

ORAL ARGUMENT SCHEDULED FOR JUNE 2, 2016

No. 15-1363 (and Consolidated Cases)

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

STATE OF WEST VIRGINIA, et al.,
Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, et al.,
Respondents.

**On Petition for Review of a Final Agency Action of the
United States Environmental Protection Agency
80 Fed. Reg. 64,662 (Oct. 23, 2015)**

**CORRECTED BRIEF OF AMICI CURIAE FORMER STATE
ENVIRONMENTAL AND ENERGY OFFICIALS
IN SUPPORT OF RESPONDENTS**

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April 1, 2016

CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

Pursuant to Circuit Rule 28(a)(1), counsel for *amici curiae* Former State Environmental and Energy Officials (Former State Officials) certifies as follows:

Except for the *amici curiae* Former State Officials; Union of Concerned Scientists; and Grid Experts Benjamin F. Hobbs, Brendan Kirby, Kenneth J. Lutz, James D. McCalley, and Brian Parsons, all parties and *amici*, rulings under review, and related cases are, to the best of my knowledge, set forth in the Brief for Respondents Environmental Protection Agency, ECF 1605911.

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April 1, 2016

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TABLE OF CONTENTS

CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES	i
TABLE OF CONTENTS	v
TABLE OF AUTHORITIES	vii
GLOSSARY OF ACRONYMS AND ABBREVIATIONS.....	ix
RULE 29 STATEMENTS.....	x
INTEREST OF AMICI CURIAE.....	x
SUMMARY OF ARGUMENT	1
ARGUMENT.....	4
I. The CPP emissions targets are eminently achievable.....	4
A. The power sector has begun the transition towards lower carbon emissions but requires additional stimulus to achieve the goals of the CPP.....	5
B. State and regional efforts establishing emissions trading regimes and promoting cleaner energy are already reducing carbon emissions.....	7
C. Many states are already meeting or exceeding CPP targets and others are poised to do so.....	9
II. The CPP’s phased approach allows ample time for states to plan and implement compliance mechanisms.....	12
III. The CPP emphasizes flexible, cost-effective ways to meet emissions targets over the next fifteen years.	16

IV. The CPP is designed to work within existing state energy regulatory systems..... 18

A. States already have authority implement the CPP. 18

B. The CPP does not alter the role of state environmental agencies. 18

C. The CPP does not alter the traditional authority of state PUCs or other state energy agencies. 20

D. Increased reliance on energy efficiency and renewables will help lower production costs and protect consumers..... 23

V. The CPP ensures grid reliability by affording states flexibility to optimize the manner and timing of emissions reductions. 25

CONCLUSION..... 27

CERTIFICATE OF COMPLIANCE..... 29

CERTIFICATE OF SERVICE 30

TABLE OF AUTHORITIES

Cases

<i>Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm'n</i> , 461 U.S. 190, 206 (1983)	21
--	----

Statutes

42 U.S.C. § 7410, Clean Air Act § 110	3, 12
42 U.S.C. § 7411(d), Clean Air Act § 111(b)	1, 3, 4, 12
2006 Cal. Legis. Serv. Ch. 488 (A.B. 32)	8

Other Authorities

<i>Air Quality Trends</i> , Env't'l Prot. Agency, https://www3.epa.gov/airtrends/aqtrends.html#comparison	1
Chapter 5: Renewable Portfolio Standards, EPA Energy and Environment Guide to Action 5-1 (2015), https://www3.epa.gov/statelocalclimate/documents/pdf/guide_action_chapter5.pdf	7
<i>Climate Change Programs</i> , Cal. Env'tl. Protection Agency, http://www.arb.ca.gov/cc/cc.htm	8
<i>Coal-fired Power Plant Operators Consider Emissions Compliance Strategies</i> , Energy Info. Admin. (Mar. 28, 2014), https://www.eia.gov/todayinenergy/detail.cfm?id=15611	14
Michael Hiltzik, <i>Emissions Cap-and-Trade Program Working Well in California</i> , L.A. Times (June 12, 2015), http://www.latimes.com/business/hiltzik/la-fi-hiltzik-20150613-column.html	8
Paul Hibbard, Andrea Okie, & Katherine Franklin, <i>Assessment of EPA's Clean Power Plan: Evaluation of Energy Efficiency Program Ramp Rates and Savings Levels</i> , (2014), http://www.analysisgroup.com/uploadedfiles/content/insights/publishing/assessment_of_epa_clean_power_plan.pdf	6

<i>Program Design</i> , Regional Greenhouse Gas Initiative, www.rggi.org/design	8
Ron Lile & Dallas Burtraw, <i>State-Level Policies and Regulatory Guidance for Compliance in the Early Years of the SO2 Emission Allowance Trading Program 13-52</i> (May 1998).....	22
Ross Brown, <i>Cap-and-Trade Revenue: Likely Much Higher Than Governor's Budget Assumes</i> , Legislative Analyst's Office (Feb. 26, 2015), http://lao.ca.gov/LAOEconTax/Article/Detail/64	8
<i>Supreme Court Stay Response</i> , E&E Publishing, http://www.eenews.net/interactive/clean_power_plan#planning_status	16
<i>Welcome</i> , Regional Greenhouse Gas Initiative, www.rggi.org	8

GLOSSARY OF ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation English

BSER	Best System of Emission Reduction
CAA	Clean Air Act
CPP	Clean Power Plan
EGU	Electric Generating Units
ISO	Independent System Operators
MATS	Mercury and Air Toxics Standard
RTO	Regional Transmission Organizations
RPS	Renewable Portfolio Standard
PUC	Public Utility Commission

RULE 29 STATEMENTS

All parties have either consented or have taken no position on the filing of this brief as indicated in *amici's* Unopposed Motion by Former State Energy and Environmental Officials for Leave to Participate as Amici Curiae, ECF No. 1605880.

Pursuant to D.C. Cir. Rule 29(c)(5), no party's counsel authored this brief in whole or in part; no party or party's counsel, or any other person contributed money that was intended to fund preparing or submitting the brief. All work on this brief was *pro bono*.

INTEREST OF AMICI CURIAE

Amici are sixteen former high-level state environmental and energy officials. *Amici* have decades of experience overseeing economic, reliability, environmental, and other aspects of the electric power sector. Based on their considerable knowledge and experience, *amici* wish to explain why the Clean Power Plan's flexible approach is well suited for achieving carbon emissions targets while maintaining the reliability and performance of the nation's electricity system and respecting the traditional role of the states in utility regulation.

SUMMARY OF ARGUMENT

For over four decades, the Environmental Protection Agency and the states have worked together under the cooperative federalism scheme established in the 1970 Clean Air Act (CAA) to reduce pollution from the power sector, improve air quality, and protect public health without disrupting the delivery of electricity to consumers or impeding economic progress.¹ The flexibility that the CAA provides in establishing and implementing standards of performance for existing sources under § 111(d) is well suited for the regulation of carbon pollution from fossil fuel power plants. Past efforts, including the 2012 Mercury and Air Toxics Standard (MATS), and the nitrogen oxides “SIP Call,” have led to significant environmental benefits without suddenly disrupting the power sector. The CPP is no different.

The CPP establishes carbon dioxide emission reduction targets for existing fossil fuel power plants. The targets, which are phased in from 2022 to 2030, are eminently reasonable, achievable, and necessary. The targets are quite modest given strong positive trends in the power sector. While coal has dominated power production historically, natural gas prices have fallen steeply with the advent of hydraulic fracturing, making gas—not coal—the most economic fossil fuel choice

¹ Between 1970 and 2011, aggregate emissions of common air pollutants dropped 68 percent, while the U.S. gross domestic product grew 212 percent. *Air Quality Trends*, Env't Prot. Agency, [https://www3.epa.gov/airtrends/aqtrends.html - comparison](https://www3.epa.gov/airtrends/aqtrends.html-comparison) (last visited Mar. 29, 2016).

in many markets. Switching from coal to gas reduces carbon emissions by half. Likewise, the rapidly declining costs of solar and wind power are making these zero carbon sources competitive with gas in many places. Increasing investments in energy efficiency, spurred by state efficiency standards, economic incentives, and other policies, are reducing demand, lowering energy costs to customers, creating jobs, and improving public health and environmental quality across the country.

These forces are already moving the power sector towards significant reductions in carbon pollution. *Amici* and experts throughout the industry expect these trends to continue for the foreseeable future. The CPP provides a framework to capture these trends and market signals, and the impetus to ensure states achieve the necessary emission reductions in the most efficient and cost effective way possible.

The CPP's flexible approach offers states the opportunity to choose options that best meet their energy, environmental, and economic objectives. Instead of dictating a particular energy portfolio, the CPP offers states significant latitude to determine optimal timing, manner, and distribution of emission-reduction requirements across power plants, and to adjust the path over time as circumstances warrant. States can choose the most appropriate strategy for meeting the carbon pollution targets. For example, most of the state petitioners have

experience with implementing the NO_x/SO₂ trading programs under the NO_x SIP Call and the Cross State Air Pollution Rule. These rules were adopted under § 110, which is the model for the § 111(d) process EPA used for the CPP.

Thirty-seven states have already adopted mandatory Renewable Portfolio Standards that encourage deployment of wind, solar and other low carbon energy sources, and twenty-four states have adopted long-term energy efficiency goals. Other states have joined emissions trading programs like the Regional Greenhouse Gas Initiative. California has adopted its own economy-wide cap and trade program for greenhouse gases. States may adopt similar approaches or propose other options to accomplish the modest goals of the CPP.

The CPP does not change the states' role in regulating the power sector. States with traditional utility regulation will continue to have the ability to review utilities' compliance plans to control costs. Grid operators, such as utilities or Regional Transmission Organizations, routinely make decisions about how to economically dispatch available generating capacity, typically bringing base load generators with low operating costs online first, followed by units with higher operating costs as needed. The order of dispatch may change as fuel prices shift or as power plants are retired or brought online. By design, the CPP respects and preserves the fundamental roles of grid operators and the jurisdiction of state

regulatory bodies, including environmental agencies and Public Utility Commissions (PUC).

ARGUMENT

I. The CPP emissions targets are eminently achievable.

Pursuant to § 111(d), EPA promulgated the CPP rule to reduce carbon emissions from affected sources 32 percent below 2005 levels by 2030. Carbon Pollution Emissions Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,665 (to be codified at 40 C.F.R. § 60) (Oct. 23, 2015) [hereinafter Final Rule]. To accomplish this goal, the CPP requires fossil fuel-fired electric steam generating units and stationary combustion turbines to meet carbon dioxide emission limits expressed as pounds of carbon dioxide per Megawatt-hour of electricity generated. Final Rule, 80 Fed. Reg. at 64,812. Alternatively, the CPP provides a statewide rate-based standard or an equivalent statewide mass-based target, in tons of carbon dioxide. Final Rule, 80 Fed. Reg. at 64,664. The CPP offers states unprecedented flexibility in determining how to meet either of these limits. That flexibility, combined with the ongoing market-driven transition away from high-carbon fuel sources and the states' considerable regulatory experience under the CAA, ensures states can meet the CPP's modest targets by 2030.

A. The power sector has begun the transition towards lower carbon emissions but requires additional stimulus to achieve the goals of the CPP.

From 2005 to 2013, the power sector reduced its carbon dioxide emissions by 15 percent. Final Rule, 80 Fed. Reg. 64,689 tbl. 4; Hibbard Decl. ¶¶ 21–22, ECF No. 1587530 at 692–94; Wellinghoff Decl. ¶ 23, ECF No. 1587530 at 396. This shift is due largely to economic factors, state efforts to reduce carbon pollution and promote renewable energy, and other environmental regulations. As a result, not only have overall power sector emissions dropped by 15 percent, many states either have met or are on their way to meeting their targets. Munns Decl. ¶ 9, ECF No. 1587530 at 617–19. The CPP is designed to expedite this clean energy transition.

Energy markets are already moving away from high-carbon fuel sources. Final Rule, 80 Fed. Reg. at 64,694; Tierney Decl. ¶ 52, ECF No. 1587530 at 319–20. Natural gas prices have been declining sharply due to the abundance of newly accessible supplies. Tierney Decl. at ¶ 66, ECF No. 1587530 at 331–32. Renewable energy is also expanding rapidly. Final Rule, 80 Fed. Reg. at 64,694; Tierney Decl. ¶ 49, ECF No. 1587530 at 312–14. Simultaneously, the reliance on coal has decreased due to relatively high commodity costs coupled with declining natural gas prices and renewable power costs. Tierney Decl. ¶ 66, ECF No. 1587530 at 331–32. Because renewable sources have very low operating costs

compared to coal and natural gas, these sources are dispatched for electricity generation whenever possible. *Id.* at ¶ 69; Final Rule, 80 Fed. Reg. at 64,693, 64,795. These are often the best strategies for reducing carbon emissions because conventional “end of stack” pollution controls will not work for carbon. Final Rule, 80 Fed. Reg. at 64,690.

Electric utilities have been operating “demand-side” programs for many years as alternatives to building new power plants. *See, e.g.*, Final Rule, 80 Fed. Reg. at 64,678 (funding for utility energy efficiency programs grew by \$4.7 billion from 2006–2013). These projects reduce demand for electricity from the grid, thus supporting the electric system’s ability to respond to changes in the system within the timelines anticipated by the CPP. *See id.* at 64,730. Such resources can be brought on line relatively quickly.² They are also relatively inexpensive, abundant and expected to grow even in the absence of the Clean Power Plan. Tierney Decl., n. 59, ECF No. 1587530 at 322.³

² *See* Paul Hibbard, Andrea Okie, & Katherine Franklin, Assessment of EPA’s Clean Power Plan: Evaluation of Energy Efficiency Program Ramp Rates and Savings Levels, (2014), http://www.analysisgroup.com/uploadedfiles/content/insights/publishing/assessment_of_epa_clean_power_plan.pdf.

³ “By 2025, spending on electric and gas efficiency programs ... is projected to double from 2010 levels to \$9.5 billion in the medium case, compared to \$15.6 billion in the high case and \$6.5 billion in the low case.” Galen L. Barbose et al., The Future of Utility Customer-Funded Energy Efficiency Programs in the United

B. State and regional efforts establishing emissions trading regimes and promoting cleaner energy are already reducing carbon emissions.

The CPP is first and foremost a pollution control program. It seeks to reduce carbon pollution through traditional measures such as setting facility specific emission limits and allowing states to establish trading regimes to maximize cost effectiveness. But it also recognizes that state energy policies play an important role in determining what kinds of new energy sources come online. More specifically, state and regional efforts to promote renewable energy and energy efficiency have facilitated the shift away from high carbon electricity generation. States have promoted renewable energy through Renewable Portfolio Standards (RPS), which require utilities to supply a specific minimum percentage of customer demand with renewable electricity.⁴

States have also implemented regional market-based regulatory programs like the Regional Greenhouse Gas Initiative to reduce emissions from power plants. This is a cooperative effort between nine Northeast and Mid-Atlantic states that sets a regional carbon dioxide emission cap, and individual states implement a

States: Projected Spending and Savings to 2025 5 (2013),
<https://emp.lbl.gov/sites/all/files/lbnl-5803e.pdf>.

⁴ Chapter 5: Renewable Portfolio Standards, EPA Energy and Environment Guide to Action 5-1 (2015),
https://www3.epa.gov/statelocalclimate/documents/pdf/guide_action_chapter5.pdf.

Budget Trading Program with carbon dioxide allowance auctions to meet the emission reductions.⁵ Proceeds from carbon dioxide allowance auctions are then invested, most commonly, in energy efficiency projects.⁶

California has established its own economy wide emissions trading program under the state's landmark Global Warming Solutions Act. 2006 Cal. Legis. Serv. Ch. 488 (A.B. 32) (WEST). The goal of the program is to reduce greenhouse gas emissions to 1990 levels by 2020 with an eventual goal of cutting emission by 80% by 2050.⁷ Now several years in operation, the program is working well and without a measurable drag on economic growth.⁸ The program generated \$969 million in revenue for the state through the end of 2014, and is expected to generate \$1.7 billion a year or more in the future.⁹

⁵ *Program Design*, Regional Greenhouse Gas Initiative, www.rggi.org/design (last visited Mar. 24, 2016).

⁶ *Welcome*, Regional Greenhouse Gas Initiative, www.rggi.org (last visited Mar. 24, 2016).

⁷ *Climate Change Programs*, Cal. Env'tl. Protection Agency, <http://www.arb.ca.gov/cc/cc.htm> (last visited Mar. 30, 2016).

⁸ Michael Hiltzik, *Emissions Cap-and-Trade Program Working Well in California*, L.A. Times (June 12, 2015), <http://www.latimes.com/business/hiltzik/la-fi-hiltzik-20150613-column.html>.

⁹ Ross Brown, *Cap-and-Trade Revenue: Likely Much Higher Than Governor's Budget Assumes*, Legislative Analyst's Office (Feb. 26, 2015), <http://lao.ca.gov/LAOEconTax/Article/Detail/64>.

C. Many states are already meeting or exceeding CPP targets and others are poised to do so.

As a result of market forces and state efforts to support energy efficiency, renewable energy, and emissions trading programs, many states already have or can easily achieve CPP emission targets. As former state air and energy regulators, many of the *amici* pioneered these efforts and can attest to the experience states have in leading successful changes to the energy mix in their states. Petitioner Texas, for example, is on track to achieve the 2022–2029 interim target goals, and 88% of the 2030 compliance goal assuming business-as-usual. Soward Decl. ¶ 31, ECF No. 1587530 at 525. Sixty-five percent of the state’s energy comes from sources other than coal, and Texas has more natural gas reserves than any other state. *Id.* at ¶ 29. Texas also leads the nation in wind power production and solar energy potential. *Id.* at ¶ 30. Many Texas electric companies anticipate being able to comply with the CPP due to their diversified fuel mixes. *Id.* at ¶ 32.

Petitioner Colorado is also on track to reach the goals of the CPP. Governor Hickenlooper declined to join the litigation challenging the CPP because “the public interest is better served by an open, inclusive process to implement the Clean Power Plan. . . .” Roberts Decl. ¶ 21, ECF No. 1587530 at 593 (quoting the Governor’s Chief Legal Counsel). Colorado has already “taken significant steps to reduce carbon emissions, including retiring or re-powering coal-fired units, increasing renewable energy use and energy efficiency, and reducing energy

demand.” *Id.* In Colorado, 13% of the state’s energy produced in 2014 came from wind power, and the state has increased its reliance on other renewable resources. *Id.* at ¶¶ 15–16.

Some states have been able to accomplish carbon dioxide emission reductions greater than those required by the CPP. Hibbard and Okie Decl. ¶ 25, ECF No. 1587530 at 696–97. Tennessee reduced its carbon dioxide emissions by 40% since 2005, largely because the state shifted away from coal to lower-carbon sources like nuclear, natural gas, and renewables. *Id.* at Ex. 4A and 4B. Ohio reduced its emissions by 14% from 2010 to 2013, during a period of strong economic growth in the state. *Id.* at Ex. 5C. The annual average percent change in emissions in Ohio from 2010 to 2013 was –4.7%, which exceeds the –2.5% change implied by the CPP for the state. *Id.* Florida reduced its emissions by 37% from 2005 to 2013 because the state shifted its energy production from coal to natural gas. *Id.* at Ex. 6A and 6B. Minnesota reduced its emissions by 26% with a –3.2% change in emissions (compared to the CPP implied rate of –3.1% a year), and achieved these reductions by shifting from coal to renewable energy. *Id.* at Ex. 7A and 7B.

Many of the states opposed to the CPP are poised to achieve the carbon reduction goals even if they do nothing further. According to an analysis by MJ

Bradley & Associates,¹⁰ twenty-one of the petitioner states will fully achieve the emissions targets through 2024, and eighteen will achieve the 2030 targets “by relying exclusively on existing generation, investments already planned within each state, and implementation of respective existing state policies.” Munns Decl. ¶ 9, ECF No. 1587530 at 617–18. Evidence shows that states opposing the CPP targets “can come into compliance through a very modest compliance effort” by implementing energy efficiency projects and new generation projects comparable to their neighboring states. *Id.* at ¶ 40. If states leveraged cross-border emissions trading, all twenty-seven petitioner states could more easily achieve compliance with the CPP and do so at lower cost. *Id.* at ¶ 42. Even without cross-border leveraging the CPP provides ample options for petitioner states to achieve compliance.

The CPP builds on the market trends, coordinates planning, and facilitates compliance for states that are not likely to meet the CPP targets on their own.

¹⁰ MJ Bradley & Associates developed a tool to analyze state progress towards compliance with the CPP. The tool incorporates policy options outlined in the final rule and provides the ability to alter all major drivers of state electric sector emissions and ascertain their impacts on state CPP compliance. www.mjbradley.com/about-us/case-studies/clean-power-plan-evaluation-tools

II. The CPP's phased approach allows ample time for states to plan and implement compliance mechanisms.

The CPP adopts the same federal-state partnership structure used since the advent of modern air pollution control in the 1970 CAA in which states implement EPA-approved plans to control air pollution. Tierney Decl. ¶ 18, ECF No. 1587530 at 286. Indeed, Congress modeled § 111(d) plans on § 110 State Implementation Plans for addressing National Ambient Air Quality Standards. *See* The Clean Air Act § 111, 42 U.S.C. § 7411(d)(1) (2012) (“The Administrator shall prescribe regulations which shall establish a procedure similar to that provided by [§ 110]”). The CPP provides states the choice of either submitting their own state plan or letting EPA implement a federal plan. Final Rule, 80 Fed. Reg. at 64,942; Tierney Decl. ¶ 18, ECF No. 1587530 at 286. If a state elects not to submit a plan, facilities in that state will be subject to the federal implementation plan. Once subject to the federal plan, a state still retains the authority to submit a state plan at any time—even after the compliance period begins. Final Rule, 80 Fed. Reg. at 64,942.

This type of planning is nothing new for state agencies that have “extensive experience conducting public processes and seeking public comment on proposed actions. . . .” Tierney Decl. ¶ 21, ECF No. 1587530 at 288. States are very familiar with the intricacies of air quality planning under the CAA, and “[t]he actions, control measures and strategies needed to be adopted and/or implemented are no

more complex and unprecedented than would be required for almost any other State Implementation Plan.” Soward Decl. ¶ 19, ECF No. 1587530 at 519. States have experience creating plans to implement the National Ambient Air Quality Standards, the NO_x SIP Call, the Clean Air Interstate Rule, the MATS rule and other CAA programs. *Id.*; Watson Decl. ¶ 7, ECF No. 1587530 at 569–70.

Furthermore, this planning responsibility is a typical component of state budgets and staff resource allocation. Soward Decl. ¶ 2, ECF No. 1587530 at 512; Watson Decl. ¶ 8, ECF No. 1587530 at 570. For example, the Air Quality Assessment and Planning Program in the Texas Commission on Environmental Quality has a \$412 million budget for the 2016–2017 fiscal biennium with 330 employees—more than adequate to carry out the planning required by the CPP. Soward Decl. ¶ 26, ECF No. 1587530 at 521. States like Indiana have successfully budgeted, developed, and implemented other CAA programs, demonstrating the capacity and expertise to do the same for the CPP. Watson Decl. ¶¶ 7–9, ECF No. 1587530 at 568–71.

Planning under the CPP is far more flexible than the recent rule adopting the MATS for coal-fired power plants. That rule required coal- and oil-fired electric power plants to reduce 75% of their mercury emissions and 88% of their acid gas emissions. National Emissions Standard for Hazardous Air Pollutants from Coal- and Oil-Fired Electric Utility Steam Generating Units and Standards of Performance for Fossil-Fuel-Fired Electric Utility, Industrial-Commercial-

Institutional, and Small Industrial-Commercial-Institutional Steam Generating Units, 77 Fed. Reg. 9,304, 9,424 (to be codified 40 C.F.R. pt. 60) (Feb. 16, 2012). Industry had three years to meet the targets, but states could grant one-year case-by-case extensions to facilities. *Id.* at 9,407–11. The rule did not allow for emissions trading or averaging toxic pollutants to meet the emission reduction targets. *Id.* at 9,444. Most power plants have already complied without any major reliability problems. Wellinghoff Decl. ¶ 28, ECF No. 1587530 at 399. According to the U.S. Energy Information Administration, over 60% of the industry was in compliance with MATS by the end of 2012, less than two years after the rule took effect.¹¹

The MATS rule required industry to meet stringent mercury emission reduction standards in three years with limited extensions. The CPP allows states up to three years to *plan* for how they will meet emissions reductions, and fifteen years to *achieve* final emissions reductions. Final Rule, 80 Fed. Reg. at 64,664. The MATS rule also imposed rigid “maximum achievable control technology” standards and did not allow emissions trading. 77 Fed. Reg. at 9,307. The CPP provides flexible compliance options, including emissions trading. Final Rule, 80

¹¹ *Coal-fired Power Plant Operators Consider Emissions Compliance Strategies*, Energy Info. Admin. (Mar. 28, 2014), <https://www.eia.gov/todayinenergy/detail.cfm?id=15611>.

Fed. Reg. at 64,667. States can choose between rate-based or mass-based reductions. Or states can forgo planning, and let the EPA regulate sources under the emissions trading program that EPA has proposed. *Id.* at 64,952. Experience with the MATS rule shows that industry will be able to comply with the longer lead times and multiple compliance options provided by the CPP without compromising reliability.

States have implemented other complex CAA programs in shorter timeframes than the CPP provides. New Jersey developed and submitted its NO_x emissions trading program to comply with the EPA's NO_x SIP Call fourteen months after the EPA finalized the rule, and its State Plan for the Clean Air Interstate Rule in less than two years. Fox Decl. ¶ 14, ECF No. 1587530 at 603–04. Further, states are not starting from scratch with plan development. Tierney Decl. ¶ 38, ECF No. 1587530 at 303–04. States have been engaged in this process since June 2014, when the EPA published the proposed CPP and states submitted extensive comments. *Id.* States have been considering and developing their state plan options, and some Western and Midwest states have been conferring informally to discuss options. *Id.* Nineteen states have continued to develop their

state plans since the Supreme Court stayed the regulation on February 9, 2016, and an additional nine are assessing their planning efforts.¹²

III. The CPP emphasizes flexible, cost-effective ways to meet emissions targets over the next fifteen years.

The starting point for the CPP is the rate-based standard expressed as pounds of carbon dioxide per megawatt-hour and applied to individual existing coal-fired and natural gas sources wherever located. EPA then establishes “best system of emission reduction” (BSER) based on three building blocks: (1) improving heat rate, i.e. power plant efficiency, at affected coal-fired power plants; (2) substituting generation from lower-emitting existing natural gas combined cycle units for higher-emitting affected steam generating units; and (3) substituting renewable generation for fossil-fuel generation. Final Rule, 80 Fed. Reg. at 64,667.

Opponents conflate these building blocks used by EPA to determine BSER with the options available to all states for complying with the standards. The rule uses the building blocks to determine BSER, but does not mandate that states use only these building blocks in their implementation plans. Final Rule, 80 Fed. Reg. at 64,667; Tierney Decl. ¶ 27, ECF No. 1587530 at 291–92.

¹² *Supreme Court Stay Response*, E&E Publishing, http://www.eenews.net/interactive/clean_power_plan#planning_status (last visited Mar. 24, 2016).

The CPP offers states the opportunity and flexibility to create a plan that meets their targets and their state energy policy objectives. Using a traditional cooperative federalism approach, states may adopt virtually any strategy to meet carbon pollution targets. A state may impose the performance standards on a unit-by-unit basis; adopt a statewide performance standard; or adopt a statewide mass-based approach that represents the equivalent of the statewide performance standard; or even adopt no plan in which case the federal plan would apply to sources in that state. Final Rule, 80 Fed. Reg. at 64,664; Roberts Decl. ¶12, ECF No. 1587530 at 587. Under the mass-based approach, states may implement an emissions trading program, reduce overall energy use through demand-side efficiency, or implement other techniques that lower the total carbon dioxide tonnage per year. Final Rule, 80 Fed. Reg. at 64,664. The mass-based approach is designed to achieve emission reductions equivalent to the rate-based standards. *Id.* at 64,666.

Though the EPA uses the building block approach as a framework to achieve compliance, the CPP does not require states to follow a particular path towards compliance. For example, a state could focus on energy efficiency throughout the energy sector to reduce carbon emissions. Roberts Decl. ¶ 11, ECF No. 1587530 at 587. The CPP gives states significant control over the “timing,

manner, and distribution of emission-reduction requirements.” Tierney Decl. ¶ 27, ECF No. 1587530 at 291–92.

IV. The CPP is designed to work within existing state energy regulatory systems.

A. States already have authority implement the CPP.

The CPP does not require new state legislation or major regulatory changes. States can build upon existing programs and policies in choosing among the many options available. The CPP will not require states to alter current energy programs or change energy market regulations.

Many states can build on their existing energy policies that encourage deployment of less-carbon intensive energy including New Jersey, Colorado, Texas, Massachusetts, Oregon, Wisconsin, and Oklahoma. For example, New Jersey has generic Renewable Energy Credits, solar photovoltaic credits, and offshore wind credits to implement the state RPS, and could use this existing RPS framework to meet CPP targets. Fox Decl. ¶¶ 13, 24, ECF No. 1587530 at 602, 609. Likewise, the Texas market added three times the required renewable capacity than required under its RPS, which it can build on to meet CPP requirements. Rábago Decl. ¶¶ 16–17, ECF No. 1587530 at 564–65.

B. The CPP does not alter the role of state environmental agencies.

States can use existing policies like cap-and-trade and rate-based performance standards to create the market signals needed to promote cleaner

energy. Although the CPP does not require states to adopt new legislation, some states already have legislation addressing carbon pollution. The Texas RPS is founded on legislative authority and the Colorado Department of Public Health and the Environment can continue to reduce energy sector emissions through its Clean Air Clean Jobs Act, originally designed to anticipate federal legislation like the CPP. *Id.* at ¶ 16; Roberts Decl. ¶ 3, ECF No. 1587530 at 582. Similarly, Indiana has sufficient legislative authority to adopt the rules administratively through its Environmental Rules Board. Watson Decl. ¶ 7, ECF No. 1587530 at 570. If a state decides that additional legislation is needed, there is ample time to enact it before the first compliance deadline in 2022.

The CPP does not alter the traditional federal/state regulatory framework affecting the electric industry. Kelliher Decl. ¶¶ 15–16, ECF No. 1587530 at 879–80. Traditionally, FERC regulates wholesale electricity sales and transmission, and sets reliability standards. *Id.* at ¶ 6. States have jurisdiction over “retail sales, local distribution, and utility resource planning.” *Id.* The CPP does not alter this regulatory scheme or the jurisdictional roles. *Id.* States may continue to regulate the energy sector in the same ways they currently do.

C. The CPP does not alter the traditional authority of state PUCs or other state energy agencies.

Just as the CPP does not alter the jurisdictional role of state environmental agencies, it also does not invade the jurisdiction or function of state PUCs responsible for oversight of utility companies and the regulation of local distribution and retail sales. Wellinghoff Decl. ¶ 17, ECF No. 1587530 at 393. The CPP does not alter these traditional PUC functions, although it may require increased coordination among air and energy state regulatory bodies. Soward Decl. ¶ 20, ECF No. 1587530 at 519. As with past CAA rules, states will set the environmental standards and state PUCs will assess “the prudence of utility investments that are necessary to comply with the required emissions standards while ensuring cost-effective reliable electricity.” Roberts Decl. ¶ 19, ECF No. 1587530 at 592. This does not disturb the traditional authority of PUCs to set retail rates, oversee utility planning and operations, or permit infrastructure.

Nothing in the CPP would require a change in the core functions that PUCs and other state agencies carry out – economic regulation of utilities, licensing of new pipeline, transmission, and generation facilities, protection of local reliability, setting retail rates, overseeing implementation of state RPS and energy efficiency goals. While the CPP will certainly be an important factor that PUCs will weigh in carrying out these functions, and may influence the outcomes of certain decisions the PUCs will make, that is true of all CAA regulations affecting the power sector.

Whatever changes utilities implement to reduce carbon dioxide emissions must still be consistent with the States' traditional regulation of "the economic aspects of electrical generation," including the setting of retail electricity rates and the licensing of generating facilities. *Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm'n*, 461 U.S. 190, 206 (1983). In short, states retain the same authorities they always have.

The renewable energy program managed by the PUC of Texas provides an example of how the CPP supplements the authority of PUCs without disrupting the state's current regulatory approach. The Texas Legislature created the RPS and directed its PUC to establish a trading system for renewable energy credits to meet the goals of the RPS. Rábago Decl. ¶ 15, ECF No. 1587530 at 563–64. The RPS trading system has been highly successful in Texas; in 2014 the state had 16,000 Megawatts of installed renewable energy, which far exceeded the 2025 goal of 10,000 Megawatts. *Id.* The CPP does not disturb this system; RPS requirements are not changed by the CPP. *Id.* at ¶ 16.

The CPP will affect utility planning and investment decisions around the country in different ways. In states with vertically integrated utilities, some of the utility resource planning and investment decisions will require review and approval by a PUC. However, this PUC approval is the norm for environmental regulations affecting the power sector and does not in any way call into question EPA's

authority to require reductions in carbon pollution under the CPP. For example, following the enactment of the Title IV Acid Rain Control Program in 1990, many state PUCs took action to approve compliance actions by regulated utilities, including the establishment of rules governing cost recovery for sulfur dioxide allowance transactions; integrated resource plans demonstrating capital investments or changes in generation and fuel mix that would be required to cost-effectively comply; and approval of investments in individual pollution control projects.¹³ Similarly, PUCs undertook extensive proceedings to ensure that regulated utilities complied with the Clean Air Interstate Rule and installed pollution controls needed to meet National Ambient Air Quality Standards.¹⁴ And most recently, state PUCs around the country have been actively engaging with utilities to ensure smooth implementation of the MATS rule, Cross State Air Pollution Rule, and other environmental requirements through long-term planning and ratemaking proceedings. Tierney Decl. ¶¶ 28–38, ECF No. 1587530 at 292–304.

The CPP will not require states to restructure their electric industries. Grid operators (i.e., integrated utilities and the Regional Transmission Organization)

¹³ See Ron Lile & Dallas Burtraw, *State-Level Policies and Regulatory Guidance for Compliance in the Early Years of the SO₂ Emission Allowance Trading Program* 13-52 (May 1998).

¹⁴ *Id.*

follow an “economic dispatch” protocol that prioritizes power plants with the lowest operating costs. As fuel prices change and affect the operating costs of different power plants, a plant that formerly would have operated ahead of another might become less economic, with its output reduced relative to the prior situation. This change happens routinely and typically over time, in response to fuel price changes, or to a changing portfolio as power plants are added or retired. This is the way the electric system has worked for the past three decades. Tierney Decl. ¶ 28, ECF No. 1587530 at 292-93. Indeed the Regional Transmission Organizations (RTO) system has worked very well throughout the implementation of a number of major CAA rulemakings including Regional Haze, NO_x SIP Call, and CAIR, as well as regional trading programs such as the Regional Greenhouse Gas Initiative.

D. Increased reliance on energy efficiency and renewables will help lower production costs and protect consumers.

Based on their collective decades of experience *amici* believe that states and the electric industry more broadly have powerful tools to mitigate compliance costs of the CPP. Policy and practical actions to implement energy efficiency measures and renewable resources will protect consumers, including low-income consumers. First, energy efficiency can cost-effectively reduce demand, reduce power production and emissions from fossil fueled power plants, and lower consumer’s electricity bills. Roberts Decl. ¶11, ECF No. 1587530 at 587. Adding renewable energy will lower power production costs. With lower operating costs compared to

coal, renewable sources are already dispatched whenever possible. Tierney Decl. ¶ 69, ECF No. 1587530 at 334. When Oklahoma increased its solar energy capacity, it also brought in additional revenue by marketing lower cost credits to power plants in other states that needed to meet RPS. Roth Decl. ¶ 27, ECF No. 1587530 at 1130–31. The CPP was designed in a way that “minimize[s] compliance costs,” and consumers will likely have a lower electric bill in 2025 under the rule than without it. Wellinghoff Decl. ¶ 43, ECF No. 1587530 at 407. By allowing states planning flexibility, the CPP also allows them to choose the most cost-effective plans, including the use of energy efficiency, which is often a least-cost compliance mechanism.

Second, electricity pricing already considers emission standards and their resulting costs. Under the Regional Greenhouse Gas Initiative, for example, power plants include the price of emission allowances in their price quotes. Fox Decl. ¶ 28, ECF No. 1587530 at 611–12. New Jersey successfully maintained low costs while previously participating in the Regional Greenhouse Gas Initiative. *Id.* To the extent that some EGUs do have costs, the market can deal with it as it does other changes, such as the decline in natural gas prices. Kelliher Decl. ¶ 16, ECF No. 1587530 at 880. The CPP will not change how agencies and the market handle pricing.

V. The CPP ensures grid reliability by affording states flexibility to optimize the manner and timing of emissions reductions.

With its planning flexibility, reasonable targets, and specific steps to address reliability concerns, the CPP will not adversely affect energy reliability or cost efficiency. The CPP directly addresses reliability, and the PUCs and regulated community will have ample time to prepare for compliance, can use existing reliability policies and standards, and continue to ensure cost efficiency.

In the CPP, EPA took “unprecedented” steps to integrate reliability concerns. Kelliher Decl. ¶ 9, ECF No. 1587530 at 876. First, EPA has allowed PUCs ample time to deal with any reliability issues and gradually implement the CPP. Wellinghoff Decl. ¶ 21, ECF No. 1587530 at 395–96. The energy sector has a history of meeting environmental and energy sector standards without sacrificing reliability, sometimes in a shorter timeframe than anticipated. Kelliher Decl. ¶¶ 8,10, ECF No. 1587530 at 875–77. When FERC adopted major changes to the reliability standards, including how regulations were proposed, adopted, and enforced, the energy sector adapted in a short time frame without reduced reliability. *Id.* at ¶ 8. For example, New Jersey went from 3 Gigawatt-hours (GWh) of solar to 677 GWh in 6 years, becoming the fifth largest solar generating state, without any change in reliability. Fox Decl. ¶ 19, ECF No. 1587530 at 606–07. EGUs also complied with the stricter MATS rule while maintaining reliability.

Wellinghoff Decl. ¶ 28, ECF No. 1587530 at 399. The energy sector has dealt with other market shifts and regulations without compromising reliability.

FERC and state agencies can continue to use the current standards and assessments for bulk power system and distribution level reliability respectively, which already anticipate that changes will inevitably occur in regulatory policies and market conditions. FERC regulates Independent System Operators (ISOs) and RTOs, which handle daily dispatch operations, but also ensure transmission reliability through long-term grid planning. *Id.* at ¶ 15. ISOs and RTOs anticipate changes in capacity, necessary transmission upgrades, and have “reliability-must-run contracts with resource owners” to keep a plant running if a retirement would otherwise jeopardize reliability. *Id.* In states without ISOs and RTOs, PUCs and regulated utilities ensure similar reliable operations. At the distribution level, state agencies also have local reliability standards and conduct hearings and investigations as part of a complex multilayered system. Fox Decl. ¶ 31, ECF No. 1587530 at 630–31; Roth Decl. ¶ 33, ECF No. 1587530 at 1133. State agencies can adapt to changes when necessary. For example, New Jersey recently imposed stricter reliability standards following the Northeast blackout and Hurricane Irene. Fox Decl. ¶ 31, ECF No. 1587530 at 630–31. States can continue to use these standards, ensuring distribution level reliability for any capacity or grid changes.

PUCs and the energy market will have ample time to adapt, but if a state does have issues while implementing its plan, the CPP contains additional protections at the suggestion of FERC, power companies, grid operators and other entities. Tierney Decl. ¶ 63, ECF No. 1587530 at 329–30; Wellinghoff Decl. ¶ 6, ECF No. 1587530 at 388–89. If a state has an emergency, it may use the Reliability Safety Valve that is included in the CPP as a backstop mechanism to maintain reliable power-system operations. Kelliher Decl. ¶ 9, ECF No. 1587530 at 876. The state must notify EPA, and then will receive approval for a short-term modification to emission standards. Final Rule, 80 Fed. Reg. at 64,948. Affected EGUs may operate under the modified standards for up to 90 days. *Id.* EPA has provided planning flexibility, and additional tools to ensure reliability throughout CPP implementation.

CONCLUSION

There is an urgent need for effective governmental action to address the profound threat that climate change poses to the health and safety of the American people. The CPP provides the framework and the tools to enable state and federal agencies to take the coordinated actions necessary to reduce emissions from the largest sources of carbon pollution in the nation. The CPP represents an eminently necessary, reasonable and lawful approach to meeting the greatest environmental challenge of our time.

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Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

Counsel hereby certifies that, in accordance with Fed. R. App. P. 32(a)(7)(C), the foregoing **Brief of Amicus Curiae Former State Environmental and Energy Officials** contains 6086 words, as counted by counsel's word processing system.

DATED: April 1, 2016

/s/ Patrick Parenteau

Patrick Parenteau

CERTIFICATE OF SERVICE

I hereby certify that on this 1st day of April 2016 I have served the foregoing **Brief of Amici Curiae Former State Environmental and Energy Officials** on all registered counsel through the Court's electronic filing system (CM/ECF).

/s/ Patrick Parenteau

Patrick Parenteau