



The Cross-State Air Pollution Rule: What *American Lung Association v. EME Homer City Generation* Means for Texas

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Findings

- EPA's Cross-State Rule requires Texas to reduce its SO₂ emissions by nearly half, far beyond its own contribution to interstate pollution.
- EPA's actions represent an unprecedented usurpation of state authority to decide how best to comply with federal air quality standards.
- If the Cross-State Rule goes into effect, multiple Texas power plants would be forced to close, killing jobs and effecting the reliability of Texas' electrical grid.

Introduction

On December 10, 2013, the United States Supreme Court will hear oral arguments in *American Lung Association v. EME Homer City Generation*. At issue in the case is the validity of the U.S. Environmental Protection Agency (EPA)'s Cross-State Air Pollution Rule (CSAPR).^{*} The outcome of this litigation could have a substantial impact on Texas. According to several studies, CSAPR could lead to a 20 percent increase in electric rates.¹ In addition, the Electric Reliability Council of Texas ("ERCOT"), which operates the electrical grid in most of Texas, estimated that "had [the Cross-State Rule's] incremental reduction been in place in 2011, ERCOT would have experienced rotating outages during days in August." ERCOT further stated that, were the rule to go into effect, there would be "the potential for rotating outages" in the future.²

Implementation of CSAPR will also cost Texas jobs. After the rule was finalized in 2011, Luminant, the largest electrical generator in Texas, announced it would have to idle 1,200 MW of generating capacity, close three Texas lignite coal mines, and lay-off 500 employees in order to comply with the rule.³ Similarly, American Electric Power announced in June of 2011 that it was permanently closing five coal-fired plants and reducing operations at eight others.⁴ Only a last minute stay of CSAPR by the federal courts prevented Texas and the nation from suffering substantial harm under the rule.

Given the stakes, it is important that all Texans learn key facts about CSAPR and the legally flawed basis upon which it rests. This policy perspective summarizes the major issues involved in the case, and what it might mean for Texas.

Background

For more than 40 years, the Clean Air Act (CAA) has provided the framework for federal oversight of air quality issues.⁵ While much of the CAA is concerned with the effect that emissions in a given state have on air quality in that state, specific provisions also address the thorny problem of interstate emissions. Section 110(a)(2)(D) of the CAA, commonly called the "good neighbor provision," requires that a state take adequate measures:

- (i) prohibiting, consistent with the provisions of this sub-chapter, any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will — (I) contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any such national primary or secondary ambient air quality standard.⁶

CSAPR represents the EPA's second attempt to implement the good neighbor provision for National Ambient Air Quality Standards (NAAQS) for ozone and fine particulate matter. In 2008, a federal appeals court found that

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^{*} The Cross-State Air Pollution Rule is alternatively known as the Transport Rule, the Cross-State Rule, and CSAPR (pronounced "Casper").

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a prior EPA rule, the Clean Air Interstate Rule (or “CAIR”) exceeded EPA’s authority under the CAA.⁷ According to the court, CAIR was unlawful because it forced some states to bear more than their fair share of emissions reductions.

For example, CAIR required Louisiana to bear a higher proportion of the total contribution to the nonattainment of certain downwind states than its own proportion of contributing emissions, simply because reductions in other states (which used more coal than Louisiana) would be more costly. Effectively, CAIR meant that “a state having mostly coal-fired EGUs [received] more credits because Louisiana can control emissions more cheaply.”⁸ According to the courts, requiring states like Louisiana to “exceed the mark” of required emissions reductions itself exceeded EPA’s authority under the CAA.⁹

CSAPR’s Illegal Burden-Shifting

The court allowed CAIR to remain in place while the EPA developed a replacement.* Yet CSAPR, the EPA’s proposed replacement for CAIR, replicated precisely the same burden shifting that had led to CAIR being ruled unlawful. Unsurprisingly, then, CSAPR was quickly challenged by a variety of states and private parties, and in August of 2012 the federal court of appeals found the rule unlawful, not only because of the same sort of substantive defects that had doomed CAIR, but also because of the manner in which the EPA had gone about implementing the rule.¹⁰

In CSAPR, the EPA applied a two-stage process. First, the agency determined whether a particular upwind state

would be included in the rule based on whether that state’s contribution to nonattainment in one or more downwind states exceeded one percent of the relevant NAAQS (0.8 ppb for ozone, 0.15 $\mu\text{g}/\text{m}^3$ for annual $\text{PM}_{2.5}$, and 0.35 $\mu\text{g}/\text{m}^3$ for 24-hour $\text{PM}_{2.5}$).¹¹

In the second stage, however, EPA abandoned any consideration of the amount a state was contributing to nonattainment or interference with maintenance in another state. Instead, the EPA required states within the rule to make all emissions reductions that could be achieved at a given cost-per-ton of reduction. Cost levels were set based on EPA modeling of how different requirements would affect total emissions at the regional, rather than the state level.¹²

The EPA’s modeling, for example, calculated that Texas’ contribution to downwind nonattainment for annual $\text{PM}_{2.5}$ was 0.18 $\mu\text{g}/\text{m}^3$, just over the 0.15 $\mu\text{g}/\text{m}^3$ significance level under CSAPR for annual $\text{PM}_{2.5}$.¹³ In fact, when the EPA first proposed CSAPR in August of 2010, Texas was not included in the list of upwind states that would be subject to the rule for annual $\text{PM}_{2.5}$.¹⁴ And while the EPA did seek comment on whether Texas should be included in the final rule, its only suggested basis for this inclusion was that its “models project that the rule affects the cost of coal (generally lowering the cost of higher sulfur coals and raising the cost of lower sulfur coals),” which might induce Texas to use more high sulfur coal, increasing emissions.¹⁵

By the time the EPA issued CSAPR in 2011, however, it had abandoned this rationale. Instead, the agency included Texas in CSAPR for annual $\text{PM}_{2.5}$ based on updated models showing emissions from Texas contributing to nonattainment at a single monitor in Madison County, Illinois (despite the fact that the monitor in question has been in attainment of the $\text{PM}_{2.5}$ NAAQS since 2008.)¹⁶

Despite barely being over the threshold for inclusion in the rule, CSAPR required Texas to reduce its 2012 annual SO_2

* It is worth noting that many downwind states have attained the NAAQS at issue in CAIR and CSAPR. For example, a 2011 EPA report found that of the 91 nonattainment areas for the 1997 8 hour ozone NAAQS in downwind states, 89 had reached attainment. See EPA, Progress Report 2011: Environmental and Health Results (2013). Similarly, the downwind states targeted in the rule violated the 24 hour fine PM standard less than one-half percent of the time from 2007-2009. “Coal-Fired Power Investment in Emission Control,” Energy Ventures Analysis, December 2010.

emissions by over 200,000 tons,* a reduction of over 47 percent.¹⁷ By contrast, Iowa, which had modeled contributions to an out-of-state nonattainment area of 0.26 µg/m³ was required by CSAPR to reduce its emissions by less than 50,000 tons, or 38 percent of its total.¹⁸

Despite a contribution level just barely above the EPA's threshold, the emissions reductions required of Texas by the relevant portion of CSAPR were larger than those required of all but 8 of the 23 upwind states subject to the rule. According to the EPA's modeling, Texas' contribution to interstate emissions was less than half that of states such as Illinois, Missouri, and Pennsylvania.¹⁹ Yet CSAPR required Texas to reduce emissions by similar levels to those states.²⁰ CSAPR thus forced Texas to shoulder the burden of reducing other states' contributions simply because, in the EPA's judgment, it could do so more cheaply.

In defense of its approach, EPA pointed to *Michigan v. EPA*,²¹ a prior court decision which found that the EPA was allowed to consider cost in determining states' good neighbor obligations. The EPA's reliance on *Michigan*, however, obscures a key distinction between CSAPR and the rule at issue in that case. It is one thing for the EPA to use cost to reduce the amount of a state's good neighbor obligation. It is quite another for the EPA to use cost to increase a state's good neighbor contribution beyond what it would be if cost were not a factor.

In other words, the problem arose when the EPA used cost not as a *limitation* on a state's significant contribution to nonattainment of downwind states, but as the *definition* of that significant contribution. By doing that, CSAPR made some states "share the burden of reducing other upwind states' emissions," contrary to the CAA.²²

FIP First, Ask Questions Later

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The CAA clearly states that "air pollution prevention (that is, the reduction or elimination, through any measures, of the amount of pollutants produced or created at the source) and air pollution control at its source is the primary responsibility of States and local governments."²⁴

To ensure that primary responsibility for air pollution control remains with the states, the CAA "establishe[d] a partnership between EPA and the states for the attainment and maintenance of national air quality goals."²⁵ Under the CAA's "division of responsibility", the federal government is given the responsibility of setting forth air quality standards, while states retain primary authority for implementing those standards.²⁶ EPA sets NAAQS for different pollutants, after which each state develops a State Implementation Plan (SIP) to meet the NAAQS. EPA may impose its own Federal Implementation Plan (FIP) only if states decline to submit a SIP, or submit one that is legally deficient.

The text of the CAA is clear that a state has three years to revise its SIP to comply with revised NAAQS.²⁷ Yet when the EPA finalized CSAPR, it simultaneously imposed FIPs on the states to which the rule applied, without giving them an opportunity to revise their SIPs to comply with the new rule.

* Sulfur dioxide (SO₂) is a precursor emission that, according to EPA modeling, can interact with other emissions to exacerbate the effect of particulate matter emissions.

† Later technical revisions increased Texas' SO₂ budget slightly, by 26,359 tons. Environmental Protection Agency, Technical Support Document (TSD) for the Final Revisions to the Transport Rule, No. EPA-HQ-OAR-2009-0491, 8 (June 2012).

Under the EPA’s interpretation of the statute, states would be required not only to come up with a reasonable specification of their good neighbor obligations, but to anticipate how the EPA might later define those obligations.

According to the court of appeals, EPA’s specification of states’ obligations under the good neighbor provision was “analogous to setting a NAAQS.”²⁸ And indeed, the EPA has previously recognized the same point. In issuing a prior rule defining states’ good neighbor obligations, the EPA stated that:

Although the cases to date have not addressed directly whether it is the province of EPA or the States to determine the aggregate amounts of emissions to be prohibited (and hence, the amounts that may remain—i.e., the emissions budgets), EPA believes it reasonable to interpret the ambiguity in section 110(a)(2)(D)(i) (I) to include this determination among EPA’s responsibilities, particularly in the current circumstances. Determining the overall level of air pollutants allowed to be emitted in a State is comparable to determining overall standards of air quality, which the courts have recognized as EPA’s responsibility, and is distinguishable from determining the particular mix of controls among individual sources to attain those standards, which the caselaw identifies as a State responsibility.²⁹

In this case, however, the EPA argued that the obligation for a state to comply with the good neighbor provision arose from the text of the CAA itself, rather than from an EPA action. And, as such, the EPA did not need to wait the required three years before imposing FIPs.

The implications of the EPA’s interpretation of the good neighbor provision are enormous. Any EPA specification of states’ good neighbor obligations will necessarily rely on data and policy judgments that states cannot predict in advance. Under the EPA’s interpretation of the statute, states

would be required not only to come up with a reasonable specification of their good neighbor obligations, but to anticipate how the EPA might later define those obligations.

The calculations needed to determine each state’s contribution to nonattainment in other states is highly complex, with the EPA basing its determination on specific modeling. Yet “[a]ny model is an abstraction from and simplification of the real world,” and will involve making assumptions about the interactions of numerous environmental, economic, and other factors.³⁰ In many cases, multiple versions of a given model may be reasonable given the available evidence, even though the different models produce substantially different conclusions. But under the EPA’s logic, to comply with the good neighbor provision a state must correctly anticipate the precise results of the EPA’s modeling of interstate pollution.

Consider, for example, the EPA’s inclusion of Texas in CSAPR. The EPA initially suggested that it might include Texas in the rule based on speculation on the effect that CSAPR might have on the price of coal, and ultimately included Texas based on revised modeling for a single Illinois monitor. Under the EPA’s interpretation of the good neighbor provision, Texas was obligated to predict that future EPA modeling would show Texas to contribute significantly to nonattainment in Illinois before the EPA itself even knew this. And, potentially, it would have to predict how future EPA action implementing the good neighbor provision would itself affect the relative price of low vs. high sulfur coal, among innumerable other factors.

In some cases, EPA’s modeling assumptions were based on outright errors. For example, EPA equated Texas’ 10,000 MW of installed wind capacity with 10,000 MW of actual electric generation. In actuality, the intermittency of wind electricity means that actual generation from wind will fall far short of installed capacity. According to ERCOT, only 8.7 percent of installed wind capacity can be counted on during periods of peak demand. As a result of this and other errors, the EPA calculated the total generating capacity in Texas at roughly 90,000 MW, whereas ERCOT calculated the same figure at approximately 72,000 MW. Yet under the EPA’s interpretation, it is their own faulty figures that a state must anticipate.³¹

Indeed, it is not simply a matter of anticipating what modeling assumptions the EPA will use. Since, under EPA's argument, the agency is under no obligation to implement the good neighbor provision until after states have incorporated their good neighbor compliance strategies into their SIPs, the EPA could, if it wished, choose its own modeling assumptions so as to guarantee non-compliance by certain states. The EPA's position is thus the equivalent of demanding that states guess what number EPA is thinking of before it has picked a number. Since the EPA cannot require states to do the impossible, the court of appeals found that the EPA's automatic imposition of FIPs exceeded its legal authority.³²

Conclusion

CSAPR is only one of many examples of recent regulatory overreach by the EPA,³³ and the litigation challenging CSAPR is only one of many examples of Texas fighting to protect its rights through the court system.³⁴ Both EPA overreach and Texas' legal pushback are likely to continue regardless of what the Supreme Court decides in *American Lung Association v. EME Homer City Generation*. Nevertheless, the case could be a significant indicator of how subsequent legal challenges will be resolved. Unless the EPA's authority is limited, it will continue to use novel and strained interpretations of the law to impose burdensome regulations on Texas and other states. ★

Endnotes

- ¹ Kathleen Hartnett White, "EPA's Power Sapper," *National Review Online* (13 July 2011).
- ² ERCOT, *Impacts of the Cross-State Air Pollution Rule on the ERCOT System* (1 Sept. 2011) 5.
- ³ Glenn Evens, "Luminant Estimates 500 Cuts to Meet EPA Rule," *Longview News-Journal* (13 Sept. 2011).
- ⁴ American Electric Power, "AEP Shares Plan for Compliance with Proposed EPA Regulations," press release (9 June 2011).
- ⁵ 42 U.S.C. § 7401 et. seq.
- ⁶ 42 U.S.C. § 7410(a)(2)(D).
- ⁷ *North Carolina v. EPA*, 531 F.3d 896, 921 (D.C. Cir. 2008).
- ⁸ *North Carolina*, 531 F.3d at 920.
- ⁹ *Ibid.*
- ¹⁰ *EME Homer City Generation v. EPA*, 696 F.3d 7 (D.C. Cir. 2012).
- ¹¹ 76 Fed. Reg. 48,208, 48,236 (8 Aug. 2011).
- ¹² 76 Fed. Reg. at 48,250-59
- ¹³ 76 Fed. Reg. at 48,240 (Table V.D-1);
- ¹⁴ 75 Fed. Reg. 45,210, 45,215; see *id.* at 45,255 (Table IV.C_13).
- ¹⁵ 75 Fed. Reg. at 45,284.
- ¹⁶ 76 Fed. Reg. at 48,213, 48,240-41 (Tables V.D_1, V.D_2).
- ¹⁷ 76 Fed. Reg. at 48,305 (Table VIII.A-3).
- ¹⁸ *Ibid.*
- ¹⁹ 76 Fed. Reg. at 48,240-41 (Tables V.D-1, V.D-2).
- ²⁰ 76 Fed. Reg. at 48,305 (Table VIII.A-3).
- ²¹ 213 F.3d 663, (D.C. Cir. 2000).
- ²² *Homer City Generation*, 696 F.3d at 26 (quoting *North Carolina*, 531 F.3d at 921).
- ²³ *Homer City Generation*, 696 F.3d at 34 n.32.
- ²⁴ 42 U.S.C. § 7401(a)(3).
- ²⁵ *Natural Res. Def. Council v. Browner*, 57 F.3d 1122, 1123 (D.C. Cir. 1995).
- ²⁶ *Train v. Natural Res. Def. Council*, 421 U.S. 60, 79 (1975) (EPA "is relegated by the [CAA] to a secondary role in the process of determining and enforcing the specific, source-by-source emission limitations which are necessary if the national standards it has set are to be met.")
- ²⁷ 42 U.S.C. § 7410(a)(1).
- ²⁸ *Homer City Generation*, 696 F.3d at 33.
- ²⁹ 63 Fed. Reg. 57,356 57,369 (27 Oct. 1998).
- ³⁰ *Small Refiner Lead Phase-Down v. EPA*, 705 F.2d 506, 535 (1983).
- ³¹ *Texas v. EPA*, No. 11-1338 (Doc. 1331052) (Exhibit D) (D.C. Cir. Sept. 22, 2011).
- ³² *Homer City Generation*, 696 F.3d at 35.
- ³³ Kathleen Hartnett White, *EPA's Approaching Regulatory Avalanche*, Texas Public Policy Foundation (Feb. 2012).
- ³⁴ Josiah Neeley, *Texas vs. EPA: Litigation Scorecard*, Texas Public Policy Foundation (Sept. 2012).

About the Author



Josiah Neeley joined the Foundation in October of 2011 as a Policy Analyst for the Center for Tenth Amendment Studies and the Armstrong Center on Energy & the Environment.

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