached this conclusion, relying in principal part on Supreme Court precedent in *Dean Milk* and *West Lynn Creamery v. Healy*.³⁰⁶ Even though the LCFS does benefit some other out-of-state producers or burdens some in-state producers, the court finds that this does not absolve the LCFS from a finding that it discriminates on its face³⁰⁷: "[L]egislation favoring in-state economic interests is facially invalid under the dormant Commerce Clause, even when such legislation also burdens some in-state interests or includes some out-of-state interests in the favored classification."³⁰⁸ The court held that "this type of regulation 'forc[es] a

³⁰⁰ *Id.* at 1087.

³⁰¹ *Id.* at 1093. The Rocky Mountain plaintiffs argued that the LCFS serves no local purpose, but rather California is attempting to solve the national and international problem of climate change. *Id.* The defendant state cited *Massachusetts v. EPA*, 549 U.S. 497 (2007), where the Supreme Court affirmed that "a state has a local and legitimate interest in reducing global warming." *Goldstene*, 843 F. Supp. 2d at 1093.

³⁰² *Goldstene*, 843 F. Supp. 2d at 1093. The court did recognize that lifecycle analysis is a widely accepted national and international approach to reduce carbon emissions, but this does not mean there is not a nondiscriminatory means to achieve this goal on a local level. *Id.* The Rocky Mountain plaintiffs offered many nondiscriminatory alternatives including a tax on fossil fuels or solely regulating tailpipe emissions. *Id.* at 1093–94.

³⁰³ *See, e.g., Dean Milk Co. v. City of Madison*, 340 U.S. 349 (1951).

³⁰⁴ *Goldstene*, 843 F. Supp. 2d at 1093.

³⁰⁵ *Id.* at 1089.

³⁰⁶ *Id.* at 1089. *Dean Milk* struck a local ordinance which required milk sold in the city to be pasteurized within five miles of the city, while *West Lynn Creamery v. Healy*, 512 U.S. 186 (1994), held that a differential burden placed at any point in the stream of commerce on out-of-state producers is constitutionally invalid. *Goldstene*, 843 F. Supp. 2d at 1089.

³⁰⁷ *Goldstene*, 843 F. Supp. 2d at 1089. For example, Brazilian sugarcane ethanol has a lower intensity score than some Californian corn ethanol and in-state producers of corn ethanol are penalized when importing corn from out-of-state. *Id.*

³⁰⁸ *Id.* (quoting *Daghlian v. DeVry Univ. Inc.*, 582 F. Supp. 2d 1231, 1243 (C.D. Cal. 2007)).

merchant to seek regulatory approval in one State before undertaking a transaction in another,' causing the LCFS to 'directly regulate[] interstate commerce.'"³⁰⁹

3. The Ninth Circuit Cap-and-Trade Reversal

The Ninth Circuit recently reversed the trial court finding of unconstitutionality, in a split decision with a dissent. The majority opinion determines that it is acceptable for a state to calculate transportation CO₂ in the carbon emissions index or rating of delivered fuel. The Ninth Circuit majority distinguishes that the Supreme Court precedent in *Hunt v. Washington Apple*,³¹⁰ applied to out-of-state "Midwest producers' use of coal-fired electricity[,] also does not merit respect under *Hunt*."³¹¹ The Ninth Circuit majority goes on to state that "[t]he dormant Commerce Clause does not require California to ignore the real differences in carbon intensity among out-of-state" product pathways to California, including the type of electricity consumed in the region of production and the distance of travel of the product to California.³¹²

However, in contrast to some past decisions' imposition of fees on out-of-state commerce,³¹³ the *Rocky Mountain* majority decision states that it is not unconstitutional for a state to devise and impose a regulatory index which results in out-of-state producers having to purchase additional credits or pay fees, which result in a significant new revenue flow to the state.³¹⁴ According to this Ninth Circuit decision, a state environmental purpose to reduce GHGs emitted in the state is enough to impose such regulation and costs. For scientific reasons, the California Appellate Court majority would allow regulatory incentives discouraging the importation of a commodity in interstate commerce, such as trash, being originated from geographic zones outside the state entering California. This shifts the primary discrimination back to the distance of travel in interstate commerce: geographic discrimination based on the point of origin of the commerce before it travels the distance to California.

The Ninth Circuit majority held that it is defensible to discriminate in state regulation based on (1) the average carbon-intensity of electricity production where the good is produced when electricity is used in the manufacture of items in commerce and (2) the distance that the good travels

³⁰⁹ *Id.* at 1092 (quoting *Brown-Forman Distillers Corp. v. N.Y. State Liquor Auth.*, 476 U.S. 573, 582 (1986)). If a provider changes its part of the fuel's lifecycle, such as changing its transportation mechanism to California, this change must be submitted to CARB. *Id.*

³¹⁰ *Hunt v. Wash. State Apple Adver. Comm'n*, 432 U.S. 333, 351 (1977).

³¹¹ *Rocky Mountain Farmers Union v. Corey*, 730 F.3d 1070, 1092 (9th Cir. 2013).

³¹² *Id.* at 1093.

³¹³ See Steven Ferrey, *Can the Ninth Circuit Overrule the Supreme Court on the Constitution?*, 93 NEB. L. REV. (forthcoming 2015).

³¹⁴ *Corey*, 730 F.3d at 1104.

from origin to use.³¹⁵ For such a statute or regulation to be upheld, the state usually must establish that there is a compelling state interest for which the statute is the least intrusive means to achieve that interest.³¹⁶

The written dissent to the appellate court opinion notes that, at oral argument, California admitted that there were means less burdensome on interstate commerce “to use lifecycle analysis to reduce GHG emissions.”³¹⁷ The dissent notes that California assumed that ethanol produced outside of California is less efficiently produced, without looking at individual plants producing ethanol.³¹⁸ It found this to choose the discriminatory means to regulate, rather than choose the nondiscriminatory alternative to regulate commerce across California borders.³¹⁹ The burden is on California to demonstrate that no less burdensome regulatory incentives were available to control GHGs, and the dissent concludes that California admitted that such alternatives were available and were not taken.³²⁰

The Supreme Court has repeatedly held that state regulation does not need to “be drafted explicitly along state lines in order to demonstrate its discriminatory design.”³²¹ Regulation need not facially mention discrimination against out-of-state entrants to be held in violation of the dormant Commerce Clause.³²² A regulation which “evinces” discriminatory purpose against interstate commerce, “or unambiguously discriminates in its effect . . . almost always is ‘invalid per se.’”³²³ Even where a statute is drafted in a fashion which is facially neutral rather than expressly discriminatory, for example by not mentioning the geographic location of the commerce but otherwise using other

³¹⁵ *Id.* at 1097, 1105.

³¹⁶ Trevor D. Stiles, *Renewable Resources and the Dormant Commerce Clause*, 4 ENVTL. & ENERGY L. & POL’Y J. 34, 59, 60–61 (2009) (outlining a history of the dormant Commerce Clause).

³¹⁷ *Corey*, 730 F.3d at 1109 (quoting hearing transcript).

³¹⁸ *Id.*

³¹⁹ *Id.* at 1109–10.

³²⁰ *Id.*

³²¹ *Id.* at 1097; *Amerada Hess Corp. v. N.J. Dep’t of Treasury*, 490 U.S. 66, 76 (1989); *see also* *C & A Carbone, Inc. v. Town of Clarkstown*, 511 U.S. 383, 391 (1994) (striking local trash processing requirement); *Fort Gratiot Sanitary Landfill Inc. v. Mich. Dep’t of Natural Res.*, 504 U.S. 353, 355 (1992) (striking ordinance banning disposal of out-of-county waste); *Dean Milk Co. v. City of Madison*, 340 U.S. 349, 350, 356 (1951) (striking ordinance requiring milk to be processed within five miles of town).

³²² *Rocky Mountain Farmers Union v. Goldstene*, 843 F. Supp. 2d 1071, 1081 (E.D. Cal. 2011); *Entergy Nuclear Vt. Yankee, LLC v. Shumlin*, 733 F.3d 393, 431 (2d Cir. 2013).

³²³ *Brown & Williamson Tobacco Corp. v. Pataki*, 320 F.3d 200, 209 (2d Cir. 2003) (quoting *Nat’l Elec. Mfrs. Ass’n v. Sorrell*, 272 F.3d 104, 108 (2d Cir. 2001)).

terms that result in a geographic preference, a court can apply a strict scrutiny standard where the state law has a discriminatory effect.³²⁴

The dormant Commerce Clause prohibits actions that are either facially discriminatory against or unduly burdensome to interstate commerce.³²⁵ A state cannot regulate in favor of, or require use of, its own in-state energy resources,³²⁶ nor can it, by regulation, harbor energy-related resources originating in the state.³²⁷ In-state fuels cannot be required to be used by a state even for the rationale to satisfy federal Clean Air Act requirements.³²⁸ Any geographic discrimination by a state, whether along state or other geographic lines, is suspect to strict scrutiny by the court. The dissent notes that “[i]n making [the] geographic distinction, the [regulation] patently discriminates against interstate commerce.”³²⁹

This Ninth Circuit opinion did not receive a majority for rehearing en banc³³⁰ and, without a formal split in the circuits, certiorari was denied by the Supreme Court in 2014.³³¹ Several aspects of the majority opinion are controversial for refashioning the past 75 years of U.S. Supreme Court determinations on the dormant Commerce Clause.³³² Greater discussion of this controversy is beyond the scope of this Article, but this pending controversy is covered in detail elsewhere.³³³

³²⁴ *Carbone*, 511 U.S. at 391 (“The ordinance is no less discriminatory because in-state or in-town processors are also covered by the prohibition.”); *Fort Gratiot*, 504 U.S. at 361; *S.-Cent. Timber Dev., Inc. v. Wunnicke*, 467 U.S. 82, 100 (1984) (“[The] Court has viewed with particular suspicion state statutes requiring business operations to be performed in the home State that could more efficiently be performed elsewhere. Even where the State is pursuing a clearly legitimate local interest, this particular burden on commerce has been declared to be virtually per se illegal.” (quoting *Pike v. Bruce Church*, 397 U.S. 137, 145 (1970))); *Hunt v. Wash. State Apple Adver. Comm’n*, 432 U.S. 333, 352–53 (1977).

³²⁵ *See Dep’t of Revenue v. Davis*, 553 U.S. 328, 338–39 (2008).

³²⁶ *See Wyoming v. Oklahoma*, 502 U.S. 437, 454–56 (1992); *Alliance for Clean Coal v. Craig*, 840 F. Supp. 554, 560 (N.D. Ill. 1993).

³²⁷ *See New Eng. Power Co. v. New Hampshire*, 455 U.S. 331, 339 (1982).

³²⁸ *See Alliance for Clean Coal v. Miller*, 44 F.3d 591, 596–97 (7th Cir. 1995).

³²⁹ *Rocky Mountain Farmers Union v. Corey*, 730 F.3d 1070, 1108 (9th Cir. 2013) (quoting *Or. Waste Sys. Inc. v. Dep’t of Env’tl. Quality*, 511 U.S. 93, 100 (1994)).

³³⁰ Petition for Rehearing En Banc, *supra* note 254 (“[T]he matter failed to receive a majority of the votes of the nonrecused active judges in favor of en banc consideration.”).

³³¹ *Corey*, 730 F.3d 1070, *cert. denied*, 134 S. Ct. 2875 (2014).

³³² *See Ferrey*, *supra* note 313.

³³³ *Id.*

B. Other State Cap-and-Trade Challenges

Other recent federal court challenges on cap-and-trade aspects of RGGI carbon control, based on constitutional grounds of the dormant Commerce Clause, have resulted in successful challenges.

1. Massachusetts Cap-and-Trade Regulation

There was a successful suit alleging that Massachusetts's renewable energy tradable energy credits under capped incentives violated the Constitution.³³⁴ The program was successfully challenged on constitutional grounds in 2010 by TransCanada Power, the owner of a Maine wind project.³³⁵ The suit alleged that Massachusetts's limitation on eligible Solar Renewable Energy Credits (SRECs) as well as issuance of long-term power purchase contracts only to Massachusetts companies both discriminated against out-of-state renewable energy projects in violation of the dormant Commerce Clause of the U.S. Constitution.³³⁶

After stating that it had confidence in its position, Massachusetts immediately settled the litigation so as to avoid a court decision, providing that TransCanada would be eligible for these programs.³³⁷ Massachusetts disqualified the already-completed in-state project winners of the original reverse-bidding auction for long-term power purchase agreements for renewable power and began again the utility request for out-of-state as well as in-state competitors to bid.³³⁸ The settlement allowed TransCanada to convert certain otherwise ineligible tradable renewable energy credits into eligible SRECs for contracts that did not qualify under the original regulations.³³⁹

³³⁴ Complaint at 1–2, *TransCanada Power Mktg. Ltd. v. Bowles*, No. 4:10-cv-40070 (D. Mass. Apr. 16, 2010) [hereinafter *TransCanada Complaint*], available at <http://www.ohiogreenstrategies.com/documents/transcanada.pdf>. TransCanada is an independent power company with a wind project in Maine, and challenged the constitutionality of Massachusetts's renewable portfolio standard program, given that under previous Massachusetts law, out-of-state generators were allowed to bid to supply power. *Id.*; Erin Ailworth, *State Looking to Settle Suit Over Law on Clean Energy*, BOS. GLOBE, May 27, 2010, http://www.boston.com/business/articles/2010/05/27/lawsuit_hits_mass_law_promoting_local_energy_providers/.

³³⁵ *TransCanada Complaint*, *supra* note 334, at 1–2.

³³⁶ *Id.* at 20–22.

³³⁷ See Partial Settlement Agreement, *TransCanada Power Mktg. Ltd. v. Bowles*, No. 4:10-cv-40070 (D. Mass. May 2010) [hereinafter *Partial Settlement Agreement*], available at www.mass.gov/eea/docs/doer/renewables/solar/settlement-agreement.pdf.

³³⁸ *Id.*

³³⁹ *Id.*

2. The Recent Seventh Circuit Energy Regulatory Holding on the Constitution

Judge Richard Posner, speaking for the Seventh Circuit Court of Appeals in a unanimous decision, affirmed the Federal Energy Regulatory Commission’s approval of the Midwest Independent Service Operator’s (MISO)³⁴⁰ proportionate customer utility allocation of transmission costs for high-voltage transmission lines to move renewable wind power to populated areas.³⁴¹ For authority for its holding on the respective jurisdiction of state and federal government to regulate electricity, the opinion relied on a 2012 law review article on constitutional federalism energy issues authored by Professor Ferrey.³⁴² The Seventh Circuit declared unconstitutional state regulation limiting state renewable portfolio standards (RPSs) to in-state generation as a violation of the dormant Commerce Clause: “[It] trips over an insurmountable constitutional objection. Michigan cannot, without violating the commerce clause of Article I of the Constitution, discriminate against out-of-state renewable energy.”³⁴³

Tradable energy credits applied to in-state renewable power and denied to identical out-of-state renewable power sold in the state were held unconstitutional.³⁴⁴ This is the highest federal court ruling on the constitutionality of state energy regulation under the Commerce Clause; the Supreme Court has never been presented with this question. However, of note, Justice Scalia, concurring in the majority in *West Lynn Creamery*, although not an energy matter, submitted that “subsidies for in-state industry . . . would clearly be invalid under any formulation of the Court’s guiding principle” for dormant Commerce Clause cases.³⁴⁵

³⁴⁰ Ill. Commerce Comm’n v. FERC, 721 F.3d 764, 781 (7th Cir. 2013). MISO’s service area extends from the Canadian border, east to Michigan and parts of Indiana, south to northern Missouri, and west to eastern areas of Montana. *Id.* at 770.

³⁴¹ *Id.* at 771–72. MISO allocated the costs of the transmission projects among all of the utilities who draw power from the MISO grid in proportion to each utility’s overall volume of usage; FERC approved MISO’s rate design, which led some states to initiate court appeal. *Id.*

³⁴² *Id.* at 776 (citing Steven Ferrey, *Threading the Constitutional Needle with Care: The Commerce Clause Threat to the New Infrastructure of Renewable Power*, 7 TEX. J. OIL GAS & ENERGY L. 59, 69, 106–07 (2012)).

³⁴³ *Id.* Michigan actually initiated the issue of in-state electric power discrimination in its RPS program as a demonstration that out-of-state power transmitted to it was not recognized as of the same value as in-state electricity, therefore Michigan should not pay a share of power line tariffs transmitting power from out of state that did not have equal recognition and benefit. *Id.* at 775–76. Instead of supporting its position, this assertion caused Judge Posner to respond to this assertion, even though it was not the tariff issue before the court. *Id.* at 776.

³⁴⁴ *Id.*

³⁴⁵ *W. Lynn Creamery v. Healy*, 512 U.S. 186, 208 (1994) (Scalia, J., concurring) (emphasis omitted).

V. FINAL THOUGHTS

“Cap-and-trade” is the modern 21st century mode du jour of environmental law. It is a key mechanism employed in the U.S. Clean Air Act,³⁴⁶ integral to the Clean Development Mechanism of the Kyoto Protocol for GHG control,³⁴⁷ and the regulatory foundation of carbon control in several U.S. states.³⁴⁸ This modern cap-and-trade metric for environmental regulation has been squarely in the telescopic sight of litigation by aggrieved parties. The result has rendered the EPA’s cap-and-trade environmental air regulations reaching the D.C. Circuit Court of Appeals in the past half-dozen years to be judged illegal in every one of five challenges.³⁴⁹ The grounds for these uninterrupted legal disqualifications of the EPA environmental air regulation programs are based on determinations that EPA cap-and-trade programs are

- exceeding EPA authority,
- not respecting state/federal jurisdictional lines,
- not factually supported, and
- not based on solid scientific evidence.

Key pieces of rulemakings on environmental and energy matters include a quantitative method, reasoned determination, factual scientific basis, and regulatory precision on the administrative record. The D.C. Circuit Court of Appeals stressed that an agency has broad leeway in deciding how much of a scientific margin of safety is sufficient in environmental matters,³⁵⁰ with the court exercising discretion to reassess evidence based on its own judgment.³⁵¹ Where there is scientific evidence as a critical part of the record, such as from an advisory committee, if the agency disagrees with its advisory committee, it “must give a sound scientific reason for its disagreement.”³⁵² U.S. Clean Air³⁵³

³⁴⁶ 42 U.S.C. §§ 7401–7431 (2013).

³⁴⁷ See FERREY, *supra* note 2, at 51–54.

³⁴⁸ *Id.* at 79–109.

³⁴⁹ See *supra* Part II and accompanying notes 30–33, 35, 39.

³⁵⁰ *Mississippi v. EPA*, 723 F.3d 246, 265 (D.C. Cir. 2013). In 2008, the EPA set both the primary and secondary ozone standards at 75 parts per billion, averaged over an eight-hour period. *Id.* at 253. The EPA also issued a secondary air quality standard for ozone (designed to protect public welfare), which was the same as the primary standard. *Id.* The court also stated that the EPA did not have to show that old standards were wrong due to errors or new evidence, in order to modify them. *Id.* at 273. The court said that the EPA had failed to give a clear enough explanation for making the secondary standard equal to the primary standard, and had failed to state explicitly “what level of protection was ‘requisite to protect the public welfare.’” *Id.*

³⁵¹ *Id.* at 265.

³⁵² *Id.* at 267. An independent health panel created under the federal Clean Air Act recommended that a more protective ozone health standard was justified. *Id.* at 257. The EPA need not always be as health-protective as its scientists recommend. *Id.* at 267.

³⁵³ 42 U.S.C. §§ 7401–7431 (2013).

regulation proceeds with distinct and separate roles at both the federal and state levels.³⁵⁴

Cap-and-trade regulation crafted by the EPA, when examined and subsequently detonated by federal court opinions, has had the impact of a legal neutron bomb, requiring reconstruction from scratch of the barely-standing regulatory programs around it. It is not the structure of allowed trading per se, but the lack of administrative foundation underneath agency decisions on the caps and the agency overreach beyond the substantive grant of congressional authority that have been the basis of critical decisions of the D.C. Circuit.³⁵⁵ These judicial decisions leave accessible an administrative on-ramp at a deliberate speed and clarity to implement cap-and-trade regulation of air emissions. There is not something inherently judicially suspect about cap-and-trade as a regulatory tool, if it is properly designed, technically substantiated, and implemented.

At the state level, cap-and-trade regulation to mitigate climate change emissions has not been shut out so extensively as federal use of cap-and-trade. Legal claims assert administrative and environmental law violations by state environmental agencies.³⁵⁶ Of several key cases, the challengers have prevailed in court or received a favorable settlement in more than half the challenges against state cap-and-trade regulations in which the legal claims have proceeded on the merits without a procedural defense allowing government to sidestep the merits of the claim.³⁵⁷ When raising state law claims, the challenge is likely to have venue in state court before state judges, and some of these disputes have resulted in judgments upholding the state's chosen cap-and-trade regulation.³⁵⁸ In a New York dispute regarding the legality of RGGI GHG regulation, the litigation was quickly settled by New York with benefits to the challenging regulated stakeholder plaintiffs, to avoid precedent being issued construing cap-and-trade.³⁵⁹ Subsequent suits challenging RGGI cap-and-trade regulation were dismissed on procedural grounds without reaching the merits.³⁶⁰

In addition to administrative law claims, the constitutional Commerce Clause is implicated when states regulate air emissions, renewable energy development, or GHGs in a manner which facially, or in purpose or effect, favors in-state commerce. For example, 29 states and the District of Columbia have enacted RPS requirements creating tradable credits related to renewable

³⁵⁴ EXAMPLES & EXPLANATIONS, *supra* note 13, at 182–203.

³⁵⁵ *See supra* Part II and accompanying notes 30–33, 35, 39.

³⁵⁶ *See supra* Part III.

³⁵⁷ *See supra* Part III.

³⁵⁸ States have deflected, through procedural defenses, some of the litigation from reaching the legal merits of the regulation. *See supra* notes 248–54 and accompanying text.

³⁵⁹ *See supra* Part III.F.

³⁶⁰ *See e.g., Thrun I*, No. 4358-11, 42 ELR 20132 (N.Y. Sup. Ct. June 13, 2012).

electricity production.³⁶¹ Twenty-two of these 29 states have incorporated provisions which to a greater or lesser degree favor in-state renewable energy commerce in electricity and burden out-of-state renewable electricity production.³⁶² The U.S. Supreme Court stated that there is nothing more fundamentally in interstate commerce than electricity: “[I]t is difficult to conceive of a more basic element of interstate commerce than electric energy, a product used in virtually every home and every commercial or manufacturing facility. No State relies solely on its own resources in this respect.”³⁶³

Some RPS programs consciously incorporate a design which entirely negates credit for out-of-state generated renewable electricity even after that electricity has been delivered through interstate commerce into the consuming state and consumed.³⁶⁴ Such programs were recently declared unanimously by the federal Seventh Circuit Court of Appeals to be fundamentally unconstitutional in dicta, without a Commerce Clause challenge squarely before the court.³⁶⁵ Some dormant Commerce Clause challenges have been settled in favor of the challengers.³⁶⁶ So this chessboard drama will continue until the Supreme Court eventually hears a case involving state regulation of renewable energy or carbon gases.

As to a violation of the dormant Commerce Clause of the U.S. Constitution,³⁶⁷ there was a split decision with the dissent in this circuit opinion and the judge in the federal trial court both finding California’s LCFS carbon regulation program to be unconstitutional.³⁶⁸ Additionally, the majority of judges hearing challenges to the LCFS cap-and-trade cases nationally hold it to be illegal on either state or constitutional grounds.³⁶⁹

Despite lack of judicial clarity, and the D.C. Circuit Court of Appeals repeatedly holding various EPA cap-and-trade regulations to be illegal, cap-and-trade has a future. It is still popular because it allows trading of emission allowances and credits. The fatal legal issues with cap-and-trade regulation are the EPA not following administrative law requirements for providing sufficient record support for the details of its cap-and-trade program design and requirements. These omissions, if fatal to program design, are remediable, and

³⁶¹ See Steven Ferrey, *Threading the Constitutional Needle with Care: The Commerce Clause Threat to the New Infrastructure of Renewable Power*, 7 TEX. J. OIL GAS & ENERGY L. 59, 62 (2012) [hereinafter *Threading the Constitutional Needle*].

³⁶² *Id.* at 72–80.

³⁶³ FERC v. Mississippi, 456 U.S. 742, 757 (1982).

³⁶⁴ *Threading the Constitutional Needle*, *supra* note 361, at 74–75.

³⁶⁵ Ill. Commerce Comm’n v. FERC, 721 F.3d 764, 776 (7th Cir. 2013).

³⁶⁶ Partial Settlement Agreement, *supra* note 337.

³⁶⁷ Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070, 1077 (9th Cir. 2013).

³⁶⁸ *Corey*, 730 F.3d at 1109; Rocky Mountain Farmers Union v. Goldstene, 843 F. Supp. 2d 1071, 1105 (E.D. Cal. 2011).

³⁶⁹ See *supra* Part IV.A.

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the Supreme Court in 2014 afforded more deference to EPA cap-and-trade discretion.³⁷⁰ However, this Supreme Court decision is limited to the single CSAPR cap-and-trade program. There are more cap-and-trade regulations to come, and more challenges and judicial decisions. The future outcome of cap-and-trade regulation is still very much in play in the courts, and will sculpt the contours of 21st century environmental regulation in a market economy.

³⁷⁰ EPA v. EME Homer City Generation, L.P., 134 S. Ct. 1584 (2014).