

# BACKGROUND

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## The Many Problems of the EPA's Clean Power Plan and Climate Regulations: A Primer

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### Abstract

*No matter one's personal opinions on the climate effects of man-made greenhouse emissions, the Obama Administration's proposed climate-change regulations will exact a high price on Americans and have a negligible impact—if any—on global temperatures. The EPA has already put into place several greenhouse-gas regulations; however, the most far-reaching regulations are set to be finalized this summer. Known as the Clean Power Plan, these regulations have garnered bipartisan concern at all levels of government due to the threats the Clean Power Plan poses to the economy, quality of life, reliability of the national power grid, and constitutional separation of powers. Congress and the states should intervene and reject these regulations entirely before the U.S. energy system is put on a costlier and less reliable path.*

This summer, the Obama Administration will finalize climate regulations for new and existing power plants under the Clean Air Act. While the regulations largely target coal-fired power plants, the costs of more expensive energy will be borne by all Americans. Higher energy bills for families, individuals, and businesses will destroy jobs and strain economic growth—and it will all be for naught. No matter one's belief on the climate effects of man-made greenhouse emissions, the regulations will have a negligible impact—if any—on global temperatures.

The regulations for both new and existing power plants will face a number of legal challenges, and rightly so. However, waiting on the outcomes of legal battles would likely mean that states will already be on an irreversible path toward shuttered power plants, increasing energy bills, and lost opportunity. Furthermore, by placing the

### KEY POINTS

- This summer, the EPA will finalize its Clean Power Plan (CPP) regulating CO<sub>2</sub> emissions from existing and future power plants. States will be required to develop EPA-approved implementation plans to meet emissions targets.
- Since energy is a key building block for economic activity, the CPP will affect almost every sector of the economy. Most affected would be families on low and fixed incomes, manufacturers, and states in the Midwest.
- NERA Economic Consulting estimates that U.S. electricity prices will increase by an average of 12 percent to 17 percent; the Heritage Energy Model estimates a loss of \$2.5 trillion in GDP and more than 1 million lost jobs.
- The North American Electric Reliability Corporation, regional grid operators, and the Federal Energy Regulatory Commission have expressed concern over the threats to grid reliability posed by the CPP.
- With the CPP, the EPA has far exceeded statutory authority, violated constitutional restraints, and overstepped the bounds of federalism.

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entire onus on the states to devise their own carbon-cutting plans, the Environmental Protection Agency (EPA) evades all accountability to Americans and leaves state officials to take the political heat for executing power plant regulations that are all economic pain and no environmental gain.

Both Congress and the states need to step forward and reject these regulations entirely, not succumb to the executive branch's coercion. Congress should pass legislation, use the Congressional Review Act, or prohibit funding for implementation of the regulations. State officials should understand that no matter how much flexibility the EPA grants them, their citizens come out on the losing end.

### The Regulations

The EPA issued separate carbon dioxide (CO<sub>2</sub>) regulations for new power plants (September 2013) and existing units (June 2014) but will finalize both jointly this summer. Under Section 111(b) of the Clean Air Act, the EPA outlined regulations for new electricity-generating units, called the New Source Performance Standards. The standards for new plants set a threshold for fossil-fuel-fired electric steam-generating units (utility boilers as well as Integrated Gasification Combined Cycle units) at 1,100 pounds of CO<sub>2</sub> per megawatt hour (mwh).<sup>1</sup> For natural-gas-fired stationary combustion turbines, the EPA set thresholds of 1,000 pounds of CO<sub>2</sub>/mwh for larger units and 1,100 pounds of CO<sub>2</sub>/mwh for smaller units.<sup>2</sup>

Under section 111(d) of the Clean Air Act, the EPA also intends to regulate CO<sub>2</sub> emissions from existing power plants. Known as the Clean Power Plan (CPP), the agency's proposed regulations set state-specific emissions limits based on the greenhouse-gas-emissions rate of each state's electricity mix. The EPA estimates that its regulations will reduce greenhouse-gas emissions approximately 25 percent

below 2005 levels by 2020, and 30 percent by 2030.<sup>3</sup> Each state has interim targets it must meet beginning in 2020, and the EPA proposed that states use a combination of four "building blocks" to achieve the emissions reductions: (1) improving the efficiency (heat rate) of existing coal-fired power plants; (2) switching from coal-fired power by increasing the use and capacity factor, or efficiency, of natural-gas combined-cycle power plants; (3) using less carbon-intensive generating power, such as renewable energy or nuclear power; and (4) increasing demand-side energy-efficiency measures.

States will have one year to develop and submit their own compliance plan or develop regional plans with other states, though the EPA will likely grant extension waivers. After that, the EPA will take approximately one year to approve or reject the plan. The EPA is currently developing a federal "model" for states to consider and will impose a federal plan for states that do not comply.

No matter how states concoct their plans, the economic damages will be felt through higher energy costs, fewer job opportunities, and fewer choices through implementation of efficiency mandates that remove decision making from producers and consumers. The EPA's idea of flexibility will not soften the economic blow; it merely means that families, individuals, and businesses will incur higher costs through different mechanisms.

### The Costs: Higher Energy Prices, Fewer Jobs, Less Growth

Energy is a key building block for economic opportunity. Carbon-emitting fuels, such as coal, oil, and natural gas, provided 87 percent of America's energy needs in the past decade and have been the overwhelming supplier for over a century.<sup>4</sup> Throughout that time, particularly during the Industrial Revolution, access to energy was a critical catalyst

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1. "Standards of Performance for Greenhouse Gas Emissions from New Stationary Sources: Electric Utility Generating Units: A Proposed Rule by the Environmental Protection Agency," *Federal Register*, January 8, 2014, <https://www.federalregister.gov/articles/2014/01/08/2013-28668/standards-of-performance-for-greenhouse-gas-emissions-from-new-stationary-sources-electric-utility#h-11> (accessed June 8, 2015).
  2. *Ibid.*
  3. "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units: A Proposed Rule by the Environmental Protection Agency," *Federal Register*, June 18, 2014, <https://www.federalregister.gov/articles/2014/06/18/2014-13726/carbon-pollution-emission-guidelines-for-existing-stationary-sources-electric-utility-generating#h-9> (accessed June 9, 2015).
  4. U.S. Energy Information Administration, "Energy Sources Have Changed Throughout the History of the United States," July 3, 2013, <http://www.eia.gov/todayinenergy/detail.cfm?id=11951> (accessed May 26, 2015).

to improved health, comfort, progress, ingenuity, and prosperity.<sup>5</sup> Evidence in the United States and around the world demonstrates that the availability of energy positively impacts economic growth or, at the very least, the two jointly impact one another.<sup>6</sup>

On the other hand, restricting the production of carbon-emitting conventional fuels with heavy-handed regulations, such as the Clean Power Plan, will significantly harm the U.S. economy. Americans feel the pain of higher energy prices directly, but also indirectly through almost all of the goods and services they buy, because energy is a necessary component of production and service. Companies will pass higher costs on to consumers or absorb the costs, which prevents hiring and new investment. As prices rise, consumer demand falls, and companies will drop employees, close entirely, or move to other countries where the cost of doing business is lower. The result is fewer opportunities for American workers, lower incomes, less economic growth, and higher unemployment.

Without the details of the final regulations, and given the complexities of state plans, it is difficult to fully model the economic effects of the Administration's Clean Power Plan; however, economic models can provide a snapshot of the economic losses that CO<sub>2</sub> regulations would impose. The economic consulting firm NERA projects that whether or not a plan is state-administered or EPA-administered, electricity prices will increase considerably. If states administer the plan, electricity prices will increase by an average of 12 percent between 2017 and 2031, but if the rulemaking is left to the EPA, prices will rise an average of 17 percent during that time period.<sup>7</sup>

But the economic pain is felt beyond electricity prices, and the Administration's climate

agenda extends beyond power plants. The federal government has enacted greenhouse-gas regulations through fuel-efficiency standards, proposed methane regulation for hydraulic fracturing, stalled on project decisions like the Keystone XL pipeline, and spent stimulus money on inefficient and expensive renewable technology. In the U.S. climate agreement with China, President Barack Obama promised country-wide carbon-emissions cuts of 26 percent to 28 percent below 2005 levels by 2025.<sup>8</sup>

To provide an estimate of the broad damage that the Administration's climate agenda would inflict, Heritage Foundation economists modeled the negative economic effects of a carbon tax. Using the Heritage Energy Model (HEM), a derivative of the model used by the U.S. Energy Information Administration, Heritage analysts quantified the economic loss based on a carbon tax equivalent to the Administration's estimate of the social cost of carbon (SCC). The EPA defines SCC as the economic damage that one ton of CO<sub>2</sub> emitted today will cause over the next 300 years. As dubious and subjective as the models are that calculate the SCC, they provide the foundation for the federal government's climate regulations.<sup>9</sup>

Taxing CO<sub>2</sub>-emitting energy incentivizes businesses and consumers to change production processes, technologies, and behavior in a manner comparable to the Administration's regulatory scheme. In fact, enacting a tax is much more economically efficient than a complex regulatory scheme; therefore, the Heritage analysis likely underestimates the impacts.<sup>10</sup> Further, to neutralize the analytical impacts of a tax's income transfer, Heritage analysts model a scenario in which 100 percent of carbon-tax revenue is rebated to taxpayers, thereby only estimating the economic loss the tax would impose,

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5. Kathleen Hartnett White, "Fossil Fuels: The Moral Case," Texas Public Policy Foundation, June 2014, <http://www.texaspolicy.com/library/doclib/Fossil-Fuels-The-Moral-Case.pdf> (accessed May 26, 2015).
  6. Ross McKittrick and Elmira Aliakbari, "Energy Abundance & Economic Growth: International and Canadian Evidence," The Fraser Institute, May 2014, <http://www.fraserinstitute.org/uploadedFiles/fraser-ca/Content/research-news/research/publications/energy-abundance-and-economic-growth.pdf> (May 26, 2015).
  7. David Harrison Jr. and Anne E. Smith, "Potential Energy Impacts of the EPA Proposed Clean Power Plan," NERA Economic Consulting, October 2014, [http://www.nera.com/content/dam/nera/publications/2014/NERA\\_ACCCE\\_CPP\\_Final\\_10.17.2014.pdf](http://www.nera.com/content/dam/nera/publications/2014/NERA_ACCCE_CPP_Final_10.17.2014.pdf) (accessed May 26, 2015).
  8. News release, "FACT SHEET: U.S. Reports Its 2025 Emissions Target to the UNFCCC," The White House, Office of the Press Secretary, March 31, 2015, <https://www.whitehouse.gov/the-press-office/2015/03/31/fact-sheet-us-reports-its-2025-emissions-target-unfccc> (accessed May 26, 2015).
  9. Kevin D. Dayaratna and David W. Kreutzer, "Unfounded FUND: Yet Another EPA Model Not Ready for the Big Game," Heritage Foundation *Backgrounder* No. 2897, April 29, 2014, <http://www.heritage.org/research/reports/2014/04/unfounded-fund-yet-another-epa-model-not-ready-for-the-big-game>.
  10. Neither the regulations nor the tax is desirable or necessary.

known as the deadweight loss. By 2030, the costs would be:

- An average annual employment shortfall of nearly 300,000 jobs;
- A peak employment shortfall of more than 1 million jobs;
- A loss of more than \$2.5 trillion (inflation-adjusted) in aggregate gross domestic product (GDP); and
- A total income loss of more than \$7,000 (inflation-adjusted) per person.

The economic pain stemming from the EPA's regulation would spread throughout the country, but some would be harmed more than others. Those disadvantaged the most by the EPA's regulations are:

- **Low-income and fixed-income families.** A tax that increases energy prices would disproportionately eat into the income of the poorest American families. While the median family spends about 5 cents out of every dollar on energy costs, low-income families spend about 20 cents.<sup>11</sup> As the number of fixed-income seniors grows in the U.S., low-income seniors who depend largely on a fixed income are especially vulnerable.<sup>12</sup>
- **Manufacturers.** The shale revolution is driving energy-intensive industries to the United States. The Administration's climate agenda would drive these industries away. America's manufacturing base is hit particularly hard by higher energy

prices. Over 500,000 of the jobs lost in the Heritage analysis are manufacturing jobs.

- **The Midwest.** The Heritage analysis of manufacturing-job losses by congressional district finds that districts in Wisconsin, Ohio, Indiana, Michigan, and Illinois would suffer most. In fact, 19 of the top 20 worst-off congressional districts from the Administration's energy regulations are located in the Midwest region.<sup>13</sup>

### The Climate and Environmental Benefits: None

The trade-off that Americans receive for higher electricity rates, unemployment, and lower levels of prosperity is not an appealing one. Even though electricity generation accounts for the single-largest source of carbon dioxide emissions in the United States, the estimated reduction is minuscule compared to global greenhouse gas emissions. Using the "Model for the Assessment of Greenhouse Gas Induced Climate Change," developed with support from the EPA, climatologists Paul Knappenberger and Patrick Michaels estimate that the climate regulations will avert a meager  $-0.018$  degree Celsius (C) of warming by the year 2100.<sup>14</sup>

In fact, the U.S. could cut its CO<sub>2</sub> emissions 100 percent and it would not make a difference in global warming. Using the same climate sensitivity (the warming effect of a doubling of CO<sub>2</sub> emissions) as the U.N.'s Intergovernmental Panel on Climate Change (IPCC) assumes in its modeling, the world would only be 0.137 degree C cooler by 2100. Including 100 percent cuts from the entire industrialized world merely avert warming by 0.278 degree C by the turn of the century.<sup>15</sup>

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11. Roy Innis, Congress of Racial Equality, remarks at 2011 International Conference on Climate Change, March 9, 2011, <http://www.core-online.org/News/newsletter/newsletter.htm> (accessed May 26, 2015).

12. "Energy Cost Impacts on American Families, 2001-2014," American Coalition for Clean Coal Electricity, February 2014, [http://www.americaspower.org/sites/default/files/Trisko\\_2014\\_1.pdf](http://www.americaspower.org/sites/default/files/Trisko_2014_1.pdf) (accessed May 27, 2015).

13. Kevin D. Dayaratna, Nicolas Loris, and David W. Kreutzer, "The Obama Administration's Climate Agenda Will Hit Manufacturing Hard: A State-by-State Analysis," Heritage Foundation *Backgrounder* No. 2990, February 17, 2015, <http://www.heritage.org/research/reports/2015/02/the-obama-administrations-climate-agenda-will-hit-manufacturing-hard-a-state-by-state-analysis>.

14. Paul C. Knappenberger and Patrick J. Michaels, "0.02°C Temperature Rise Averted: The Vital Number Missing from the EPA's 'By the Numbers' Fact Sheet," Cato at Liberty blog, June 11, 2014, <http://www.cato.org/blog/002degc-temperature-rise-averted-vital-number-missing-epas-numbers-fact-sheet> (accessed May 26, 2015).

15. Paul C. Knappenberger and Patrick J. Michaels, "Current Wisdom: We Calculate, You Decide: A Handy-Dandy Carbon Tax Temperature-Savings Calculator," Cato at Liberty blog, July 23, 2013, <http://www.cato.org/blog/current-wisdom-we-calculate-you-decide-handy-dandy-carbon-tax-temperature-savings-calculator> (accessed May 26, 2015).

More evidence continues to show lower climate sensitivity to increases in global CO<sub>2</sub> emissions, meaning that emissions cuts would be even more futile.<sup>16</sup> However, even if one assumes the IPCC's estimate on climate sensitivity to be accurate, the only way to stay below the IPCC's 2-degree Celsius threshold (before the earth allegedly reaches a tipping point of irreversible climate damage) is to force damaging cuts from rapidly developing countries, such as India and China, and even that might not be enough.

Not only are these cuts unattainable; they are morally objectionable. Members of the United Nations signed the United Nations Framework Convention on Climate Change in 1992 with the goal of keeping anthropogenic greenhouse gas emissions from dangerously affecting the climate. That year, the respective GDPs per capita of China and India were \$364 and \$325.<sup>17</sup> In 1998, those figures increased to \$820 per capita and \$425, respectively.<sup>18</sup> Since 1998, there has been a hiatus in increasing global average surface temperature.<sup>19</sup> Throughout this time period, GDP per capita increased significantly to \$6,800 and \$1,500, respectively, fueled by inexpensive and reliable power from conventional fuels, such as coal, oil, and natural gas.<sup>20</sup> While this growth is impressive, it is by no means near the level of developed, industrialized countries. The use of carbon-dioxide-emitting conventional fuels has been a staple in such rapidly accelerating growth as China's—now the world's largest emitter of CO<sub>2</sub>.

Despite China's growing need for carbon-emitting conventional fuels, President Xi Jinping committed to a peak limit on CO<sub>2</sub> emissions in 2030. Although China has set up pilot carbon-trading schemes, there is nothing that binds China to keep its word, and the U.S. should not blindly implement any carbon-cutting regulation under the assumption those

cuts will come. Simply put, much can happen in 15 years and policy interests can change rather quickly. Furthermore, China's lack of intent to tackle true environmental problems should be a red flag. China has failed, for instance, to require the continual use of scrubbers on coal-fired power plants, causing significant health problems from black carbon soot. If China is not willing to curb industrial productivity to address a real health problem, there is little reason to believe it will do so to address CO<sub>2</sub> emissions. With the current pressure from U.N. climate negotiations well in the past by 2030, there would be even less incentive for China to follow through with a non-binding agreement.<sup>21</sup>

India is even more resistant than China to commit to carbon caps and for good reason. India has hundreds of millions of people without access to electricity. The commitment and pressing issue for all developing economies should be to give their people a better standard of living, not reduce carbon emissions. Economic growth and affordable, reliable energy are a priority for the people living in China, India, and the rest of the developing world.<sup>22</sup> Action on climate change simply is not.

### Threats to Reliability

One of the primary concerns among many electricity-grid operators across the country is the power plant regulations' effect on grid reliability. With uncertainty looming as to which of the EPA's building blocks will stand in court, taking a massive amount of baseload power offline could create huge strains on the grid that generates and delivers electricity to consumers. The U.S. Energy Information Administration projects that more than double the coal-fired power plants will retire as a result of the Clean Power Plan compared to a scenario without

16. Judith A. Curry, "Statement to the Committee on Environment and Public Works of the United States Senate," January 16, 2014, [http://www.epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore\\_id=07472bb4-3eeb-42da-a49d-964165860275](http://www.epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=07472bb4-3eeb-42da-a49d-964165860275) (accessed May 26, 2015).

17. The World Bank, "Data: GDP Per Capita (Current US\$)," <http://data.worldbank.org/indicator/NY.GDP.PCAP.CD> (accessed May 27, 2015).

18. Ibid.

19. Remote Sensing Systems, "Climate Analysis," <http://www.remss.com/research/climate> (accessed June 9, 2015).

20. The World Bank, "Data: GDP Per Capita (Current US\$)."

21. Steven Mufson, "China Wrestles with Stubborn Air Polluters," *The Washington Post*, March 9, 2013, [http://www.washingtonpost.com/world/china-wrestles-with-stubborn-air-polluters/2013/05/09/627e9870-b13f-11e2-9fb1-62de9581c946\\_story.html](http://www.washingtonpost.com/world/china-wrestles-with-stubborn-air-polluters/2013/05/09/627e9870-b13f-11e2-9fb1-62de9581c946_story.html) (accessed May 26, 2015).

22. United Nations MyWorld 2015, "Peoples Voices Challenges: Countries," countries ranked "low" on the Human Development Index (HDI), <http://data.myworld2015.org/> (accessed May 26, 2015).

the regulation.<sup>23</sup> The CPP itself threatens the means to aiding such a traumatic transition from coal by causing the price of natural gas and natural gas infrastructure to increase, making it less economical to build. At the very least, the implementation of the CPP means a very expensive and unnecessary transition for ratepayers.<sup>24</sup> A number of regional grid operators as well as the North American Electric Reliability Corporation (NERC), an international nonprofit established to ensure the reliability of bulk power in North America, raised issues with the proposed regulation.<sup>25</sup>

NERC wrote in its initial report of the EPA's regulations that "[n]ew reliability challenges may arise with the integration of generation resources that have different ERS [Essential Reliability Services] characteristics than the units that are projected to retire"—in other words, the intermittent renewables on which the EPA depends to replace retired coal electricity increase the risk of reliability problems. Further, NERC states that the "proposed timeline does not provide enough time to develop sufficient resources to ensure continued reliable operation of the grid by 2020. To attempt to do so would increase the use of controlled load shedding and potential for wide-scale, uncontrolled outages."<sup>26</sup>

Regional grid operators—the Independent System Operators/Regional Transmission Organizations (ISOs/RTOs)—have expressed similar concerns. The Southwest Power Pool (SPP) warned that "[u]nless the proposed CPP is modified, the SPP region faces

serious, detrimental impacts on reliable operation of the bulk electric system—introducing the very real possibility of rolling blackouts or cascading outages that will have significant impacts on human health, public safety, and economic activity."<sup>27</sup>

The Midcontinent Independent System Operator (MISO) cautioned that it is already addressing threats to grid reliability as a result of the EPA's Mercury and Air Toxics Standards, a regulation where 99.996 percent of the benefits come from including estimated benefits from reducing particulates (co-benefits) already covered by existing regulations.<sup>28</sup> MISO further cautioned that the shuttering of coal-fired plants will significantly reduce the operator's reserve margin,<sup>29</sup> increasing the probability of using emergency procedures.<sup>30</sup>

Managing grid operations for the Mid-Atlantic, PJM Interconnection recommends "additional process provisions that should be in place in the Final Rule to mitigate any future potential impacts to electric system reliability and therefore be clearly available to states and entities charged with ensuring bulk power reliability."<sup>31</sup>

Operators in two of the most politically opposite states, New York and Texas, also raised concerns. The New York Independent System Operator wrote in comments to the EPA that "the Clean Power plan presents potentially serious reliability implications for New York" and that "[n]o amount of flexibility afforded in the manner in which New York State may seek to comply with the Clean Power Plan can make

23. U.S. Energy Information Administration, "Analysis of the Impacts of the Clean Power Plan," May 22, 2015, <http://www.eia.gov/analysis/requests/powerplants/cleanplan/> (accessed May 26, 2015).

24. NERA Economic Consulting, "Assessing Economic Impacts of a Stricter National Ambient Air Quality Standard for Ozone," July 2014, [http://www.nera.com/content/dam/nera/publications/2014/PUB\\_NERA\\_NAM\\_Ozone\\_Report\\_0714.pdf](http://www.nera.com/content/dam/nera/publications/2014/PUB_NERA_NAM_Ozone_Report_0714.pdf) (accessed June 9, 2015).

25. Congress has charged NERC with ensuring the reliability of the grid.

26. North American Electric Reliability Corporation, "Potential Reliability Impacts of EPA's Proposed Clean Power Plan: Initial Reliability Review," November 2014, [http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/Potential\\_Reliability\\_Impacts\\_of\\_EPA\\_Proposed\\_CPP\\_Final.pdf](http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/Potential_Reliability_Impacts_of_EPA_Proposed_CPP_Final.pdf) (accessed May 26, 2015).

27. Southwest Power Pool, "Reliability Impact of the EPA's Proposed Clean Power Plan," <http://www.spp.org/publications/CPP%20Reliability%20Impact%20Oct%202014.pdf> (accessed May 26, 2015).

28. Anne E. Smith, "A Focus on What EPA's Utility MACT Rule Will Cost U.S. Consumers," testimony before Subcommittee on Energy and Power, Committee on Energy and Commerce, U.S. House of Representatives, February 8, 2012, [http://www.nera.com/content/dam/nera/publications/archive2/PUB\\_Smith\\_Testimony\\_ECC\\_0212.pdf](http://www.nera.com/content/dam/nera/publications/archive2/PUB_Smith_Testimony_ECC_0212.pdf) (accessed June 10, 2015).

29. The excess capacity of expected peak demand, particularly during extremely cold or hot days when there is more demand for heating and cooling.

30. John R. Bear, "Comment on the Environmental Protection Agency (EPA) Proposed Rule: Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units," Midcontinent Independent System Operator, Inc., November 25, 2014, <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0602-22547> (accessed May 26, 2015).

31. Craig Glazer and Robert V. Eckenrod, "Comment on the Environmental Protection Agency (EPA) Proposed Rule: Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units," PJM Interconnection LLC, <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0602-23222> (accessed May 26, 2015).

up for requirements that are inherently unreasonable because they are based on flawed assumptions in the Building Blocks.”<sup>32</sup> Similarly, the Electric Reliability Council of Texas (ERCOT) wrote that cutting fossil fuel generation out of the mix quickly could reduce reserve margins significantly, “leading to an increased risk of rotating outages as a last resort to maintain operating balance between customer demand and available generation.”<sup>33</sup>

State public utility commissions from every region of the country have stated unequivocally that warnings about reliability issues are not fearmongering about a new regulation with which they do not want to comply. The regulations present a real threat to grid reliability.<sup>34</sup>

In a letter to the EPA, commissioners of the Federal Energy Regulatory Commission (FERC) recommend using a Reliability Safety Valve through which states could petition for temporary waivers from the regulation to protect reliability.<sup>35</sup> The federal, regional, and state concerns regarding reliability combined with the high costs and insignificant benefits should be enough for Congress and the states to reject the climate regulations entirely.

## Legal Challenges

Although neither regulation has become final, the EPA’s regulations for new and existing power plants have come under legal scrutiny. Industry and states will likely challenge the legality of the New Source Performance Standards (NSPS), most likely targeting the EPA’s assumptions about carbon capture and sequestration (CCS) technology. Legal experts have

also raised concerns about the constitutionality of the Clean Power Plan and the EPA’s expansion of authority well beyond its statutory limits.

**New Source Performance Standards.** The EPA projects negligible cost impacts and emission reductions from NSPS because the EPA assumes that even in the absence of the regulation, electricity generators will choose other technologies, and that no new coal-fired units would be built without installing CCS technology—the only way that coal-powered electricity plants could meet the standards.<sup>36</sup> Section 111(b) of the Clean Air Act stipulates that NSPS must reflect “the best system of emission reduction” as adequately demonstrated by the EPA administrator. It is highly questionable whether CCS meets this standard.<sup>37</sup> Several news outlets have reported that the EPA will not include a CCS mandate because legal experts have pointed out its indefensibility.<sup>38</sup>

No credible basis exists to state that CCS is adequately demonstrated today since no large-scale power plant in the United States has CCS. Further, the need for sequestering the captured CO<sub>2</sub> imposes geographic as well as economic constraints that make it a non-option in many areas. In Mississippi, for example, Kemper County’s Integrated Gasification Combined Cycle (IGCC) plant, which the EPA has used as a model for coal-fired plants around the U.S., has had nearly half a billion dollars in cost overruns even while receiving over \$400 million in taxpayer-funded grants and credits. Yet the plant has not even begun to operate, further disqualifying it as a model for the rest of the nation.

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32. Mollie Lampi and Raymond Stalter, “Comment on the Environmental Protection Agency (EPA) Proposed Rule: Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units,” New York Independent System Operator, Inc., December 1, 2014, <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0602-22967> (accessed May 26, 2015).
  33. “ERCOT Analysis of the Impacts of the Clean Power Plan,” The Electric Reliability Council of Texas, November 17, 2014, <http://www.ercot.com/content/news/presentations/2014/ERCOTAnalysis-ImpactsCleanPowerPlan.pdf> (accessed May 26, 2015).
  34. Scott Segal, “The EPA’s Clean Power Plan: A Clear Threat to Electric Reliability,” The Electric Reliability Coordinating Council, February 18, 2015, [http://www.electricreliability.org/sites/default/files/media\\_files/Reliability\\_White\\_Paper.pdf](http://www.electricreliability.org/sites/default/files/media_files/Reliability_White_Paper.pdf) (accessed May 26, 2015).
  35. Federal Energy Regulatory Commission, “Letter to Acting Assistant Administrator on Air and Radiation,” May 15, 2015, <http://www.ferc.gov/media/headlines/2015/ferc-letter-epa.pdf> (accessed May 26, 2015).
  36. “Standards of Performance for Greenhouse Gas Emissions from New Stationary Sources: Electric Utility Generating Units: A Proposed Rule by the Environmental Protection Agency,” *Federal Register*, January 8, 2014.
  37. The Clean Air Act, 42 U.S. Code § 7411(a).
  38. Michael Bastasch, “Sources: EPA Ditches Mandate that Coal Plants Install Non-Existent Coal Technology,” The Daily Caller, May 20, 2015, <http://dailycaller.com/2015/05/20/sources-epa-ditches-mandate-that-coal-plants-install-non-existent-coal-technology/> (accessed May 26, 2015), and new release, “Attorney-Authors of Regulatory Comments that Raised Serious Legal Issues re: EPA’s Carbon Capture and Storage (CCS) Mandate Available to Discuss Reports that EPA May Drop this Mandate,” E&E Legal, May 22, 2015, <http://eelegal.org/?p=3917> (accessed May 26, 2015).

As identified by the Obama Administration's Interagency Task Force on Carbon Capture and Storage 2010 report, implementation of CCS has a number of extremely difficult obstacles to overcome. There are questions of technical scalability, regulatory challenges, long-term liability of storing the captured CO<sub>2</sub>, and above all, cost.<sup>39</sup> Even with taxpayer-funded financial handouts to CCS projects, building them will be prohibitively costly, which is why the EPA's regulation of greenhouse gas emissions will effectively ban the construction of new coal-fired generating units. Whether or not the EPA uses the availability of CCS to justify its regulation for new power plants, CCS technology should be used only if companies believe it is in their economic interest to do so—for instance, if profitable opportunities for enhanced oil recovery exist nearby.

**Clean Power Plan.** The EPA's Clean Power Plan is unlike any other regulations proposed or implemented, and legal scholars have brought a number of issues to the public's attention. Perhaps the harshest and most influential critique came from Harvard University Professor of Constitutional Law Laurence Tribe. Tribe, a "liberal legal icon" who served in the Justice Department for President Obama's first term, stated in testimony before the House Committee on Energy and Commerce that the "EPA is attempting an unconstitutional trifecta: usurping the prerogatives of the States, Congress and the Federal Courts—all at once. Burning the Constitution should not become part of our national energy policy."<sup>40</sup>

The legal and constitutional concerns underscored by Tribe and other legal scholars have demonstrated that the Clean Power Plan:

- **Grossly exceeds the statutory authority of the EPA.** The "outside the fence" building blocks, the parts of the plan that would allow increased renewable energy and efficiency mandates that the EPA uses as part of its compliance options,

constitute blatant regulation beyond the EPA's jurisdiction. Past EPA regulations set emissions limits based on *the actual source* of emissions (the power plant), as opposed to providing alternative scenarios to reduce greenhouse gas emissions that have nothing to do with the power plant itself. By providing states with the options of using more renewable energy, mandating energy-efficiency requirements or some other means (such as a carbon tax or regional cap-and-trade), the EPA is not just regulating the emissions of a single source, but re-engineering America's energy economy and thus interfering with decisions that the private sector should undertake and that should be regulated largely at the state and local level. Moreover, the EPA is using such wide-ranging authority in setting emissions-reduction targets by setting standards for an entire state—not just the source of emissions.<sup>41</sup>

- **Violates the principles of federalism.** The Clean Power Plan extends far beyond the "cooperative federalism" role the states are supposed to have with the EPA. Cooperative federalism intended the EPA to set a national standard on an emissions rule and allow the states to administer and implement the regulation in the most cost-effective way. Instead, the EPA is forcing states to implement plans against their will, a clear violation of the anti-commandeering principle. As Tribe writes, the "EPA's plan confronts the States with an unforeseeable choice and essentially remakes the agreement between them and the Federal Government that has existed since the Clean Air Act was enacted in 1970."<sup>42</sup> Tribe continues, "It would require States to base their energy and emissions policies on the needs of other States (and even other nations, such as Canada) with which they are inextricably linked through the power distribution system—the national power grid."<sup>43</sup>

39. Environmental Protection Agency, "Report of the Interagency Task Force on Carbon Capture and Storage," August 2010, <http://www.epa.gov/climatechange/Downloads/ccs/CCS-Task-Force-Report-2010.pdf> (accessed June 9, 2015).

40. Laurence Tribe, "EPA's Proposed 111(d) Rule for Existing Power Plants: Legal and Cost Issues," testimony before Subcommittee on Energy and Power, Committee on Energy and Commerce, U.S. House of Representatives, March 17, 2015, <http://docs.house.gov/meetings/IF/IF03/20150317/103073/HHRG-114-IF03-Wstate-TribeL-20150317-U1.pdf> (accessed May 26, 2015).

41. Vinson & Elkins, "Special Issue; EPA's Proposed Greenhouse Gas ESPS," *V & E Climate Change Report*, No. 22, September 2014, <http://www.velaw.com/uploadedFiles/VEsite/Resources/ClimateChangeReportESPSSpecialIssueSeptember2014.pdf> (accessed June 9, 2015).

42. *Ibid.*

43. *Ibid.*

- **Unconstitutionally coerces states with federal strings and violates the Spending Clause.** In the proposed Clean Power Plan, the EPA threatens states with the loss of highway funds for failure to comply. In *NFIB v. Sebelius*, the Supreme Court established criteria for what constitutes coercion: The federal grant money must be substantial, the condition imposed must be on an entrenched program, and the condition imposed must affect a different regulatory program (greenhouse gas emissions from existing power plants) than the entrenched program (highway funding).<sup>44</sup> The EPA's legal authority to inflict punishment on states for rejecting the agency's climate regulations could be significantly limited.<sup>45</sup> As environmental legal scholar Jonathan Adler writes,

For many states, federal highway funds represent the lion's share of their transportation budget. As a consequence, threatening to take highway funds may strike some courts as unduly coercive under *NFIB*. In the 1980s the Supreme Court upheld conditioning five percent of a state's highway funds on setting a 21-years-old drinking age. Under the Clean Air Act, however, a state can lose *all* highway funds, save those that will reduce emissions or are necessary for traffic safety, for failure to adopt a complete pollution control plan that satisfies the federal EPA.<sup>46</sup>

- **Double-regulates existing power plants, which the Clean Air Act prohibits.** The EPA regulates existing coal-fired power plants under section 112 of the Clean Air Act with the Mercury Air and Toxics Standards (MATS). Combined with the Cross State Air Pollution Rule, these two massive regulations have forced the retirement or planned retirement

of 72 gigawatts of electrical generating capacity, enough to power nearly 45 million homes.<sup>47</sup> Despite the EPA's best efforts to skirt around this issue, Section 111(d) of the Clean Air Act explicitly prohibits the EPA from regulating the same source and thus also precludes the Clean Power Plan.<sup>48</sup> The Supreme Court recently delivered a setback to the EPA's MATS to regulate emissions from coal and oil-fired power plants. The Clean Air Act directs the EPA to reduce air pollutants if the agency deems the regulation "appropriate and necessary." The Court ruled that the agency failed to consider costs in their determination.<sup>49</sup> The Supreme Court handed a victory to Americans concerned with unelected bureaucrats driving up energy costs by overturning a costly environmental regulation that lacks any meaningful direct environmental benefit.

Many legal concerns exist and the challenges will make their way to court; however, Congress and states should not wait on the courts to act. If states wait on a court decision, the process will already be in motion to close many of the existing fleet of power plants with little to no hope of re-opening them. Both Members of Congress and state officials should fight the entirety of the regulation, not settle for a slightly more palatable version that will still bring injurious economic results and no climate or environmental benefit.

### **Congress and States Should Reassert Their Power**

No matter what the EPA's final regulation looks like and no matter whether states choose to develop their own plans, states will face extraordinary challenges instituting and operating under such constraints. Many states face unworkable timeframes to implement plans and to coordinate actions among all affected parties

44. Ibid.

45. Peter Glaser, Carroll W. McGuffey, and Hahnah Williams Gaines, "EPA's Section 111(d) Carbon Rule: What if States Just Said No?" The Federalist Society *White Paper*, November 6, 2014, <http://www.fed-soc.org/publications/detail/epas-section-111d-carbon-rule-what-if-states-just-said-no> (accessed May 26, 2015).

46. Jonathan Adler, "Could the Health Care Decision Hobble the Clean Air Act?" Property and Environment Research Center, The Percolator blog, undated, <http://www.perc.org/blog/could-health-care-decision-hobble-clean-air-act#sthash.DdyF7DNv.dpuf> (accessed June 2, 2015).

47. Institute for Energy Research, "Impact of EPA's Regulatory Assault on Power Plants: New Regulations Take more than 72 GW of Electricity Generation Offline and the Plant Closing Announcements Keep Coming..." October 2014, <http://instituteforenergyresearch.org/wp-content/uploads/2014/10/Power-Plant-Updates-Final.pdf> (accessed May 26, 2015).

48. Tribe, "EPA's Proposed 111(d) Rule for Existing Power Plants: Legal and Cost Issues."

49. *Michigan v. Environmental Protection Agency*, 576 U.S. \_\_\_\_ (2015), slip op, No. 14-46, [http://www.supremecourt.gov/opinions/14pdf/14-46\\_10n2.pdf](http://www.supremecourt.gov/opinions/14pdf/14-46_10n2.pdf) (accessed July 6, 2015).

including public utilities commissions, environmental regulators, electric cooperatives, municipal utilities, state legislative bodies, and many others. Additionally, states will have to agree on a pathway to achieve compliance, which will prove to be difficult. Inevitably, special interests will make their case for carve outs, handouts, and specific protections—dispensing the costs to the families and businesses as energy consumers.<sup>50</sup>

Officials in 32 states, including governors, attorneys general, and state legislators have opposed the Administration’s carbon dioxide regulations.<sup>51</sup> With regard to the Clean Power Plan, 18 state attorneys general warned that the “EPA, if unchecked, will continue to implement regulations which far exceed its statutory authority to the detriment of the States, in whom Congress has vested authority under the Clean Air Act, and whose citizenry and industries will ultimately pay the price of these costly and ineffective regulations.”<sup>52</sup> State officials should use their authority to reject the EPA’s proposal for new and existing power plants altogether, not fall victim to “flexible” state plans that would merely disguise the costs through mechanisms that increase prices and restrict choices. Furthermore, the Supreme Court’s ruling on MATS should raise a red flag for states. Why should the states go down a path similar to MATS—implementing costly plans that close power plants, destroy jobs, and curb economic growth for no direct environmental benefit—only to have a court decision rein in the regulatory overreach?

Congress must reassert its power. Senator Shelley Moore Capito (R-WV) introduced the bipartisan Affordable Reliable Electricity Now Act of 2015 and Congressman Ed Whitfield (R-KY) introduced the bipartisan Ratepayer Protection Act of 2015 that would effectively prohibit the EPA from imposing costly rate hikes on Americans and return authority to the states.<sup>53</sup> Congress should also:

- **Approve** resolutions of disapproval (under the Congressional Review Act) of the EPA’s greenhouse gas rules for power plants.
- **Clarify** in statute that the Clean Air Act does not apply to the regulation of greenhouse gas emissions or other climate-related rulemaking.
- **Prevent** the EPA and all other federal agencies from regulating greenhouse gas emissions, including prohibiting funding from being used for implementation.
- **Force** the EPA to withdraw its endangerment finding on greenhouse gas emissions, recognizing that greenhouse gas emissions are affecting the climate but that no credible evidence exists to suggest that the earth is heading toward catastrophic warming or that climate regulations will affect global temperatures.

### Just Say No

President Obama’s climate plan would have a chilling effect on the economy, not the climate. As the EPA finalizes regulations for new and existing power plants, the restriction of opportunities for Americans to use such an abundant, affordable energy source will only bring economic pain to households and businesses, with no environmental benefit to show for it. Lawmakers and state officials should exercise leadership and reclaim their authority from the unelected bureaucrats whose regulatory ambitions threaten economic growth and individual prosperity.

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50. U.S. Environmental Protection Agency Office of Air and Radiation, “State Plan Considerations: Technical Support Document (TSD) for Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units,” June 2014, Docket ID No. EPA HQ-OAR-2013-0602, <http://www2.epa.gov/sites/production/files/2014-06/documents/20140602tsd-state-plan-considerations.pdf> (accessed June 9, 2015).

51. American Coalition for Clean Coal Electricity, “State Opposition to EPA’s Proposed Clean Power Plan,” March 2015, [http://www.americaspower.org/sites/default/files/State\\_Opposition\\_Table\\_March\\_9%202015.pdf](http://www.americaspower.org/sites/default/files/State_Opposition_Table_March_9%202015.pdf) (accessed May 27, 2015).

52. American Coalition for Clean Coal Electricity, “Perspective of 18 States on Greenhouse Gas Emission Performance Standards for Existing Sources under § 111(d) of the Clean Air Act,” undated, <http://www.americaspower.org/sites/default/files/AG%20White%20Paper.pdf> (accessed May 27, 2015).

53. Affordable Reliable Energy Now Act of 2015, [http://www.capito.senate.gov/sites/default/files/ARENA%20Act\\_Bill%20Text.pdf](http://www.capito.senate.gov/sites/default/files/ARENA%20Act_Bill%20Text.pdf) (accessed June 9, 2015), and H.R. 2042, Ratepayer Protection Act of 2015, <https://www.congress.gov/bill/114th-congress/house-bill/2042> (accessed June 9, 2015).